Business Case and Plan

Botanic Gardens Conservation International 2015-2020

BGCI

Plants for the Planet


Barney Wilczak

Executive summary

Plant diversity is essential to human wellbeing and survival, and yet more than 80,000 seed-bearing plant species (20% of the total) are currently under threat. This threat of extinction is largely due to habitat degradation, invasive alien species and over-exploitation, and is likely to be exacerbated by climate change. This threatened plant diversity will be critical for solving some of this century's major challenges in the areas of food security, energy, water scarcity, human health, climate change and habitat degradation.

Botanic gardens offer the opportunity to conserve and manage a wide range of plant diversity *ex situ*, and *in situ* in the broader landscape. The rationale that botanic gardens have a major role to play in preventing plant species extinctions through integrated plant conservation action is based on the following assumptions:

- There is no technical reason why any plant species should become extinct. Given the array of *ex situ* and *in situ* conservation techniques employed by the botanic garden community (seed banking, cultivation, tissue culture, assisted migration, species recovery, ecological restoration etc.) we should be able to avoid species extinctions;
- As a professional community, botanic gardens possess a unique set of skills that encompass finding, identifying, collecting, conserving and growing plant diversity across the entire taxonomic spectrum.

Botanic Gardens Conservation International (BGCI) is a membership organisation representing a network of 500 botanic gardens in over 100 countries, including the largest and most influential gardens in the sector. Following the example of the crop conservation community, BGCI's botanic garden-centred Global System for the conservation and management of all plant diversity will aim to collect, conserve, characterise and cultivate samples from all of the world's rare and threatened plants as an insurance policy against their extinction in the wild and as a source of plant material for human innovation, adaptation and resilience.

The BGCI network of botanic gardens includes: globally significant *ex situ* collections, covering approximately 33% of total plant diversity; world class seed banks, glass houses and tissue culture infrastructures, and; technical knowledge networks covering all aspects of plant conservation policy, practice and education. However, substantial investment will be required to build a fully functioning Global System that can prevent species extinctions in perpetuity. In particular, we in the botanic gardens sector need to:

- Organize ourselves as a professional community, and promote our unique skills to policy makers, funders and other stakeholders;
- Promote and prioritize plant conservation and use in botanic gardens;
- Focus botanic garden efforts on the rarest, most threatened, and challenging species;
- Work with other sectors (e.g. forestry, horticulture, agriculture and *in situ* conservationists);
- Facilitate plant conservation action in broader society through stimulating public dialogue, creating opportunities for participation in local and global conservation efforts and through provision of education, tools and information.

BGCI is in a prime position to promote a more efficient, cost-effective and rational approach to plant conservation in botanic gardens. We will do this in four ways by:

1. **Leading and advocacy:** We will provide leadership to the botanic gardens sector, grow our membership, and promote the role of botanic gardens to policymakers and funders in delivering the Global Strategy for Plant Conservation (GSPC) (see **Annex 2**).

2. **Leading innovative and strategic projects achieving outcomes in plant conservation policy, practice and education.** BGCI will lead projects and networks delivering GSPC targets in red listing (Target 2), seed conservation (Targets 8 & 9), ecological restoration (Targets 4 & 8), plant health and biosecurity (Target 10), ecosystem services and livelihoods (Targets 12 & 13) and education (Target 14).

3. **Building plant conservation capacity in botanic gardens and broader society:** We will build technical capacity in the botanic garden sector and beyond by acting as a knowledge hub and a clearing house for best practice, training, resources and expertise (Targets 3 and 15).

4. **Providing funding:** We will accelerate our fundraising efforts in order to mobilise funding to deliver plant conservation outcomes in the botanic gardens sector and wider society.

This document sets out a series of activities and outcomes related to the four strategies outlined above. Over the next 5 years we will deliver 15 key commitments which are outlined in **Annex 1**.

Business Case

1. Introduction
2. The concept of a Global System
3. A Global System for botanic gardens
4. Building the Global System

Plants are essential for human and other animal life on Earth in that they capture energy from the sun and convert it into food in the form of their seeds, leaves and roots. Human life is further sustained by the medicines, building materials and fuel that plants provide. Plants are central to many ecological processes such as climate regulation (including carbon dioxide absorption), soil fertility and the purification of both water and air.


