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GLOBAL STRATEGY FOR PLANT CONSERVATION: TECHNICAL RATIONALE, JUSTIFICATION FOR UPDATING AND SUGGESTED MILESTONES AND INDICATORS

Note by the Executive Secretary

EXECUTIVE SUMMARY

1. 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. Accordingly, the Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA) at its fourteenth meeting considered 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 as well as contributions provided through an electronic forum, a number of meetings and regional consultations (UNEP/CBD/SBSTTA/14/9). SBSTTA prepared recommendation XIV/8 which includes a draft updated Strategy.

2. The proposals for a consolidated update of the Global Strategy for Plant Conservation (UNEP/CBD/SBSTTA/14/9) included a brief technical rationale for each target and justification for the change from the previous Strategy. In the present note, the Executive Secretary has updated the technical rationale in light of changes introduced at SBSTTA. Some milestones for the targets and possible indicators suggested during the regional meetings are also included. In considering recommendation XIV/8, the Conference of the Parties may also wish to take note of the technical rationale, justification for updating, suggested milestones and indicators. While noting that these are indicative only, they may constitute a useful resource for Parties and stakeholders in implementing and monitoring the Strategy, and applying the Strategy as a flexible framework for the development of national targets.

* UNEP/CBD/COP/10/1.

TERMS AND TECHNICAL RATIONALE FOR THE TARGETS¹

Objective I: Plant diversity is well understood, documented and recognized

Target 1: An online Flora of all known plants.

Terms and technical rationale: The previous target 1 aimed to develop “a widely accessible working list of known plant species as a step towards a complete world flora” and this target has almost been achieved. While efforts to complete the working list will continue, the focus beyond 2010 is to enhance the list and 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 by 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 possible. This target is also linked to the priorities of the Global Taxonomy Initiative.

Progress: At the global level 85% of this global checklist should be available by the end of 2010.

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.

Suggested milestones

The following milestones could form steps towards the 2020 target:

- (a) The checklist completed and made publicly accessible by 2012;
- (b) The checklist updated for synonymy and vernacular names, where appropriate, by 2015;
- (c) Geographic distribution information included in the updated checklist, maintained, and made widely accessible by 2017.

Possible indicators

- (i) Number of languages in which the global checklist is accessible;
- (ii) Number of online floras available online.

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

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 8) and defining priority areas for conservation (targets 5 and 10). Given the threats from climatic and environmental changes, the assessment of species of socio-economic importance could be prioritized to help guide activities under targets 9, 12 and 13. “Evidence-based” assessments which are founded on verifiable data would be preferential in order to ensure that the assessments are objective, repeatable and a strong basis for further investment. The Red List Categories and Criteria under the International Union for Conservation of Nature (IUCN) provide a robust framework for this endeavour. However, since the proportion of plants

¹ 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).

assessed globally is still under 10 per cent, this approach will need to be complemented by drawing upon a wider range of assessments at national, regional and global levels (see <http://www.regionalredlist.com/site.aspx>). At a 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>).

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 geographic 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. Further, while the aim is to assess 100% of known plant species, this may not be feasible in countries with high plant diversity. Therefore the term “as far as is possible” is used in the target.

Progress: The proportion of globally assessed plants on the IUCN Red List has only reached about 10 per cent. Many more plant species have been assessed at national and/or regional levels using a variety of systems but an overview of the total number of assessed species is lacking (see <http://www.regionalredlist.com/site.aspx>).

Suggested milestones

The following milestones could serve as steps towards the 2020 target:

- (a) A working list of all available evidence-based conservation assessments for plants prepared by 2012, regularly updated and maintained as an online resource;
- (b) A published interim threatened species list, an output from (a) above, from which other GSPC targets can be measured developed by 2013;
- (c) A National and/or regional Red Lists developed or updated to assist in obtaining an overview of threat levels at a global level by 2015;
- (d) An assessment of the threat status of a ‘globally representative sample’ of plant species based on a multi stakeholder effort by 2017.

Possible indicators

- (i) Percentage of known plant taxa on Red List Index

Target 3: Information, research and associated outputs, and methods necessary to implement the Strategy developed and shared

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 management experiences. 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. However, needs may vary from country to country. The development of a toolkit may be a useful contribution to achieving this target.

