

Revealing the 'warts' to build a sustainable Australian National Botanic Gardens

Lucy A. Sutherland (PhD)

Australian National Botanic Gardens, GPO Box 1777, Canberra, ACT 2601, Australia

Abstract

Building sustainable botanic gardens requires more than retrofitting infrastructure and implementing efficient water and energy use measures. Sustainability principles must be intricately layered into the people, plants and place. Strategic planning is a key tool to provide a framework for this and to guide the implementation process. As the Australian National Botanic Gardens (ANBG) approaches its 40th birthday in October 2010, a series of evaluation and planning processes have resulted in the development of a strategic plan for guiding this institution towards becoming a sustainable botanic garden. Over the past 18 months, the ANBG has questioned its relevance, engaged with local and national stakeholders to examine its scientific, conservation and educational profile, explored its role as a national institution and evaluated its living collection. Such planning and review processes are confronting for any botanic garden, but this paper argues that reflection and in-depth review, in conjunction with effective planning tools, can help to ensure a relevant contemporary botanic garden.

Key words

Community consultation; national botanic garden; perceptions and expectations; strategic planning; sustainable botanic gardens

Introduction

Regardless of whether botanic gardens are managed by the public, private or charity sectors, there is mounting pressure for these institutions to demonstrate accountability, efficiency, effective programmes and their relevance to society. In fact, their sustainability depends on their capacity to do this. Building sustainable botanic gardens requires more than retrofitting infrastructure and implementing efficient water and energy use measures. Sustainability principles must be intricately layered into the people, plants and place.

The aim of this paper is to critically discuss the recent reflection, in-depth review and strategic planning processes undertaken at the Australian National Botanic Gardens to guide it to become a sustainable botanic garden. Arguably there is an ongoing challenge in applying sustainability principles to botanic gardens because these complex multidisciplinary institutions are unique because of their individual social, cultural, political and environmental contexts. Consequently, where the emphasis needs to be placed to create sustainable botanic gardens may vary depending on these contexts and therefore, needs to incorporate high level planning processes.

The context in which the ANBG operates

A brief examination of the political, environmental, social and cultural context in which the ANBG operates highlights its uniqueness and the challenges it faces to be a sustainable botanic garden.

Political context

The ANBG is based in Australia's capital city, Canberra, and is part of a portfolio of national institutions alongside the National Gallery of Australia, National Museum of

Australia, National Library and Australian War Memorial. The ANBG is the only national institution with a 'living collection' and the only botanic gardens in Australia with a national remit for its work.

The administration, management and control of the Australian National Botanic Gardens (ANBG) is the function of the Director of National Parks, a statutory authority responsible for the Australian Government's Commonwealth protected areas. Consequently, the ANBG is governed by a system primarily designed for national parks and reserve management.

Environmental context

Australia is a vast island garden, full of contrasts and extremes. Many of our plants have learned to survive, thrive in and even become dependent upon harsh growing conditions and unbelievably impoverished soils. This is why we are able to experience almost every possible plant form in our great land. (Cundall, 2001:5).

Australia has a diverse landscape and is home to between 600,000 and 700,000 species. About 84% of plant species are endemic to Australia (Department of the Environment, Water, Heritage and the Arts 2008) and the 20,000 vascular plants represent 10% of the world's plant species (Chapman, 2005). The main threats to Australia's biodiversity include invasive species, the loss, fragmentation and degradation of habitat and climate change resulting in such conditions as prolonged drought (National Biodiversity Strategy Review Task Group (NBSRTG) 2009).

The local environmental context also needs consideration when building a sustainable national botanic gardens. Canberra has experienced hotter drier conditions in recent years. In 2006, for example, the annual rainfall was 360.6mm, in contrast to the long-term average of 622.8mm (Australian Bureau of Statistics (ABS) 2007). Furthermore, the number of days exceeding 30 degrees Celsius were 64, compared to a long-term average of 30 days (ibid).

Social and Cultural context

By 30 June 2004, three quarters of Australia's population (15.1 million people) lived in urban areas (areas with population greater than 100,000 people), mostly in the eight capital cities (Australian Bureau of Statistics, 2006). One of the concerns relating to an increasingly urban population is the unknown consequences of people spending less contact time with plants and animals (Maller *et al.* 2002 cited in Crilley and Price ,2006:1378).

An overview of the ANBG

The ANBG is a unique institution in the history of Australian botany. There are around 75,000 plants in its living collection, with around 80% of Australian plant families and more than 30% of the genera represented (Carmen, 2010). This collection has added value because it is a national living collection with known provenance. The institution's leading work in native plant horticulture provided a catalyst for the development of regional botanic gardens cultivating Australian plants throughout the country.