Barney Wilczak

1. Introduction

Plant diversity is essential to human wellbeing and survival, and yet more than 80,000 seed-bearing plant species (20% of the total) are currently under threat. This threat of extinction is largely due to habitat degradation, invasive alien species and over-exploitation, and is likely to be exacerbated by climate change. This threatened plant diversity will be critical for solving some of this century's major challenges in the areas of food security, energy, water scarcity, human health, climate change and habitat degradation.

It is estimated that humans have modified more than 50% of the world's land surface[2], with approximately 40% given over to agriculture and livestock management. For plants with natural distributions that fall within these transformed areas, *ex situ* conservation may be the only way they can survive. Even in national parks and wilderness areas not significantly altered or actively managed by people, plant populations may be vulnerable – particularly to invasive species, pests, diseases and a changing climate.

Botanic gardens offer the opportunity to conserve and manage a wide range of plant diversity *ex situ*, and *in situ* in the broader landscape. The rationale that botanic gardens have a major role to play in preventing plant species extinctions through integrated plant conservation action is based on the following assumptions:

- There is no technical reason why any plant species should become extinct. Given the array of *ex situ* and *in situ* conservation techniques employed by the botanic garden community (seed banking, cultivation, tissue culture, assisted migration, species recovery, ecological restoration etc.) we should be able to avoid species extinctions;
- As a professional community, botanic gardens possess a unique set of skills that encompass finding, identifying, collecting, conserving and growing plant diversity across the entire taxonomic spectrum.

Botanic gardens are a diverse community, fulfilling multiple objectives including attracting visitors, public education, scientific research, horticulture and conservation. They have the potential to maximise their plant conservation impact by prioritising plant conservation action, becoming better organised as a professional community, and effectively communicating their role and objectives in plant conservation to policy makers, funders and the general public.

Botanic Gardens Conservation International (BGCI) is a membership organisation, representing botanic gardens in more than 100 countries around the world. We aim to support and empower our members and the wider conservation community, including ordinary citizens, so that our knowledge and expertise can be applied to reversing the threat of extinction facing plants. Our vision is a world in which plant diversity is valued, secure and supporting all life, and our mission is:

> “ To mobilise botanic gardens and engage partners in securing plant diversity for the well-being of people and the planet ”.

In this document we set out how we will achieve this mission through the establishment and promotion of a botanic garden-centred Global System for the conservation and management of all plant diversity that aims to collect, conserve, characterise and cultivate samples from all of the world's rare and threatened plants as an insurance policy against their extinction in the wild and as a source of plant material for human innovation, adaptation and resilience.

[1]Millennium Ecosystem Assessment (2005) [2]Hooke *et al*., (2012) Land transformation by humans: a review. *GSA Today*, v. 22, no. 12, doi: 10.1130/GSAT151A.1.

2. The concept of a Global System

The need for a Global System is exemplified by the endeavours of the global crop research community. Despite its importance to food security, much of the world's crop diversity is neither safely conserved, nor readily available to scientists and farmers who rely on it to safeguard agricultural productivity. Crop diversity is being lost, and with it the biological basis of our food supply.

Given the urgent need to achieve food security in the face of a changing climate and burgeoning human population, the crop research community has developed the concept of a cost-effective, rational Global System for the conservation of plant genetic resources in food and agriculture. This Global System, established by the Food and Agriculture Organisation of the United Nations (FAO), comprises elements of policy, planning, a review process, physical infrastructures, human resources, germplasm collections and data. It consists of:

- The International Treaty on Plant Genetic Resources for Food and Agriculture (PGRFA);
- The Global Plan of Action for PGRFA;
- A review process (State of the World's PGRFA);
- A network of international institutions and crop collections;
- A global portal of accession-level data (Genesys);
- A universal gene bank information management system (GRIN Global);
- Advanced bioinformatics tools that allow users to mine crop characterisation data (DIVSEEK).

Compared to the botanic garden community, the crop community is highly centralised around the Food and Agriculture Organisation of the United Nations (FAO) and the multilateral germplasm collections in the gene banks of the Consultative Group on International Agricultural Research (CGIAR). Likewise, the International Treaty facilitates access to material and data between national gene banks, multilateral gene banks and users. No such centralised, multilateral infrastructure exists for botanic gardens. Nevertheless, there are strong parallels with the policy, infrastructural and technical frameworks that exist in the botanic gardens community.

