

# Botanic Gardens Conservation International (BGCI)



An overview of BGCI's  
programme of work

and its role in the project:

'Conserving Eden –  
Participatory forest  
management in the Tien Shan  
region'

Joachim Gratzfeld  
Director of Regional Programmes  
Botanic Gardens Conservation International



**BGCI**  
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# In this presentation

- BGCI organisational overview
- BGCI's key areas of work
- Conserving Eden – Participatory forest management in the Tien Shan region – BGCI's role in this project



# What BGCI stands for

A global membership organisation with over 500 garden members in 118 countries that aims:

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

BGCI member in Kyrgyzstan:

**Botanical Garden of the Kyrgyz Academy of Sciences, Bishkek**

# Establishment of BGCI

Founded in 1979 under the auspices of the Species Survival Commission of IUCN as Botanic Gardens Conservation Coordinating Body.

Initial aims – still very much relevant today:

- Establish where and which globally threatened plant species are represented in *ex situ* collections;
- Enhance membership and strengthen relations between botanic gardens around the world.

# Locations

- Headquartered at Royal Botanic Gardens Kew, UK

- Regional representation:

- US: Chicago Botanic Gardens

- Singapore: Singapore Botanic Gardens

- China: South China Botanical Garden, Guangzhou

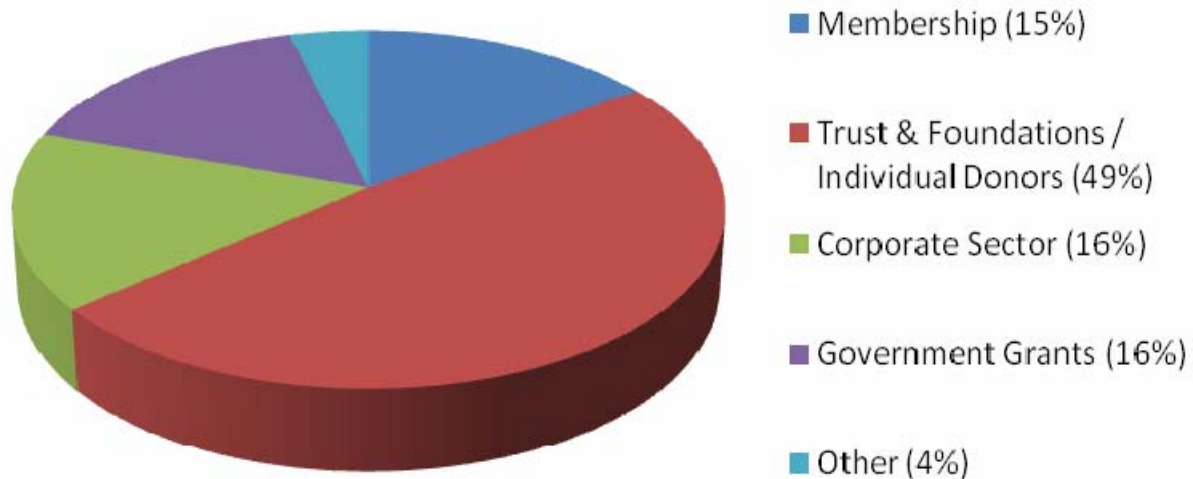
- Russia: Main Botanical Garden, Moscow

- Kenya: IUCN East and Southern Africa Office, Nairobi

- 16 staff – a small organisation for an ambitious task



# Main sources of funding (2008)



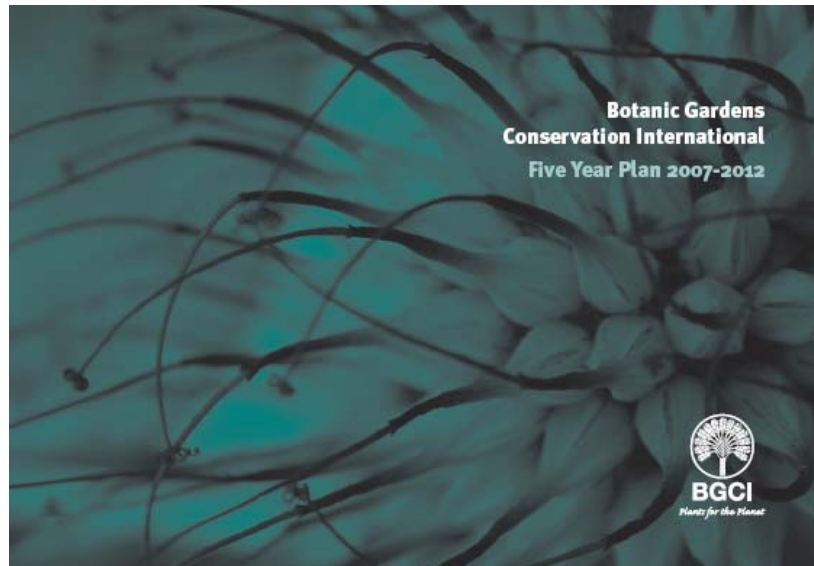
# How BGCI defines a 'Botanic Garden'