Progress: The Plant Conservation Report has been published and notes that it is critical that means of dissemination, including the Toolkit, be developed.

Justification for change: The wording of this target has been revised to reduce ambiguity by replacing “models and protocols” with “information, research and associated outputs, 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 information.

Suggested milestones

The following milestones could serve as steps towards the 2020 target:

- (a) A Toolkit to support implementation of the Strategy available by 2012;
- (b) A web-based compilation of resources developed by 2015 at national, regional and international levels.

Possible indicators

- (i) The number of United Nations languages in which toolkit is available;
- (ii) The number of new web-based resources available and the number of visits to these resources.

Objective II: Plant diversity is urgently and effectively conserved

Target 4: At least 15 per cent of each ecological region or vegetation type secured through effective management and/or restoration

Terms and technical rationale: The core of this target is about the conservation of ecosystems at national and/or regional levels. Since some ecological regions will include ecological networks or protected areas covering more than 15 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.

Progress: Currently there is uncertainty as to how the 10 per cent level of this target relates to the conservation of either species-rich hotspots or areas of high threat or endemism, as these are not always correlated. The progress in achieving this target was hard to measure due to lack of clarity.

Justification for changes: The term “vegetation type” has been added to the target text to enable use of relevant available classification systems at national and/or regional levels. 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.

Suggested milestones

The following milestones could serve as steps towards the 2020 target:

- (a) Establish which of the existing global or regional ecological region classifications are suited for use at the national or regional scale as they may differ around the world by 2012;
- (b) Identify the most critical regions requiring conservation action and or restoration by 2013;
- (c) Identify the co-occurrence of protected areas and these ecological regions, and from the gap analysis prioritize actions at national and regional levels by 2014;
- (d) Develop guidance on the management of vegetation types within those critical ecological regions by 2015;
- (e) Pilot the implementation of management guidance through the ecosystem approach by 2017.

Possible indicators

- (i) Per cent of ecological regions or vegetations covered within protected areas;
- (ii) Number of ecological regions or vegetation types with restoration projects.

Target 5: At least 75 per cent of the most important areas for plant diversity of each ecological region protected with effective management in place for conserving plants and their genetic diversity

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, 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, genetic variability patterns 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.

Justification for changes: The threshold of this target has been increased from at least 50 per cent to at least 75 per cent to reflect the level of effort needed to achieve the long-term vision of this Strategy and the relevant targets of the new Strategic Plan. In addition, the need for “effective management in place” for conserving plants 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.

Progress: To date more than 35 countries have taken steps to identify important areas for plant diversity and at least 17 have ongoing programmes that are addressing conservation issues as well as documenting sites. Some important areas for plant diversity fall within officially protected areas though this figure varies considerably between countries. The percentage of important areas for plant diversity protected does not necessarily mean the site is maintained in good condition.

Suggested milestones

The following milestones could serve as steps towards the 2020 target:

- (a) Evaluation of protected areas against important areas for plant diversity by 2012;
- (b) Identify threats to plants and plant habitats, including potential impact by climate change on important areas for plant diversity and opportunities for their conservation through sustainable use by 2013,
- (c) Address issues raised by milestone (a) and (b) by 2014.
- (d) Incorporate measures specifically geared toward plant conservation into existing management plans by 2015;
- (e) Management plans developed through the ecosystem approach with the involvement of local stakeholders on at least five important areas for plant diversity (without existing management) per country by 2015.

Possible indicators

- (i) Coverage of Important Areas for Plant Diversity in Protected Area Systems;
- (ii) Reports on governance and management effectiveness of protected areas.

Target 6: At least 75 per cent of production lands in each sector managed sustainably, consistent with the conservation of plant diversity

Terms and technical rationale: The ultimate goal is for all production lands to be managed sustainably, without impacts on 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 the use of good agricultural and forestry practices. Further work may be needed to develop sector specific sub-targets as a basis for monitoring progress in achieving this target.

Progress: Target 6 was noted to be difficult to measure effectively. There is need for clearer baselines, performance indicators and definitions for terms such as ‘consistent with’ and ‘production lands’.