Nautilus Film / TRAFFIC / WWF

3. A Global System for botanic gardens

Following the example of the crop conservation community, a botanic garden-centred Global System for the conservation and management of all plant diversity would aim to collect, conserve, characterise and cultivate samples from all of the world's rare and threatened plants as an insurance policy against their extinction in the wild and as a source of plant material for human innovation, adaptation and resilience.

This Global System comprises the following components:

- A global policy framework (the Convention on Biological Diversity);
- A global action plan (the Global Strategy for Plant Conservation);
- A review process (the Global Partnership for Plant Conservation);
- A collections infrastructure comprising an international network of botanic gardens and their living collections;
- A global portal of plant collection data (PlantSearch);
- An array of data sources providing access to phenotypic and genotypic data enabling effective plant conservation, and the use of the collections for human development and well-being;
- A range of tools, resources and activities that aims to increase awareness and participation in plant conservation resulting in wide reaching benefits for society.

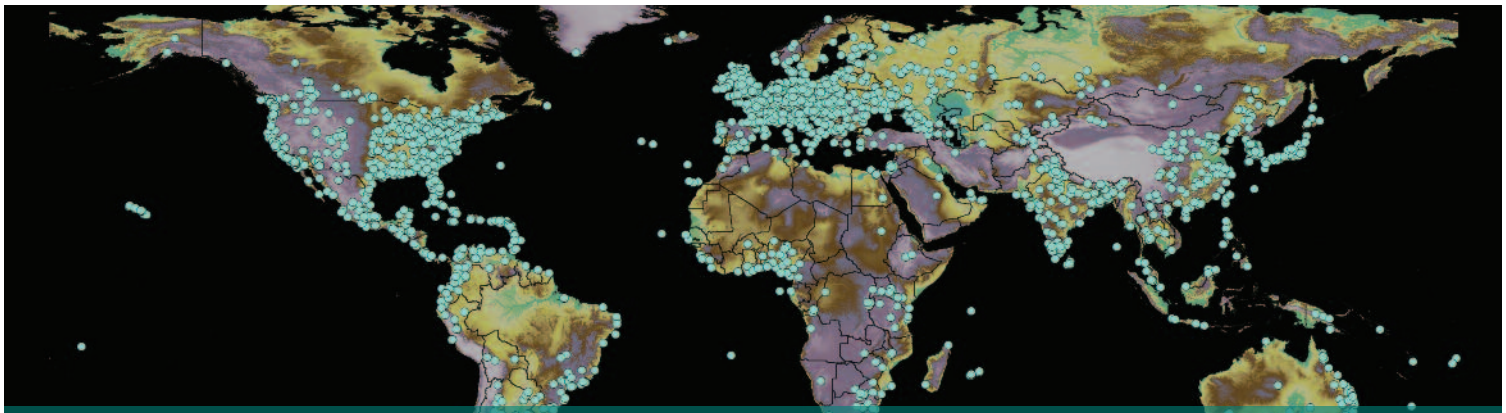
Most of the policy, planning and review architecture already exists, as indicated above. In addition, BGCI itself sits at the centre of a network of 500 botanic gardens in more than 100 countries around the world, which includes:

- Globally significant *ex situ* collections, covering at least one third of total plant diversity;
- World class seed bank, glasshouse and tissue culture infrastructures;
- Technical knowledge/skill networks, such as the Millennium Seed Bank Partnership, the Ecological Restoration Alliance, the Plant Conservation Alliance, the Center for Plant Conservation, and so on;
- A global database of *ex situ* collections held in botanic gardens around the world (PlantSearch);
- Collection characterisation data sources and tools such as the Millennium Seed Bank's Data Warehouse, the Atlas of Living Australia, the UK Germination Toolbox etc;
- Hubs of excellence in informal education and public engagement.

However, substantial investment will be required to build a fully functioning Global System that can prevent species extinctions in perpetuity. In particular, we in the botanic gardens sector need to:

- Organize ourselves as a professional community, and promote our unique skills to policy makers, funders and other stakeholders;
- Promote and prioritize plant conservation and use in botanic gardens;
- Focus botanic garden efforts on the rarest, most threatened and challenging species;
- Work with other sectors (e.g. forestry, horticulture, agriculture and *in situ* conservationists);
- Facilitate plant conservation action in broader society through stimulating public dialogue, creating opportunities for participation in local and global conservation efforts and provision of education, tools and information;
- Compile and share information and data relevant to plant conservation within and beyond the botanic garden community.

