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GLOBAL STRATEGY FOR PLANT CONSERVATION

REPORT OF THE LIAISON GROUP MEETING, DUBLIN, IRELAND OCTOBER 2006

^{*} UNEP/CBD/SBSTTA/12/1.

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I. INTRODUCTION

- 1. At its sixth meeting, the Conference of the Parties to the Convention on Biological Diversity adopted decision VI/9 on the Global Strategy for Plant Conservation, which includes sixteen outcome-oriented global targets for 2010.
- 2. At the seventh meeting, the Conference of the Parties, welcomed the establishment, by the Executive Secretary, of a flexible coordination mechanism for the Global Strategy, comprising: liaison groups to be convened as necessary according to established procedures; national focal points, as determined by Parties; the Global Partnership for Plant Conservation (GPPC); and the Secretariat. The COP also invited the World Conservation Monitoring Centre of the United Nations Environment Programme (UNEP/WCMC) to support the Executive Secretary in monitoring implementation of the Global Strategy, working in collaboration with the Global Partnership (Decision VII/10).
- 3. At the same meeting, the Conference of the Parties also requested the Executive Secretary, with the support of members of the Global Partnership for Plant Conservation, to elaborate proposals for a toolkit, including a checklist to assist Parties in integrating the targets of the Global Strategy into their national strategies, plans and programmes, for review by SBSTTA prior to the ninth meeting of the Conference of the Parties.
- 4. Further, in decision VII/31, on the multi-year programme of work of the Conference of Parties up to 2010, the Conference of the Parties decided to undertake an in-depth review of the Global Strategy at its ninth meeting, in 2008. In preparation for the in-depth review, the Executive Secretary convened, in collaboration with the Global Partnership for Plant Conservation, a meeting of a liaison group to review the status of implementation of the Global Strategy, provide further guidance to the in-depth review process and review proposals for a toolkit including a checklist to assist Parties in integrating the GSPC targets into their strategies, programmes and plans.
- 5. The expected outputs of the meeting were:
- (a) A set of recommendations on enhancing national implementation of the Global Strategy, and its contribution to meeting the 2010 biodiversity target and the Millennium Development Goals and responding to the challenges arising from the conclusions of the Millennium Ecosystem Assessment;
- (b) Advice on the ways and means for undertaking the in-depth review of the Global Strategy;
- (c) Proposals of elements of the toolkit for the Global Strategy to assist in national implementation, including proposals for its dissemination;
- (d) A review of the potential impact on climate change and other factors that may impact plant conservation and hence implementation of the Global Strategy;
 - (e) Proposals on options for the Global Strategy after 2010.

II. PROCEDURAL MATTERS

6. The meeting was held at the National Botanic Garden of Ireland, Glasnevin, Dublin, from 23 to 25 October 2006 and was opened at 9:30 a.m. on Monday, 23rd October, 2006.

- 7. Twenty eight delegates participated in the meeting, including representatives from Belgium, Canada, China, Costa Rica, Germany, Ireland, Mali, Mexico, Philippines, St. Lucia, Singapore, Tajikistan, Tunisia, Uganda, and the United Kingdom of Great Britain and Northern Ireland, and the following organizations: BioNET International, Botanic Gardens Conservation International (BGCI), Food and Agriculture Organization of the United Nations (FAO), Global Partnership for Plant Conservation (GPPC), International Plant Genetic Resources Institute (IPGRI), Missouri Botanical Gardens, Plantlife International and Plant Europa, Royal Botanic Gardens Kew, Royal Botanic Garden Edinburgh, South African National Biodiversity Institute (SANBI), and UNEP-World Conservation Monitoring Centre (UNEP-WCMC). Additionally, the representative of Botanic Gardens Conservation International gave a report on behalf of the IUCN-The World Conservation Union.
- 8. The full list of participants is contained in Annex I to the present report.
- 9. The participants were welcomed by Dr. Colmán Ó Críodáin, representative of the Government of Ireland.
- 10. The SCBD/BGCI GSPC Programme Officer, Ms. Stella Simiyu welcomed participants on behalf of the Executive Secretary of the Convention on Biological Diversity and expressed gratitude to the Governments of Canada, Ireland and United Kingdom for providing support to the meeting. She outlined the mandate of the group and reviewed the goals, objectives and expected outputs of the meeting. She also provided an update on the major activities and achievements since the adoption of decision VI/9 on the Global Strategy for Plant Conservation.
- 11. Dr. Peter Wyse Jackson, Chairman of the Global Partnership for Plant Conservation and Director of the National Botanic Gardens of Ireland, welcomed participants on behalf of the Partnership.
- 12. The delegates elected Mr. Hesiquio Benitez (Mexico) as the Chair and Dr. David Galbraith (Canada) as the rapporter while Dr. Stephen Blackmore (Royal Botanic Gardens, Edinburgh) was elected as co-chair and Ms. Suzanne Sharrock (Botanic Gardens Conservation International) as co-rapporteur.
- 13. The provisional agenda prepared by the Executive Secretary was revised and the agenda adopted is presented in Annex II to the present report.
- 14. The Group decided to conduct its work in plenary sessions.
- 15. Under agenda item 3, the group reviewed in plenary progress made in the implementation of the targets of the 1 Strategy. A summary of feedback to the meeting on national implementation by the delegates from the Parties and international organisations is presented in Annex III and IV respectively. A summary of observations on overall progress toward achieving the sixteen targets of the Global Strategy, listed by target, is provided in Annex V.
- 16. For agenda item 4, the group reviewed the report from the Gran Canaria Meeting on Climate Change and Plant Conservation organised by the Global Partnership for Plant Conservation and explored proposals on options for the Strategy after 2010.
- 17. The conclusions of the Liaison Group Meeting were discussed and adopted under agenda item 5. The meeting ended at 1:35 p.m. on Wednesday, 25 October, 2006.

III. CONCLUSIONS OF THE LIAISON GROUP MEETING

(a) Recommendations on Enhancing National Implementation of the Global Strategy

- (i) Preliminary information on the progress in the implementation of the Strategy
- 18. The goal of the Global Strategy for Plant Conservation is to halt current and on-going loss of plant diversity. Its role is to provide a framework to facilitate harmony among existing initiatives, identify gaps, promote mobilization of necessary resources and be a tool to enhance the ecosystem approach and sustainable use (Decision VI/9).
- 19. A preliminary review of available information on progress in the implementation of the Global Strategy undertaken by the Executive Secretary, particularly from the third national reports, has shown that while there are varied initiatives focused on implementation of the Global Strategy at national, regional and international levels, target-setting at the national level has progressed slowly.
- 20. Thirty-nine Parties have nominated focal points for the Global Strategy for Plant Conservation. In addition, some Parties have made progress in developing national strategies and setting national priorities, targets and responses based on the framework of the global targets. These include Ireland, Philippines, South Africa, Seychelles and United Kingdom of Britain and Northern Ireland.
- 21. At the regional level, the European Plant Conservation Strategy implemented by the Planta Europa Network and the Council for Europe, developed in 2001, was aligned with the Strategy during its' mid-term review in 2004 and is due for a final review in 2007.
- 22. Other international initiatives include the international, regional and various national targets for botanical gardens which have been developed in response to the Strategy in the context of the International Agenda for Botanic Gardens in Conservation developed by Botanic Gardens Conservation International.
- 23. Of the one hundred and one 3rd national reports received by the Executive Secretary, 91 were amenable to analysis relative to the targets of the Strategy and were provided in the report format supplied by the Secretariat. A comprehensive range of information on national implementation has been provided by the Parties on national target setting, mainstreaming, current status and progress made in national implementation of the Global Strategy, including an elaboration of constraints encountered.
- 24. Overall, since many Parties have not yet set national targets, they were not been able to monitor progress in the achievement of the targets and the use of indicators has been constrained. However, in instances where there were national or regional strategies or initiatives aligned to the targets of the Global Strategy, Parties noted substantive progress in achieving the targets.
- 25. The participants in the liaison group meeting provided examples of case studies and good practice relevant to some targets (Annex III) while a preliminary summary of the current status in implementation of the Global Strategy by relevant international organisations represented at the meeting is presented in Annex IV.