Despite its important history, assets and significance in its field, in more recent years the ANBG was suffering from insufficient resources. By 2008 it was in need of rejuvenation, both physically and financially. Factors including changing climate, rising costs (e.g. salaries, goods and services), lack of a clear vision and brand and a

loss of some stakeholder support was challenging management and resulted in a decline in the status of the ANBG as a national institution. The timely need for a new strategic management plan, a legislative requirement, provided the ANBG Executive with an important opportunity to set a strong long term future for the ANBG guided by a holistic approach to strategic planning. As part of the process, careful consideration also needed to be given to what sustainability would mean for the ANBG (Table 1).

Approach to strategic planning

Within a competitive society, a strong conceptual framework providing a blueprint for actions to guide operations in terms of sustainability principles is necessary for any organisation (Smith, Bucklin and Associates Inc. 2000: 3), including botanic gardens. At the Australian National Botanic Gardens, the new strategic plan had to reflect the changing needs of Australian society and new challenges being faced socially, economically and environmentally, as well as outline priorities for strengthening the ANBG in its role as a national institution.

Stage 1 Starting with the 'big picture' - setting the future direction of the ANBG

a) In December 2008, input was sought from a panel of national and international experts to develop a strategic framework for the management of the ANBG. Panel members were asked to consider:

- the purpose, scope and role of a national institution
- the relationship of the ANBG to other botanical institutions in Australia
- a 10 year and 50 year vision for the ANBG
- opportunities for a national institution to achieve economic sustainability in Australia
- appropriate 'champions' (i.e. figureheads) to support the ANBG.

b) Outcomes from the expert panel meeting informed the 'Future Vision' workshops with ANBG staff, key partners and other existing and potential stakeholders. During these workshops discussion focussed on planning the ANBG's future and more specifically:

- creating a 10 year and 50 year vision
- reviewing the ANBG's mission
- discussing the values and principles that underpin the work of the ANBG
- investigating stakeholder expectations, perceptions of the ANBG and how they wanted the ANBG to be perceived
- gathering opinions on the relevance of the ANBG to Australian society.

c) The outcomes from the expert panel meeting and 'Future Vision' workshops were then considered by the ANBG Executive and select high level stakeholders.

Stage 2 An Internal review

The internal review process involved executive staff from the ANBG undertaking reviews of the sections within their responsibility and making recommendations for future priorities in light of the vision, mission and goals.

a) Communication and Visitor Services –programs and services delivered during the previous seven years under the 2002 – 2008 ANBG Plan of Management were evaluated. The ANBG's school programs, visitor services, public programs, events, marketing and media liaison were benchmarked against other botanic gardens and national institutions. Stakeholders were engaged in discussions on the future direction of the ANBG's programs and services through focus groups and interviews. The review was overseen by an external expert to ensure transparency during the

process. A workforce planning exercise, involving external advisors, was also undertaken to critically evaluate the section's ability to deliver the new strategic direction and identify where additional expertise was needed.

b) Horticulture and Landscape Services (living collection) - this review primarily focussed on the living collections. To strengthen the role of the ANBG as a national institution, a detailed review was needed to examine the value of the collection, its role within the national and international botanic gardens community, and consider opportunities and strategies for future development and management (see Mathams, 2009; Sutherland and Cosgrove, 2010).

c) Science and Information - The majority of the ANBG's scientific work is delivered through the Centre for Plant Biodiversity Research (CPBR). The Centre was formed in 1993 as a joint venture between the Commonwealth Scientific and Industrial Research Organisation (CSIRO) and the Director of National Parks to be a national centre of research excellence in plant systematics and conservation biology. An independent review of the Centre addressed the scientific performance and priorities, governance arrangements, operational arrangements, value for money and the future of the partnership.

Stage 3 National consultation (run concurrently with Stage 2)

According to legislation, the ANBG must invite community members, via notices in national papers, to prepare written submissions on the institution's future. These submissions are considered in the preparation of the management plan. As a national institution, a wider reaching consultation was considered to be important to engage the Australian community in setting the future for their national botanic garden. The consultation involved a range of approaches across the country (Table 2).

Revealing the warts

It must be acknowledged that taking this rigorous approach to planning is a brave and confronting step for any institution because the 'warts' revealed during the process highlight management and operational weaknesses and issues to staff, executive management and the senior bureaucrats who oversee the institution's broad operations. Nevertheless, arguably revealing and examining the 'warts' helps to guide the determination of future priorities to improve institutional performance, relevance and the appropriate allocation of resources to build a sustainable institution in the longer term.