Barney Wilczak



4. Building the Global System

Sitting at the centre of a network of botanic gardens in over 100 countries, including the largest and most influential gardens in our sector, BGCI is in a prime position to promote a more efficient, cost-effective and rational approach to plant conservation in botanic gardens.

Christopher K. Willis

We will do this in four ways by:

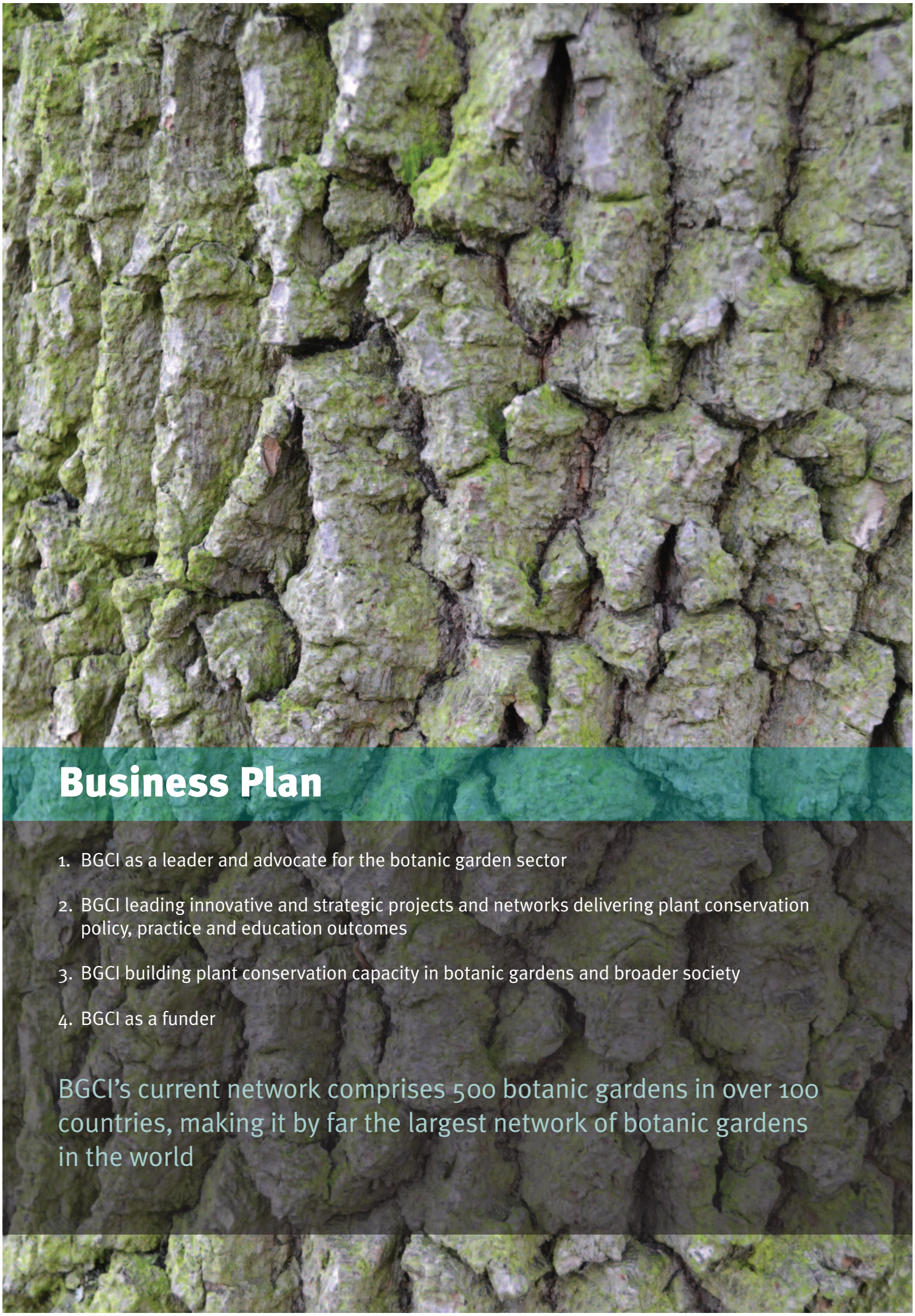
- **Leading and advocacy:** We will provide leadership to the botanic gardens sector, grow our membership, and promote the role of botanic gardens to policymakers and funders in delivering the GSPC (see **Annex 2**);

