



Draft Technical Note – Plant Conservation

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Recommendations for the implementation of the GSPC Action for achievement of the GBF

One of the best ways to save biodiversity is to retain and manage wild ecosystems, and simply let them develop freely. Unfortunately, there are fewer and fewer pristine ecosystems, so the implementation of conservation plans will be essential. Plants are fundamental to almost all terrestrial natural systems that other species rely on to survive yet the importance of plants and their foundational role is not recognised and neglected. Plant conservation runs through the majority of the GBF targets, whether its work on sustainable wildlife trade, tackling invasive alien species or climate mitigation strategies. The GSPC Actions should be implemented after careful planning and preparation. It is envisaged that Parties and organisations develop individual action plans for plant conservation using the GSPC Actions, assigning timelines, costs and prioritising dependant on national needs etc. However, proactive early identification and intervention to prevent changes in threats to plant diversity and ecosystem dynamics would be relevant given the potentially massively cascading ecosystem level impacts in so many systems internationally. The Plant Conservation Expert group recognised that *in situ* and *ex situ* conservation actions must be integrated whenever possible. The COOP4CBD Plant Conservation Expert Group has identified several crosscutting ways in which the important profile of plants can be raised through the implementation of the GSPC Actions and thus achievement of the GBF Targets.

Recommended wording change to Action 1

Identify and map all plant species, areas, habitats and ecosystems important for plant diversity, using scientific, indigenous and local knowledge, and ensure their incorporation into spatial planning and land management processes

Rationale: The word habitats is used in Action 2 for ecological restoration and in many initiatives globally and encompasses a community of plants.

Three recommendations for implementation of GSPC Actions and achievement of several Targets

1. **STAKEHOLDER ENGAGEMENT:** Recognition of the ownership of land and contribution to conservation, particularly in protected areas (and OECMs) by communities and private landowners. Compensation, certification or development of sustainable enterprises which are currently being considered, could be used to provide support for plant conservation on these lands and sustainable practices where required (Example 1 farmers in Malta). Financial and non-financial incentives should also be considered where private and commercial entities can maintain land within the protected area (Example 2 food hub in Romania). Similarly, the maintenance of small parcels of land with native species and provide connectivity to larger habitats (Example 3 micro-reserve in Spain). Encourage and support plant growers and nurseries to produce native species for conservation and restoration purposes (Example 4 nurseries in France). Actions 3, 9, 10, 15, 19, 5.



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2. **COMMUNICATION:** Communication of stories about the importance of plants to raise awareness of the GBF and focus on plant conservation. This should include the use of citizen science as not only a tool for collection of data, but also as a mechanism for behaviour change in society to interact with plants, build relationships with plants and recognise the important role they play in our world. A communication hub should be established for resources to be shared for the education sector. Engagement with different sectors to communicate messages on plant conservation such as the department of education, performing arts and culture sectors will help spread the plant conservation message (Example 5 STEM and the Arts in Malta). Invasive alien plant species lists should be provided to growers, and sellers of plants so they are aware and do not perpetuate the spread of IAS. The development of identification guides for symptoms on plants and the pest and pathogens that cause these. Actions 1, 3,4, 5, 6, 7, 9, 10, 14, 15, 16, 19, 20, 22.
3. **SCIENTIFIC AND TECHNICAL KNOWLEDGE:** This recommendation refers to information and data gathered through research and studies that may, or may not, have been published. This does not include traditional knowledge which is covered by the CBD Convention (Article 8(j)). Current information systems for plant conservation need to be maintained but also improved with additional data and information from research and studies that may only be available within institutions or nationally. If data cannot be shared to these databases a catalogue of plant conservation studies should be set up to share project and contact details. The use of new, smarter and efficient technologies should be considered when collating data such as use of AI in digitisation of natural history collections. Actions 1, 3, 4, 5, 6, 9, 10, 11, 13, 20, 21, 22.

Example 1: Supporting Sustainable Enterprises - Malta

Farmers and Beekeepers in Protected Areas: To compensate for restrictive and limited use of land, Professional Extension Services for Beekeepers, Dairy and Vegetable farmers are offered by the Centre for Entrepreneurship & Business Incubation (University of Malta) and by the Centre of Agriculture, Aquatics and Animal Sciences (Malta College of Science Arts and Technology). Extension services have provided local producers with essential entrepreneurial skills, technical support and knowledge. This enables them to increase their profit margins and maintain sustainability, even under restrictive procedures.