'Botanic Gardens are institutions holding documented collections of living plants for the purposes of scientific research, conservation, display and education'  
(Wyse Jackson, 1999)'



# Main areas of work

## BGCI's Five Year Plan 2007–2012



- Securing plant diversity
- Enabling people and botanic gardens
- Influencing decision-making and policy

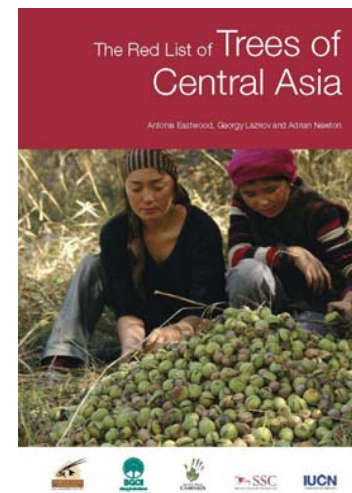
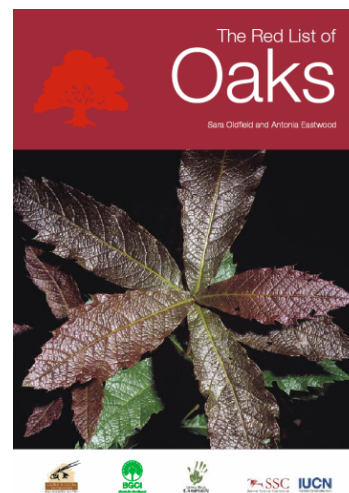


# 1. Securing plant diversity

- Plant conservation status assessments and Red Listing, and *ex situ* collection surveys of botanic gardens and arboreta around the world
- Linking conservation status assessments and action on-the-ground – working with botanic gardens to advance *ex situ* conservation as well as reintroduction programmes
- Integration of *ex* and *in situ* conservation linking the safeguard of plants and livelihoods of local communities

# Global and regional conservation status assessments/Red Listing

- In collaboration with FFI, Global Trees Campaign and IUCN SSC
- BGCI hosts the Secretariat for the IUCN SSC Global Tree Specialist Group

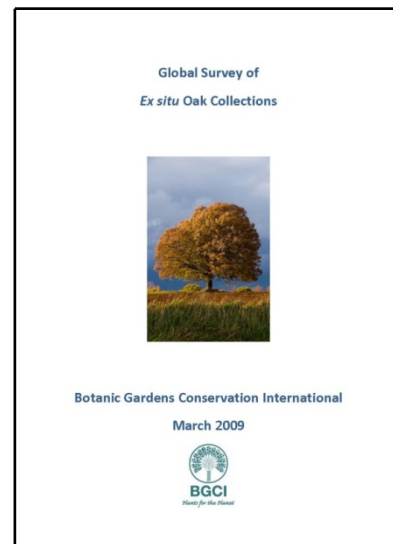
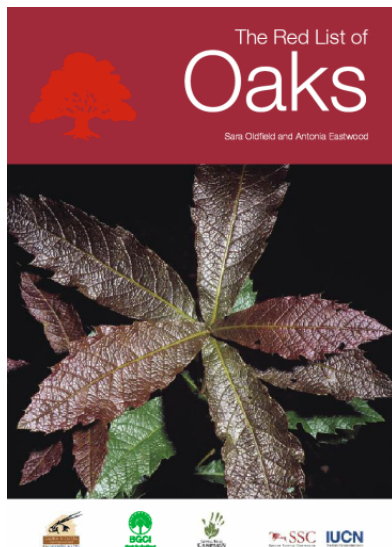


## Recent examples:

- Global Red List of Magnoliaceae
- Global Red List of *Quercus*
- Red List of Trees of Central Asia
- Global Red List of *Acer* (in preparation)
- Global Red List of *Rhododendron* (in preparation)
- North Andes montane tree Red List (in preparation)

# Ex situ collection surveys to further inform conservation priorities

- Assessing gaps pertaining to globally threatened plants in *ex situ* collections in botanic gardens and arboreta
- Using BGCI's global databases – PlantSearch / GardenSearch – to inform and update status of threatened plants in cultivation



**Plant search**

Locate rare and threatened plant species in cultivation around the world using our unique PlantSearch database. This database is compiled from lists of living collections submitted to BGCI by the world's botanic gardens. The database presently includes over 575,000 records.