The national community perceptions of the ANBG revealed it to have less of a local and national profile, in comparison to other Australian capital city botanic gardens. Moreover, the consultation with botanic gardens senior staff and community members throughout Australia highlighted some perceived weaknesses and misconceptions (Table 3). The 'warts' outlined in Table 3 needed to be considered in terms of their implications for the ANBG's sustainability. A poor profile and misunderstanding of the work of the institution could affect future strategic partnerships and funding opportunities and risk the loss of stakeholder support. In fact, this was found to be the case in terms of science. The CPBR was not always perceived as part of the ANBG and therefore, the lack of understanding of the ANBG's role in science resulted in it being overlooked for collaborative projects with other botanic gardens. There is also the risk that this could be the case with other core activities, such as being overlooked for collaborative conservation projects or education and learning focussed collaborations.

Through identifying these perceptions and misconceptions, it was evident that the importance and relevance of the ANBG was not well understood. It highlighted the need to prioritise strategic marketing, as well as train and build staff capacity to raise the profile of their institution and more specifically, their work in science and conservation.

Furthermore, the need to clarify, develop and promote the unique position of the ANBG as a national institution was evident. Australia's federation of states and territories challenges the role of a national botanical institution. There were varying opinions among community members and staff in Australia's botanic gardens as to whether the ANBG had a national role, or was a capital city botanic garden for the Australian Capital Territory. Nevertheless, views emerged about botanic gardens needing to be a stronger force and have solidarity to help each other when facing challenges in securing resources, as well as providing support for ongoing work, services and facilities. There was perceived to be a role for the ANBG in creating this solidarity by providing leadership, raising awareness amongst politicians and government agencies of the value and role of botanic gardens nationally, and supporting a network of botanic gardens.

Furthermore, botanic gardens staff saw the need and potential for a botanical institution focussed on national priorities. For example, the need for the ANBG to take a lead on making international instruments (i.e. *Global Strategy for Plant Conservation* and the *Convention on Biological Diversity*) accessible to Australia's botanic gardens was seen as an obvious priority. Discussions also highlighted the potential for the ANBG to take the lead to strengthen the work of botanic gardens in Australia's biodiversity agenda. For example, suggestions included being an advocate for the Australian Seed Bank Partnership and facilitating an awareness raising campaign to increase national understanding of the conservation role of Australia's botanic gardens and the value of *ex situ* conservation.

The consultation also revealed strong opinions of the ANBG's national remit in education and learning. Many community members expected the ANBG to be a centre for information about Australian native plants and Australia's botanic gardens. Of even greater interest to planning the ANBG's future, was the strong voice throughout Australia that the institution should reflect the essence of Australian culture through its living collection and interpretation and education services. The ANBG was expected to tell the 'Australian Story'. The 'Australian Story' was seen as the cultural link between Australia's natural heritage and its cultural heritage and reinforced the importance of the ANBG as both a scientific and cultural institution. The story emerging from the consultation tells of plants and landscape and the interconnection with national identity, the nation's development, the nation's economy, Australian traditional and contemporary society and Australian garden history.

Concluding remarks

This consultation, review and strategic planning process have no doubt been a confronting experience. Nevertheless, it is argued that this process is helping to ensure that the ANBG becomes a sustainable botanic garden and is relevant and contemporary. To continue to be relevant the ANBG needed to reveal the 'warts' and use these findings to guide its strategic direction and its operational priorities over the next 10 years and into the future.

It is suggested that perceptions of an organisation held by management and staff are not necessarily held by the wider community. Staff at the ANBG could argue that the

value of the institution is reflected in its annual visits, support from Friends, web hits, database queries, herbarium and garden inquiries and use of the on-line photo library. Nevertheless, the consultation process revealed issues with its profile as a national institution, highlighted misconceptions of its roles in science and conservation, and provided a clear direction and priorities for education and learning for the ANBG as a national institution.

In these times of competition for resources and support, building a sustainable botanic gardens requires more than retrofitting infrastructure. The ANBG has been working through strategic planning processes to build sustainability principles into its people, plants and place. This reflective process has shown a clear vision for its role and relevance as a national institution, highlighted the national stakeholder support for the ANBG as an institution and a visitor attraction, and clearly enabled it to establish future priorities to address the current 'warts'.

