SANBI
Biodiversity for Life
South African National Biodiversity Institute

FINAL
Corporate Strategic Plan
2015 – 2020

Celebrating biodiversity for the benefit and enjoyment of all South Africans

www.sanbi.org

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Part A: Strategic overview

1. SANBI's vision

Biodiversity richness for all South Africans.

2. SANBI's mission

To champion the exploration, conservation, sustainable use, appreciation and enjoyment of South Africa's exceptionally rich biodiversity for all people.

3. SANBI's values

SANBI is guided by the following organisational values, which spell out: 'uGreat':

Ubuntu —Harnessing, caring, sharing and being in harmony with all of creation.
Growth —Nurturing and empowering teams and individuals to grow and reach their true potential.
Respect and tolerance — Creating open, honest relationships built on trust, mutual respect, dignity and fairness AND valuing and accepting individuals and diversity.
Excellence —Providing service excellence through passion and professionalism.
Accountability —Taking pride and responsibility in our work and caring for our environment and communities.
Togetherness —Through collaboration we change the world.

4. Legislative and other mandates

The South African National Biodiversity Institute was established in terms of section 10(1) of the National Biodiversity Management: Biodiversity Act (Act No. 10 of 2004). SANBI is a public entity in terms of section 38(1) (m) of the Public Finance Management Act. It is classified as a schedule 3A entity, i.e. one that will receive substantial support from the National Revenue Fund.

Section 2 of NEMBA stipulates that SANBI's purpose is to assist in achieving the objectives of the Biodiversity Act. Section 2 sets the further objectives of the Act, i.e.:

(a) within the framework of the National Environmental Management Act, to provide for:

(i) the management and conservation of biological diversity within the Republic and of the components of such biological diversity;

(ii) the use of indigenous biological resources in a sustainable manner; and

(iii) the fair and equitable sharing among stakeholders of benefits arising from bio-prospecting involving indigenous biological resources;

(b) to give effect to ratified international agreements relating to biodiversity, which are binding on the Republic;

(c) to provide for co-operative governance in biodiversity management and conservation; and

(d) to provide for a South African National Biodiversity Institute.

SANBI's mandate comes from the National Environmental Management: Biodiversity Act No. 10 of 2004: Section 11.

Functions

(1) The Institute:

(a) must monitor and report regularly to the Minister on:
   1. the status of the Republic's biodiversity;
   2. the conservation status of all listed threatened or protected species and listed ecosystems; and
   3. the status of all listed invasive species;

(b) must monitor and report regularly to the Minister on the impact of any genetically modified organism that has been released into the environment including the impact on non-target organisms and ecological processes, indigenous biological resources and the biological diversity of species used for agriculture;

(c) must act as an advisory and consultative body on matters relating to biodiversity to organs of state and other biodiversity stakeholders;

(d) must co-ordinate and promote the taxonomy of South Africa's biodiversity;

(e) must manage, control and maintain all national botanical gardens;

(f) must manage, control and maintain:
   1. herbaria; and
   2. collections of dead animals that may exist;

(g) must establish facilities for horticulture display, environmental education, visitor amenities and research;

(h) must establish, maintain, protect and preserve collections of plants in national botanical gardens and in herbaria;

(i) may establish, maintain, protect and preserve collections of animals and micro-organisms in appropriate enclosures;

(j) must collect, generate, process, co-ordinate and disseminate information about biodiversity and the sustainable use of indigenous biological resources and establish and maintain databases in this regard;

(k) must allow, regulate or prohibit access by the public to national botanical gardens, herbaria and other places under the control of the Institute and supply plants, information, meals or refreshments or render other services to visitors;

(l) must undertake and promote research on indigenous biodiversity and the sustainable use of indigenous biological resources;

(m) must coordinate and implement programmes for:
    1. the rehabilitation of ecosystems; and
    2. the prevention, control or eradication of listed invasive species;
(n) must coordinate programmes to involve civil society in:
    1. the conservation and sustainable use of indigenous biological resources; and
    2. the rehabilitation of ecosystems;
(o) on the Minister's request, must assist him or her in the performance of duties and the exercise of powers assigned to the Minister in terms of this Act;
(p) on the Minister's request, must advise him or her on any matter regulated in terms of this Act, including:
    1. the implementation of this Act and any international agreements affecting biodiversity which are binding on the Republic;
    2. the identification of bioregions and the contents of any bioregional plans;
    3. other aspects of biodiversity planning;
    4. the management and conservation of biological diversity; and
    5. the sustainable use of indigenous biological resources;
(q) on the Minister's request, must advise him or her on the declaration and the management of, and development in, national protected areas;
(r) must perform any other duties:
    1. assigned to it in terms of this Act; or
    2. as may be prescribed.

