

On the rocky road towards sustainability: aspiring towards the Kirstenbosch Model.

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Abstract

The South African National Biodiversity Institute (SANBI) manages a network of nine national botanical gardens spread across six provinces in South Africa. SANBI's flagship conservation garden and probably the best known is Kirstenbosch, situated in the heart of the Cape Floristic Region, one of the world's six floral kingdoms. After a period of significant, sustained and strategic investment made through the 1990s, Kirstenbosch became one of the few self-sustaining botanical gardens globally in 2005 and has retained this status every year since. This paper looks at the reasons for Kirstenbosch's success and the significant capital investment made into the other South African national botanical gardens since 2001. It describes interventions that have been made to penetrate new markets opportunistically with a dynamic range of diverse products and services offered, and increase the relevance of South Africa's national botanical gardens to the broader public, as well as opportunities taken to promote partnerships and deliver on the country's broad biodiversity mandate created through the National Environmental Management: Biodiversity Act. Innovative approaches to challenges and ways to improve (and once achieved, maintain), sustainability of South Africa's national botanical gardens will require careful analysis of the foreign and domestic market trends, resources required as well as opportunities that can be taken.

Keywords

Cape Floral Kingdom, Cape Floristic Region, Kirstenbosch, national botanical gardens, SANBI, South Africa, sustainability.

Introduction

South Africa is one of a few countries in the world where a single institution manages a network of national botanical gardens (NBGs). Kirstenbosch National Botanical Garden (est. 1913), located on the eastern slopes of Table Mountain, was the first national botanical garden to be established in South Africa. It focused entirely on the conservation of South Africa's wealth of indigenous plants and the network has subsequently grown to incorporate nine national botanical gardens, spread across six of South Africa's nine provinces (Willis 2005). As embassies of biodiversity and culture, South Africa's NBGs attract over 1.2 million visitors per annum, with Kirstenbosch receiving over 750,000 visitors annually.

The NBGs are situated in climatically different parts of the country, including predominantly winter-rainfall mediterranean climates (Kirstenbosch and Harold Porter NBG); semi-arid climates (the Karoo Desert NBG, situated in Worcester, with an annual rainfall of 250 mm, is the only truly succulent garden on the African continent as well as in the southern hemisphere); summer rainfall subtropical to tropical climates (Lowveld and KwaZulu-Natal NBG) and South Africa's interior plateau areas that can receive frost during the dry, cold winter months between May and August (Free State, Pretoria and Walter Sisulu NBGs). This range of climatic conditions means that different gardens are

able to grow plants that might not be grown as successfully in other gardens without artificial structures having to be built. The national botanical gardens include natural vegetation representative of six of southern Africa's seven biome units, namely forest, fynbos (characterized by the presence of *ericas*, *restios* and *proteas*), grassland, savanna, Nama Karoo, and Succulent Karoo. The only biome not represented is the desert biome of the Namib Desert, which occurs almost exclusively in Namibia.

Apart from the Hantam Garden (Willis *et al.* 2010), all SANBI's national botanical gardens are situated in densely populated urban areas and are therefore relatively easily accessible to a broad and diverse audience. Since the inception of Kirstenbosch in 1913, the gardens have been supported by the Botanical Society of South Africa (BotSoc), a non-governmental organisation whose local branch members act as the 'friends' of the gardens and support both garden-based and *in situ* conservation efforts. The Botanical Society, the biggest Public Benefit Organisation (PBO) in South Africa, has also contributed significantly to the infrastructural development of South Africa's national botanical gardens, particularly in Kirstenbosch, where the largest branch of the society and its Head Office is based.

Whilst the 1990s was the decade for the development of Kirstenbosch, assisted through the Kirstenbosch Development Campaign (which raised over R50 million between 1991 and 2003) (Huntley 1993, 1998a, 1998b, 2003) and a range of sponsorships including private and corporate donors and the Botanical Society of South Africa, the first ten years of the new millennium have shown a shift in allocation of resources and the completion of new infrastructural developments in the various northern gardens (Willis & Huntley 2007).

This paper attempts to analyse the Kirstenbosch Model, reasons for its success, and what lessons can be learned by other South African national botanical gardens.

Kirstenbosch's Competitive Edge

Participants at the International Botanical Congress of 1999 voted Kirstenbosch as one of the 'Magnificent Seven' top gardens in the world. It forms part of the Cape Floristic Kingdom World Heritage Site and borders on the Table Mountain National Park. It is surrounded by the suburbs of Cape Town with a population of over 3 million people. It also forms part of Cape Town's 'Big 6' tourist destinations and only grows indigenous South African plants.