(ii) Added Value of the GSPC

26. Overall, the GSPC has provided focus for different activities and has added value, providing a common and focused framework for multiple stakeholders and actors at different levels and scales. It has

stimulated the establishment of national, regional and international programs and networks such as the Philippines Plant Conservation Committee, the German National GSPC Project and the Global Partnership for Plant Conservation, which have helped bring together a wide range of stakeholders.

- 27. The Strategy has helped focus effort and attention in the implementation of relevant outcome targets, resulting in mobilisation of new and novel sources of funding. It has provided a useful entry point to the Convention for the botanical conservation community and mobilised their skills and resources towards the implementation of the Convention.
- 28. The GSPC brochure has been translated by voluntary effort into nine languages and widely disseminated, with the support of Botanic Gardens Conservation International and its networks and partners. Regional workshops and training modules on the elements of the Strategy have been organised by various members of the Global Partnership for Plant Conservation, further enhancing awareness and building capacity for implementation.

(iii) Challenges and constraints in national implementation

- 29. National implementation of the Strategy has been constrained due to various factors including limited institutional integration, supporting policies, legal framework and lack of mainstreaming, Parties also cited various challenges such as technical (lack of data, tools and technologies), institutional (limited sectoral collaboration and coordination) and resources (financial and human) constraints which were bottlenecks in various national efforts to address the targets of the Strategy.
- 30. Since most Parties have already published National Biodiversity Strategies and Action Plans, the options for integrating the GSPC targets were limited, given the complex process required to do so. In addition, some Parties cited limited capacities. Hence, other partners such as the relevant scientific institutions and networks at national and regional levels have provided the much-needed support to enhance national implementation. Where feasible, local 'champions' or other partners have been instrumental in facilitating the mobilization of national, regional, local or sectoral implementation of relevant targets, or development of national strategies.
- 31. Limited institutional linkages and integration, especially between conservation and agricultural, forestry and Protected Areas sectors were noted as compromising the achievement of some key targets (especially Targets 4, 5, 6, 9, 12 and 13).
- 32. However, there continues to be a major challenge in addressing targets related to sustainable use and agricultural systems at national level, and more so where the targets are not integrated into the NBSAPs. A further challenge was related to reconciling the scale of implementation, hence global vs. regional vs. national. For example, while target 10 seems achievable, it is actually very complex and difficult to implement at these three levels.

(iv) Recommendations

33. The Strategy has provided a useful framework for the harmonisation of various initiatives in plant conservation at the global, regional and national levels, but there are still major challenges in making progress in the national level implementation. However, regional approaches such as shown by the experience with the European Regional Strategy, by including a variety of stakeholders may provide a pragmatic option to enhance achievement of the targets by 2010.

- 34. There may be opportunity to enhance national implementation and dissemination of case studies through the development and effective dissemination of a toolkit, as recommended by the eighth meeting of the Conference of Parties. Further workshops at national and regional level on the GSPC implementation may be effective for raising awareness and enhancing additional GSPC responses and target setting as well as integration.
- 35. It is important to seek avenues to increase participation by various sectors and stakeholders at the national level, especially given that the Strategy provides a variety of entry points to the range of targets (documentation, conservation assessments, in situ and ex situ conservation, sustainable use and traditional knowledge, education, capacity building and networking). Non-governmental organisations and other stakeholders need to be encouraged to participate in national implementation of the Strategy and achievement of the various targets.
- 36. National strategies are useful in bringing together relevant programs, with various players involved to establish national targets, and may provide an effective platform to mobilize national resources as necessary.
- 37. Since poor institutional linkages and integration especially between conservation and agricultural, forestry and Protected Area sectors compromise achievement of key targets (4, 5, 6, 9, 12 and 13); Parties are encouraged to include the targets of the Strategy in the review of their NBSAPs as recommended by the eighth meeting of the Conference of Parties; as well as relevant sectoral plans and programmes. Indeed, this may enhance national implementation of the more complex and challenging targets.
- 38. In many developing countries, a major concern is the use of biodiversity for improved livelihoods. Parties are therefore encouraged to continue to relate and integrate the GSPC targets to MDGs, sustainable use initiatives, poverty reduction strategies and other programmes aimed at the improvement of livelihoods. Such integration is a useful mechanism to promote synergies and to demonstrate the relevance of the Global Strategy and its targets to national goals for poverty alleviation and sustainable development.
- 39. A quantitative analysis of national progress in implementation of the targets of the Global Strategy is in many cases difficult as most national planning is based on qualitative considerations. A regional elaboration of targets may be a more practical approach in some instances, given the added value of regional cooperation and mobilisation of human, technical, financial and institutional resources that may be brought to bear.
- 40. While it has been noted that there are technical constraints especially limiting development of data, tools and technologies, various useful and relevant resources already exist at national, regional and international levels, such as national red lists, databases, models and protocols. The main bottleneck in their effective dissemination and use. Full use of existing tools and technologies for documentation, assessment, conservation, sustainable use, education and public awareness, capacity building and existing networks is recommended.
- 41. The ecosystem approach is necessary to address Targets 4, 5, 6, 9, 10, 12 and 13. For example, in conserving important areas for plant diversity and production lands, which occur outside protected area systems, criteria themselves do not deliver protection. Other considerations such as livelihoods and sustainability are critical in ensuring achievement of these targets.

- 42. There are many opportunities for the public to become more engaged in implementing the GSPC, but these have not yet been fully exploited. More examples/case studies of plant conservation success stories should be disseminated to elaborate why plant conservation and sustainable use matters. This may create awareness and provide useful guidance to the various stakeholders.
- 43. A variety of experiences are now available on national prioritisation and implementation. It is recommended that descriptions of case studies and good practices be disseminated through the proposed toolkit to assist Parties in developing their own national responses to the Global Strategy and its targets.

(b) Advice on the ways and means for undertaking the in-depth review of the Global Strategy

- 44. The third national reports, additional information requested from the Parties, relevant international organisations and stakeholders all provide useful background information for the in-depth review of the GSPC. Parties and other stakeholders are encouraged to provide additional information on the implementation of the Strategy as requested by the Executive Secretary.
- 45. The current preliminary information on the progress in national implementation of the Global Strategy is variable and not easily amenable to analysis in its original third national report format. The real success of the GSPC will be best measured in terms of its impact at national level and more so in regions of high plant diversity. Given the limited data available, for example in botanically rich and diverse countries, a broad based analysis and estimation of progress of achievement of relevant targets will provide a better overall picture.
- 46. The in depth review needs to highlight the constraints faced by Parties and impediments keeping Parties from reporting more effectively. Some Parties indicated that the national report format was so structured that it was very difficult to elaborate actual progress into the required format. Target by target necessary reporting was useful, but different sectors work independently and have different reporting structures and mandates. As such, existing initiatives in varied sectors (such as plant conservation, agriculture, forestry, etc.) were difficult to report in the original 16-target matrix format of the third national report template.
- 47. Due to limited target setting at the national level and further elaboration of sub targets, indicators and milestones at the national level, there is limited quantitative data on progress in achievement of the targets at that level. In undertaking further analysis and monitoring, UNEP-WCMC in assisting the Executive Secretary to further monitor the progress in the implementation of the GSPC; are advised to use new measures and strengthen linkages to the monitoring and reporting framework of the 2010 biodiversity target.
- 48. Further, an elaboration of Good Practices, relevant case studies and selected national experiences submitted voluntarily by the GSPC national focal points and relevant stakeholders may provide current information to further inform and enrich the in depth review process.
- 49. The publication a Plant Biodiversity Outlook may provide a useful and strategic communication tool on the outcomes of the in depth review of the GSPC to the general public, other stakeholders and Partners communications and could be included as part of the proposed tool kit.
- 50. While the in depth review of the GSPC is not a snapshot of the state of plant conservation, the report should reflect an accurate assessment of progress made by different countries toward targets. It is noted that many Parties are implementing various activities aligned to the achievement of selected

targets, even though they may have different entry points and have not articulated national targets, yet there are notable real successes at the national level for some targets.