Information on threat status of each taxa is provided by a direct link to IUCN's 1997 and 2006 Red Lists. Further nomenclatural and bibliographic information is provided through the link to the TROPICOS database maintained by the Missouri Botanic Garden. Additional references are available in the [Listing of Plants of the World](#) section provided by our link to the Australian New Crops website.

The database is also linked to lists of medicinal plants, crop wild relatives and CITES listed plants. Enter terms in as many - or as few - fields as you like.

**Search for plants:**

Genus:  IUCN Red List 2006:

Species:  IUCN Red List 1997:

Epithet:

Crop Wild Relative:

Medicinal plants

New Zealand threatened plants

Mexican threatened plants

CITES list

TCD list

**Search by conservation status:**

[Which IUCN list should I choose?](#)

**PLEASE NOTE:** To protect rare and valuable plants, the garden locations of plant species cannot be revealed. You can contact gardens via BGCI using the 'Request More Info' link in the results. [Find out more](#)

We found 1 matches

#	Plant Name	No. found in BGs worldwide	IUCN Red List 2006	IUCN Red List 1997	IPB	Images on Google	Tropicos	CVR	Plants of the World	Alpine Species	CITES Appendix	Contact Gardens
1	Quercus pontica	49	-	-	-	<a href="#">LOOK UP</a>	<a href="#">SEARCH</a>	<a href="#">LOOK UP</a>	<a href="#">LOOK UP</a>	<a href="#">LOOK UP</a>	<a href="#">SEND REQUEST</a>	

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Enter terms in as many - or as few - fields as you like.

**Search for plants:**Genus: Species: Epithet: Crop Wild Relative: 

- Medicinal plants
- New Zealand threatened plants
- Mexican threatened plants
- CITES list
- TCD list
- GTC list

**Search by conservation status:**IUCN Red List 2006: IUCN Red List 1997: [Which IUCN list should I choose?](#)

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[Find out more](#)**Search Plants**

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1	Abies semenovii	1	-		<a href="#">Look Up</a>	<a href="#">Search</a>	<a href="#">Look Up</a>	-	<a href="#">Look Up</a>	<a href="#">Look Up</a>		<a href="#">Send Request</a>

# Linking conservation status assessments and action on-the-ground – working with botanic gardens to advance *ex situ* conservation and reintroduction programmes

- For example:
- Magnoliaceae – China, Cuba, Columbia
  - *Bretschneidera sinensis* – China
  - *Aquilaria crassna* – Cambodia
  - *Ardisia gigantifolia* – Vietnam
  - *Cibotium barometz* – Indonesia



*Cibotium barometz*,  
Java



*Aquilaria crassna* nursery,  
southern Cambodia



*Dipteronia dyeriana* planting,  
Yunnan, China

# Integration of *ex* and *in situ* conservation linking the safeguard of plants and livelihoods of local communities

- Goal: Demonstrating local conservation and management of wild plants which support and enhance the well-being of communities who depend on these resources
- Stakeholder (representatives of local communities and authorities) engagement workshops, as pilot initiatives in Uganda and Madagascar;
  - Focus on wild medicinal and nutritional plants;
  - Development of approaches for botanic gardens in support of the integration of plant conservation and livelihoods improvement.



## 2. Enabling people and botanic gardens

- Environmental education and public outreach
- Training and capacity building in education in botanic gardens and botanic garden management and development
- Convening the global botanic garden network
  - Global Botanic Garden Congress
  - International Congress on Education in Botanic Gardens
  - Supporting regional and national networks

# Environmental education and public outreach – resources



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email newsletter.

[Education](#) > Useful Education Resources

## Useful Education Resources

There is a huge range of materials and resources available for those working in the environmental education and education for sustainability fields. We have selected (and created) resources of particular interest to educators in botanic gardens; use the links below to explore. If there are any glaring gaps or recent developments that we should add, [please let us know](#).

### BGCI Education Publications

[Environmental Education in Botanic Gardens: Guidelines for individual strategies](#)

[Education for Sustainable Development: Guidelines for Action in Botanic Gardens](#)

[Roots - the Botanic Garden Education Review](#)

[Other key readings for botanic garden educators](#)

[Results of member's survey on BGCI's resources](#)

### BGCI education blog

For the latest in ramblings about what is going on in BGCI's education department, [check our blog](#) and sign up to updates.

### Website links for botanic gardens educators



## Target 14: Communicating the Importance of Plant Diversity



This PDF leaflet is for raising awareness about Target 14 of the GSPC. A crucial element of conservation is educating the public and communicating the importance of plants. The leaflet is free to download and print yourself, or you can contact BGCI to discuss distribution of large batches.