Kirstenbosch Model

Kirstenbosch became sustainable in 2006/7, when self-generated income covered all personnel and operational costs of the Garden. The Garden incorporates a range of outsourced tenants and income sources, such as restaurants, shops, plant sales nursery and sculpture sales. The Garden is used for recreation, private functions and events. The Garden generated R29 million in the 2009/10 financial year, and hosts a range of sponsored events and concerts through the year.

Critical Success Factors

Critical success factors for Kirstenbosch include the following:

- Unique setting, on the eastern slopes of Table Mountain in the heart of the Cape Floral Kingdom

- 150 volunteers
- Destination integrity, through its products and services
- Passionate, skilled and experienced staff
- Sound financial management
- Cost reduction
- Support from the Botanical Society of South Africa
- Strategic marketing partnerships e.g. the Big 6 Partnership
- Kirstenbosch Development Campaign (1990s) – generated R50 million
- Strong and stable leadership
- Demonstration gardens
- Relevant to the needs of society
- Sustainable strategies – including irrigation, water use, electricity use and recycling
- Links with tour group organizers
- Horticultural expertise
- Experiential training opportunities.

In 1965, Prof. Robert Harold Compton, the second Director of Kirstenbosch (1919–1953), wrote the following:

“The idea of “landscaping” at Kirstenbosch was always rendered futile by the grandeur and diversity of its setting, making any sort of “improvement” seem foolish. No botanic garden in the world has a more magnificent site, with its hills, slopes, streams and forests and its superbly bold mountain background and distant views. The landscape was already there and the main thing was to ensure that it should not be spoilt by the uses to which it would be put.”

“The lay-out of Kirstenbosch has therefore followed no fixed plan. It has gradually unfolded itself, as it were, in response to experience, to a realisation of what is necessary and what is possible, and to expanding ideas of the scope of its work. Each piece of construction involved a consideration of what could be done with the labour and funds available, and further, whether it would be possible to carry out the consequent additional maintenance.”

Operational improvements

Kirstenbosch has implemented the following operational improvements over the past 10 years:

- a. A 20% reduction of staff from 170 to 130, complemented by horticultural skills training for unskilled staff.
- b. Outsourcing of non-core functions, such as gate administration (cashiers), security and cleaning services.
- c. Market-related gate admission fees resulting in an increase in gate income from R1.4 million in 1996 to R12.5 million in 2009.
- d. All restaurants and shops are privately operated with an average rental of 10% of turnover. Commercial tenants employ 140 staff.
- e. Local and international concert programme which generates R10 million income for the Garden per annum.

Table 1. Comparison of admission fees charged between Kirstenbosch and other competing tourist destinations in and around Cape Town between 2006 and 2010.

<u>Venue</u>	<u>March 2006</u>			<u>March 2008</u>			<u>March 2010</u>		
	<u>Adults</u>	<u>Students</u>	<u>Scholars</u>	<u>Adults</u>	<u>Students</u>	<u>Scholars</u>	<u>Adults</u>	<u>Students</u>	<u>Scholars</u>
Kirstenbosch	R25	R15	R5	R30	R20	R5	R 35	R20	R10
Cape Point (TMNP)	R45	R45	R10	R55	R55	R10	R 75	R 75	R10
Robben Island	R150	R150	R75	R150	R150	R75	R 200	R 200	R 100
Table Mountain Cableway	R 115	R 84	R 60	R 130	R 88	R 68	R 160	R 160	R 80
The Castle	R 20	R15	R10	R20	R20	R10	R 25	R 25	R10
Two Oceans Aquarium	R65	R50	R 30	R 76	R 60	R35	R 94	R 73	R 45
Drakenstein Lion Park	R30	R25	R15	R40	R20	R20	R 45	R 45	R 25
Tygerberg Zoo	R44	R44	R28	R 48	R 48	R32	R 60	R 60	R 40
World of Birds	R50	R 40	R32	R55	R45	R35	R 65	R 50	R 39
Ratanga Junction	R100	R 100	R 50	R110	R110	R55	R 132	R 132	R 65
Ster Kinekor Cinemas	R38	R38	R19	R42	R42	R 21	R 48	R 48	R 29
Update 30/04/2010									

