

The Global Strategy for Plant Conservation: A Canadian Perspective

What is Plant Conservation?

Humanity depends on plants. Nearly all of our economic, industrial, agricultural and even health-related activities at some point are based on goods or services that come from plants. Many plant species we depend upon for our livelihoods and our lives are domesticated, some having been brought into cultivation thousands of years ago. Many other important plants are gathered from wild sources.

Plants also fill important roles, making our lives and landscapes richer. Plants make up the vast majority of the living material, or biomass, above the ground in our wild places, our rural areas and our cities and towns. Whether they have been chosen by a gardener, farmer or designer, or are growing spontaneously, plants provide us with the framework of our cherished landscapes.



As important as plants are, they often go unrecognized in our hurried daily lives. Around the world many species and plant communities are at risk because of human activities. At present it's thought that there may be as many as 350,000 or even 400,000 species of higher plants, and nearly a quarter of these may be at risk of extinction because of problems like loss or changes to habitat, overharvesting, invasive alien pests and diseases, competition from invasive weeds, and climate change.



Conservation involves the active stewardship of natural resources to ensure that they are available for the foreseeable future. Many different activities can be considered part of conservation, including:

- Protection and restoration of natural habitats,
- preservation of samples of seeds or plant collections,
- addressing threats like invasive species,
- education and awareness about plant diversity,
- sharing data and technical information, and
- protecting local and indigenous knowledge about plants.

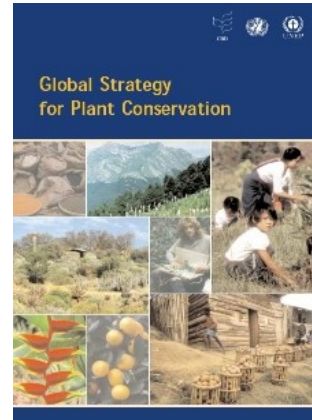
What is the [Global Strategy for Plant Conservation?](#)

Concerned over the loss of plants and the loss of important knowledge at the local level about plants and how to use them, the world's plant conservation experts met in 1999 and issued a call for action. Working in cooperation with the Convention on Biological Diversity, the global treaty for life on earth, these experts drew up a list of issues of concern and possible targets that could be achieved by 2010.

The result was the Global Strategy for Plant Conservation, or GSPC, with an ultimate and long-term objective to halt the current and continuing loss of plant diversity, and a defined set of 16 targets for the international community to attempt to achieve by 2010.

As adopted by the Parties to the Convention on Biological Diversity, the GSPC is a largely voluntary program. It does not include either penalties or financial incentives. It is a 'cross-cutting' issue, touching on many areas of work under the treaty and many sectors of society.

The Convention on Biological Diversity's web site has pages on the GSPC at: <http://www.cbd.int/gspc/>



In order to help achieve the GSPC targets a separate partnership has also been established. Named the Global Partnership for Plant Conservation, or GPPC, it has the goal of supporting the GSPC, but it is based outside the Convention's usual mechanisms and committees. The GPPC includes over 30 organizations including Bioversity International (formerly IPGRI), the Food and Agriculture Organization of the United Nations (FAO), the Global Biodiversity Information Facility (GBIF), IUCN - The World Conservation Union - Species Survival Commission, Botanic Gardens Conservation International (BGCI), and Missouri Botanical Garden, St Louis, U.S.A. In Canada, the Canadian Botanical Conservation Network and Royal Botanical Gardens are partners.

You can learn more about the GPPC at the Plants 2010 web site: <http://www.plants2010.org/>

The GSPC Targets



The targets of the GSPC are aimed at guiding achievement of five objectives: understanding plant diversity, documenting present threats to plants, ensuring the benefits of plants are available for sustainable use, promoting education about plants and plant uses, and building capacity to respond to challenges to these goals.