- **Leading innovative and strategic projects achieving outcomes in plant conservation policy, practice and education.** BGCI will lead projects and networks delivering GSPC targets in red listing (Target 2), seed conservation (Targets 8 & 9), ecological restoration (Targets 4 & 8), plant health and biosecurity (Target 10), ecosystem services and livelihoods (Targets 12 & 13) and education (Target 14);

- **Building plant conservation capacity in botanic gardens and broader society:** We will build technical capacity in the botanic garden sector and beyond by acting as a knowledge hub and a clearing house for best practice, training, resources and expertise (Targets 3 and 15);

- **Providing funding:** We will accelerate our fundraising efforts in order to mobilise funding to deliver plant conservation projects and outcomes in the botanic gardens sector and wider society.

Further details are provided in the Business Plan, below.



Business Plan

1. BGCI as a leader and advocate for the botanic garden sector
2. BGCI leading innovative and strategic projects and networks delivering plant conservation policy, practice and education outcomes
3. BGCI building plant conservation capacity in botanic gardens and broader society
4. BGCI as a funder

BGCI's current network comprises 500 botanic gardens in over 100 countries, making it by far the largest network of botanic gardens in the world

1. BGCI as a leader and advocate for the botanic garden sector

BGCI's current network comprises 500 botanic gardens in over 100 countries, making it by far the largest network of botanic gardens in the world. BGCI's position at the centre of this network, its policy track record, and its data, place the organisation in an excellent position to assess, monitor and co-ordinate the contribution that botanic gardens make to plant conservation, progress towards the delivery of the GSPC targets and the establishment of the Global System. BGCI will:

- Broaden BGCI's membership, particularly in developing countries and parts of the world where there are language or cultural barriers;
- Further develop BGCI's PlantSearch, GardenSearch, tree list and threatened plants list into the most comprehensive global data sources available to enable us to assess and monitor the contribution of botanic gardens to Target 8 of the GSPC and broader plant conservation and use efforts;
- Co-ordinate the development of a rational, cost-effective Global System by assessing the contribution and performance of botanic gardens and related institutions against the GSPC targets, and identifying gaps in knowledge, resources and other constraints;
- Work with the CBD Secretariat, the Global Partnership for Plant Conservation, the Biodiversity Indicators Partnership, the Intergovernmental Platform on Biodiversity and Ecosystem Service and other bodies to promote the GSPC and the role of botanic gardens in delivering its targets;
- Celebrate, recognise and share excellence in plant conservation policy, practice and public engagement in botanic gardens.

Luis Roberto Gonzalez Torres

Chicago Botanic Garden

The major outcomes by 2020 will be:

1. BGCI Membership is increased to over 1000 botanic garden members;
2. BGCI's International Advisory Council is recognised as the senior voice of the botanic garden professional community;
3. BGCI maintains its position as the global authority on Target 8 of the GSPC, leads data sharing initiatives among botanic gardens, and will publish a major review on progress towards Target 8;
4. Plant conservation is visible in a post-2020 CBD strategy;
5. BGCI's threatened plants list is developed into the most comprehensive list of threatened plant taxa in the world and made available to users on our website as 'ThreatSearch' and as a resource for global plant conservation efforts;
6. Botanic gardens' contribution to the GSPC targets are quantified, and gaps in effort and knowledge are identified enabling training, data sharing and project implementation efforts to be targeted accordingly (see sections 2-4 below);
7. Formal alliances are developed with policymakers, such as the international convention secretariats (e.g. CBD, CITES), and subsidiary technical bodies such as SBSTTA, IPBES and BIP;
8. BGCI awards and prizes for plant conservation excellence are established at BGCI Congresses and other venues;
9. Alliances are developed with other land use sectors managing plant diversity, including forestry, agriculture, horticulture, other *ex situ* conservation networks and *in situ* conservation practitioners;
10. The contribution of BGCI and botanic gardens to the Sustainable Development Goals (SDGs) is identified, recognised and publicised.