Financial status

In the years 1914 to 1920, a third of Kirstenbosch's revenue was derived from the sale to the general public of wood and acorns. By 1984, the Government grant formed nearly 90% of the Garden's total income. In 1997/8 Kirstenbosch depended on a government grant for 70% of its budget. In 2009/10 the Garden generated 112% of its budget as own income, with no annual government grant allocated since 2006/7. This financial success was due to (a) political changes in the country which enabled international tourism to the Garden to grow from a zero base in 1994 to 140,000 in 2006. Due to the global recession, this number dropped down to 100,000 in 2008/9, and (b) vast improvements in visitor facilities with R60 million spent on capital developments in the past twelve years.

Commercialization opportunities in Kirstenbosch include the following:

- Admission fees
- Plant sales/Garden Centres
- Tea Gardens/Restaurants
- Hiring of Conference Halls & Exhibition Centres (hosting amongst others, the Kirstenbosch Art Biennale, Biodiversity Expo)
- Marquee lawn attracting high profile political and corporate functions
- Kirstenbosch Shop
- Book shops
- Chapungu Sculpture sales
- Concerts
- Guided tours/Audio Guide.

The local and international concert programme generates R8.6 million gate income and R1.4 million in sponsorship, and attracts 135,000 visitors per annum.

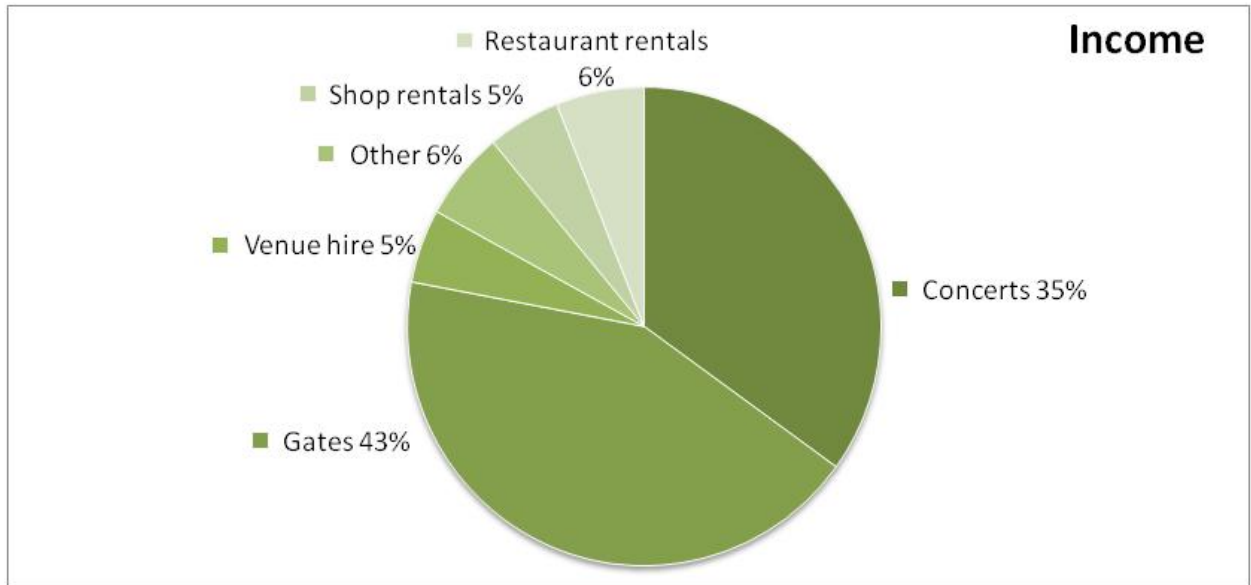


Figure 1. Breakdown of proportion of different sources of income to Kirstenbosch National Botanical Garden on an annual basis.

