

Plant conservation in the post-2020 biodiversity framework

Prepared on behalf of the
Global Partnership for Plant Conservation (GPPC)
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This submission has been prepared by members of the Global Partnership for Plant Conservation. It is based on discussions held during the “*Conference of the Global Partnership for Plant Conservation supporting the worldwide implementation of the Global Strategy for Plant Conservation*” and the associated CBD-convened GSPC Liaison Group meeting. The conference was held in South Africa from 26-30 August 2018 and was attended by over 120 participants from 35 countries.

The importance of plants

There are an estimated 400,000 species of plants worldwide and they are universally recognised as being **critical to sustaining life on earth**. They form the basis of most terrestrial ecosystems and provide ecosystem services to **support human wellbeing**, including climate regulation and food security. Plants and their ecosystems have influenced our cultural and spiritual development and are woven into languages, place names, religion and folklore across the world. And yet **plants are not given sufficient attention** under the current Strategic Plan for Biodiversity nor the Targets of the 2030 Agenda for Sustainable Development. In many countries, plants face a growing and urgent crisis, with as many as **100,000 species currently threatened in the wild, so undermining ecosystem resilience**. Furthermore, as population losses continue, there is continuing erosion of their genetic diversity and the essential ecosystem services that they provide.

The Global Strategy for Plant Conservation

The Global Strategy for Plant Conservation (GSPC) has played an essential role in uniting the plant conservation community around a common commitment to the conservation and sustainable use of plant diversity. It has galvanised tens of thousands of individuals and hundreds of organisations from the botanical community to engage with the CBD and to contribute to the achievement not only of the targets of the GSPC, but through this, to the objectives, targets and priorities of the Strategic Plan for Biodiversity 2011-2020 as well as contributing to the delivery of the Sustainable Development Goals.

In adopting the GSPC in 2002, the Parties to the CBD recognized the need to have specific measures in place to safeguard threatened plant species worldwide and to ensure that these plants remain available to support future generations. This need continues up to the present day.

Despite the continued threats to plant and habitat diversity, progress in plant conservation has been made, and the GSPC has played a pivotal role in this. It has allowed plant conservation to focus around a set of easily understood, quantitative, outcome-orientated targets. Through this approach, significant progress has been made in a number of areas, including the likely achievement of a World Flora on-line by 2020 (Target1) and accelerated progress worldwide in plant red listing (Target 2) - issues that underpin and support the achievement of many other targets. Considerable progress has

indeed been made towards the achievement of the majority of the GSPC targets, much of which would not have been achieved in the absence of such a strategic framework. At the national level, a number of countries (including some of the most biodiverse-rich countries, e.g. South Africa, Indonesia, Brazil, Colombia, Mexico and China) have developed national plant conservation strategies or responses to the GSPC that run in parallel with and support their NBSAPs. Furthermore, GSPC implementation can be linked to significant advances in the achievement of linked Aichi targets.

The 2050 Vision

The plant conservation community supports the 2050 vision of the CBD where biodiversity maintains ecosystem services, sustains a healthy planet and delivers benefits essential for all people. Recognising that plants form the basis of all terrestrial ecosystems and the services they provide, for the vision to be achieved, specific components for the conservation and sustainable use of plants need to continue to be included in the post 2020 global biodiversity framework. We believe this can best be formulated in the context of a continued GSPC, updated and harmonised within the broader post-2020 global biodiversity framework.

Plant conservation and the GSPC in the post-2020 biodiversity framework

The plant conservation community has expressed strong support for a continued GSPC beyond 2020. However, the GPPC also recognises that any successor to the GSPC or updated GSPC targets, needs to be **clearly ‘nested’ within the overall global biodiversity framework.**

As a mechanism to ensure a continued focus on plants and the commitment of the plant conservation community, as well as the engagement of wider society, the GPPC proposes the inclusion of **plant-specific milestones (or quantifiable targets), and supporting indicators in the post-2020 framework.** Such milestones would be ambitious, specific, time-bound, action-oriented and simple to understand. They would be science and conservation-based with clear outcomes that would **underpin and contribute to the new or revised biodiversity targets.**

The advantages of including plant-specific milestones and indicators in the post-2020 framework include:

- Demonstrating a focus on implementation;
- Facilitating, where appropriate, a species-based approach to plant conservation;
- Ensuring the continued commitment and effective contribution of the plant conservation community to CBD implementation;
- Providing a measurable, time-bound reporting framework for both national and international implementation;
- Providing a framework for the development of voluntary contributions from a range of stakeholders (should this concept be taken up);
- Allowing linkages to be made with other processes and strategies (e.g. the Sustainable Development Goals);
- Providing a model for the development of measurable milestones by other sector-specific stakeholders.

While we propose that the plant conservation milestones be clearly nested within the broader biodiversity framework (and implementation and reporting at the national level would be in the context of the overall biodiversity strategy), the plant-specific milestones could be taken together to constitute a post-2020 plant conservation strategy to specifically support and enable more action by the plant conservation community.