# Environmental education and public outreach – resources



'Conserving Eden'; project inception mission, Kyrgyzstan, July 13-24, 2009



# EDUCATION E-UPDATE

The latest in plant conservation education news from BGCI

June 2009

## Arts, Plants, and Education

In the past month, we've received a flurry of announcements and updates from botanic gardens around the world about current and upcoming art exhibitions. While some may argue that art exhibitions have little to do with plant-based education, we see art as another powerful entry point for introducing your visitors to the fantastic world of plants and the need for their conservation. In this month's 'In the Spotlight', you will find examples of art exhibitions taking place at botanic gardens around the world. [Send us information](#) about art exhibitions at your botanic garden or education site, and we'll include it in an upcoming *Education E-update*.

Best wishes,  
The BGCI Education Team  
[education@bgci.org](mailto:education@bgci.org) (for general education enquiries to BGCI)  
[e-update@bgci.org](mailto:e-update@bgci.org) (for *Education E-update* enquiries)

## Education News From Around the World

**International Education Congress programme now available:** Find out who's presenting at BGCI's Education Congress in Durban, South Africa, this November by logging onto the [Congress website](#). This exciting programme will actively engage you in listening, debating and hands-on activities. The Congress runs from 1-5 November, and on the Wednesday we will be spending the day at Durban Botanic Gardens where delegates can participate in a range of stimulating and engaging workshops on practical education methods used in botanic gardens. And hurry, the deadline for

## In the Spotlight

*Art exhibitions are just one means for drawing new visitors to your botanic garden or education site. While they may be initially drawn to the art on display, visitors will also be open to learning more about plants in your garden and your site's education programmes. Here is a sample of art exhibitions happening at botanic gardens around the world.*

*Toledo Botanical Garden (USA): 2009 marks the 44th year of the [Toledo Botanical Garden's](#) Crosby Festival of the Arts. In addition to artwork by more than 230 artists, visitors will enjoy live entertainment, food, and children's activities.*

*University of Leicester Botanic Garden (UK): From July to September, the Royal British Society of Sculptors presents 'Sculpture in the Garden' at the [University of Leicester's Harold Martin Botanic Garden](#). The works of 44 UK and international artists will be on display.*

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# Training and capacity building in environmental education and botanic garden management

- International Diploma on Education in Botanic Gardens
  - International Diploma in Botanic Garden Management
- both courses in collaboration with Royal Botanic Gardens Kew



'Conserving Eden'; project inception mission, Kyrgyzstan, July 13-24, 2009

# Convening the global botanic garden network

## 7<sup>th</sup> International Congress on EDUCATION IN BOTANIC GARDENS

1 – 6 November 2009,  
Durban Botanic Gardens,  
South Africa





Join us in South Africa 2009 for  
**BGCI's 7th International Congress on  
Education in Botanic Gardens**

Action learning: places, spaces and partnerships  
for biodiversity and human well-being

**Durban Botanic Gardens**  
1st - 6th November 2009

- Achieving the GSPC and MDGs through education
- Ways of learning towards environmental justice
- Climate change and botanic gardens: interpretation for action
- The Decade of ESD: plants, sustainability, education & culture

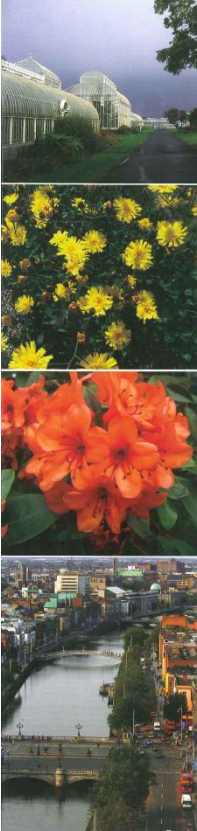
To register your interest in the congress visit  
[www.ebg2009.org.za](http://www.ebg2009.org.za)



# Convening the global botanic garden network

## 4<sup>th</sup> Global Botanic Garden Congress: ADDRESSING GLOBAL CHANGE – A NEW AGENDA FOR BOTANIC GARDENS

13 – 18 June 2010,  
National Botanic Gardens Glasnevin,  
Dublin, Ireland



Announcement

4<sup>th</sup> Global Botanic  
Gardens Congress

Addressing global change:  
a new agenda for botanic gardens

13<sup>th</sup> - 18<sup>th</sup> June 2010, Dublin, Ireland

Organised by Botanic Gardens Conservation International  
& the National Botanic Gardens of Ireland  
Supported by the Office of Public Works,  
Government of Ireland