2. BGCI leading innovative and strategic projects and networks delivering plant conservation policy, practice and education outcomes

BGCI's members include the largest and most influential gardens in the sector, and the network has a strong track record of plant conservation action, creating a powerful springboard for scaling up. Building on 25 years of experience and momentum, BGCI will lead projects and partnerships achieving outcomes in plant conservation policy, practice and education. Using the Global Strategy for Plant Conservation (GSPC) as a strategic framework (**Annex 2**), BGCI will deliver GSPC targets in red listing (Target 2), seed conservation (Targets 8 & 9), ecological restoration (Targets 4 & 8), plant health and biosecurity (Target 10), ecosystem services and livelihoods (Targets 12 & 13), tree conservation (all Targets) and education (Target 14). We will:

- Develop projects and specialist networks within the broader botanic gardens community with key skills in plant conservation policy, practice and education;
- Promote links to, and work with, other sectors including agriculture, forestry, horticulture and *in situ* conservation practitioners;
- Lead the Global Tree Assessment, working closely with the IUCN Global Tree Specialist Group and as members of IUCN's Red List Partnership;
- Collate national, regional and global threat assessments for plants into a comprehensive list of threatened plants towards achieving Target 2 of the GSPC;
- Launch and promote the Global Seed Conservation Challenge in order to accelerate seed banking efforts in botanic gardens, prioritising rare, threatened and useful species (Targets 8 & 9);
- Lead and co-ordinate the Ecological Restoration Alliance of Botanic Gardens, carrying out restoration projects across five continents and in at least 100 different habitats and cultural contexts;
- Lead and promote the International Plant Sentinel Network as a global early warning system for plant pests and diseases;
- Develop a suite of projects aimed at bringing botanic gardens' horticultural expertise to bear on cultivating useful species for the delivery of provisioning, regulating and cultural ecosystem services for sustainable livelihoods;
- Co-lead, with Fauna & Flora International, the Global Trees Campaign aiming to prevent all tree extinctions;
- Develop a suite of projects delivering best practice science communication, innovative public engagement methodologies and high quality education research and evaluation.

The major outcomes by 2020 will be:

1 Specialist networks are developed within BGCI's network for red listing, seed and *ex situ* conservation, ecological restoration, plant health, tree conservation, science communication and public engagement. Best practice projects are showcased through BGCI's website, congresses, events and specialist meetings;

2 BGCI's tree list is developed into the most comprehensive global list of tree taxa and made available to users on our website as 'GlobalTreeSearch' and as a resource for global tree conservation efforts;

3 BGCI's threatened plants list is developed into the most comprehensive list of threatened plant taxa in the world and made available to users on our website as 'ThreatSearch' and as a resource for global plant conservation efforts;

4 Conservation assessments are carried out for all tree species through the Global Tree Assessment (GTA);

5 200 gardens sign up to the Global Seed Conservation Challenge, and seed from threatened species is doubled in botanic gardens by 2020;

6 The Ecological Restoration Alliance, comprising at least 50 botanic garden members and 100 long term restoration sites, provides demonstration of best practice in ecological restoration for biodiversity conservation, ecosystem services and livelihoods;

7 Exceptional species conservation is advanced by the global botanic garden community and *ex situ* protocols are developed for at least 10% of threatened exceptional species;

8 The International Plant Sentinel Network early warning system is fully operational with member gardens in 40 countries and engages additional partners from both international and national plant health institutes (including National Plant Protection Organisations);

9 No tree extinctions on our watch! A zero extinction Global Trees Campaign strategy is developed and implemented for the world's most threatened trees, in collaboration with FFI, BGCI's member gardens and other partners;

10 Communities in Nature: A Community of Practice is established consisting of 25 mentor botanic gardens and 25 beneficiary botanic gardens around the world registered as part of an online community, and working together;

11 A global toolkit for science communication in botanic gardens is developed;

12 A suite of plant conservation projects are implemented by BGCI focussing on socio-economically and culturally important threatened plant species.

