
REPORT ON A WORKSHOP MEETING OF THE GLOBAL PARTNERSHIP FOR PLANT CONSERVATION: ON “PLANT CONSERVATION AND THE SUSTAINABLE DEVELOPMENT GOALS (SDGS)”¹

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A workshop of the Global Partnership for Plant Conservation (GPPC) was held on 30 June 2016, organized by the Missouri Botanical Garden, St. Louis, Missouri, U.S.A., and held in collaboration with the Secretariat of the Convention on Biological Diversity (CBD) and Botanic Gardens Conservation International (BGCI).

WELCOME BY THE GPPC CHAIR

Peter Wyse Jackson opened the meeting, welcoming participants on behalf of Missouri Botanical Garden and the GPPC.

SELF-INTRODUCTION BY THE WORKSHOP PARTICIPANTS

A list of participants is included in Table 1.

REMARKS FROM REPRESENTATIVES OF THE EXECUTIVE SECRETARY, CBD, AND BGCI

Robert Höft spoke on behalf of the CBD Secretariat. He welcomed the meeting as an opportunity to develop a process for taking forward the Global Strategy for Plant Conservation (GSPC) within the broader CBD framework. He offered to help this process by providing guidance on when and where the GPPC could intervene with regard to the further development of the Aichi targets beyond 2020. He highlighted the need to focus on inter-sessional meetings and the importance of having a clear understanding of how the GSPC should be positioned with respect to the future Aichi targets.

Suzanne Sharrock, on behalf of BGCI, emphasized the importance of the role the GSPC has had in

stimulating plant conservation action and the need to develop a strategy for the future of the GSPC beyond 2020.

ADOPTION OF THE DRAFT AGENDA FOR THE WORKSHOP

The draft agenda was introduced by Peter Wyse Jackson, and participants agreed to accept this without change.

DISCUSSION AND PARTICIPANTS’ PERSPECTIVES ON PLANT CONSERVATION AND THE GSPC, AICHI TARGETS, STRATEGIC PLAN FOR BIODIVERSITY AND THE SUSTAINABLE DEVELOPMENT GOALS (SDGs) IN THE POST-2020 PERIOD

Participants discussed the GSPC and the various possibilities for its future. It was noted that the GSPC targets pre-date the Aichi targets and there may now be value to consider how to better integrate the two sets of targets under the CBD. However, the fact that the GSPC is a separate strategy has also given it more strength and visibility, especially amongst the botanical community. It is clear that the GSPC has been very useful to many botanical institutions, organizations, and networks in providing an entry point into national and international conservation policy. It has been helpful in demonstrating the relevance of plant conservation and the contribution such work makes toward achieving the Aichi targets. The same is likely to be true of the SDGs.

It was also noted that ecological restoration is becoming an increasingly important element of conservation policy and action, and plant conservationists/botanists can play a key role in supporting such efforts. Plant conservation and the GSPC targets

¹ This and the following 13 articles are the proceedings of the Global Partnership for Plant Conservation Conference, “Plant Conservation and the Sustainable Development Goals.” The conference was held 28–29 June 2016, at the Missouri Botanical Garden in St. Louis, Missouri, U.S.A.

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Table 1. List of participants at the Workshop Meeting of the Global Partnership for Plant Conservation, 30 June 2016.