(2) When the Institute in terms of subsection **(1)** gives advice on a scientific matter, it may consult any appropriate organ of state or other institution, which has expertise in that matter;

48. (3) The Institute must:

(a) assist the Minister and others involved in the preparation of the National Biodiversity Framework, a bioregional plan or a biodiversity management plan to comply with subsection (1); and

(b) make recommendations to organs of state or municipalities referred to in subsection (2); align their plans referred to in that subsection with the National Biodiversity Framework and any applicable bioregional plan.

60. (2) The Institute must provide logistical, administrative and financial support for the proper functioning of the Scientific Authority.

SANBI is also responsible for the following regulations in terms of NEMBA:

- Threatened or Protected Species Regulations;
- Convention on International Trade in Endangered Species of Wild Fauna and Flora Regulations;
- Draft Alien and Invasive Species Regulations.

Underpinning the successful implementation of provisions of NEMBA is the submission of scientific evidence to support policy and decision making relating to the conservation and management of biodiversity and the impacts of and adaptation to climate change.

Key priorities are also derived from official sources that identify issues with a high relevance to policy, such as, the National Biodiversity Strategy and Action Plan (NBSAP), the National Biodiversity Framework (NBF), government delivery agreements, and other national priorities (e.g., wildlife trade, the green economy), and specific mandates such as provided by the White Paper on the National Climate Change Response Policy (NCCRP).

SANBI manages its human resources through the following legislation:

- Labour Relations Act No. 66 of 1995;
- Basic Conditions of Employment Act No. 75 of 1997;
- Employment Equity Act No. 55 of 1998;
- Skills Development Act No.97 of 1998;
- Skills Development Levies Act No.9 of 1999;
- Occupational Health and Safety Act No. 85 of 1993;
- Compensation for Occupational Injuries and Diseases Act No. 130 of 1993.

The Institute also complies with the Public Finance Management Act and relevant Treasury regulations.

5. Situational analysis

Outlined below is information on the performance delivery and institutional environment that was gathered during the strategic planning process.

5.1 Performance environment

SANBI makes an important contribution to national development through ensuring that it is aligned with government priorities. It contributes to the National Development Plan 2030, which aims to eliminate poverty and reduce inequality. It achieves this by making a direct link between biodiversity and development. While SANBI contributes to a number of the critical actions outlined in the plan, it makes a direct contribution to Critical Action 7 regarding interventions to ensure environmental sustainability and resilience to future shocks. SANBI is also guided by the 2014-2019 Medium Term Strategic Framework (MTSF) which provides a 5-year building block towards the 2030 vision of the National Development Plan. The MTSF sub-outcomes include:

Sub-outcome 1: Ecosystems are sustained and natural resources are used efficiently

Sub-outcome 2: An effective climate change mitigation and adaptation response

Sub-outcome 3: An environmentally sustainable, low-carbon economy resulting from a well-managed just transition

Sub-outcome 4: Enhanced governance systems and capacity

Sub-outcome 5: Sustainable human communities

SANBI's contributions to key focus areas of government and a number of the outcomes outlined in the Programme of Action are captured in tables 5.1.1 and 5.1.2 respectively.

Table 5.1.3 outlines SANBI's role and contribution to key focus areas of DEA.