The GSPC global targets for 2010 are:

Objective A. Understanding and Documenting Plant Diversity

Target 1: A widely accessible working list of known plant species, as a step towards a complete world flora

Target 2: A preliminary assessment of the conservation status of all known plant species, at national, regional and International Levels

Target 3: Development of models with protocols for plant conservation and sustainable use, based on research and practical experience

Objective B. Conserving Plant Diversity

Target 4: At least 10 per cent of each of the world's ecological regions effectively conserved

Target 5: Protection of 50 per cent of the most important areas for plant diversity assured

Target 6: At least 30 per cent of production lands managed consistent with the conservation of plant diversity

Target 7: 60 per cent of the world's threatened species conserved in situ

Target 8: 60 per cent of threatened plant species in accessible ex situ collections, preferably in the country of origin, and 10 per cent of them included in recovery and restoration programmes

Target 9: 70 per cent of the genetic diversity of crops and other major socio-economically valuable plant species conserved, and associated indigenous and local knowledge maintained

Target 10: Management plans in place for at least 100 major alien species that threaten plants, plant communities and associated habitats and ecosystems

Objective C. Using Plant Diversity Sustainably

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

Target 12: 30 per cent of plant-based products derived from sources that are sustainably managed

Target 13: The decline of plant resources and associated indigenous and local knowledge, innovations and practices that support sustainable livelihoods, local food security and health care, halted

Objective D. Promoting Education and Awareness about Plant Diversity

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

Objective E. Building Capacity for the Conservation of Plant Diversity

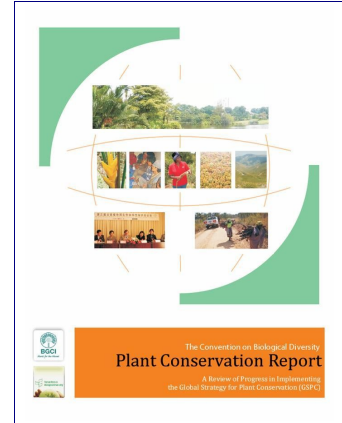
Target 16: Networks for plant conservation activities established or strengthened at national, regional and international levels

Global Progress on the GSPC Targets

Varying progress has been made to date toward the sixteen measurable targets of the GSPC.

Some targets, such as Target 1: A working list of the world's plant species, have essentially been completed now, or will be by 2010. Other targets have proven to be very difficult to achieve, or even measure, as to do so requires extensive investment in field work or data gathering that has yet to be completed.

Overall, the GSPC has helped to focus attention on important natural resources and gaps in our understanding of plant diversity. Although some targets will not be achieved by 2010, this is not a 'failure;' instead, it indicates that more work needs to be done to understand the threats to plants and to bring appropriate efforts to bear to address the threats. In particular, the GSPC has provided a strong link between the many different kinds of organizations represented by the Global Partnership for Plant Conservation and the work of the CBD.



You can read the global Plant Conservation Report, a detailed summary of progress up to 2008 on the 16 GSPC targets at <http://www.cbd.int/doc/publications/plant-conservation-report-en.pdf>

Canada's Progress toward the GSPC Targets

Canada has been making good progress toward the overall objectives identified by the Global Strategy for Plant Conservation, including a great deal of work on biodiversity and sustainability issues that predate the GSPC itself. Many areas of activity within Canada that touch on the GSPC are governmental; many others are non-governmental. Within government, conservation and sustainable use of natural resources falls into federal, provincial and territorial and in some cases even municipal levels of authority. Programs like endangered species recovery, conservation of protected areas, plant taxonomy and systematics studies, agricultural and forestry research and extension, conservation of crop plants in seed banks, and education and awareness-raising initiatives of schools, museums and botanical gardens all contribute.



Detailed reports on each of the 16 targets have been prepared. Here are quick summaries of Canada's progress toward the overall objectives of the GSPC:

Objective A. Understanding and Documenting Plant Diversity

Canada has long had a working list of plant species growing spontaneously within the country; within Canada, Target 1 of the GSPC has essentially been achieved. Similarly, Canada's General Status of Wild Species

program and COSEWIC, the Committee on the Status of Endangered Species in Canada, have produced assessments of the conservation status of Canada's native plants, fulfilling Target 2. A variety of organizations make available information on biodiversity, the conservation of species and ecosystems, and share their results, contributing to Target 3.