51. A preliminary overview of the progress in achievement of the targets of the GSPC as highlighted by the delegates is presented in Annex V.

(c) The contribution of the Strategy in meeting the 2010 biodiversity target and the Millennium Development Goals and responding to the challenges arising from the conclusions of the Millennium Ecosystem Assessment

- 52. The delegates welcomed the background paper on the Millennium Development Goals introduced by the secretariat and requested the Executive Secretary to refine and update it as appropriate as an information document to SBSSTA, noting the need to highlight the contribution of the GSPC in meeting the 2010 biodiversity target, MDGs and reducing the drivers of change indicated by the Millennium Ecosystem Assessment as well as Poverty Reduction Strategies
- 53. In developing the documentation further, the delegates stressed that clarification on the role of the GSPC in meeting the MDGs needs to be provided explicitly, and its contribution to addressing unsustainable consumption patterns explored further. Also, the additional information, tools and resources generated in the process of implementing the Strategy needs to be disseminated for further integration into emerging models and assessments being developed in response to the challenges of the Millennium Ecosystem Assessment.
- 54. The group recommended that a composite table highlighting each Global Strategy target and its contribution and relevance to the sub targets of the 2010 biodiversity target, MDGs and drivers of change elaborated by the Millennium Ecosystem Assessment be prepared as part of the revised information document to be submitted to SBSTTA.
- 55. IPGRI, FAO, Plantlife International and other stakeholders indicated they would provide additional material, in addition to sample case studies per target, to be generated from existing sources and referenced in the table.

(d) Proposals for elements of a toolkit including a checklist to assist Parties in integrating the targets into their strategies, programmes and plans

- 56. The meeting discussed the draft outline of the proposal prepared by the Executive Secretary and made modifications, noting that given that the primary audience of the toolkit is the CBD and GSPC focal points, the core elements should be:
 - (a) A clear and concise overview of the GSPC;
 - (b) Ways and means for developing national targets and incorporating them into national strategies, plans and programmes;
 - (c) How to implement the GSPC at the national level; and
 - (d) How to monitor and report on the progress in implementation.
- 57. The meeting emphasized that the toolkit should seen as a "Toolbox," thus an assortment of resources from which different tools can be selected for use as appropriate at various levels by various stakeholders, rather than a single prescriptive list of steps to be undertaken. There should be secondary

features to enable in-country practitioners to develop national and regional responses to the GSPC and specific targets, given that many of the background documents of the GSPC are large and inaccessible.

- 58. It was emphasized that the toolkit should practical, applicable, easy to use and relevant. Previous experiences in development of toolkits such as the CBD CHM should be made use of.
- 59. Further, there was recognition of the need for wide dissemination of the toolkit in multiple languages and platforms (websites and CD-ROMs, and print publications) to enhance availability.
- 60. The proposed Plant Biodiversity Outlook could be included as part of the toolkit, as well as links to relevant resources, software, case studies and other relevant initiatives.
- 61. Further, the delegates recommended that Parties, CBD and GSPC focal points could be consulted on the key priorities in developing the toolkit so as to ensure that an adequate and relevant checklist to assisting Parties in integrating the targets is provided as part of toolkit.

(e) A review of the potential impact on climate change and other factors that may impact plant conservation and hence implementation of the Global Strategy

- 62. Prof. Brian Huntley, Chief Executive of the National Biodiversity Institute, South Africa; made a presentation on the potential impact of climate change on the natural and human dominated landscapes in South Africa highlighted the predicted scenarios by 2050.
- 63. The representative of BGCI presented the findings of the Gran Canaria Meeting on Climate Change and Plant Conservation that was held in April 2006, under the auspices of the Global Partnership for Plant Conservation and Botanic Gardens Conservation International (BGCI).
- 64. It was evident climate change was likely to have a major impact on plant diversity including species survival, species assemblages and the increase of invasive species in many ecosystems.
- 65. The delegates noted that some of the targets of the Strategy will require modification in light of climate change, and others will require more urgent action as a result, e.g. target 6. An elaboration on the potential impact of climate change on achievement of the various targets is presented in Annex VI.
- 66. Resilience and adaptability of plant populations is a function of their genetic diversity. In order to secure the future of plant species in regions experiencing the effects of climate change, increased attention must be focused on conserving genetic diversity as the raw material for natural selection and adaptation.
- 67. The importance of gene banks as 'insurance policies' for the future survival of many plant species and for the conservation of genetic diversity was stressed. There is therefore a need to emphasize national gene bank programmes especially seed banks in the context of target 8, as a basis for planning future conservation programs. It is possible that some countries may not be able to hold plants *in situ* in their 'country of origin' in future.
- 68. The delegates acknowledged that the growing public concern over climate change may provide opportunities for raising awareness of the related issues of plant conservation, and also mobilising resources to support plant conservation.

- 69. Further, there is a need to consider how the work on climate change and plant conservation will be integrated into the broader context, taking into account initiatives such as UNFCCC, the FAO Working Group on Climate Change and the CGIAR Inter-Centre Working Group on climate change. Related issues such as the use of production land for bio fuels also need to be considered.
- 70. The current GSPC provides a useful framework for the period 2000-2010. However, while there is a need to maintain focus on achieving the 2010 targets, it is essential to begin now to consider the options beyond 2010 and develop new measures that will take into account climate change impacts.
- 71. The Liaison Group welcomed the Gran Canaria Declaration on Climate Change and Plant Conservation and recommended that it be communicated to the Executive Secretary as an annex to the report of this meeting, for further consideration.

(f) Proposals on options for the Global Strategy after 2010

- 72. The Liaison Group agreed that a follow up for the GSPC needs to be developed and implemented for the period post-2010, to build on achievements and success of the GSPC during the period 2002 and 2010 and to ensure that work undertaken in plant conservation as part of the GSPC is sustained in future years.
- 73. The delegates suggested that the flexible coordination mechanism provides a useful means to support the development of the next phase of the GSPC beyond 2010, incorporating inputs from all stakeholders. They also considered that the Global Partnership for Plant Conservation, including the organizations that facilitated stakeholder consultations of the GSPC targets could be encouraged to continue their support for the Strategy and the development and implementation of a the follow up phase.
- 74. Furthermore, emerging issues such as climate change mean that the achievement of the objectives of the Global Strategy may in future require refining existing targets and/or setting new targets post 2010, which is an option that was provided for in Decision VI/9. There were discussion the viability of a longer term view, such as till 2050 given the slow response of natural systems but it was also recognized that a practical programmatic view requires focus on what could be considered short to medium term, hence 2015- 2020.
- 75. It was acknowledged that while the ninth meeting of the Conference of Parties will undertake an in depth review of the GSPC and may make recommendations for actions post 2010, it was anticipated that in addition, a final review on the achievement of the targets of the strategy will made in 2010 to evaluate the real impact of the GSPC and make further recommendations.
- 76. Delegates recognized that there has been considerable success and progress so far on achieving the targets of the GSPC, and that the target-based approach has been valuable and productive, suggesting that this process could be carried forward past 2010.
- 77. The GSPC and its related initiatives such as the Global Partnership for Plant Conservation have succeeded in generating significant new resources for implementation of the objectives of the CBD that would not have been generated without for the existence of the GSPC. These initiatives have provided a practical entry point into the CBD for many institutions working at national and international levels.
- 78. The meeting emphasized the continued need to address the important challenges of the conservation of plant diversity through an evidence-based, quantitative approach that involves multiple

sectors and stakeholders, and that facilitates and supports national implementation of the GSPC post