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

Suggested milestones

The following milestones could serve as steps towards the 2020 target:

- (a) Establish links between the GSPC and the programmes of work on agricultural and forest biodiversity by 2011;

- (b) Develop specific targets for each sector by 2013;
- (c) Develop and promote guidance that shows how management systems that are consistent with the conservation of plant diversity can be achieved (for each sector) by 2014;
- (d) Test the guidance referred to under (c) above in at least 2 sites in each sector and in each region by 2016 and promote preferred options by 2018.

Possible indicators

- (i) Area of forest under sustainable management involving certification.
- (ii) Agricultural ecosystems under sustainable management, (this has to be disaggregated by sector).

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

Terms and technical rationale: The long-term goal for this target is the effective *in situ* conservation of all threatened species. “Conserved *in situ*” is used here 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, for example 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 and other pressures, for example by determining whether the protected area network includes corridors, altitudinal gradients, or the presence of multiple habitats to facilitate species movement.

Progress: The progress on this target has been limited by a lack of baseline information from target. It is therefore anticipated that the achievement of the new milestones in target will enhance the implementation of the current target.

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

Suggested milestones

The following milestones could serve as steps towards the 2020 target:

- (a) Develop the means to measure if threatened species are effectively conserved in protected area systems or managed outside the protected area network, taking into consideration the possible impact of climate change (e.g. reserves that have multiple habitat types, or altitudinal gradients) using a representative sample by 2012;
- (b) Establish a monitoring system that allows for a baseline to be established so that progress can be monitored (related to inventories of protected areas) by 2013;
- (c) Development of management plans for protected areas or for specific species of plants by 2015;
- (d) 100% of threatened single-country endemic species found in protected areas or covered by species management plans by 2015.

Possible indicators

- (i) Change in status of threatened species;

- (ii) Trends in abundance and distribution of selected species.

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% available for recovery and restoration programmes

Terms and technical rationale: This target aims at a comprehensive programme of *ex-situ* conservation that complements *in-situ* conservation through the 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 the 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.

Progress: While some significant progress has been made by some regions and countries, countries with high biodiversity still face great challenges. Progress in the development of greater capacity, resources and programmes could be built on to achieve the 2020 target. It is estimated that currently about 5 per cent of threatened species are included in recovery and restoration programmes.

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

Suggested milestones

The following milestones could serve as steps towards the 2020 target:

(a) Compile a meta-database of ex situ plant collections by 2012 and periodically produce reports of the percentage of threatened species in accessible ex situ collections;

(b) Ensure that ex situ collections of all critically endangered species are genetically representative by 2015;

(c) Establish a monitoring system for species reintroduced into the wild by 2016.

Possible indicators:

- (i) Change in status of threatened species
- (ii) Trends in numbers of ex situ collections.
- (iii) Number of recovery programmes for species.

Target 9: At least 70 per cent of the genetic diversity of crops including their wild relatives and other socio-economically valuable plant species conserved, and associated indigenous and local knowledge respected, [preserved][protected] and maintained.

Terms and technical rationale: The conservation of genetic diversity of major crops under the International Treaty for Plant Genetic Resources for Food and Agriculture is the key global instrument for the conservation of genetic diversity 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 may include certain 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. These species may be prioritized at national and regional level on a case-by-case basis, according to national and/or regional priorities, taking into account relevant global instruments and recognizing the potential impact of environmental change on food and local livelihood security. Through the combined actions of countries, some 2,000 to 3,000 of these species could be covered under this target. The other crucial component of this target is to maintain the associated indigenous and local knowledge in line with target 13.

Progress: The Global Crop Diversity Trust has been established to ensure the conservation and availability of crop diversity for food security worldwide. Maintenance of associated indigenous and local knowledge presents a particularly significant challenge and to date there is a lack of tested methodologies and limited assessments of indigenous and local knowledge associated with plant genetic diversity.

Justification for change: 70 per cent of the genetic diversity of major crop 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. There however is a need to focus on more socio-economically important species as these address the needs of indigenous and local communities. There is also a need to define the link between this target and target 13 more clearly.