OPW  
The Office of Public Works  
Works with the World

BGCI  
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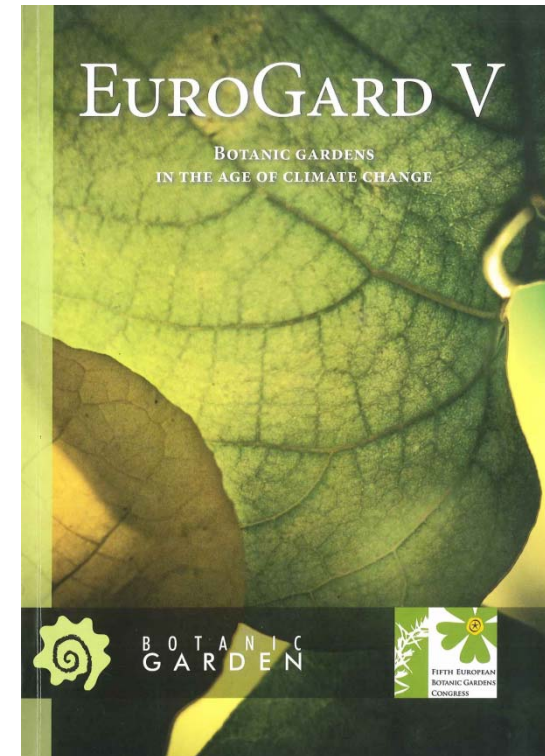
national  
botanic  
gardens  
of Ireland

www.4GBGC.com

# Convening and supporting regional and national botanic garden networks

## 5<sup>th</sup> European Botanic Garden Congress, EuroGard V: BOTANIC GARDENS IN THE AGE OF CLIMATE CHANGE

8 – 12 June 2009,  
Botanic Garden of University of Helsinki

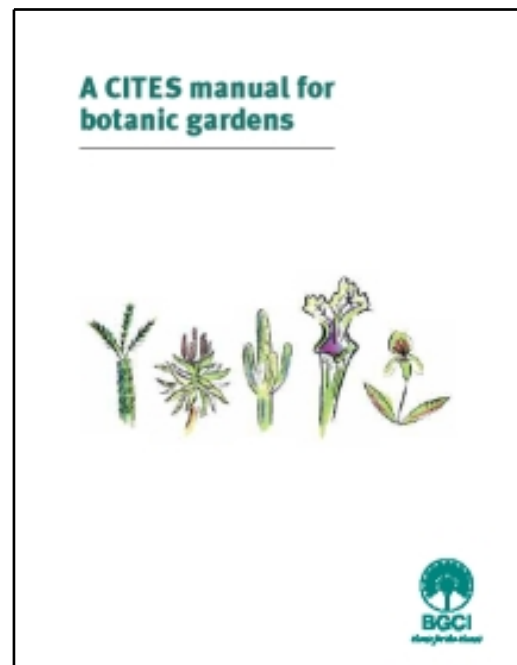
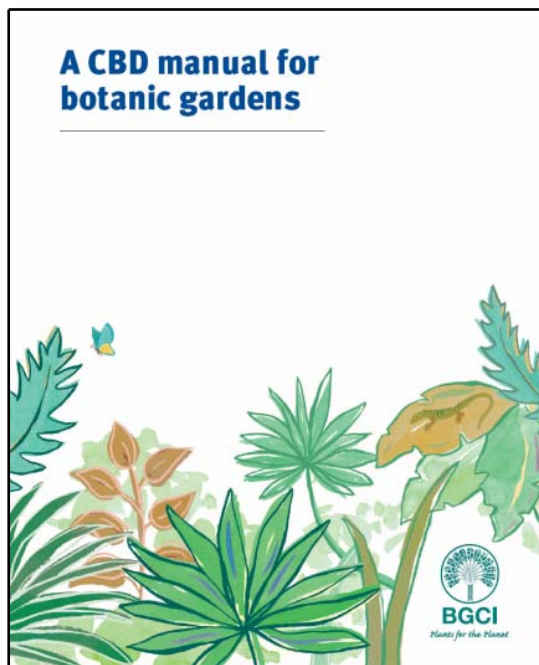


# 3. Influencing decision-making and policy

- Information and advice on biodiversity policy and regulations relevant to botanic gardens
- Emphasis on the promotion, implementation and further development of the **Global Strategy for Plant Conservation (GSPC)** of the Convention on Biological Diversity (CDB)