5.1.1 Alignment with key focus areas of Government

Medium term strategic framework priorities	SANBI role and contribution
Speed up growth and transformation of the economy to create decent work and sustainable livelihoods.	Developing the tourism industry, job creation and efficient, effective environmental decision-making.
	Developing the economic potential of indigenous biodiversity for horticultural, floricultural, medicinal, tourism and natural product purposes.
	Supporting tourism-related employment, service industry and handicraft, tour guides.
	Supporting traditional medicinal and related sectors in terms of sustainable livelihoods.
	Catalysing access to employment and job creation in ecosystem management.
	Developing skills in labour (Expanded Public Works Programme) through the building of new capital facilities, creation of learnerships, internships, activities in invasive plant removals, habitat restoration and low technology capital facilities.
Rural development, food security and land reform.	Outsourcing of services to SMMEs, where appropriate and available.
	Supporting integrated sustainable rural development (Agri-BEE framework—broad-based economic empowerment in agriculture).
	Developing land-use models for rural farming communities within arid regions, improved 'water wise' gardening techniques.
	Developing new agricultural products such as honey bush tea for marginalised rural communities.
	Exploring payments for ecosystem services and creation of green jobs e.g. ecosystem rehabilitation.
	Supporting rural livelihoods and land reform through biodiversity stewardship projects.
Education.	Contributing to quality education in biodiversity.
	Supporting the curriculum at the various levels of Education and Training.
	Promoting professional development for the biodiversity sector through engaging stakeholder groups in biodiversity conservation.
	Promoting careers in conservation and growing biodiversity skills.
	Promoting biodiversity conservation through education and awareness raising.
Cohesive and sustainable management and use.	Support the national Scientific Authority by providing advice on sustainable use that is not detrimental to the species in the wild and advice on sustainable off-take limits.
Create a better Africa and better world.	Collaborating in NEPAD and SADC initiatives in the environment, tourism and sustainable development sectors and NEPAD Science Plan.
Development State including improvement of public services.	Implementing effective systems to ensure compliance with relevant laws, regulations and upheld good governance practices.

5.1.2 Alignment with key focus areas of DEA

DEA's key focus areas	SANBI's role and contribution
Protect, conserve and enhance our environmental, natural and heritage assets and resources.	Monitoring and reporting on the state of biodiversity e.g. through the National Biodiversity Assessment and supporting the identification of priority areas for biodiversity management.
	Identifying biodiversity management priorities in SA's most threatened biomes and ecosystems.
	Testing innovations in best management practices. Providing science-based policy advice in support of sustainable development.
	Implementing education programmes, surveys and reports on rare and endangered species and ecosystems.
	Documenting biodiversity.
	Providing scientific and logistical support for the Scientific Authority. The Scientific Authority is the main scientific body that provides advice on sustainable use that is non-detrimental to the species in the wild and it also advises on sustainable off-take limits.
	Researching on threats to biodiversity that includes early detection of invasive alien species.
	Monitoring the environmental impact of Genetically Modified Organisms (GMOs).
	Mapping land degradation and climate change impacts.
Pro-actively plan, manage and prevent pollution and environmental degradation to ensure sustainable and healthy environment.	Supporting the production of maps of critical biodiversity areas to inform land-use planning and streamline environmental decision making; ensuring that developments are appropriately located.
Contribute to sustainable development, livelihoods, green and inclusive economic growth through facilitating skill development and employment creation.	Supporting DEA's environmental programmes which creates work and skills development opportunities while at the same time delivering improved ecosystem services
	Improving understanding of the extent of habitat loss and land degradation.
Provide leadership on climate change.	Leading the science and applied science agenda relating to climate change impacts, vulnerability and adaptation in the biodiversity and related sectors.
	Leading the alignment of collaborating partners in identifying current trends and future potential adverse impacts and opportunities in relation to the responses of biodiversity and key natural resources to climate change and the adaptation potential offered by natural ecosystems for the sustainability of human livelihoods under climate change.
	Developing tools and providing guidelines for effective implementation of biodiversity conservation strategies under future climate change scenarios.
	Providing policy support in defining negotiating positions under international conventions in biodiversity and related sectors.
	Communicating climate change issues to the general public nationally and internationally through a variety of activities, for example, South Africa's Second National Communication under the United Nations Framework Convention for Climate Change.
Contribute to a better Africa and better world by advancing national environmental interests through a global sustainable development.	Ensuring relevant scientific information on biodiversity is available to support decision-making and policy formulation.
	Playing a key role in supporting African countries in mobilising biodiversity data to support sustainable development initiatives.
	Providing leadership in the development and implementation of a national biodiversity research strategy and biodiversity human capital development strategy.
	Providing expert and technical support for meeting obligations of multilateral environmental agreements, such as the CBD, CITES, UNFCCC, etc. Playing a leadership role in international science bodies, such as the Inter-governmental Platform on Biodiversity and Ecosystem Services (IPBES), Climate Change Adaptation Fund; Panel on Climate Change (IPCC), and the Global Carbon Project (GCP) and the IUCN Specialist Group and Global Biodiversity Information Framework (GBIF)
Enhance efficient service delivery.	Providing accurate and accessible biodiversity information to the public.
Equitable and sound corporate and corporative governance.	Promoting multi-sectoral partnerships of government and civil society aimed at conserving biodiversity and making links with socio-economic development.
	Demonstrating increased conservation efficiency through the provision of effective co-ordination of conservation actions at the biome level.