Example 2: Food-hub - Romania

Several components have been developed by Foundation Conservation Carpathia - Romania (FCC) (<https://www.carpathia.org/>) for stakeholders' involvement and financial incentives in support of biodiversity/plant species conservation in a protected area: food hub (local food enterprise) and ecotourism development being the most advanced ones.

FCC has set up a local food enterprise which brings local, traditional products from the Făgăraș Mountains to consumers of healthy food. The partners are small local producers and family businesses,



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near the Southern Romanian Carpathians - the future Făgăraş Mountains National Park (250,000 ha). FCC supports and promotes a healthy system of production. All products are harvested or cultivated, produced and distributed responsibly, with care for the soil, climate and biodiversity.

The aim is this initiative to become a long-term economic alternative for local producers in the Făgăraş Mountains, to develop opportunities for young people and to support sustainable local entrepreneurial networks, by taking care of nature and protecting it. The local products are distributed in online shops, or delivered directly to consumers, and are used intensively in the supporting eco-tourism programme (<https://www.carpathia.org/conservation-enterprise/>).

Example 3: Micro-reserves - Spain

Plant Micro-Reserves are sites devoted to the study and conservation of rare, endangered or endemic plants of Valencia, the plant species have been described and listed and have the protection of the laws of the Valencian Community. More can be found about this work here:

- <https://www.researchgate.net/publication/229150946> The Micro-Reserves as a Tool for Conservation of Threatened Plants in Europe
- <https://www.researchgate.net/profile/Emilio-Laguna/publication/256667179> Landowner's engagement agreements and stewardship for micro-reserves conservation/links/00463523956cf31a26000000/Landowners-engagement-agreements-and-stewardship-for-micro-reserves-conservation.pdf
- <https://www.researchgate.net/publication/229150949> The plant micro-reserve initiative in the Valencian Community Spain and its use to conserve populations of crop wild relatives

Example 4: Growing native plants - France

Vegetal local (<https://www.vegetal-local.fr/>) brought together nearly 150 scientists and representatives of plant producers and users over a period of two years, the collective approach has made it possible to define the objectives, tools and framework for the collection, production and traceability of wild plants of local origin. The mark is now the property of the French Office for Biodiversity (OFB). Using labelled plants means contributing to the proper functioning of the ecosystems to which they are attached, and therefore :

- Contributing to the ecological functionality of environments,
- Maintaining their adaptive potential in the face of global change
- Providing a home for and interacting with wild fauna,
- Improving resistance to disease and pests,
- Promoting the resilience of ecosystems.
- Using marked plants also means promoting the social and economic development of regions.



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Example 5: STEAM - Bringing the Arts into STEM education

The cultural and art sectors in Malta frequently partner with local scientists and educators, resulting in positive effects on both the arts and science communities. This collaboration provides new material for artists to work with, while also helping scientists effectively communicate their messages through various media channels. In recent collaborations, ŽiguŽajg, a local arts festival, and Science in the City, the local Researcher's Night event, have teamed up to produce children's theatrical performances. Furthermore, local poets have contributed to an anthology of poems aimed at educating children about conservation. Another collaboration involves local artists and the community participating in a series of workshops, culminating in an exhibition, open mic event, and a book focused on ethnobotanical knowledge. Exploring the realm of digital games, a collaboration with local researchers, digital artists and programmers has created an online escape room centred around the theme of Alien Invasive Species - <https://www.roomforall.online>.

More can be found about this work here:

- <https://ziguzajg.org/solitary-bee/>
- <https://medium.com/@greenhousengo/wild-for-orchids-orkidea-and-now-the-first-book-on-the-orchids-of-malta-78d9e88fecf>.
- <https://www.um.edu.mt/newspoint/news/2019/09/hangingon!atscienceinthecity>
- https://allevents.in/mobile/amp-event.php?event_id=200021013520800
- <https://stejjerimfewha.wixsite.com/ethnobotanymalta>
- <https://www.scienceinthecity.org.mt/virtual-escape-room/>



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