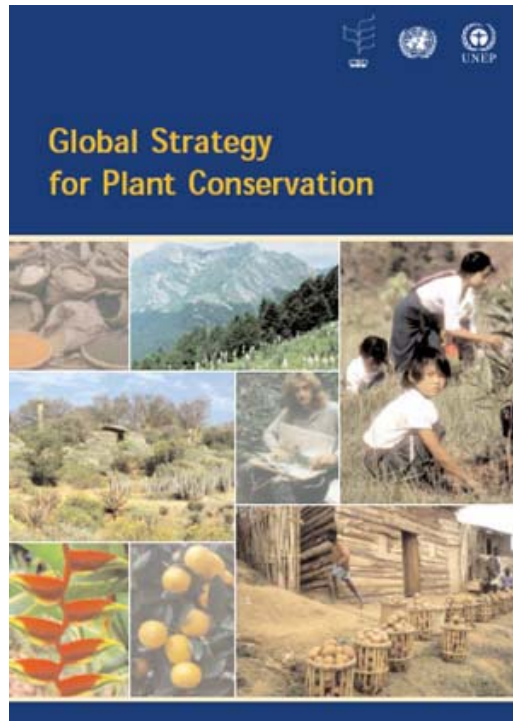
# Information and advice on biodiversity policy and regulations relevant to botanic gardens

E.g.: Convention on Biological Diversity (CBD)  
Convention on International Trade in Endangered Species (CITES)



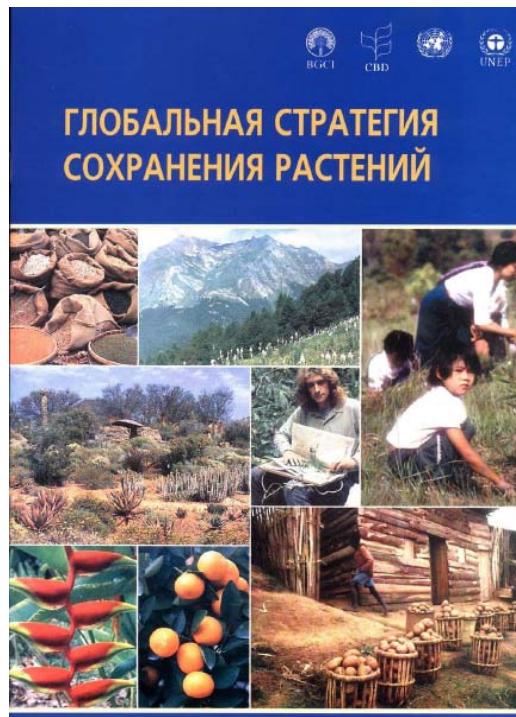


# Support the promotion, implementation and further development of the Global Strategy for Plant Conservation (GSPC)



- Adopted at the 6<sup>th</sup> Conference of the Parties to the Convention on Biological Diversity (CBD) in 2002
- Goal: halt the current and continuing loss of plant diversity
- Provides a model on how measures can be taken on to contribute to the **Biodiversity Target** agreed at the World Summit on Sustainable Development (WSSD) in Johannesburg, South Africa in 2002
- Status of and achievements in the implementation of the GSPC will be reported at the 10<sup>th</sup> Conference of the Parties to the CBD, Nagoya, Japan, 18 – 29 October 2010

# Main features of the Global Strategy for Plant Conservation (GSPC)



- 16 Targets relating to specific goals within five areas
- First ever internationally agreed targets in biodiversity conservation policy
- Recognised as an innovative model to target setting in biodiversity conservation
- Unique integration of national and international initiatives in plants conservation, connecting governmental and non-governmental partners – scientific institutions and policy making authorities

## Global Strategy for Plant Conservation 2010 Targets

1. A working list of all known plant species
2. A preliminary assessment of the conservation status of all known plant species
3. Models with protocols for plant conservation and sustainable use
4. 10% of each of the world's ecological regions conserved
5. 50% of the most important areas for plant diversity protected
6. 30% of production lands managed consistent with plant diversity conservation
7. 60% of the world's threatened species conserved *in situ*
8. 60% of threatened plants *in ex situ* collections and 10% of them in recovery programmes
9. 70% of the genetic diversity of the major socio-economically important plants conserved
10. Management plans in place for at least 100 major alien species that threaten plants
11. No species of wild flora endangered by international trade
12. 30% of plant-based products derived from sustainably managed sources
13. Decline of plant resources, and associated indigenous and local knowledge that support livelihoods, halted
14. Education and awareness about plant diversity promoted
15. Capacity built for the conservation of plant diversity
16. Networks for plant conservation established and strengthened