- 79. In considering the future of the Strategy beyond 2010, the delegates recognized that the success of the Strategy and the validity of its target-based approach provide a valuable template and model on which to build for future international plant conservation efforts. The group highlighted that post-2010 the elements of a new phase of the GSPC would include:
 - Continued review of the 2010 GSPC targets to identify realistic post-2010 targets.
 - Continued incorporation of GSPC targets into CBD multi-year programmes of work and as relevant, into the National Biodiversity Strategies and Action Plans being developed and implemented by the Parties.
 - Continued integration of national and international efforts in plant conservation, including enhanced collaboration and partnerships at all levels;
 - Significant new resources for capacity building in plant conservation, particularly in developing countries
- 80. Other key issues that were identified as important in the post-2010 period include:
 - (a) Retention of a clear focus on securing plant diversity, enhancing conservation and ensuring sustainable use with links to sustainable development and poverty alleviation;
 - (b) Development of a flexible framework of targets that are amenable to interpretation and implementation at national, regional and global level bringing on board a multiple set of actors and stakeholders..
 - (c) Dissemination of the tool-kit approach to aid national implementation; strengthening links between national and regional targets to global targets as appropriate; facilitation of national reporting, and translation of global targets to the national level;
 - (d) A focus on capacity building for developing countries in order to implement the Strategy and continued emphasis on grass-roots implementation that supports both the achievement of national goals and the fulfilment of global targets; and
 - (e) A focus on regional networks, initiatives and programmes that support both national implementation and realization of global targets;
 - (f) Enhancement of cross-sectoral linkages focused on all aspects of landscapes including agriculture, forestry, mining, urban areas, and others, in conserving plant diversity, encouraging sustainable use, and developing models and programmes to alleviate poverty and improve human well-being.
- 81. The meeting noted that despite the successes of the GSPC to date, future planning may need to explore options for resourcing the Strategy as the achievement of targets in the targets in the current strategy has been constrained by under funding.

Annex I

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Annex II

REVISED AGENDA

- 1. Opening the meeting.
- 2. Organizational matters:
 - (a) Election of officers.
 - (b) Adoption of the agenda.
 - (c) Organization of work.
- 3. Substantive issues: review and implementation of the Global Strategy for Plant Conservation:
 - 3.1 Preliminary information on the status of implementation of the Global Strategy for Plant Conservation;
 - 3.2 Ways and means for the in-depth review of the Global Strategy for Plant Conservation in preparation for the ninth meeting of the Conference of the Parties to the Convention on Biological Diversity;
 - 3.3 Contribution of the Global Strategy for Plant Conservation to meeting the 2010 biodiversity target and the Millennium Development Goals and responding to the challenges arising from the conclusions of the Millennium Ecosystem Assessment;
 - Proposed elements of a toolkit including a checklist to assist Parties in integrating the targets into their strategies, programmes and plans.
- 4 Other matters:
 - 4.1 Report of the Gran Canaria Meeting on Climate Change and Plant Conservation organized by the members of the Global Partnership for Plant Conservation;
 - 4.2 Proposals on options for the Global Strategy after 2010.
- 5. Adoption of the report.
- 6. Closure of the meeting.

Annex III

GOOD PRACTICES, CASE STUDIES AND RELEVANT EXPERIENCES IN IMPLEMENTATION BY NATIONAL REPRESENATIVES.

1. ST. LUCIA

DEVELOPMENT OF THE LATANYÉ BROOM INDUSTRY IN SAINT LUCIA (WEST INDIES)

Contributing Authors-

Donatian Gustave, Lyndon John, Michael Andrew, Brent Charles, Margaret Severin, Monica Hyacinth, Lench Fevrier, Julius James, Anita James, Cornelius Isaac and Rebecca Rock. October 19 2006

Background

Latanyé (*Coccothrinax barbadensis*) is a palm native to Saint Lucia. Its leaves are used to make craft and brooms. Latanyé is generally distributed throughout the Windward and Leeward Islands, including Trinidad and Tobago. Latanyé's natural habitat ranges from "littoral and scrub woodlands near the coast, from sea level to 200 metres elevation. The morphology of the leaves makes the plant resistant to strong wind currents. As it can grow on marginal soils, and appears to be tolerant against pests and diseases, Latanyé may be considered as an ideal plant for soil conservation works to reduce the rate of land degradation in St. Lucia.

Traditional Harvest of Latanyé Leaves

In an ideal sustainable harvesting system, the older or mature Latanyé leaves are harvested and that the remainder of the plant regenerates and produces new leaves. 5 to 7 Latanyé leaves and a sturdy broom handle are used to make large brooms. An earlier study revealed that Latanyé wild stocks were harvested "year round" to maintain livelihoods of rural people because of the available market and high demand for leaves for making brooms. In addition, there was "no active cultivation of the plant" and harvesters used the younger leaves of plants as materials to tie parts of the broom. These activities resulted in a decrease in the availability of Latanyé.

Indeed, there was a decrease in the availability of brooms sold from 1993 to 2003 and the trend of the decrease in the quantity of brooms exported from 11000 in 1993 to less than 2000 brooms in 2003. Noteworthy is that the number of brooms exported decreased to 181 in 2001. A local exporter of brooms to Barbados explained that wildfires and the unavailability of shipping resulted in the production and sale of fewer brooms for that period.

The Market

The Latanyé brooms are produced for the local market and for exportation. The table below details the countries to which brooms were exported from Saint Lucia for the period 1992 to 2003. **Currency** (rate 1 US=2.70 E.C.)

Table 1: Total Value and Quantities of Brooms imported from Saint Lucia by country, 1992 to 2003

Country	F.O.B. (US \$)	Quantit y
BARBADOS	4682.66	7587
SAINT MAARTEN	183.39	59

SAINT VINCENT AND THE GRENADINES	19256.83	38341
UNITED STATES VIRGIN ISLANDS	153.14	23
VENEZUELA	101.48	550
Total	24377.49	46560

(Source: Saint Lucia Government Statistical Department)

The average number of brooms produced locally on a monthly basis was between 2080 and 2300 and the average monthly range of income by respondents was US \$369

Due to the demand for Saint Lucian Latanyé Brooms there was the over-harvesting of the leaves and the consequent use of smaller and un-mature leaves. Brooms built with un-mature leaves had varied standards of measurements and did not last as long as the once built with older leaves. The Forestry Department confirmed the disparity in dimensions of brooms produced in an island wide survey of 34 brooms in January 2004.

Latanyé as a defacto Free Resource

The total land area of forest and other types of natural vegetation in Saint Lucia is 21765 hectares, equivalent to 35% of the total area. 7388 hectares (34%) of this portion of vegetation is government Forest Reserves and 428 hectares (2%) is Crown Lands (G.O.S.L. 1998). Although the Forest Reserves and Crown Lands are protected the Forest, Soil and Water Conservation Ordinance of 1946, amended in 1957 and 1983, and there was no control of activities occurring on private lands. Latanye was a de facto resource as:

- 1) Some land owners were expatriates and not in St. Lucia
- 2) Some land owners did not object to harvesting of Latanyé (L. John 2001)
- 3) There was no regulation/ the absence of legislation for the protection of Latanyé
- 4) There was the challenge of praedial larceny.

