
BOTANIC GARDEN NETWORKS AND THEIR RELEVANCE TO PLANT CONSERVATION

Jejaring kebun raya dan relevansinya terhadap konservasi tumbuhan

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Abstrak

Jejaring (*network*) merupakan salah satu aspek penting dalam pengelolaan kebun raya, khususnya untuk mendukung implementasi fungsi kebun raya di bidang konservasi, penelitian, pendidikan lingkungan dan peragaan (*display*). Dalam the "*Global Strategy for Plant Conservation*" digarisbawahi tentang perlunya upaya memperkuat atau membangun jejaring kegiatan konservasi tumbuhan di tingkat nasional, regional maupun internasional. Beberapa contoh jejaring yang telah berhasil dikembangkan dikemukakan dalam tulisan ini. Dibangunnya kebun raya-kebum raya baru di berbagai daerah di Indonesia juga membutuhkan jejaring guna memperkuat komunikasi di antara kebun raya di Indonesia maupun dengan kebun raya di belahan bumi lainnya.

Key words: botanic garden, network, plant conservation

INTRODUCTION

Loosely defined, a network is a community of people or institutions who share common interests, goals or activities. Networks are a means of connecting otherwise fragmented or isolated organizations without the resources or opportunity to connect with peers, whether domestic or foreign. Networks are also a way for member organizations to reach a broader audience. Network membership is determined by various factors such as network goals, activities, or even geographic region. In recent years, when the term network or networking is mentioned, many people think of social networks that exist on the internet. These are a

somewhat different and more general kind of network, although some of the basic principles remain the same, such as shared common interests and social interaction.

NETWORKING AND BOTANIC GARDENS

In the world of botanic gardens, networks are an important resource for members. The functions of botanic garden networks may include some or all of (but not limited to) the following:

- Support and promote the work of botanic gardens in areas of environmental education, conservation, display, research, sustainable use of resources, or fundraising;

- Facilitate exchange and sharing of information, technology, plants, or resources among members, including facilitation of collaborative projects;
- Provide a sense of community to members through personal interaction and discussion of shared problems and their possible solutions.

Networks among botanic gardens are also based on the premise that all members believe in working towards the common good of the botanic gardens community. This means that those members who have comparatively more resources, technology, or information than other members, are willing to share these with other network members. This element of apparent altruism may be fueled by concern for conservation of the environment and of threatened species. Such conservation efforts can only be successful if jointly undertaken by as many member institutions as possible. In a similar vein, there is the belief that all botanic gardens share broad common goals and that each member has a valuable role to play in the big picture. This implies that all members of the network are interconnected with the greater whole and that the advancement and progress of the least member is an achievement for all members.

EXAMPLES OF BOTANICAL NETWORKS

Various botanical networks exist, for example the American Public Garden Association (APGA), South African National Biodiversity Institute (SANBI), the Botanic Gardens of Australia and New Zealand (BGANZ), South East Asia Botanic Gardens network (SEABG), and BGCI (Botanic Gardens Conservation International). Most of these networks hold meetings for their members and publish periodicals such as a newsletter or journal, and make other documents and resources available to members or the public through their websites.

South African National Biodiversity Institute

SANBI's mission is: *To promote the sustainable use, conservation, appreciation and enjoyment of the exceptionally rich biodiversity of South Africa, for the benefit of all people.* (<http://www.sanbi.org/>)

American Public Garden Association

APGA's mission: *APGA serves and strengthens public gardens throughout North America by supporting and promoting their work, value and achievements in horticultural display, education, research and plant conservation.* (<http://www.publicgardens.org/>)

Center for Plant Conservation,

CPC is dedicated solely to preventing the extinction of America's imperiled native flora. Its mission is *to conserve and restore the rare native plants of the United States.* (<http://www.centerforplantconservation.org/>)

Canadian Botanical Conservation Network

CBCN's objective is *to preserve the biological diversity of Canada's rare and endangered native plant species, wild habitats and ecosystems through the education and conservation programs of our members, including botanical gardens and arboreta.* (<http://www.rbg.ca/cbcn/>)

Botanic Gardens of Australia and New Zealand

The aims of BGANZ include: *Providing a forum for information exchange and coordinated planning; fostering best-practice standards amongst Australian and New Zealand botanic gardens and other botanic gardens internationally; being an advocate for the interests of Australian and New Zealand botanic gardens; providing policy and legislative advice affecting botanic gardens; advocating plant conservation and fostering the plant sciences and social and cultural heritage programs; building and maintaining links with relevant national and international bodies.* (<http://www.bganzt.org.au/>)

Botanic Gardens Conservation International

BGCI's mission is: *To mobilise botanic gardens and engage partners in securing plant diversity for the well-being of people and the planet.* (www.bgci.org)

South East Asia Botanic Gardens network

SEABG's mission: *Facilitate and enhance the conservation and sustainable use of indigenous flora of the South East Asian region, through the activities of Botanic Gardens and related institutions.*