## Scope of the Global Strategy for Plant Conservation

- Understanding and documenting plant diversity (Targets 1, 2 and 3)
- Conserving plant diversity (Targets 4, 5, 6, 7, 8, 9 and 10)
- Using plant diversity sustainably (Targets 11, 12 and 13)
- Promoting education and awareness about plant diversity (Target 14)
- Capacity building for plant diversity (Targets 15 and 16)



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# GSPC Targets of particular relevance to botanic gardens

- **Target 8:**

60% of threatened plant species in accessible ex-situ collections, preferably in the country of origin and 10% of them included in recovery and restoration programmes

- **Target 14:**

The importance of plant diversity and the need for its conservation incorporated into communication, educational and public-awareness programmes

- **Target 15:**

The number of trained people working with appropriate facilities in plant conservation increased, according to national needs, to achieve the targets of this strategy

- **Target 16:**

Networks for plants conservation activities established or strengthened at national, regional and international levels



Of particular relevance in the context of Kyrgyzstan and the project 'Conserving Eden':

- **Target 9:**

70% of the genetic diversity of crops and other major socio-economically valuable plant species conserved and associated indigenous and local knowledge maintained

## Institutional mechanisms to implement the Global Strategy for Plant Conservation

- International GSPC Liaison Group meetings
- National GSPC focal points
- Global Partnership for Plant Conservation (GPPC) – secretariat hosted by BGCI
- CBD Secretariat, including a GSPC Programme Officer (funded by BGCI)

**The Global Partnership  
for Plant Conservation**



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# Role of BGCI pertaining to the Global Strategy for Plant Conservation

- Involved in conception
- Supported development, adoption and implementation
- Staff member on secondment to the CBD Secretariat
- Mobilised resources
- Supported and mainstreamed the GSPC and its Targets in many ways:

# Support the promotion, implementation and further development of the Global Strategy for Plant Conservation (GSPC)

The GSPC has stimulated and harmonised plant conservation efforts globally encouraging the development of regional and national strategies and action plans whose further development and implementation BGCI continues to support



E.g.: Europe

China

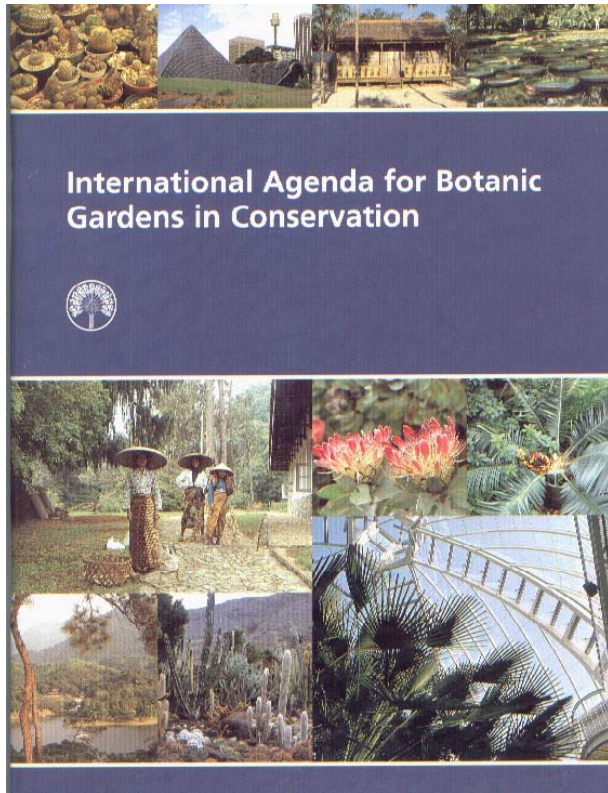
South Africa

Mexico

'Conserving Eden'; project inception mission, Kyrgyzstan, July 13-24, 2009

# Support the promotion, implementation and further development of the Global Strategy for Plant Conservation (GSPC)

## In the botanic gardens community through the promotion of the **International Agenda for Botanic Gardens in Conservation (IABGC)**