Response from the Forestry Department to the above Problem

Given that scenario of over-harvesting of Latanyé to meet the demand for brooms- locally and regionally, the variability in the quality of brooms produced, the absence of legislation for the harvest/use of Latanyé, the threat of bush fires and more importantly, the potential loss of livelihoods and extinction of Latanyé in Saint Lucia, the Forestry Department intervened and developed a species recovery strategy for the conservation and the sustainable use of Latanyé. The basic idea was to propagate Latanyé in the nursery and to establish plantation for the harvesting of the leaves.

Management of Latanyé

- 1) <u>Propagation of Latanyé seeds:</u> 90% germination of seeds was obtained when the seeds were washed of the fleshy material surrounding the seed and soaked overnight. The seeds were then sown directly into a germination bin, using a substrate of river silt. Uniform germination occurred in 2 to 3 months. The plants were left in the bin for 5 months. Seeds were transplanted into 8 x 10 inch pots. 8 months were necessary to obtain mature plants for transplanting to plantation.
- 2) <u>Plantation establishment</u>: Two types of plantations were established pure and mixed stands. The spacing of plants depends on whether the plantation was a mixed or a pure stand. Intercropping of Latanyé was done with Mauby (*Colubrina elliptica*).
- 3) <u>Harvesting and regeneration- experiments and recommendation</u>: Central to the success of Latanyé Broom Industry was the need for a sustainable harvesting system for the leaves. Preliminary observations using a sample of 28 plants on a farmer's Iding at La Pointe Mon Repos indicated that

leaves can be sustainably harvested. The first harvest was on March 18 2004. The second harvest was in June 2004, three months later. The farmer used a 40 % harvest of the leaves present on the day of harvesting. Consequently an experiment was designed and implemented at another farmer's holding at Dennery, to test the hypothesis that Latanyé leaves can be sustainably harvested every three months.

4) <u>Longevity and storage experimentation and recommendation:</u> Results showed that brooms can be stores for at least 6 months without treatment. Beyond six months, leaves should be treated with fungicide and insecticide. Neem (*Azadirachta indica*) leaves were used for this purpose. Brooms could also be used on concrete surface for six months before being worn out.

Economic aspects:

The project also examined the economic aspects of production in collaboration with the Ministry of Finance. The cost-benefit analysis was undertaken for Latanye brooms from one acre of land, assuming that the crop needed three years before harvest. It was established that the cost to establish once acre of Latanye in two years was US \$1370.85 and the annual net profit per acre was US \$3800.99.

Success of the Latanye Project

A the Latanyé Task Force was formed in 2001 to address the issue of Latanye production while registered brrom producers association - "Superior Broom Producers", was officially formed and registered with the government of Saint Lucia on June 21 2005. The group has formulated a conservation strategy and proposal to establish a Latanye Nursery to produce 10000 plants for cultivation of 10 acres of Latanye at one of the heavily utilized areas. This group is currently seeking further funding from UNDP GEF to undertake the afore-mentioned project.

II. SINGAPORE AS A CITY IN A GARDEN

A CASE STUDY OF PLANT CONSERVATION IN AN URBAN CITY STATE

Singapore was once an island covered with dense natural vegetation. By 1880, much of it was already converted to agriculture. Rapid industrialisation and urbanisation further replaced the natural ecosystems. However, about forty years ago, the Singapore Government, initiated a concerted effort to make Singapore a Garden City – a vision championed by the then Prime Minister Lee Kuan Yew. This vision has evolved over the years, adding new dimensions to this national effort. To create a Singapore with a quality green environment to live, work and play, the vision of the National Parks Board (NParks) is to make Singapore a City in a Garden.

A multi-pronged and broad-ranging approach that includes *in situ* and *ex situ* biodiversity conservation, and engages the 3Ps, i.e., the public, private and people sectors, is adopted.

The management policies concerning the Nature Reserves and Nature Areas ensure that our key indigenous ecosystems, including primary tropical dryland lowland forests, secondary forests, mangroves, freshwater swamps, etc., with their diverse biodiversity are conserved in situ. NParks, as the country's Scientific Authority on Nature Conservation monitors and coordinates the health status of the indigenous biodiversity in these areas. NParks manages some 300 regional and neighbourhood parks, which serve as recreational grounds as well as sites for ex situ conservation of indigenous species. The Park Connectors Network serves to link the parks, gardens and open spaces, allowing for further recreational greens.

The Singapore Botanic Gardens (SBG) house 10,000 different kinds of plants as well as a 7 ha plot of tropical lowland forest. Primed for its role as a leading tropical botanic institution for research and education, the SBG Herbarium is a depository of some 650,000 herbarium specimens. To ensure that Singapore is woven into a tapestry of greenery, streetscape planting is intensified and deftly blended into the existing landscape. The Heritage Trees Scheme and Heritage Roads have been established to protect significant trees. Looking upwards, rooftop gardening and planting on the sides of high-rise buildings have been encouraged recently. This effort adds a green covering to the grey concrete.

In engaging volunteers and partners, outreach programmes like Adopt-A-Park and Park Watch Scheme were set up to promote public involvement and instil a sense of ownership. A recent initiative, Community in Bloom programme, added a new dimension to encourage a culture in gardening and plant care as part of our lifestyle.

Specifically addressing endangered and rare species, NParks proactively identifies species that are rare and ensures that the saplings and seeds of these species are propagated in the nurseries and planted out in the appropriate natural sites as well as in the parks and roads. Plants that are important for birds, butterflies, dragonflies, etc. have also been planted in strategic areas to enhance the populations of these fauna species. All these multifarious initiatives synergise to continually sustain Singapore as a City in a Garden.

III. CANADA

The Government of Canada recently designated Royal Botanical Gardens (in Hamilton and Burlington, Ontario) as the National Focal Point for the Global Strategy for Plant Conservation. Royal Botanical Gardens is a self-governing not-for-profit organization affiliated with the Ministry of Culture of the Province of Ontario. This designation takes advantage of expertise and existing national networking programmes by Royal Botanical Gardens. This is thought to be the first time that the Government of Canada has appointed an agency outside of the government as a National Focal Point for any international programme.

Canada has been one of sixteen countries in which the plant conservation and education programmes of botanic gardens have benefited between 2002 and 2006 from support from the Investing in Nature: A Partnership for Plants initiative of Botanic Gardens Conservation International and HSBC plc, a global financial services company. A significant product of the programme in Canada was the publication in 2006 of an update to the Biodiversity Action Plan for Botanical Gardens and Arboreta in Canada. The update, entitled Conserving Plant Diversity: the 2010 Challenge for Botanical Gardens in Canada, reviews progress in sectoral implementation of the original action plan and links this plan with global and regional targets for plant conservation which harmonize with the Global Strategy. The global targets were developed at the Global Botanic Gardens Congress in Barcelona in 2004.

IV. REGIONAL COLLABORATION – A sample

(i) Regional target setting

North American regional targets for botanic gardens relative to the botanic gardens global targets and the Global Strategy were developed between 2004 and 2006. A publication presenting the North American regional targets is currently being prepared by a North American Plant Conservation Partnership which includes the United States office of Botanic Gardens Conservation International, the American Botanic Gardens Association, the Botanic Gardens Association of Mexico, the United States Center for Plant Conservation, and the Canadian Botanical Conservation Network. The document is expected to be available in early 2007.

(ii) Target 7 60% of the world's threatened species conserved in situ

The ASEAN region, comprising Brunei Darussalam, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand and Vietnam, inherits a natural legacy of rich biodiversity. In a concerted regional biodiversity effort, the ten ASEAN countries revised the 1984 ASEAN Declaration on Heritage Parks to provide further impetus to the establishment and management of protected areas in December 2003. To date, 27 ASEAN Heritage Parks (AHP), covering both terrestrial and marine ecosystems, have been nominated. It is anticipated that ASEAN countries will be nominating more AHPs, hence, working towards achieving Target 7 of the Global Strategy for Plant Conservation.