An example of the approach proposed by the GPPC is provided in Annex A. This illustrates how plant-specific milestones and indicators could be developed for a number of the existing Aichi targets as well as indicating how progress towards these milestones would be measured.

The GPPC commitment

The plant conservation community, organised through the Global Partnership for Plant Conservation, is a broad-based, multi-stakeholder, united community, committed to ensuring the conservation and sustainable use of plant diversity to support human livelihoods, now and in the future. We are keen to work with the CBD Secretariat in further developing plant-specific milestones and other elements for inclusion in the post-2020 biodiversity framework, using the approach described above. The GPPC is also ready to contribute to the broader process of developing the post-2020 global biodiversity framework by sharing experiences in the implementation of plant conservation targets in the context of the Strategic Plan for Biodiversity 2011-2020 and offering suggestions for strengthening these connections.

Annex A: Post 2020 Aichi-GSPC-SDG framework indicative examples for 6 targets.

Aichi Target	Possible GSPC quantitative targets / milestones	Post-2020 indicators	Means of measuring	Relevant SDGs
<p>1. By 2020, at the latest, people are aware of the values of biodiversity and the steps they can take to conserve and use it sustainably.</p>	<p>By 2030, 75% of botanic gardens, arboreta and other plant-based organizations are delivering messages on the importance of plant diversity and at least 500 million people are aware of the value of plant diversity and the steps they can take to conserve and use it sustainably.</p>	<p>Proportion of botanic gardens and other plant-based organizations delivering messages on the importance of plant conservation, and numbers of visitors exposed to these messages.</p> <p>The number of people taking part in citizen science programmes monitoring plant diversity.</p>	<p>Records of impact of education messaging on visitors gathered from visitor surveys.</p> <p>Change over time of the number of people participating in citizen science initiatives.</p>	<p>SDG 4 – Quality education</p>
	<p>Former GSPC target</p>	<p>The number of learning materials that include information on plants and their importance being used in national (school) curricula and tertiary level botanical training.</p>	<p>National records of school and tertiary institutions curricula materials.</p>	
	<p>Target 14: The importance of plant diversity and the need for its conservation incorporated into communication, education and public awareness programs.</p>			

Aichi Target	Possible GSPC quantitative targets / milestones	Post-2020 indicators	Means of measuring	Relevant SDGs
<p>9. By 2020, invasive alien species and pathways are identified and prioritized, priority species are controlled or eradicated, and measures are in place to manage pathways to prevent their introduction and establishment.</p>	<p>By 2030, invasive species are controlled or eradicated in 80% of areas important for plant diversity¹, and measures are in place to manage pathways to prevent new introductions and establishment of invasive [pests and diseases – or organisms].</p>	<p>The number of new biological invasions that have been identified.</p> <p>The proportion of new biological invaders for which risk assessments have been developed.</p> <p>The proportion of new biological invaders that have been effectively eradicated, managed or controlled.</p>	<p>National spatial data on areas important for plant conservation.</p> <p>National databases for invasive alien species that include records of:</p> <ul style="list-style-type: none"> • New biological invaders; • Risk assessments developed; • Eradication plans implemented; • Spatial data on areas cleared. 	<p>SDG 15 - Life on land</p>
	<p>Former GSPC target</p>	<p>The numbers of measures in place to prevent the introduction and establishment of new invasive species.</p>		
	<p>Target 10: Effective management plans in place to prevent new biological invasions and to manage important areas for plant diversity that are invaded.</p>	<p>The proportion of areas important for the conservation of plant diversity that have been effectively cleared of invasives.</p>		

¹ Areas important for plant diversity can include KBAs identified using plant data or IPAs or areas identified as priorities for meeting plant conservation targets in systematic conservation plans.

Aichi Target	Possible GSPC quantitative targets / milestones	Post-2020 indicators	Means of measuring	Relevant SDGs
<p>11. By 2020, at least 17 per cent of terrestrial and inland water, and 10 per cent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscapes and seascapes.</p>	<p>By 2030, at least of 15% of each ecological region and 75% of areas important for plant diversity are identified and protected.</p> <hr/> <p>Former GSPC targets</p> <p>Target 4: At least 15% of each ecological region or vegetation type secured through effective management and/or restoration.</p> <p>Target 5: At least 75% of the most important areas for plant diversity of each ecological region protected, with effective management in place for conserving plants</p>	<p>The proportion of ecosystems with 15% of their original extent effectively protected.</p> <p>No. of countries that have identified important areas for plant diversity</p> <p>The proportion of areas important for plant diversity protected through effective measures.</p>	<p>National protection level indicators that measure proportion of ecosystems and species protected.</p> <p>Protected area coverage of areas important for plant diversity.</p> <p>Number of comprehensive studies on the value of ecosystem services and plants of socio-economic importance in important areas of plant diversity completed.</p>	<p>SDG 15 - Life on land</p>