Objective B. Conserving Plant Diversity

Although Canada has not set a formal target for how much of its territory should be protected, about 10% of the country's land area has formal protected area status, contributing to Target 4. Canada does not yet have a means to assess Target 5, as we do not have areas specifically identified as important to plants. Canada is a world leader in sustainability in production lands. Thousands of farms across Canada have already had environmental farm plans prepared. Forestry is also contributing to Target 6, as Canada is the world leader in forest certification, with over 40% of all of the world's forests that are certified as being managed sustainably. These two sectors make significant contributions to Target 6 in Canada.

The flora of Canada includes over 5,000 native plant species, of which over 300 are now listed federally as at risk of extinction. Canada's Species at Risk Act has legal measures for protection and recovery in-situ (in nature), contributing to Target 7. Relatively few plants that are listed as being at risk of extinction globally are native to Canada. At present we do not have an accurate measure of the number of formally listed endangered species in ex-situ collections in Canada (in cultivated live plant gardens or seed gene banks; Target 8).

Target 9 deserves a special remark, as it has the very noble intention of preserving both the diversity of plants important for agriculture, pharmaceuticals and other important uses and also the rich local knowledge that often is developed by individual cultures. Canada is working toward the intention of Target 9 in many ways, but there is no agreed method to measure the percentage of the genetic diversity of these plants that is actually being conserved.

Canada is working hard to fight damaging invasive species, the purpose of Target 10. Management plans for critical invasive species, such as invasive insects that are plant pests, are being developed under Canada's Invasive Species Strategy.



Objective C. Using Plant Diversity Sustainably

Canada works toward the goal of Target 11 through its active participation in CITES, the Convention on International Trade in Endangered Species. Target 12 is related strongly to Target 6, where it was already noted that Canada is making positive progress. However, many plants used by various sectors of society are not derived from conventional farming or forestry, and more work is needed to

understand whether these plants are being obtained sustainably. Like Target 9, Target 13 relates to the important role of plants in the social, economic and even health conditions of many communities in Canada, especially for indigenous peoples.

Objective D. Promoting Education and Awareness about Plant Diversity

Target 14 expresses the importance of education about plant diversity. In Canada several programs exist to promote awareness and curriculum content that includes plant diversity information. This includes networks of organizations and botanical gardens, and web sites dedicated to dissemination of plant diversity, conservation and sustainable use materials for teachers.

More resources for educators can be found on-line at:

<http://www.plantbiodiversity.ca/>

Objective E. Building Capacity for the Conservation of Plant Diversity

The final two targets for the GSPC are aimed at enhancing the ability to achieve the other targets. Target 15 seeks to ensure that training is preparing people for the various kinds of jobs that need to be done to undertake plant conservation. Across Canada a variety of universities and community colleges present both academic and applied programs in relevant fields such as botany, taxonomy, ecological restoration and sustainability. Target 16 considers that communications and networking are important parts of delivery of any program, and promotes the strengthening of national and regional plant conservation networks. In Canada several organizations, such as the Canadian Botanical Association and the Canadian Botanical Conservation Network, contribute substantially to this target.

Plant Conservation and 2010, the International Year of Biodiversity

International Year of Biodiversity, 2010, will be celebrated around the world, including on 22 May, which is recognized as International Biodiversity Day. This year will be important for all aspects of the Convention on Biological Diversity as it will be used to review progress toward the “2010 Biodiversity Target:” “to achieve by 2010 a significant reduction of the current rate of biodiversity loss at the global, regional and national level as a contribution to poverty alleviation and to the benefit of all life on Earth.”

The GSPC’s original targets have 2010 as their due dates. Canada and other Parties to the Convention on Biological Diversity have agreed to assess progress, building on the global Plant Conservation Report mentioned above, and to consider further development and implementation of the Strategy beyond 2010. They asked the Convention’s science advisory body to update the present targets for the post-2010 period as part of a consolidated update of the Global Strategy.

An Invitation to Participate

If you, or your group, organization, company or agency are helping in any way that contributes to any of the GSPC targets, we’d like to know about it, and help you to share your successes with others. Please contact the GSPC National Focal Point for Canada,

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at the address below, or visit our web site and use the on-line form to send in your information.

Visit the NFP web site: <http://www.rbg.ca/gspc/>

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The GSPC National Focal Point in Canada is a collaborative project between:



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