Annex IV

PROGRESS IN IMPLEMENTATION BY INTERNATIONAL ORGANISATIONS

I. BIONET INTERNATIONAL

BioNet International has focused on promoting education and awareness, and building capacity for conservation. Workshops and courses on taxonomy for special taxa have been held, establishing networks, supporting implementation of Targets 14, 15 and 16. The LOOPS such as ASEANET, CARINET, ANDINONET and SAFRINET could be useful for improving networking and dissemination of information. There is an open window to follow up with regions. The experience has led to the observation that it's better to work under a regional focus than under a national focus.

BioNET had sent short questionnaires to all its networks under BioNet International, but fewer than 10 replies were received. The questionnaire asked whether countries were aware of the GSPC and whether the 16 targets are being followed. Results received so far show that countries are not following the Global Strategy and don't know about the targets. They are willing to participate in the follow-up and are looking forward to the report from the meeting. It was perceived that results of the survey depend on the time available. Not enough time has been available so far for responses to be received.

II. BOTANIC GARDENS CONSERVATION INTERNATIONAL (BGCI)

The 'Investing in Nature: A Partnership for Plants' programme was established by Botanic Gardens Conservation International in 2001 in partnership with HSBC plc, a global financial services company. This programme has enabled BGCI to undertake extensive programmes directed at plant conservation, education and sustainable use, though model projects, ex-situ conservation, capacity building, training, and the development of national and regional strategies.

Elements of the work of BGCI and the Investing in Nature programme have made contributions is small ways to many of the Targets of the Global Strategy for Plant Conservation, including Targets 2, 3, 5, 8, 9, 13, 14, 15 and 16. However, the main focus of programmes of BGCI contribute most strongly to Targets 8 and 14.

BGCI's Plant Search database is available on the Internet. It has been generated by over 600 botanic gardens world-wide which have entered their own information via the Web. This database lists information on species present within the collections of the participating botanic gardens. As such, it is now possible to compare the botanic gardens accession data with the IUCN Red List of Plants. Approximately 12,000 threatened plant species have been identified in the ex situ collections of botanic gardens at present.

Many programmes relevant to the Global Strategy are underway among individual botanic gardens and among national and regional networks. There are lots of activities going on within individual gardens and national networks.

A collaborative project with IUCN is worth mentioning in the present context. This is a program focusing on Targets 2 and 5, to be funded by the Global Environmental Facility and operating in six countries: Cameroon, Costa Rica, Philippines, Morocco, Sri Lanka, Madagascar.

The project aims at both the development of red-listing and the designation of Important Plant Areas (IPAs). Specifically, BGCI is assisting with Target 2 in helping with the red-listing of Tree Species with IUCN, and with supporting the provisional list of European threatened species, important for meeting Target 8 for Europe.

Target 14 was initially considered among the cross-cutting targets of the GSPC, but at the first Liaison Group meeting (2003) it was recognized that education and awareness were not being addressed well through the other targets. BGCI was therefore asked to facilitate a stakeholder consultation on Target 14, and has subsequently held a number of stakeholder meetings in various countries (Brazil, China, Indonesia, Russia, UK, USA). A summary report of these consultations was provided to the meeting and reports were also presented at the recent International Congress on Education in Botanic Gardens (Oxford, UK, September 2006). Several trends which were common across the countries involved were identified:

- In general plants are less represented than are animal species in education programmes;
- There is less focus on botany in schools at present, and more on interdisciplinary studies such as integrative biology;
- There is a need for teacher training relative to plant diversity, conservation and sustainable use;
- In the UK, a survey has shown that 90% of respondents developed an interest in biodiversity through a first-hand experience of nature. All countries reported that children are not been given sufficient opportunities to experience nature first-hand;
- There is a lack of taxonomy instruction at the tertiary education level;
- In society, messages about plant conservation are being lost under the overwhelming level of advertising in all media.

A number of recommendations were made during the stakeholder meetings. These included:

- Workshops between stakeholders to set targets for public awareness about plants diversity and its need for conservation
- Capacity building for educators in both the formal and informal education sector
- Inclusion of education/communication experts in national GSPC coordination bodies
- Organisation of campaigns at national level to raise awareness

The full text of the Target 14 stakeholder consultation summary report is available on the website of the Global partnership for Plant Conservation: www.plants2010.org and a more complete document, with case studies, is being planned.

III. CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES (CITES)

A CITES document was made available to the meeting from the Plant Committee of CITES, particularly on CITES' contribution to Target 11, prepared by Canada and Mexico. The document highlighted how CITES works, the structure of the Appendices, etc. This document is another case study to be available for public consideration. The report includes a table listing the 16 Global Strategy targets and showing CITES linkages to each. The document is suggested as a possible model for similar reports from other organizations, and for raising awareness. It is helpful to identify sets of species and cases for highlighting needs and potential of programmes. The utility of such information for decision-makers was noted.

IV. UN FOOD AND AGRICULTURE ORGANISATION (FAO)

FAO acts as a neutral forum where developed and developing countries meet as equals to negotiate agreements and debate policy related to agriculture, forestry and fisheries. FAO is also a source of knowledge and information. FAO helps developing countries and countries in transition modernize and improve agriculture, forestry and fisheries practices and ensure good nutrition for all. Hence its programmes and instruments related to sustainable livelihoods, sustainable agriculture and forestry, in situ and ex situ conservation and management of production land can contribute towards the implementation of many of the GSPC targets. FAO has been invited by the CBD Secretariat to support the further development of targets 6,9,12 and 13 by facilitating stakeholder consultations (in collaboration with IPGRI for targets 9 and 13). FAO's programmes and instruments can also contribute to the implementation of the cross-cutting targets 3, 14, 15 and 16 of the GSPC. From the beginning, FAO has highlighted the importance of existing FAO country driven processes and agreements, and their relevance to GSPC targets, stressing the need at national level of strengthening the linkages between national GSPC focal points and national focal and contact points of programmes in the agricultural and forestry sectors, such as: the Global Plan of Action for the Conservation and Sustainable Utilization of Plant Genetic Resources for Food and Agriculture (GPA); periodical Global Forest Resources Assessments (FRA); the International Plant Protection Convention (IPPC) and the International Treaty on Plant Genetic Resources for Food and Agriculture (IT-PGRFA)."

IV. GLOBAL INVASIVE SPECIES PROGRAMME (GISP)

It is noted that the current statement of Target 10 as written is very broad and very difficult to implement. It reads well, but moving it forward to implementation is very difficult, because of the broad statements in includes. It has proven challenging to break down the components of Target 10 target to become manageable units for implementation and monitoring.

The GISP is seeking further funding with partners from the Darwin Initiative to "unpack" Target 10's objectives to be more manageable, and to assemble some case studies from around the world.

It is felt that there is not much progress to report from GISP on Target 10 overall.

V. GLOBAL PARTNERSHIP FOR PLANT CONSERVATION (GPPC)

The plant conservation work of many institutional members the GPPC have become closely integrated through work of the Partnership. The Partnership grew out of beginnings of the Gran Canaria Group meetings of 2000 to develop the Strategy itself, and formed in response to the relevant expert group committee meetings, and that the Partnership was launched in 2004. Dr. Peter Wyse Jackson is serving as the initial interim chair of the Partnership. Initial work has focused on awareness-raising for the Strategy among related organizations, including through meetings, workshops and conferences and the Partnership's Web site, "Plants2010.org" Botanic Gardens Conservation International is voluntarily providing the secretariat for the Partnership, which includes 30 members to date.

A key element of the collective work of the Partnership was to organize and hold the "Plants 2010" conference in Dublin, Ireland in October 2005. This meeting considered case studies, recommendations, outputs, etc., and included the 'Dublin Statement.' Preliminary organizational elements of the Partnership such as a mechanism for appointment of officers, including the interim chair, were also considered at this meeting. The meeting succeeded in raising general awareness about the

Global Strategy, including coverage of the meeting in a major Irish newspaper. All of the presentations made at Plants 2010 are available on the www.Plants2010.org website.