Asociación Mexicana de Jardines Botánicos

AMJB is a network of botanical gardens *dedicated to promoting the investigation, distribution, conservation of, and education about Mexican plant diversity.*

Indonesian Network for Plant Conservation
INetPC's role is to *facilitate communication and cooperation between conservation organizations, groups, institutions and individuals, and their international counterparts working on the Indonesian flora.*

NETWORKING AND THE GLOBAL STRATEGY FOR PLANT CONSERVATION

The Global Strategy for Plant Conservation (<http://www.bgci.org/policy/gspc/>) grew out of the Convention on Biological Diversity (1992) and is used to guide government policy around the world. The GSPC highlights the importance of plants and the ecosystem services they provide for all life on earth, and aims to ensure their conservation. It consists of 16 outcome-oriented targets for conservation with a deadline of 2010, and is not just aimed at botanic gardens but at any and all organizations that can contribute to plant conservation. It lays down specific, measurable targets that everyone is asked to help meet by 2010.

Of relevance here is target 16: "Networks for plant conservation activities established or strengthened at national, regional and international levels." This stresses the important role networks play in plant conservation. Through networks, plant conservation efforts can be better coordinated and supported, and therefore have a greater chance of success. Firstly, information and technology can be shared among members, and when an initiative is attempted for the first time, the methods and logistics should not have to be re-invented each time, especially if one of the members has already attempted it, and can share their experience with others.

Another strength of networks is in their collective information. Botanic gardens collectively hold a tremendous amount of information and knowledge, often in large part by their staff. This personal information and experience can be invaluable to coordinating conservation efforts, as in the redlisting process where information on species range, distribution, and status of populations is very important, but is most likely not published, but exists in the knowledge and memory of botanic gardens staff.

Likewise, horticultural, technological, and scientific experience can be vast and botanic gardens networks are a means of channeling such knowledge and experience where it can be used to greatest advantage in plant conservation efforts.

NETWORKING AND BOTANIC GARDENS IN INDONESIA

The four official botanic gardens in Indonesia (Bogor, Cibodas, Purwodadi and Eka Karya Bali) are essentially already networked because they are part of LIPI (Indonesian Institute of Sciences), the governing umbrella body responsible for the Indonesian Botanic Gardens. However, there are potentially many new botanic gardens that may not be part of the LIPI network. Former president, Megawati, is a strong supporter of botanic gardens and initiated the move to increase the number of botanic gardens in Indonesia, so as to conserve the rich plant diversity of the country. The great majority of such new gardens have been initiated by local governments who have been allowed more autonomy in recent years. They are keen to establish their own gardens and develop them as tourist destinations. When these gardens are established, there will be a need to facilitate communication among them, most probably through an informal network. Probably the most useful existing local network for these new botanic gardens would be the Indonesian Network for Plant Conservation (INetPC), established in 1994 and administered by Bogor Botanic Gardens. Its primary role is to facilitate communication and cooperation between conservation organizations, groups, institutions and individuals, and their international counterparts working on the Indonesian flora.

At the international level, the Indonesian Botanic Gardens (IBGs) also have close ties with botanical institutions in other countries, primarily in Australia. Many staff of the IBGs have spent time living and studying in these countries, and after returning home to Indonesia, maintain ties with their overseas universities and botanic gardens. This then forms the basis of an informal international network linking the IBGs with institutions overseas. Even such an informal network has had its benefits to Indonesia. Many of the Australian institutions are keen to assist with capacity building

efforts in Indonesia and over the past decades, staff from Australian gardens have regularly contributed their assistance to environmental education projects, staff training workshops, and other conservation efforts in Indonesia.

Networking does not always have to be within botanic gardens. It is worth noting that networking with other related institutions that are not a botanical garden can be advantageous. Institutions such as herbaria, universities, NGOs, and zoos share some common aims, goals, and issues with botanic gardens, including documentation & data management, environmental education, scientific research, and habitat and species conservation. Linkages with such institutions especially in the areas of shared common interest should produce the same benefits as within networks of botanic gardens. In fact, it is often very useful for a botanic gardens to gain a perspective from outside the botanic gardens world, so as to widen its world-view.

CONCLUSIONS

As with any organization, there is the issue of acquiring funding for upkeep and administration of a

network, but if there is sufficient interest and commitment from the members, resources can be channeled into maintaining the network. This is important because it is difficult to attract external funding for networking, and therefore networks can only prosper under mostly voluntary conditions. This means that the wealthier members should help those with fewer resources to participate in the network. Networks should develop a clear work program, and defined activities and member responsibilities. This could then be integrated into a project proposal for potential external funding.

In order for any network to be self-sustaining in the long term, its members have to be committed to maintaining dialogue and interaction, and must believe that their goals will be achieved through maintaining this relationship. Networks are important tools for botanic gardens to pool their resources, information, expertise, and technology, to better accomplish their goals. As many staff as possible of each member garden should be encouraged to participate in network activities, and interact with other members in the network, so that a sense of belonging and ownership will develop, which is important for the long term success and well-being of the network.