References

- Australian Bureau of Statistics (2006) Urban and Non-urban Population, 1301.0 - Year Book Australia, 2006. Available [online] <http://www.abs.gov.au/Ausstats/ABS/.nsf/Previousproducts/1301.0Feature%20Article72006?opendocument&tabname=Summary&prodno=1301.0&issue=2006&num=&view=>, accessed 31/07/2010.
- Australian Bureau of Statistics (2007) Australian Capital Territory at a glance. Commonwealth of Australia: ABS.
- Carmen, P. (2010) Australia's National Living Collection. Australian Plants (in press).
- Chapman, AD (2005) Numbers of living species in Australia and the world. Report for the Department of the Environment and Heritage, Canberra.
- Crilley, G. and Price, B. (2006) Visitor Service Quality, Visitor Benefits, and Behavioural Intentions: An Empirical Investigation at an Australian Botanic Garden. Paper presented at 'to the city and beyond...' CAUTHE Conference in 2006, Australia.
- Cundall, P. (2001) Foreword. Lockwood, L., Wilson, J. and Fagg, M. (2001) Botanic Gardens of Australia. Australia: New Holland Publishers.
- Department of the Environment, Water, Heritage and the Arts (2008) Threatened Species and Ecological Communities. Canberra: Australian Government. [online] <http://www.environment.gov.au/biodiversity/threatened/>, accessed 05/05/2010
- Mathams, S. (2009) Biodiversity Conservation and the Australian National Botanic Gardens: strategic opportunities. An unpublished report prepared for the Australian National Botanic Gardens, Australia.
- National Biodiversity Strategy Review Task Group (2009) Australia's Biodiversity Conservation Strategy 2010-2020 Consultation Draft. Natural Resource Management Ministerial Council.
- Smith, Bucklin and Associates Inc. (2000) (2nd Ed) The Complete Guide to Nonprofit Management. USA: Wiley.

Sutherland, L.A. and Cosgrove, C. (2010) Valuing a national collection – a work in progress at the Australian National Botanic Gardens. *BG Journal* 7(1): 7-11.

Sutherland, L.A. (2009a) ANBG: Report on the National Consultation with Australia's Botanic Gardens as part of the Management Planning 2009-2019 (August 2009). Australian Government Canberra.

Sutherland, L.A. (2009b) ANBG: Report on the National Community Consultation as part of the Management Planning 2009-2019 (July 2009). Australian Government Canberra.

Table 1: Defining sustainability in the context of the ANBG

<ul style="list-style-type: none">• Financial ability to deliver core business effectively and in a contemporary manner.	<ul style="list-style-type: none">• Demonstrating social inclusion by diversifying visitor demographics and adapting and accommodating different visitor needs.
<ul style="list-style-type: none">• Managing its living collection to high curatorial standards.	<ul style="list-style-type: none">• Demonstrating environmental best practice site operations, including water and energy management.
<ul style="list-style-type: none">• Providing engaging and accessible learning experiences interpreting Australia's unique flora and landscapes to a local and national audience.	<ul style="list-style-type: none">• Being dynamic, flexible and adaptable to ensure ongoing relevance.

Table 2: Summary of ANBG's national consultation methods

Consultation method	Focus of the consultation
<p><i>Engaging stakeholders</i> Corresponding with stakeholders following a stakeholder mapping exercise</p>	<p>Encouraging written submissions on the ANBG's future management.</p>
<p><i>Consulting botanic gardens experts</i> - semi-structured interviews with 31 senior staff from six state botanic gardens and two regional botanic gardens</p>	<p>Examination of :</p> <ul style="list-style-type: none"> - perceptions of the ANBG - expectations of a national botanic garden in Australia - opportunities for providing national leadership - research directions and priorities to identify new directions and opportunities for the ANBG - botanic garden governance and financial management models - approaches to business planning and strategic partnerships - partnership and collaborate opportunities to benefit biodiversity conservation in Australia - relationships with regional botanic gardens.
<p><i>Consulting the national community</i> – focus groups with members from Friends groups and/or volunteer guides of six state botanic gardens and two regional botanic gardens</p>	<p>- gain insights into the perceptions of the ANBG and expectations of, and value placed on, a national botanical institution in Australia.</p>
<p><i>Consulting the local community</i> – presentations and discussions with targeted community groups; focus group discussions open to all members of the local community</p>	<ul style="list-style-type: none"> - the visitor experience/expectations of a national botanic garden - communication with the Canberra community - economic sustainability - the living collection - Attracting the 18-30 year olds to the ANBG - scientific and conservation role - Education and learning - environmental sustainable management

Table 3: ANBG 'warts' revealed from the national consultation

Botanic garden colleagues	Australian community
<ul style="list-style-type: none">• perceived to have lost its vision• Centre for Plant Biodiversity Research is highly valued and seen to make a significant contribution to knowledge, however, confusion over its relationship with the ANBG results in poor recognition of ANBG's science programme• not perceived to undertake conservation focussed work	<ul style="list-style-type: none">• poor local and national profile• little awareness of the contributions of ANBG to science• lacks a 'wow' factor that challenges the ordinary and ensures a broader appeal

Source: Sutherland 2009a and Sutherland 2009b