3. BGCI building plant conservation capacity in botanic gardens and broader society

Although BGCI's network already includes the world's leading botanic gardens, state of the art infrastructures, world class collections, data, skills and expertise, it is (a) not comprehensive, and (b) distribution of those resources is patchy and inconsistent. BGCI will work with its members to build capacity within the botanic garden professional community. In addition, although many botanic gardens do manage native plant assemblages and natural landscapes, the areas of land they manage are tiny compared to the *in situ* conservation, agricultural, horticultural and forestry sectors. In farming and forestry, in particular, the vulnerability of monocultures to novel pests and diseases over the past few decades, has created a strong imperative to work with more complex species assemblages and broader genetic diversity. The result is that these sectors need the skills and knowledge that reside in botanic gardens. In turn, botanic gardens see the need to work with broader society to ensure that plant diversity is valued, protected and grown in all landscapes. To this end, BGCI will:

- Promote and disseminate best practice across the network through our website, congresses, events and specialist meetings;
- Re-structure BGCI's website to disseminate information in technical areas: case studies, training tools and resources, key references, registers of facilities and expertise (e.g. e-learning, training courses, tools, materials);
- Develop BGCI materials, information services and practical support for existing and new botanic gardens focusing on specific geographic areas where there are significant gaps in knowledge and capacity;
- Further develop BGCI's PlantSearch, GardenSearch, tree list and threatened plants list to support plant conservation prioritization efforts worldwide.
- Further develop vocational training courses and e-learning in knowledge gaps (e.g. CITES, seed conservation, science communication and education, education research and evaluation etc.);
- Facilitate the sharing of knowledge, skills, data, collections and infrastructures across the network, including facilities and data platforms;
- Offer an auditing and accreditation service for botanic gardens carrying out high quality conservation work.

The major outcomes by 2020 will be:

1. A full suite of support materials and resources on policy and statutory compliance is available via the BGCI website, including ABS, CITES, biosecurity/plant health, invasive species, tree safety etc;
2. BGCI's new Botanic Garden Manual is established as the basis for capacity building in botanic garden development and management;
3. A full suite of support materials, resources and training is available via the BGCI website covering red listing, *ex situ* conservation, ecological restoration, plant health & biosecurity, tree conservation and, where applicable, how these relate to sustainable livelihoods;
4. An online library of support materials, resources and training is available, via the BGCI website, covering research and evaluation, interpretation, science communication and working with different audiences;
5. BGCI's website and key information is available in Spanish, French, Chinese and other languages, as appropriate;
6. PlantSearch is updated and provides a unique and comprehensive tool to support plant collection exchange and management, conservation prioritisation, and data sharing;
7. GardenSearch is improved and updated as the most comprehensive source of information on botanic garden infrastructures and expertise;
8. BGCI's threatened plants list is developed into the most comprehensive list of threatened plant taxa in the world and is made available to users on our website as 'ThreatSearch' and as a resource for global plant conservation efforts;
9. BGCI's tree list is developed into the most comprehensive global list of tree taxa is and made available to users on our website as 'GlobalTreeSearch' and as a resource for global tree conservation efforts;
10. At least 100 people per year are formally trained by BGCI in plant conservation policy, practice and public engagement, prioritising identified geographical areas and knowledge gaps, and benefiting from using e-learning tools including webinars;
11. BGCI's accreditation scheme for excellence in plant conservation practice is established, and becomes the benchmark for conservation excellence in botanic gardens;
12. A Research and evaluation methodology is established to improve the quality of public engagement delivered through BGCI's collaboration with botanic gardens;
13. The global botanic garden network is mobilised to provide mutual support and capacity building through the development of a programme of botanic garden partnerships, mentoring and twinning.

4. BGCI as a funder

BGCI funds projects and training all around the world, equivalent to ten times what it receives in subscriptions from its members. Over the next five years BGCI will:

- Develop and implement a US$30 million campaign, incorporating a broad portfolio of funders: trusts & foundations, individual funders, research funders, corporate sponsors and support from the general public;
- Establish an international plant conservation endowment fund in order to provide consistent, reliable funding support for plant conservation efforts in the network;
- Work with member botanic gardens to develop prospectuses, show and tell portfolios, and fundraising events, excursions and materials;
- Mobilise funds and resources to deliver projects and targeted plant conservation outcomes.

Alan Hamilton

Curitiba Botanic Garden

Fernando M. Fernandez

Antonina Shmaraeva

The major outcomes by 2020 will be:

1 Funding raised by BGCI is doubled compared to 2015 levels, and operational funding is directed at gaps in effort and knowledge towards achieving the GSPC targets and other priorities for botanic gardens and society.