The Partnership was instrumental in the development of the recent book entitled 'Plant,' written by Janette Marinelli, a major work on plant diversity of the world. The Partnership has focused on raising awareness, and capacity-building.

VI. INTERNATIONAL PLANT GENETICS RESEARCH INSTITUTE (IPGRI)

IPGRI is involved in Targets 6, 8, 9, and 12, with partnerships involving BGCI on Target 8, and with the FAO on Targets 6, 9 and 12. IPGRI works with country partners so its focus is on implementation by countries. The major work of IPGRI is largely in support of Target 6 and has worked with six countries on 30 crops, developing tools within developing production systems. IPGRI is involved in conserving crop relatives, working in 5 countries, to address issues of Target 6 and 9 from a country perspective on conservation of crop relatives on farms. Two major projects at present are addressing pests and diseases (relevant to Targets 6 and 12), the use of plant diversity in production lands to reduce the impact of pests, with four countries. Another project on the preservation of fruit species (apples, etc) in Asia is also underway. It is noted that it has proven very difficult to turn progress on these diverse projects and Targets into quantitative indicators. It is hoped that FAO can help in the development of appropriate indicators.

VII. INTERNATIONAL UNION FOR THE CONSERVATION OF NATURE (IUCN)

The IUCN has prepared a paper that was circulated to the meeting. It is still very committed to Target 2. The participants of the meeting extend to the IUCN their encouragement to complete the proposed rapid listing scheme as quickly as possible.

VIII. MISSOURI BOTANICAL GARDEN, ST. LOUIS, MISSOURI, UNITED STATES OF AMERICA

The main Targets to which Missouri Botanical Garden is contributing are Targets 1, 2, 13, 14 and 15. In the New World, work is continuing in partnership with institutions within several countries. The current efforts are directed at compiling the checklist of plant species of the New World, making a major contribution to Target 1. Missouri Botanical Garden is looking for institutional endorsement for this undertaking and is working closely toward Target 1 with Royal Botanic Gardens Kew, etc.

Missouri Botanical Garden held workshop a workshop on guidelines for the sectoral control of invasive species about five years ago, a direct contribution toward Target 10. The product of this meeting was a set of guidelines for various industries directed at reducing the impact of invasive species through preventing future introductions and controlling existing infestations. These voluntary codes of conduct are available for various sectors such as the nursery industry and for botanic gardens. To date it has proven difficult to move forward and acceptance of the codes of conduct have been limited, but current efforts to update codes and to get industry buy-in are underway.

IX. PLANTLIFE INTERNATIONAL

PlantLife International has been focused on Target 5. Criteria for most important areas for plant conservation have been developed and a database is now available for European countries, useful for the EU CAP program. Now being explored are opportunities to monitor biodiversity loss in Europe.

X. ROYAL BOTANIC GARDENS, KEW, RICHMOND, UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND

The work of RBG Kew is most strongly linked to Target 1, but it is also very active across other targets. The science and conservation teams of Kew both report their work in relation to GSPC targets now.

RBG Kew is working with IUCN to make the assessment process more rapid (Target 2), and is also contributing to Target 8 through the Millennium Seed Bank at Wakehurst Place and related projects, especially for the conservation of species and genetic diversity of dryland plants of sub-Saharan Africa.

The RBG Kew web site is being revised to include the GSPC structure of targets, and supporting various regional projects including Africa and Latin America.

RBG Kew was committed to producing a global checklist of plant species prior to the GSPC, but the focus on Target 1 under the Global Strategy has been very positive and has promoted participation of others. However, although the lack of a funding stream toward support of GSPC targets has been a major impediment, two big taxonomic gaps are being closed by pending projects. About 40% of the working list on line now. By end of 2007, Kew is expecting 70% of the checklist to be on-line, and that whole target will be achieved by 2010. Gaps at the national or taxonomic levels are still be assessed and addressed. Brazil is assessing how to complete its checklist – a major step forward toward Target 1.

Annex V

ANALYSIS OF GSPC IMPLEMENTATION BY TARGET

Target	Recommendations /main points	Constraints
3 – models and	Plants2010 website should be used as home for	Need to conduct a gap analysis
protocols	tools and models	of which targets are constrained
	Need for some synthesis of information – and	by lack of tools
	focus on accessibility and consideration of	
	language issues	
	Potential supportive role of the IPGRI-	
	supported platform for agrobiodiversity research.	
	research.	
	Include information on how to develop a	
	national strategies.	
	Need to provide guidence on how to make	
	Need to provide guidance on how to make models and examples available.	
4 – 10% of	Target is now part of overall CBD 2010	Original facilitating organization
ecological regions	biodiversity targets - thus being considered	was WWF - continuing role of
conserved	also outside scope of GSPC	WWF is unclear. (Discussion on
	In some countries the target may have been	specific role of facilitating organizations)
	reached – but is the conservation <u>effective</u> ?	organizations)
		Potential for WCMC to also
	Important to link to the CBD Programme of	provide input on this target
	Work on Protected Areas	
Target 5 - IPAs	Parties may have own definition of important	Definition of IPA is open to open
	areas for plant conservation – hence target is not only about the specific Plantlife's definition	to interpretation – is there under- reporting on this target?
	of Important Plant Areas (IPAs) – although	reporting on this target.
	Plantlife does have tools to help the	
	identification of IPAs	
	Drogress on this torget may be essented by	
	Progress on this target may be assessed by revisiting the original IUCN/WWF centres of	
	plant diversity project	
	GEF-funded project is under development	
	(PDF-B) with IUCN/BGCI in 6 countries. Aim	
	to provide models for others to use.	

Target 6 -	Focus is on national implementation	Note that many centres of crop
production land management	Need for flexibility, use of existing mechanisms for reporting and taking an ecosystem approach. An e.g. is the Forest Resource Assessment in FAO, but focus is on biodiversity conservation, not just plant conservation	diversity fall outside areas of mega-diversity for plants Challenge is to bring together different sectors – environment, agriculture and forestry
	Possibility for GEF funding re. value of biodiversity in production systems - benefits to local people and economies (mainstreaming biodiversity via production landscapes)	Interpretation of target can be a problem
	Can we include here urban landscapes and mining areas (ref. also contribution to MDGs)	
	Possibility to bring in private sector	
	In EU context – important target for linking into EU schemes for rural environment protection	
Target 7 –in situ conservation	This target is closely related to target 5. In absence of information on threatened species – can focus on conservation of endemics	May have information from protected areas, but threatened plants outside protected areas may not be well covered.
	Important role of herbaria and need for access to GIS tools	Need for T2 completion in support of target
	Some information can be extracted from protected area inventories (e.g. ASEAN heritage parks network)	support of target
	In some counties – threat status is sufficient to provide protection, even outside protected areas.	
	In some countries – e.g Germany, UK, this target is closely linked to T8	
	Important opportunity to engage the private sector.	
	Rapid growth of availability of tools, communications and data exchanged. By 2010 good synthesis is likely to be possible. Target is considered achievable. Recommend that not only data, but also software be made available to support this target.	