Participant name	Institution	Country
Abu Taleb, Tariq	Royal Botanic Garden	Jordan
bint Ali, HRH Princess Basma	Royal Botanic Garden	Jordan
Aronson, James	Missouri Botanical Garden	U.S.A.
Clubbe, Colin	Royal Botanic Gardens, Kew	U.K.
Correia, Andrea	Rio de Janeiro Botanic Garden	Brazil
Delmas, Maïté	Muséum national d'Histoire naturelle, Paris	France
Donnelly, Gerry	The Morton Arboretum	U.S.A.
Fragman-Sapir, Ori	The Jerusalem Botanical Garden	Israel
Galbraith, David	Royal Botanical Gardens, Hamilton	Canada
Höft, Robert	Secretariat, Convention on Biological Diversity	Canada
Hu, Yong Hong	Shanghai Chenshan Botanical Garden	China
Krishnan, Sarada	Denver Botanic Gardens	U.S.A.
Loizeau, Pierre-André	Conservatoire et Jardin botaniques de la Ville de Genève	Switzerland
McCarthy, Ben	Plantlife International	U.K.
Miller, Allison	Saint Louis University	U.S.A.
Miller, James	Missouri Botanical Garden	U.S.A.
Mueller, Gregory	Chicago Botanic Garden	U.S.A.
Raimondo, Domatilla	South African National Biodiversity Institute	South Africa
Sackman, Kate	Botanic Gardens Conservation International (U.S.A.)	U.S.A.
Sharrock, Suzanne	Botanic Gardens Conservation International	U.K.
Summerell, Brett	Royal Botanic Garden, Sydney	Australia
Sutherland, Lucy	Australian National Botanic Gardens	Australia
Widyatmoko, Didik	Bogor Botanic Gardens	Indonesia
Wyatt, Andrew	Missouri Botanical Garden	U.S.A.
Wyse Jackson, Peter	Missouri Botanical Garden	U.S.A.

are also relevant to other multilateral environmental agreements such as the UN Convention to Combat Desertification (UNCCD) and the UN Framework Convention on Climate Change (UNFCCC), as well as work being carried out by FAO, World Bank, etc.

A number of questions regarding the future of the GSPC beyond 2020 were raised.

- Is the GSPC better maintained as a separate strategy within the CBD, or may this result in a continued lack of mainstreaming of plant conservation work at the national level?
- Is the GSPC better as a strategy to guide the botanical community, or as an instrument of the CBD, or both?
- Should the GSPC have two “faces”—one for the botanical community and one for policymakers?
- How should the GSPC relate to the Aichi targets? The Aichi targets are likely to continue beyond 2020, perhaps without too much change, but they will be positioned to deliver on the SDGs. The GSPC can help countries deliver on both the Aichi targets and SDGs.
- Should the targets be simplified so that they are more easily understood by policymakers/the public?
- How can we demonstrate that achieving the GSPC targets is important for achieving other environmental and development targets?

- The GSPC is essentially “non-controversial.” Is this a strength or a weakness?

Country representatives at the meeting were asked to report on the way the GSPC is being addressed at the national level.

SOUTH AFRICA

The direction from the CBD that the GSPC targets should be integrated into National Biodiversity Strategy and Action Plans (NBSAPs) was very helpful. The achievement of GSPC Target 2 (on conservation status of plants) has been important—especially with respect to being able to identify important areas for threatened plants that should be protected from development.

CANADA

Policymakers want to know how the GSPC and plant conservation can be useful and that the GSPC is not just “another thing” to do. There is a need to focus on plants as a solution.

AUSTRALIA

The GSPC generally has a low profile, except amongst the botanic garden community. There has

been little uptake in other areas, such as amongst the protected areas community.

BRAZIL

The GSPC targets have been very useful, both in highlighting the need for government to support plant conservation work and providing targets to focus on.

JORDAN

The GSPC is not well recognized by policymakers in Jordan. Efforts are being made to show that plant conservation can provide solutions and the GSPC is not just an additional requirement.

IRELAND

Institutions have been the main drivers of developing a national plant conservation strategy; although they may be part of government, they are not closely integrated as part of the national environmental processes.

UNITED KINGDOM

The GSPC has provided a useful framework and has promoted progress. The GSPC focal point sits in the NBSAP implementing agency, so there are good linkages.

INDONESIA

There is a gap between policy and practice. For example, Indonesia is very far from achieving Target 8 on ex situ conservation, although having the target is good for botanic gardens. There is a need to have realistic targets and to be able to manage expectations.

FRANCE

France has two national GSPC focal points, but even so, when meetings on the CBD are organized in France that are able to liaise with the two communities of Jardins botaniques and Conservatoire botaniques, priority is given to the Aichi targets.