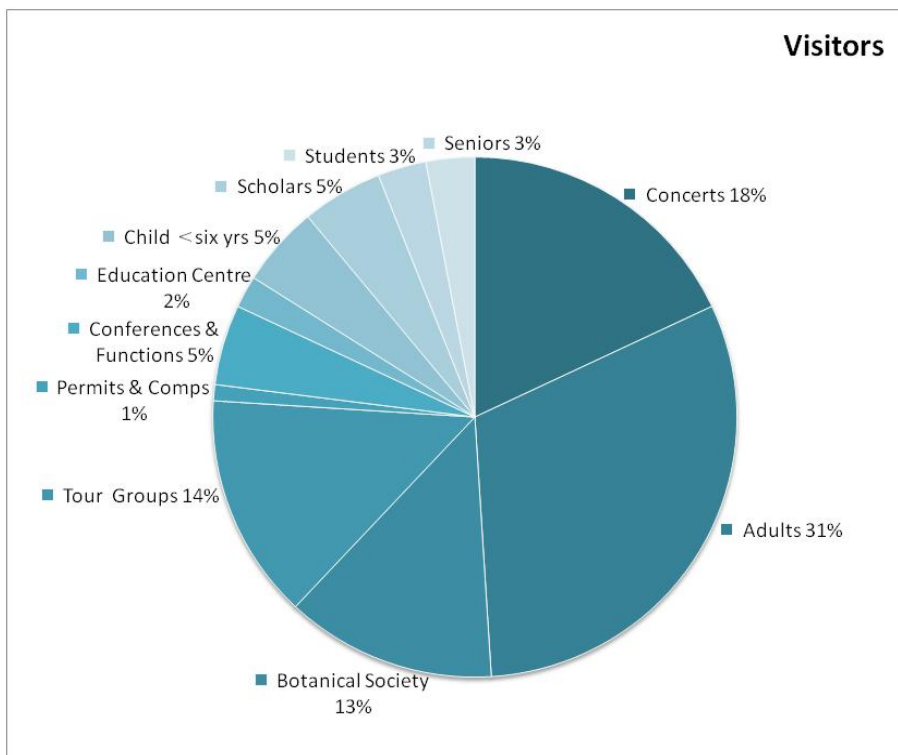


Figure 2. Breakdown of different categories of visitors using Kirstenbosch and its varied facilities on an annual basis.

In 1965, Prof. Compton expressed the following:

“To Kirstenbosch life means continuous growth and an ever-widening sphere of activity – Kirstenbosch should be as changeful and dynamic as the living plants which are its reason for existence”.

“It is perhaps difficult today [1965] to picture this embryonic institution, unbelievably ill-equipped, stricken by World War I and the untimely death of its first Director [Prof. Harold Pearson], national but stigmatised as “local”, selling a few bags of acorns here and a few loads of firewood there in an effort to pay penurious salaries and wages, and yet conscious of the spark of greatness within itself which might one day burn with a noteworthy flame.

Perhaps the true gardener’s spirit pervaded the management – the spirit of hope and the unquenchable expectation of success despite repeated disappointments”.

Achievements in regional gardens

Over R50 million has been invested in new capital infrastructure across SANBI’s non-Kirstenbosch national botanical gardens since 2001, with significant support received from South Africa’s Department of Environmental Affairs (DEA) (Willis & Huntley 2007). A large portion of this funding has been sourced from South Africa’s Expanded Public Works Programme (EPWP). The Expanded Public Works Programme (EPWP) is one of the South African Government’s short-to-medium term programmes aimed at alleviating and reducing unemployment.

Through these construction activities, 186,000 temporary job days have been worked and over 2,100 people employed. Projects completed in the various national botanical gardens include new restaurants, tea gardens, environmental education centres, visitors’ centres, pathways and walkways. In addition, a range of new demonstration gardens have been developed, including useful plants gardens, geological garden, as well as threatened plant gardens.

Challenges and opportunities

In order for SANBI’s national botanical gardens to achieve the Kirstenbosch Model of sustainability, the following aspects must be given the necessary resources and attention they deserve:

- Marketing/advertising
- Dedicated event organizers
- SANBI Brand and brand names for gardens
- Relevance to surrounding communities
- Improved directional road signage
- Sponsorships
- Effective management and operation of outsourced facilities
- Support from local, provincial and national tourism agencies.

Conclusions

Kirstenbosch’s setting, history, support and investment is unique. Is it replicable in other areas? There is a need to review each garden in its unique context/setting. Community support is required, including for education and interpretation. It will require long term commitment and investment from SANBI and the South African Government. Partnerships and linkages with other tourism destinations in the same town or city are

essential, and if developed, will reduce, for example, each garden's marketing and advertising costs. Each garden's product offering to the general public must be based on the principles of increased diversity, quality and consistency. Each garden must ensure that visits by the general public are value for money and relevant. Gardens must also be managed on cost effective principles, with the need in some cases to review and reduce staff and operational costs, and increasingly source sponsorships and organize events in the gardens.

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