5.1.3 Partner organisations and the 'managed network'

SANBI has adopted a 'managed network' institutional model, which consists of partner organisations, institutions and bodies with whom SANBI has (or should have) formal agreements that contribute towards delivering on SANBI's mandate as determined by the Biodiversity Act (Act 10 of 2004), and SANBI's Strategic Plan. The managed network relationships are focused on outputs (not organistions) — including strategic plans and joint agenda setting—involving direction and leadership from SANBI, and formalised by way of agreements. The managed network includes broader knowledge networks and communities of practice, which SANBI leads and/or in which SANBI plays a highly influential role, and which contribute directly to the delivery of SANBI's mandate. The managed network does not include knowledge networks where SANBI merely participates or advises.

The purpose of the managed network is to allow SANBI to achieve its strategic goals and objectives not through undertaking all the necessary functions in-house, but rather through developing a set of structured relationships with a range of strategic partners in the public and NGO sectors. In addition, the managed network allows SANBI to harness and engage with the extensive range of biodiversity expertise in South Africa, as well as to draw on organisations who may not currently see themselves as directly involved in the biodiversity sector, but who have relevant knowledge, skills and experience to contribute to achieving biodiversity goals. The ultimate aim is to encourage greater efficiency in the use of scarce fiscal resources, to improve sharing of information and knowledge, and to harness South Africa's biodiversity capacity towards the goals of the Biodiversity Act, the National Biodiversity Strategy and Action Plan and the National Biodiversity Framework.

5.1.4 Stakeholder engagement

Stakeholder engagement is an integral part of developing an understanding of SANBI's interest and impact within the biodiversity and scientific arena. SANBI engages its stakeholders through regular communication and through involvement in forums, meetings and workshops on key biodiversity issues.The following key stakeholders are identified in our engagement strategy:

i. **Employees**
ii. **Customers**
iii. **Suppliers**
iv. **Funders**
v. **Government departments**
vi. **Municipalities**
vii. **Partners**
viii. **Tertiary institutions**
ix. **Civil society**
x. **Media**

5.2 Organisational environment

5.2.1 Financial sustainability

SANBI, as a Schedule 3A national public entity under the national Department of Environmental Affairs (DEA) that operates within the framework of the PFMA, is reliant on the annual MTEF grant allocation made by DEA to cover the Institute's personnel and operating expenditure. The MTEF grant is supplemented by own income (comprising about 20% of the annual non-infrastructural grant allocated by DEA), generated largely by SANBI's network of National Botanical Gardens, as well as through sponsorships and donor funds received for various mandate-related activities within the institute.

As SANBI is a public-good organisation, it is limited to the extent it can increase its gardens admission fees whilst at the same time trying to attract as broad a cross-section of society to the gardens as possible. Admission fees are benchmarked with other local tourist attractions to ensure they remain competitive but affordable to the majority of South Africans. The own income generated by the gardens comprises largely admission fees (72%) and rentals (19%) through commercial lease agreements negotiated with tenants (shops, restaurants / tea rooms and plants sales nurseries). Kirstenbosch National Botanical Garden is one of the few self-sustaining botanical gardens in the world, largely due to its location, the range of world-class facilities developed in the garden during the 1990s, as well as its links with local tourism partners, tour operators and sponsorships received from corporate companies that enable the Summer Concert Series, which is held between November and April each year.

Whilst SANBI strives to 'sweat its assets' and increase own income as much as possible, a large portion of the Institute is almost solely reliant on the MTEF and other donor grants in order for them to fulfill their functions expected within NEMBA. SANBI uses the managed network model, whereby it facilitates delivery on its mandate through partner organisations (such as museums, universities, NGOs and other national/international research and development organisations), in order to achieve various sections of NEMBA. The main cost drivers for the organisation include personnel and personnel-related costs, information technology, security and cash collection fees, electricity, building repair and maintenance, and vehicle-related costs. SANBI continuously taps into new and alternative funding and resourcing sources to enable the organisation to deliver on its mandate.