Target 8 – ex situ	BGCI PlantSearch database provides list of threatened plants in BG collections – presently stands at approx 12,000. Need to integrate with data from crop genebanks and others e.g. Millennium Seed Bank and European ENSCONET genebanks. Need to analyse extent of collections in country of origin. Need to focus on the restoration part of target. 1st part of Target should be met by 2010. 2nd	Need for target 2 to be completed Target has focused attention of BGs on genetic integrity of ex situ collections Availability of checklist (T1) will help with confirmation of species in database
Target 9 – crop diversity conservation	Information should be available from the 2 nd State of the World's Plant Genetic Resources report (2008/9) The commission on PGRFA has accepted the invitation of the CBD to look at this target and report re. Global Plan of Action for PGRFA Information also available from the report of the State of the World's Forest genetic Resources (FAO) Funding available for major crops via the Crop Diversity Trust. Regional PGR networks can make a positive contribution Special attention required for vegetatively propagated crops Need to also address the IK part of the target. Has been good progress re. on-farm conservation and other initiatives e.g. Flora Celtica	Definition of 'socio-economically important' plant will differ from country to country Not all countries need to adopt the 70% target – it depends on where the genetic diversity occurs. Problem of lack of funding available for species not included in Annex 1 of the International Treaty on PGRFA and therefore not eligible for funding under the Crop Diversity Trust.

Target 10 –	Target is not only invasive plants – also pests	Climate change is likely to have
Invasive aliens	and diseases.	important consequences on this
	Need to link also with the International Plant Protection Committee under FAO.	target
	On GISP website – management plans available for 226 invasive plants – but mainly from an agricultural perspective rather than impact on biodiversity.	
	Target is country specific – and more important in some countries e.g. islands and tropical countries.	
	Note that prevention is better than cure and e.g.s such as Brazil in predicting impact before invasion are useful. Important role in sharing information at regional level.	
Target 11	Reference to CITES document and engagement by CITES on this target	
Target 12 – sustainable management	German govt. is funding the development of an International Standard on Sustainable Harvesting of medicinal and aromatic plants (ISSC-MAP). Problem is on how to introduce this as a certification re. consumers – when organic and fair-trade labels already exist.	
	Need for case studies on species basis on what constitutes sustainable levels of harvesting from the wild (some on-going in Himalayas with Plantlife)	
	Has progress been driven by GSPC or by consumer demand?	

Target 13 – indigenous knowledge etc.	Various on-going initiatives at national level to record indigenous knowledge Support is being provided by IDRC to medicinal plant networks in various regions and a publication is under development.	Challenge is on-going conflict between traditional healers and medical profession.
	Example of change of policy development in East Africa – cannot be attributed to GSPC – but has provided some focus.	
	FAO – involved in this target – and development of training modules and linkages to gender issues.	
	Questions over whether target is achievable / measurable and what is the baseline?	
Target 14 – education and PA	Much effort put into this and progress made – especially in BG community. Some of this can be attributed to the GSPC	Lack of quantitative base line information on public understanding of 'biodiversity'.
	Various recommendations have been made by recent stakeholder consultations facilitated by BGCI.	The lack of specific training on botany/taxonomy etc at tertiary level was noted.
	Need to link with the CEPA programme of the CBD.	
	Interesting work done in China at Xishuangbanna BG.	
	Need to engage Ministries of Education re formal education – and need to have information to feed into curricula.	
	Recommend that when Parties carry out biodiversity campaigns – should evaluate and communicate success.	

Target 15 – capacity building	Various organizations are involved in capacity building at international level – e.g. BIONET and BGCI. Measuring impacts of training is difficult –	There does not seem to have been an increase in capacity for plant conservation in last four years.
	BGCI is developing some case studies.	Even if training provided – jobs are not always available.
	Capacity building must be led by country needs.	
	May be existing staff are better trained than more new staff available.	
	MoU signed at last CoP meeting between SCBD and Kew and other large institutions focused on capacity building.	
	Darwin initiative is important source of funding from UK.	
Target 16 - networks	Many examples exist – e.g. GPPC and regional networks	Networking is not the only way to work together – other models must also be recognised.
	Networking seems to be better now at all levels, however at national level, there is still the need to institutionalize cross-sectoral linkages	and the second of the second o
	The BG network provides excellent e.g. of networking at various levels.	

Annex VI

LIKELY IMPACT OF CLIMATE CHANGE UPON THE SCOPE AND ACHIEVEMENT OF THE GSPC TARGETS:

In attempting to 'future proof' the targets, it is clear that some may require more detailed consideration than others. It is important that the original targets do not end up being driven by Climate Change issues, rather than reacting to them.

Targets 1, 3, 11 & 16 are unlikely to be affected by Climate Change other than via indirect factors. Targets 4, 5, 6, 7 & 13 on the other hand involve some degree of landscape management, and the appreciation that change is inevitable will be an important principle particularly in local strategies. If certain of these targets (5, 6) are not adjusted qualitatively, then the percentage that is reached may not represent the original aspiration.

- Target 2: It is likely that the majority of presently threatened species will be adversely affected by Climate Change. A very small minority may be positively affected. One of the greatest changes may be on the number of presently not threatened taxa that may need to be re-assessed. Time frames for such re-assessments would undoubtedly overwhelm the present working practices.
- **Target 3**: Modelling of Climate Change and possible practical mitigating efforts are likely to increase the scale of Target 3, but not its overall scope.
- Target 4: Taking account of Climate Change increases the importance of viewing ecological regions in strictly non-geographic terms. Current uncertainty over what the figure of 10% in this target represents prevents an easy assessment of how this target will be affected. However it is probable that many research reviews are being, and will be, undertaken of vegetation analysis under various climatic scenarios at the continental or regional level (e.g. Midgley et al. 2001). This may well generate valuable information towards an understanding of this target.
- Target 5: Protocols or methodologies for designating important areas for plant diversity should take into account the possible consequences of Climate Change as a measure of the vulnerability of an area. Clearly some areas will be more seriously affected than others
- **Target 6**: Increasing pressure for production on lands will have a major impact on measures already adopted, or planned for such regions.
- Target 7: In situ conservation measures are liable to be rapidly overtaken by climatic change, and it is vital that ex situ conservation measures work in partnership with this target. Priority actions would be identifying species that are associated with those habitats likely to be severely depleted or degraded. Management of habitats and areas needs to appreciate that change is inevitable, and should therefore be as flexible and pragmatic as possible. The majority of protected areas sites are already fragmentary, and are likely to become more so as ecosystems alter. An assessment is required as to what each protected area can maintain what is currently present. The role of ex situ conservation measures as a means of mitigating these changes needs to be more widely recognised.
- **Target 8**: *Ex situ* conservation measures need to be better integrated with *in situ* measures in order to best maintain genetic diversity in relation to the evolutionary potential of both species and species assemblages. In order to provide the components for habitat reconstruction, and as a management tool for ecosystem recovery, there needs to be a significant increase in active *ex situ* work as opposed to passive *ex situ* collections.

- Target 9: The urgency associated with this target will increase with the likely increase in refugee status, particularly in relation to droughts, and the concomitant loss of the genetic foundations of many crop species. Rapidly evolving and changing agricultural systems increase the need for regional actions as climatic regimes shift at continental scales.
- Target 10: Many invasive alien plants, pests and diseases are likely to benefit from the changes wrought by Climate Change. It is probable that many currently non-invasive, or insignificant species will change status rapidly in the next 5-10 years. There is an increasing need for identification of these species, as well as rapid communication of emerging threats, and sharing of expertise at a regional and global level.
- **Target 12**: The sustainable management of natural harvests is likely to be negatively impacted for many species. The target, however, has always been modest, and market forces may drive this target in either direction very rapidly.
- **Target 13**: As a part of target 9, the rescue of knowledge associated with populations suffering displacement will be acute. Currently however there is no global methodology for rescuing these data before it is too late.
- **Target 14**: The awareness, and hopefully understanding, now felt by the public for Climate Change provides one of the few opportunities to benefit from the present situation, and capitalise upon the associated educational opportunities.
- **Target 15**: New skills and capacity building will be needed to tackle emerging issues associated with the impact of climate change.
- **Target 16**: Managing, migrating and recovering ecosystems will require the establishment of regional and sub-regional networks of a different nature to current networks.