SWITZERLAND

There are very few people in the Swiss Office for the Environment, and they do not have enough time to consider the GSPC. They prefer to focus on the Aichi targets.

CHINA

The government is well focused on the environment and they do have a Chinese Strategy for Plant

Conservation. Good progress is being made toward several targets.

In concluding the discussions on this agenda item, the following points were made:

- Having the GSPC as part of the CBD process is important in helping to secure resources (including funds) at the national level.
- Participants were unanimously in favor of having a third phase of the GSPC beyond 2020, but this should more clearly demonstrate the contribution it makes to the Aichi targets and the SDGs.
- Many of the SDGs provide a helpful point of reference to demonstrate the fundamental importance of plants for the planet, highlighting the need for plant conservation activities to support sustainable development and human well-being.
- It will be important to maintain a profile for the GSPC by engaging influential and international supporters.
- There is a need to ensure good national support for the GSPC across all regions and from CBD national delegations.

REVIEW OF THE RESULTS OF THE GPPC CONFERENCE (28–29 JUNE)

CHAIRS' SUMMARIES OF THE CONFERENCE SESSIONS

The Chairs of each of the GPPC Conference session provided feedback as follows:

Session 1: Peter Wyse Jackson

This session included two keynote presentations. Suzanne Sharrock presented on “Plant Conservation and the Sustainable Development Goals” (to be discussed later in the Agenda) and Allison Miller on “Plant conservation and food security.” Allison’s presentation highlighted in particular the important role that botanic gardens can play in providing an interface between agricultural and environmental research, mainly through the conservation of crop wild relatives. This is an important gap to bridge, as agriculture is one of the leading causes of biodiversity loss. Crop wild relatives provide an opportunity to communicate the value of biodiversity and illustrate the clear linkages between plant conservation and agricultural development. An important niche role for botanic gardens is the conservation of crop wild relatives, minor crops, and trees useful in agricultural ecosystems. She also pointed out the importance of wild plant diversity as a resource for agricultural development (for plant breeding and new crops or varieties).

Session 2: Robert Höft

This session included three presentations, from Madagascar, Jordan, and China. Although addressing both rural and urban settings, all highlighted the need for people to be at the heart of conservation efforts. The presentations covered issues around governance systems, traditional rights and knowledge, and mutual learning. The need for conservation projects to have a long-term commitment and to include monitoring and follow-up was also highlighted. These presentations provided demonstrable evidence of how the work of modern-day botanic gardens is very relevant to the SDGs and, in the case of the presentation from China, how they can contribute to developing sustainable cities, an activity that is beyond the scope of the existing GSPC.

Session 3: Domatilla Raimondo

This session included three very different presentations, covering indigenous knowledge, communications, and invasive species. Botanic gardens can potentially play an important role with respect to pest and disease control—another area beyond the scope of the current GSPC. Governments are increasingly concerned about controlling all types of invasive species (including pathogens) and it is important for botanic gardens to be providing solutions and not to be seen as part of the problem.

Session 4: David Galbraith

This session also included three diverse presentations. The new North American Botanic Garden Strategy for Plant Conservation demonstrates how the GSPC has sparked the development of a range of national, regional, and sectoral strategies around plant conservation. The numerous case studies included in the Strategy provide examples of how botanic gardens in North America are addressing the GSPC targets. The second presentation focused on the need to present positive news stories about plant conservation and the importance of pitching the right messages to different audiences. The third presentation reported on how the SDGs are providing a framework for narratives about the work of Kew, and providing an opportunity to develop compelling stories.

Session 5: Suzanne Sharrock

This session included a keynote presentation on ecological restoration, where James Aronson discussed future perspectives in ecological restoration and presented three conceptual frameworks for restoration. He also raised the issue of “novel ecosystems,” a new buzzword and would-be new

paradigm. He argued that the concept is full of pitfalls and should be rejected or used only very gingerly by restoration ecologists. The following three presentations focused more directly on GSPC implementation, with updates being provided on progress toward GSPC Target 1 by the World Flora Online (WFO) Consortium and reports on national progress from South Africa and Brazil. It is acknowledged that the WFO project would not have happened without the GSPC—and this will be an excellent “good news story” once the product is in place. Similarly, progress in South Africa, especially around Targets 2 and 7 and in Brazil around Target 2, has been largely driven by efforts to achieve the GSPC targets.