5.2.2 Critical success factors

Knowledge management: Information and knowledge collection, beneficiation and dissemination are at the core of SANBI's functioning. SANBI's role is to proactively harness, organise, refine, synthesise and manage biodiversity information and knowledge. SANBI performs this function not only with the information and knowledge generated by itself but also from its partner organisations. SANBI develops tools that allow for quick and simple access to the knowledge resource base, especially to support policy development and decision-making.

Scientific excellence: While SANBI will not carry out all the scientific research itself, it will strive to adopt the mind-set, resources and organisational systems that enable it to use (integrate, synthesise and analyse) scientific research from partners and other organisations, and to stimulate excellent and relevant research in collaboration with partners.

Partnerships: SANBI has the mandate to play a lead role in facilitating co-ordination and integration of the relevant activities of other agencies which work within the biodiversity sector. The Institute and its staff need to be recognised as the leader of biodiversity and resource management excellence, and to be well networked within the sector nationally, regionally and internationally. SANBI's mode of operation needs to facilitate partnerships between the various agencies charged with conservation and research and development functions to build on national capacity in the sector. SANBI has adopted a 'managed network' organisational model, recognising the necessity to develop a network of partnerships to contribute towards the fulfilment of the SANBI mandate. Managed network partners are key strategic partners with whom SANBI collaborates actively on programmes of work and/or specific projects and outputs.

Customer focus: SANBI's key customers are policy makers, knowledge seekers, visitors to the various National Botanical Gardens spread across the country and local communities. SANBI's major focus as an Institute is to ensure that it is flexible enough to be responsive to the needs of all these groups of clients within the framework of its mandate.

Human capital: The biodiversity sector faces critical skills shortages and does not currently represent the demographic profile of South Africa. SANBI needs to pay special attention to growing additional capacity and providing opportunities for empowerment and professional development. This is achieved through the support provided on an educational, skills development and economic development level.

Funding: SANBI depends on its Government grant, other grants, sponsorship and donations to fulfil its mandate. This is complemented by the income it generates through services rendered, guided tours, commissions, and seminars and workshops hosted.

Business efficiency and financial accountability: SANBI subscribes to and is committed to complying with the principles and standards of integrity and accountability expressed in the Public Finance Management Act, relevant treasury regulations and recommendations that are relevant to public entities in the King III Reports on Corporate Governance.

5.2.3 SANBI's Organisational Structure

5.2.4 Core Business Areas

SANBI's core business areas are reflected in the two major branches, which include Corporate, Estate and Finance Management and Biodiversity Science and Policy Advice. An overview of the content areas for these Branches is outlined below:

Corporate, Estate and Finance Management	
Areas managed	**Areas of high level support**
• Human Resources and Training. • Conservation Gardens and Tourism. • Monitoring, Evaluation and Planning. • Project Management Unit. • Legal and Contractual Matters. • Information Technology. • Risk and Compliance Management.	• Corporate funding and support to organisational development and budgeting. • Corporate Image and Branding. • Internal and External Communications. • Conservation Estate Management, including nine National Botanical Gardens. • Interpretation and information for visitors to the National Botanical Gardens. • Marketing of the Organisation. • Human Resources Management
Biodiversity Science, research and Policy Advice	
• Biodiversity Research, Assessment and Monitoring. • Biosystematics and Collections. • Climate Change Adaptation. • Biodiversity Information, Planning and Policy Advice. • Biodiversity Education and Empowerment . .	• Scientific inputs into multilateral agreements. • Scientific Authority. • Alien and Invasive Species. • Biodiversity impact of Genetically Modified Organisms (GMOs). • Modelling and Analysis • Climate Change and Bio-adaptation. • Designated National Implementing Entity to the Global Adaptation Fund • Ecosystem Services. • Mainstreaming ecological infrastructure and biodiversity assets in municipal planning and decision-making • Mainstreaming in mining, forestry, agriculture and fisheries • Biodiversity Monitoring and State of Biodiversity Reporting. • Biodiversity Financing and Resource Economics. • Biodiversity Stewardship. • Biodiversity Planning. • Ecological Infrastructure • Community-Based Natural Resource Management (CBNRM). • Information Management, Libraries and Publications. • Biodiversity Human Capital Development. • Education and Awareness Raising.

5.2.5 The SANBI Board

The SANBI Board is appointed by and reports to the Minister of Environmental Affairs. Members are appointed on a three year term, meeting quarterly. The Board of SANBI fulfils the same function as the Board of Directors of any other organisation, on behalf of the owners (in this case, the people of South Africa) with responsibility and accountability for all activities of SANBI, with the mandate outlined in the Biodiversity Act.