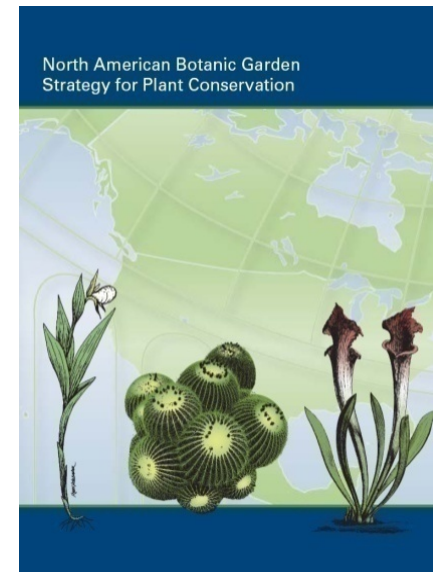
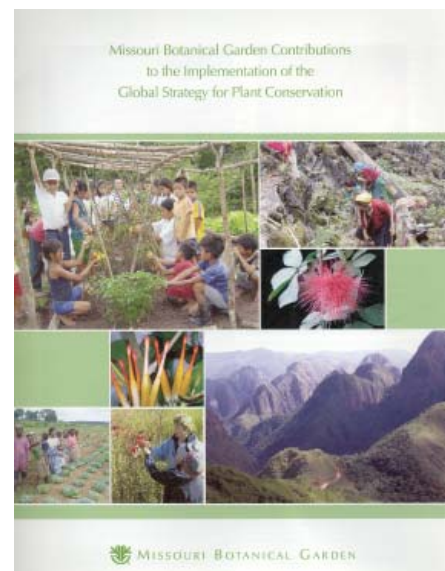
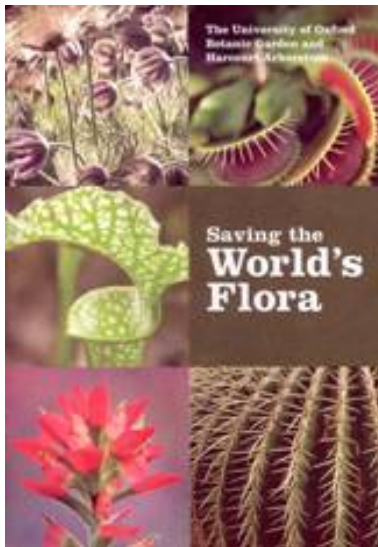


- Prepared by Botanic Gardens Conservation International in 2000
- IABGC provides botanic garden-specific objectives in line with the overall GSPC Targets
- Aims to motivate botanic gardens to evaluate their conservation policies and practices to enhance their effectiveness and efficiency in plant conservation
- Over 400 botanic gardens worldwide have adopted the International Agenda



# Support the promotion, implementation and further development of the Global Strategy for Plant Conservation (GSPC)

Botanic gardens developing their own GSPC strategic frameworks:



E.g.:

Oxford Botanic Gardens

Missouri Botanical Garden

regional/national: North America Brazil

Some botanic gardens act also as national GSPC focal points to the CBD which enhances their influence in the development process of national policy responses to the GSPC

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'Conserving Eden'; project inception mission, Kyrgyzstan, July 13-24, 2009

# The future of the Global Strategy for Plant Conservation – Looking beyond the 2010 Biodiversity Targets

Synopsis report on its implementation has been prepared as part of the in-depth review of the GSPC by CBD COP in Bonn in May 2008:

- Progress on a number of targets, including Target 8 (*ex situ* conservation)
- However, development and implementation of recovery programmes as part of Target 8 still show little progress
- More in-depth consideration of the impacts of climate change on plants and provision of related policy guidance
- Challenges remain in particular related to those Targets pertaining to the sustainable use of plant genetic resources – Importance of Target 9 (genetic diversity of crops and other major socio-economically valuable plant species conserved )



The Convention on Biological Diversity  
**Plant Conservation Report**  
A Review of Progress in Implementing  
the Global Strategy of Plant Conservation (GSPC)



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## The process to review the GSPC Targets to develop the next phase

- On-line consultation through the CBD website
- GSPC Liaison Group meeting: May 26-28, Ireland (CBD Secretariat, Global Partnership for Plant Conservation)
- Regional meetings: Europe, Americas, Africa, Asia
- Report for SBSTTA 14, May 2010
- Recommendation to CBD COP 10 (Nagoya, Japan, October 2010)

# BGCI and the project 'Conserving Eden'

- Support in capacity building and environmental education
- Support in the development of interpretation resources and facilities
- Media campaigns to raise awareness of the national and international importance of fruit and nut forests



## Planned activities

- Undertake needs assessment of the Botanical Garden of the Kyrgyzz Academy of Sciences
- Establish the status of its *ex situ* collections in particular pertaining to wild and threatened fruit and nut tree species
- Explore the possibility for data-basing the *ex situ* collections

## Planned activities (2)

- Conduct training workshop for botanic garden staff and other relevant project stakeholders in education and public awareness issues in botanic gardens
- Support the development of interpretation resources at the botanical garden
- Support the development of special events at the botanical garden and media campaigns to raise awareness of the national and international importance of fruit and nut forests
- Explore the possibility of garden staff to participate in relevant events and trainings abroad, in particular the 4<sup>th</sup> Global Botanical Garden Congress, and the International Diploma course on Education in Botanic Gardens

[www.bgci.org](http://www.bgci.org)

Thank you!