Session 6: Gerry Donnelly

This session, with five presentations, covered a diversity of topics. These included various approaches to prioritizing species for conservation action, capacity building, and the importance of horticulture in supporting conservation on the ground. In France, the SEP2D project, which covers 22 Francophone countries, provides a model for capacity building across countries, while in Indonesia, the impressive growth in the number of botanic gardens demonstrates a commitment from the government to support plant conservation. The presentations highlighted the increasing sophistication of plant conservation approaches, something that should be reflected in reporting on GSPC Target 3.

Session 7: HRH Princess Basma bint Ali

This session included four presentations, with two focusing on national targets around seed conservation. The development of national seed strategies is an important element in disaster preparedness, but seed conservation requires a large body of knowledge as well. Issues around the collection and conservation of indigenous knowledge were covered during this session, as well as the importance of having well-documented collections. The challenge of plant conservation in a mega-diverse country was addressed by a presentation from Ecuador, where many of the botanic gardens are not directly focused on conserving threatened plants.

Session 8: Pierre-André Loizeau

This session highlighted the fact that plant conservation needs different skills to succeed. In relation to in situ conservation, the Important Plant Areas (IPA) initiative provides an important focus for action; 1771 IPAs have so far been identified around the world. In relation to developing conservation strategies, conservation genetics can help us to

Table 2. Links between the Sustainable Development Goals (SDG) and targets, the Global Strategy for Plant Conservation (GSPC) targets, and the Aichi targets.

SDG	Relevant SDG target	Link to plant conservation	GSPC target	Aichi target
1. No poverty	1.4 ...access and control over ... natural resources	poorest populations are most dependent on wild plant resources—food, medicine, timber, fuel, etc.	13	18. Traditional knowledge respected
2. No hunger	2.4 ...sustainable food production systems... 2.5 ...maintain genetic diversity of seeds, cultivated plants...	biodiversity is the foundation of sustainable agriculture and contributes to food security	6, 8, 9	7. Sustainable agriculture, aquaculture, and forestry
3. Good health		plants are the basis of many traditional and modern medicines		
4. Quality education	4.7 ... all learners have the knowledge and skills needed to promote sustainable development...	learning about the importance of plants is part of education for sustainable development	14	1. Awareness increased
5. Gender equality		community plant conservation projects must address gender issues		
6. Clean water and sanitation	6.6 Protect and restore water-related ecosystems...	plant diversity (especially forests) help provide clean water	4	14. Ecosystem services
7. Renewable energy	7.2 ...increase share of renewable energy	plants are an essential source of renewable energy		
8. Good jobs and economic growth	8.4 ...decouple economic growth from environmental degradation	research is needed to identify sustainable harvesting levels for socioeconomic important species	12	4. Sustainable consumption and production
9. Innovation and infrastructure	9.5 Enhance scientific research...	plant-based research can lead to innovation and development		
10. Reduced inequalities				
11. Sustainable cities and communities	11.4 ...protect natural heritage 11.7 ... universal access to green and public spaces	important plant areas are important areas of natural heritage urban botanic gardens with enhanced accessibility will address this target	5 14	11. Protected areas
12. Responsible consumption	12.2 ... sustainable management of natural resources 12.8 ... people have relevant information for sustainable development	support needed for the sustainable use of plant diversity education for sustainable development	6, 11, 12 14	4. Sustainable consumption and production 1. Awareness increased

Table 2. Continued.