Aichi Target	Possible GSPC quantitative targets / milestones	Post-2020 indicators	Means of measuring	Relevant SDGs
	and their genetic diversity.			
<p>12. By 2020 the extinction of known threatened species has been prevented and their conservation status, particularly of those most in decline, has been improved and sustained.</p>	<p>By 2030, 80% of all known rare, threatened and socio-economically important wild plant species are conserved <i>ex situ</i>, and viable populations are effectively managed <i>in situ</i>, preferably in connected ecologically functional biodiverse landscapes.</p> <p>By 2030 there has been a 50% reduction in the number of species threatened by international trade.</p> <p>Former GSPC targets</p>	<p>Proportion of known threatened, rare and socio-economically important wild plant species included in <i>ex situ</i> collections.</p> <p>Proportion of threatened, rare and socio-economically important plant species included in integrated biodiversity spatial prioritization plans that incorporate areas required to maintain connected functional biodiverse landscapes.</p> <p>The proportion of threatened, restricted</p>	<p>National records of the numbers of priority plant species included in spatial prioritization and sector plans.</p> <p>Plants holdings of species of socio-economic importance in genebanks</p> <p>PlantSearch (database of <i>ex situ</i> collections in botanic</p>	<p>SDG 15 - Life on land</p>

Aichi Target	Possible GSPC quantitative targets / milestones	Post-2020 indicators	Means of measuring	Relevant SDGs
	<p>Target 7: At least 75% of known threatened plant species conserved <i>in situ</i>.</p> <p>Target 8: At least 75% of threatened plant species in <i>ex situ</i> collections, preferably in the country of origin and at least 20% available for recovery and restoration programmes.</p> <p>Target 9: 70% of 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.</p> <p>Target 11: No species of wild flora endangered by international trade.</p>	<p>range and socio economically important species that are effectively protected in situ.</p> <p>Proportion of threatened, rare and socio-economically important species included in ecological sensitive zones in development sector plans.</p> <p>Proportion of Critically Endangered species with recovery plans in place.</p> <p>The proportion of plants threatened by international trade with management interventions in place to promote sustainable trade.</p>	<p>gardens managed by BGCI)</p> <p>ThreatSearch (database of all plants that have been assessed globally or nationally)</p> <p>CITES reporting</p> <p>TRAFFIC records</p>	
<p>13. By 2020, the genetic diversity of cultivated plants and farmed and domesticated animals and of wild relatives, including other socio-economically as well as culturally valuable species, is maintained, and strategies have been developed and implemented for minimizing</p>	<p>By 2030, 80% of the genetic diversity of crops, including their wild relatives (CWR) and other domesticated socio-economically and culturally valuable plant species, is maintained, and strategies have been developed and implemented for minimizing genetic erosion and safeguarding their genetic diversity.</p>	<p>The proportion of known cultivars and landraces in use by farmers represented in seed banks.</p> <p>The proportion of identified CWR represented in gene banks.</p>	<p>Accessions of cultivars, landraces and CWRs in seed banks and <i>ex situ</i> agricultural collections; with records provided by:</p> <ul style="list-style-type: none"> • SOW PGRFA • SOW FGR • GRIN Global (CWR) 	<p>SDG 2 - No hunger SDG 3 - Good health</p>

Aichi Target	Possible GSPC quantitative targets / milestones	Post-2020 indicators	Means of measuring	Relevant SDGs
genetic erosion and safeguarding their genetic diversity.	Former GSPC target	The proportion of known CWRs protected <i>in situ</i> in PAs or OECMs.	<ul style="list-style-type: none"> • PlantSearch (CWR) Spatial data on occurrence of CWR in relation to PA networks.	
	Target 9: 70% of 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.			

Aichi Target	Possible GSPC quantitative targets / milestones	Post-2020 indicators	Means of measuring	Relevant SDGs
<p>19. By 2020, knowledge, the science base and technologies relating to biodiversity, its values, functioning, status and trends, and the consequences of its loss, are improved, widely shared and transferred, and applied.</p>	<p>By 2030, all countries have accessible and comprehensive online information systems and inventories on their flora and plant-based habitats, at least 80% of plant species have been assessed for their conservation status, and the science base and required technologies are in place to protect plant diversity.</p>	<p>The proportion of plants included in an up to date format in online floras.</p> <p>The proportion of known plants that had their conservation status assessed either in national or global assessment processes.</p> <p>The number of studies in place to support:</p> <ul style="list-style-type: none"> - Sustainable harvesting of plant species from the wild; - Reintroductions of threatened plants; - Restoration of threatened ecosystems; - Management requirements of threatened species. 	<ul style="list-style-type: none"> • Degree of coverage of the world’s plant species in the World Flora Online, including number of new plant species discovered and described. • Regional, national and local floras and guidebooks available online. • National and global threat assessments. • ThreatSearch 	
	<p>Former GSPC target</p>			
	<p>Target 1: An online Flora of all known plants.</p> <p>Target 2: An assessment of the conservation status of all known plant species, as far as possible, to guide conservation action.</p> <p>Target 3: Information, research and associated outputs, and methods necessary to implement the strategy developed and shared.</p>			