Suggested milestones

The following milestones could serve as steps towards the 2020 target:

(a) Develop, in consultation with Indigenous and Local Communities, priority lists of socio-economically important, underutilized species or little-known crops by 2014;

(b) Strengthen the ownership of this target by relevant partners, and stakeholders such as FAO, Global Crop Diversity Trust and Biodiversity, to enhance national, regional and international implementation by 2015.

Possible indicators

(i) Genetic diversity of *ex-situ* collections of crop wild relatives and other socio economically important species.

(ii) Trends in *ex-situ* collections that have associated indigenous and local knowledge respected, [preserved][protected] and maintained.

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

Terms and technical rationale: This target addresses biological invasions as a phenomenon and not just the species. It therefore combines both the invasion of the alien species (of plants, animals or

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micro-organisms) and the reactions of ecosystems or habitats into which they are introduced. – This is because the species often dubbed “invasive” may not always become invasive when introduced to new localities, ecosystems or habitats. Management plans therefore need to be designed (using the ecosystem approach) to address the damage done to plant species 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 plant diversity”. We note that 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 to effectively address biological invasions and that management plans should include options for adaptation to climate change.

Progress: The 2010 target has already been met at global level, in that there are over 100 management plans in place, but these do not lend themselves to national or regional implementation.

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

Suggested milestones

The following milestones could serve as steps towards the 2020 target:

- (a) Assess important areas for plant diversity and develop priority lists of biological invasions affecting them by 2013;
- (b) Develop lists of potential invasive species for given ecosystems/localities as a toolkit for management plans by 2014;
- (c) Develop guidance for management plans that address biological invasions, and include considerations for restoration of the important areas for plant diversity by 2016;
- (d) Implement management plans developed in (c) for selected important areas of plant diversity threatened with biological invasion by 2018.

Possible indicators:

- (i) Number of management plans developed to address biological invasions and include considerations for restoration of important areas for plant diversity;
- (ii) Trends in biological invasions in areas important for plant diversity.

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

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

Terms and technical rationale: This target remains unchanged as it 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.

Progress: 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. Progress on this target has been summarized in document UNEP/CBD/LG-GSPC/3/INF/2.

Suggested milestones

The following milestones could serve as steps for the CBD towards the 2020 target:

- (a) Collaborate with the CITES Plants Committee to ensure linkages between the two Conventions are complimentary and supportive;
- (b) Improve implementation through strengthening linkages between national GSPC focal points and CITES focal points.

Possible indicators

- (i) Trends of plant species in trade;
- (ii) Change in status of threatened species.

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

Terms and technical rationale: This target is consistent with the second objective of the Convention on sustainable use and its long-term goal 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” was included in the target to ensure that practices along at the supply chain integrate social and environmental considerations, such as the fair and equitable sharing of benefits and the participation of indigenous and local communities. Value addition and processing should also aim to ensure that waste is reduced. There may be need for further work under this target to develop sector specific sub-targets.

Progress: Certified organic foods and timber currently account for about 2 per cent of production globally. For several product categories examples exist of 10–20 per cent of products meeting intermediate standards. Terms to be clarified include ‘plant based products’ and ‘sustainable management’. There is need to develop sub-targets at the sectoral level and to strengthen linkages with the private sector and consumers.

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

Suggested milestones

The following milestones could serve as steps towards the 2020 target:

- (a) Collaborate with relevant partners and stakeholders to undertake a progressive inventory and assessment of plant-based products (and/or identify the species from which they are derived) by 2015;
- (b) Assess or certify the sustainability of a diversity of plant-based products, according to explicit criteria, in order to develop a realistic figure for this target by 2015.

Possible indicators

- (i) Wild Commodities Index;
- (ii) Trends in implementation of international Standards;
- (iii) Proportion of products derived from sustainable sources.

Target 13: Indigenous and local knowledge innovations and practices associated with plant resources, maintained or increased, as appropriate, to support customary use, sustainable livelihoods, local food security and health care

Terms and technical rationale: This target focuses on respecting and securing the knowledge base of plant resources used to secure livelihoods, food security and health care especially for Indigenous and Local Communities. This measure is incorporated to ensure that future generations accessing these resources can continue to benefit from their sustainable use. The target 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, in the long run, help local and indigenous communities to adapt to emerging environmental challenges such as climate change.