2 BGCI's international plant conservation endowment fund delivers regular income enabling targeted support for plant conservation in the botanic garden network, including resources towards the establishment of new gardens and for supporting innovation.

Annex 1:
BGCI's goal and top 15 commitments by 2020

Overall goal by 2020

To engage our network of botanic gardens in over 100 countries around the world to ensure that no plant species becomes extinct, and to secure all plants for biodiversity, ecosystem services and human livelihoods.

BGCI's 15 headline commitments by 2020

BGCI as a leader and advocate for the botanic garden sector

1. BGCI Membership is increased to over 1000 botanic garden members.
2. BGCI's International Advisory Council is recognised as the senior voice of the botanic garden professional community.
3. BGCI maintains its position as the global authority on Target 8 of the GSPC, leads data sharing initiatives among botanic gardens, and will have published a major review on progress towards Target 8.

BGCI leading innovative and strategic projects delivering plant conservation policy, practice and public engagement

4. BGCI's tree list is developed into the most comprehensive global list of tree taxa and made available to users on our website as 'Global TreeSearch' and as a resource for global tree conservation efforts.
5. Conservation assessments are carried out for all tree species through the Global Tree Assessment (GTA).
6. 200 gardens sign up to the Global Seed Conservation Challenge, and seed from threatened species is doubled in botanic gardens by 2020.
7. The Ecological Restoration Alliance comprising at least 50 botanic garden members, and 100 long term restoration sites, provides demonstration of best practice in ecological restoration for biodiversity conservation, ecosystem services and livelihoods.
8. The International Plant Sentinel Network early warning system is fully operational with member gardens in 40 countries and engages additional partners from both international and national plant health institutes (including National Plant Protection Organisations). →
9. No tree extinctions on our watch! A zero extinction Global Trees Campaign strategy is developed and implemented for the world's most threatened trees, in collaboration with FFI.
10. Communities in Nature: A Community of Practice is established consisting of 25 mentor botanic gardens and 25 beneficiary botanic gardens around the world registered as part of an online community, and working together.

BGCI building plant conservation capacity in botanic gardens and broader society

11. A full suite of support materials, resources and training is available, via the BGCI website, covering plant conservation policy, practice and public engagement.
12. At least 100 people per year are formally trained by BGCI in plant conservation policy, practice and public engagement, prioritising identified geographical areas and knowledge gaps, and benefiting from using e-learning tools including webinars.
13. BGCI's accreditation scheme for excellence in plant conservation practice is established, and becomes the benchmark for conservation excellence in botanic gardens.
14. A Research and evaluation methodology is established to improve the quality of public engagement delivered through BGCI's collaboration with botanic gardens.

BGCI as a funder

15. Funding raised by BGCI is doubled compared to 2015 levels, and is directed at gaps in effort and knowledge directed to achieving the GSPC targets.

Annex 2:
The targets of the Global Strategy for Plant Conservation (2011-2020)

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

Target 1: An online flora of all known plants.

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

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

Objective II: Plant diversity is urgently and effectively conserved

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

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

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

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

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

Target 9: 70 per cent of the genetic diversity of crops including their wild relatives and other socio-economically valuable plant species conserved, while respecting, preserving and maintaining associated indigenous and local knowledge.

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

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

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

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

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

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

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

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

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

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

BGCI
Plants for the Planet

Botanic Gardens Conservation International

Descanso House, 199 Kew Road,
Richmond, Surrey, TW9 3BW, U.K.

Tel: +44 (0)20 8332 5953
Fax: +44 (0)20 8332 5956
E-mail: info@bgci.org
Internet: www.bgci.org

BGCI (US)

Chicago Botanic Garden,
1000 Lake Cook Road,
Glencoe, IL 60022, USA.

Tel: +1 847 835 6971
E-mail: usa@bgci.org
Internet: www.bgci.org/usa

BGCI (China)

South China Botanical Garden,
1190 Tian Yuan Road,
Guangzhou, 510520, China.

Tel: +86 20 85231992
E-mail: china@bgci.org
Internet: www.bgci.org/china

BGCI is an independent organisation registered in the United Kingdom as a charity (Charity Reg. No. 1098834) and a company limited by guarantee (No. 4673175). BGCI (US) is a tax exempt 501(c)(3) non-profit organisation in the USA.

Front Cvoer Image: Barney Wilczak
Design: www.seascapedesign.co.uk