SDG	Relevant SDG target	Link to plant conservation	GSPC target	Aichi target
13. Climate action	13.2 Integrate measures into national policies	plants are major regulators of global climate and are involved in both mitigation and adaption		
	13.3 Improve education and awareness...	education for sustainable development	14	
14. Life below water	14.2 ...manage and protect...coastal ecosystems	plants such as mangroves are important in coastal areas	4	10. Protection of coral reefs...
15. Life on land	all targets	plant diversity supports all life on land	2, 4, 5, 7, 8, 10, 11, 12	2, 5, 10, 12, 14, 15, 16, 17
16. Peace and justice				
17. Partnership for the Goals	17.6 ...enhance ...international cooperation... on science, technology...	plant conservation organizations are well networked and work together at various levels	15, 16	19. Knowledge improved, shared, and applied
	17.9 ... enhance international support for ...capacity building...			

understand whether rarity is negatively affecting levels of genetic diversity, and to understand species-level ecology and reproductive biology. Finally, botanic gardens, combining horticulture and research within the same institution, play an important role in the ex situ conservation process. It is important that nobody works alone, and that the skills of horticulturists support actions in the field. Horticulturists, as well as propagating plants in their own gardens, can also support work in nurseries located in the country of origin.

TARGET 2 WORKSHOP: SUMMARY FROM THE CONFERENCE:
DOMATILLA RAIMONDO

This workshop attracted around 30 participants and included the following talks:

- An explanation of the IUCN Red List system and an introduction to training tools and resources
- An introduction to BGCI's databases "Threat-Search" and "GlobalTreeSearch," which are presently under development
- The benefits of using the IUCN Red List system for assessing threats
- Barriers to using the IUCN system

- Introduction to a new tool being introduced for batch importing of data to IUCN
- How to deal with uncertainty and lack of data (preliminary assessments are better than nothing)

The workshop provided a valuable opportunity for discussion and sharing experiences.

GSPC/AICHI TARGETS INTEGRATION, PROGRESS, AND ISSUES

The issue of why the GSPC targets have generally not been integrated into updated NBSAPs was discussed briefly, with many of the problems already reported by the national representatives above.

OUTLINE AND WALK-THROUGH OF THE PAPER "PLANT CONSERVATION AND THE SUSTAINABLE DEVELOPMENT GOALS" (BGCI/GPPC SECRETARIAT)

Suzanne Sharrock provided an overview of the discussion paper: "Plant Conservation and the Sustainable Development Goals," which had been given to all workshop participants. This paper explains how plant conservation actions can contribute to achieving many of the targets and goals of the Sustainable Development Agenda. An overview of the links between the GSPC targets,

the Aichi targets, and the SDGs is provided in Table 2. Of particular relevance to the plant community is SDG 15—Life on Land. However, other SDGs are also of importance, including those that focus on ending poverty (SDG 1) and hunger (SDG 2); ensuring good health (SDG 3), sustainable cities (SDG 11), and responsible consumption (SDG 12); as well as providing renewable energy (SDG 7) and clean water (SDG 6) and taking action on climate change (SDG 13).

It was noted that the contribution of plants to the SDGs is broader than just the conservation issues addressed by the GSPC. There are also cases and goals where plants may contribute to the overall achievement of the goal, but specific targets relevant to plants do not exist.

REVIEW AND DISCUSSION ON PLANT CONSERVATION CONTRIBUTIONS TO THE SDGs

During this discussion, the following points were raised:

- The SDGs provide an opportunity to demonstrate the important role of plants in the achievement of sustainability and the need for their conservation, but who are we trying to influence?
- There is a need to focus on what plants and plant conservation can contribute to the SDGs, rather than framing actions specifically around the GSPC targets.
- The SDGs provide a vital and holistic framework for global sustainable development, but the focus needs to be demonstrating where they might fail if plants and their conservation needs are not addressed.
- We can use the SDGs to show that the botanical community is ready to make a significant contribution toward the achievement of sustainable development.

PROGRESS AND PRIORITIES FOR GSPC IMPLEMENTATION

NATIONAL ACTIONS AND INTERNATIONAL INITIATIVES

Since 2010, the CBD Secretariat has been able to provide financial support for GSPC capacity-building activities and the GPPC Secretariat function through BGCI. However, this support ended in 2016. In the run up to 2020, there will be a need to continue monitoring and reporting, as well as for the development of plans for a GSPC Phase 3. The GPPC will need to play an important role in this.