Progress: This target was more aspirational and therefore not measurable. In 2006, a proposal was made to develop sub-targets, taking an ecosystem-by-ecosystem approach (e.g. for agriculture, forest resources and pasture resources), but there has been no progress in this respect and no milestones have been defined. Further consultation recommended that Indigenous and Local Communities be involved in the review and update of this target.

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. The proposed target has been simplified and is focused on linking to Article 8(j) and its related provisions.

Suggested milestones

The following milestones could serve as steps towards the 2020 target:

- (a) Strengthen linkages with indigenous and local communities to assist the development of possible sub-targets by 2012;
- (b) Encourage Parties to incorporate this target into national sustainable development policies or sustainable livelihood initiatives, where possible taking an ecosystem approach by 2015.

Possible indicators

- (i) Health and well being of communities who depend on local ecosystem goods and services;
- (ii) Status and trends of linguistic 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 Strategy to all relevant sectors, including Indigenous and Local Communities, the business sector, media and policy makers. There is also a 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.

Progress: 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.. Similar approaches and tools may be useful in relation to the updated Strategy.

Suggested milestones

The following milestones could serve as steps towards the 2020 target:

- (a) Develop key messages for a communication/marketing plan for the Strategy by 2012;
- (b) Parties to incorporate plant conservation into national climate change, or other relevant resource management documents or strategies;
- (c) Increase awareness of plant diversity and review communication strategy as appropriate by 2016.

Possible indicators

- (i) Surveys of awareness and attitudes towards plant biodiversity and the GSPC;
- (ii) The number of visits to protected areas, natural history museums and botanical gardens.

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

Terms and technical rationale: The updated Strategy emphasizes national and regional implementation and broadens the scope beyond traditional plant conservation activities to include sustainable use as well as working with local and indigenous communities. Therefore the focus of this target is not just to increase the number of trained people, but to ensure that there is sufficient capacity 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. This target remains fundamental for the achievement of the Strategy. The focus should not only be on numbers but also quality.

Progress. The progress made in achieving this target is elaborated in the Plant Conservation Report.

Justification for change: The scope of the target had been broadened with the aim to ensure sufficient capacity. Also the term “plant conservation” has been removed to ensure that the target focuses on all the skills and sectors required to achieve the targets of the Strategy.

Suggested milestones

The following milestones could serve as steps towards the 2020 target:

- (a) National needs assessments undertaken by 2013 to identify key institutions relevant to the implementation of the Strategy at national and/or regional level and a database maintained in collaboration with the national CBD Clearing-House Mechanism;
- (b) National, regional and international training programmes relevant to the targets of the Strategy developed and/or strengthened by 2014;
- (c) Institutions strengthened with appropriate resources to implement the targets of the Strategy based on the findings of the Needs Assessments by 2015;

- (d) Secure the transfer of knowledge and skills related to plant conservation by 2018.

Possible indicators

- (i) Number of national; regional and international training programmes;
- (ii) Trends in resourcing to support the implementation of the Strategy.

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

Terms and technical rationale: National implementation of the Strategy is constrained by limited institutional capacities and capabilities in many countries. There is therefore a need to strengthen the institutional framework. Further, 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 institutions and 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.

Progress. At the global level the establishment of the GPPC has made a good start at bringing together the plant conservation community. However greater efforts are needed to engage other sectors, such as agriculture, industry, education, forestry, water management, and Indigenous and Local Communities.

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 levels., hence the inclusion of ‘institutions and partnerships’ in the text of the target.

Suggested milestones

The following milestones could serve as steps towards the 2020 target:

- (a) Structures and model information systems relevant to networks, are made available by 2015;
- (b) Increased membership of the GPPC by members from other sectors, such as. agriculture, industry, education, forestry, water management, marine and coastal management, Indigenous and Local Communities and communication, by 2015;
- (c) A directory of experts, institutions and networks relevant to each target is developed as part of the toolkit.

Possible indicators

- (i) *Number of initiatives organized and/or supported by the Global Partnership for Plant Conservation.*