With regard to targets where progress can be expected to accelerate up to 2020, Domatilla Raimondo

suggested that good progress could be made on Target 2 and BGCI has a strong focus on Target 8 achievement. Options to engage stakeholders beyond the botanical community were discussed, with a focus on increased online communications and the possibility of organizing webinars around the different targets.

FUTURE GPPC PRIORITIES AND PLANS

The participants at the meeting expressed strong support for a continuation of the GSPC beyond 2020. However, it is clear that this will need to be oriented toward and more aligned with the Aichi targets and the SDGs. The focus should be “Plant Conservation for Sustainable Development.”

In the run up to 2020, it will be necessary to establish the narrative on why the GSPC is essential to achieve CBD targets and the SDGs. These higher-level goals and targets will provide the framework and context for the GSPC.

A timetable of relevant CBD events taking place between 2016 and 2020 was provided by Robert Höft. This provides information on when an intervention on the GSPC may be useful, and what type of reporting will be required.

It will be particularly critical to ensure input on plant conservation through the CBD sixth National Reports, which are due by the end of 2018. The reporting format for these reports includes a voluntary module on the GSPC. Every effort should be made to help countries, and particularly through the GSPC Focal Points, to complete this module.

A resource manual for completing the sixth National Reports is under development by the CBD Secretariat at present. It was suggested that the GPPC provide guidelines for the GSPC module to be included in the manual.

ACTION: SUZANNE SHARROCK AND DOMATILLA RAIMONDO

It was also noted that the Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES) is carrying out a series of regional and global biodiversity assessments. These have an open peer-review process. GPPC members therefore have the opportunity to contribute to these assessments.

With regard to the GSPC post 2020, it was agreed:

- There should be a clear rationale for the need for a continued GSPC.
- The GSPC should be closely linked to the post-2020 CBD Strategic Plan.
- Flexibility will be important and the GPPC must be ready to respond rapidly as the new Strategic Plan develops.

- The GPPC should communicate plans and proposals for a renewed GSPC before the 15th Conference of the Parties to the Convention on Biological Diversity (COP 15).
- That the GPPC will wish to propose to the CBD the organization of a GSPC Liaison Group meeting in advance of COP 15 to consider the alternatives.
- The plan for a renewed GSPC should be included in the last meeting of the Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA) before COP 15.
- All opportunities for ad hoc stakeholder consultations should be taken (e.g., sixth Global Botanic Gardens Congress [Geneva, 2017], American Public Garden Association [APGA] meetings, etc.)

It was suggested that a small GPPC task force be set up to support the GPPC Secretariat and Chair in taking these tasks forward, and to prepare proposals and text for consideration by the general GPPC membership. Volunteers to assist with this work were Lucy Sutherland, Ben McCarthy, David Galbraith, and Domatilla Raimondo. Other members of the GPPC not present at the meeting will also be asked if they would like to participate.

PLANS FOR THE DEVELOPMENT OF THE PAPER “PLANT
CONSERVATION AND THE SUSTAINABLE DEVELOPMENT

GOALS” AS AN INFORMATION DOCUMENT FOR CBD COP
13 (MEXICO, DECEMBER 2016)

It was agreed that further work is required to complete this paper, including incorporation of discussion points from this meeting and the conference. Participants were invited to send any comments by e-mail to Suzanne Sharrock. The paper will then be circulated to the GPPC and other stakeholders for further review.

The paper can be included in the proceedings of the Conference and will also provide the basis for developing further communications and messages.

GPPC/BGCI PLANS FOR CBD COP (MEXICO, DECEMBER
2016)

There is the potential to organize a meeting of all GPPC partners who are attending COP.

ANY OTHER BUSINESS

There was no further business.

CONCLUSIONS AND CLOSE

The meeting was closed by Peter Wyse Jackson at
4:30 PM.