The Board provides policy leadership and is the Accounting Authority of SANBI. The Chief Executive Officer is a member of the Board and is responsible to the Board for executive management matters of SANBI.

In terms of the Public Finance Management Act (PFMA), the Board is the Accounting Authority of SANBI, evaluating both financial and strategic performance on a regular, structured basis. As the Accounting Authority, the Board is subject to Chapter 6 of the PFMA as well as Part 9 of the Treasury Regulations. In terms of the PFMA, the Board is responsible to the Minister of Water and Environmental Affairs and to Parliament for identifying and determining essential services, determining priorities within the limitations of funds available, submitting and motivating long-term and draft budgets, and evaluating and improving the efficiency and effectiveness of the services provided.

5.2.6 Relationship with Government

SANBI is registered as a public entity in terms of section 38(1) (m) of the PFMA, and classified as a schedule 3A entity, i.e. one that will receive substantial support from the National Revenue Fund. The entity reports to and is accountable to the Executive Authority of the Department of Environmental Affairs (DEA).

DEA develops and implements policy regarding the environment and tourism, while SANBI advises and informs DEA with respect to the biodiversity elements of environment policy based on best available science, and acts as DEA's agent as stipulated in its mandate.

SANBI collaborates with other government departments, i.e. Department of Higher Education and Training; Department of Basic Education, Department of Agriculture, Forestry and Fisheries; Department of Science and Technology; Department of Co-operative Governance and Traditional Affairs; Department of Health; Department of International Relations and Co-operation; public entities (South African National Parks , South African Weather Services, South African Tourism, Council for Scientific and Industrial Research , Agricultural Research Council amongst others); and provincial and local government on a wide range of activities.

SANBI aligns its research activities to those identified as priorities by the NBSAP as well as to the international environmental conventions of which South Africa is a signatory (CITES, Ramsar, CBD, FCCC and CCD). The Institute is a primary source of information and expertise on these subject matters, providing support to the DEA in this regard.

Co-operation with DEA, SANParks, South African Weather Service, South African Tourism, and provincial departments is facilitated through the Biodiversity Working Group, MinTech and MinMEC and other such structures established by DEA. Co-ordination with Science Councils is facilitated through Committee of Heads of Organisations of Research and Technology. Many other formal and informal links between SANBI, government departments, the private sector and NGOs and CBOs have been established, forming the basis of SANBI's managed network.

SANBI supports NEPAD and has established strong and productive formal linkages nationally, regionally and internationally through several initiatives, such as the Global Taxonomy Initiative (GTI), the Southern African Biodiversity Support Programme (SABSP), Global Biodiversity Information Framework (GIBF) Africa Network, African Plants Initiative (API) and African Botanic Gardens Network (ABGN). SANBI makes a contribution to several focus areas of government as outlined in the Medium Term Strategic Framework (MTSF) 2014-2019. The Institute's contributions to these focus areas are summarised in Table 3: Alignment with Key Focus Areas of Government.

5.3 Description of the strategic planning process

SANBI had an on-going engagement with its key stakeholder, the Department of Environmental Affairs (DEA) to develop its Strategic Plan. This engagement included working forums, bilateral meetings, a Planning Lekgotla, and regular MINTEC and MINMEC meetings. Formal written feedback on the draft Strategic Plan is provided through DEA's Analysis Report.

The Institute's Strategic Plan is also informed by its engagement with key stakeholders and partners from government, NGOs and the private sector. This is conducted through meetings, workshops and various other forums on particular themes and issues related to SANBI's mandate. The Biodiversity Planning Forum and the Biodiversity Information Management Forum are two examples where, on an annual basis, a broad spectrum of stakeholders is brought together at a national level to engage on critical biodiversity areas. The following steps were followed to develop the Strategic Plan:

- An internal collaborative process with input from all Directorates to start the process of developing a draft strategic plan.
- Submission of the draft plan to DEA for review. DEA provides SANBI with an analysis report that outlines areas that needs to be prioritised and gaps that need to be filled.
- A Strategic Planning Lekgotla to review the progress, identify challenges faced, discuss lessons learnt and plan the way forward.
- Management meetings to address the recommendations from DEA's analysis report and agree on the strategic objectives and targets going forward.
- Divisions are given an opportunity to refine their plans based on the discussions and recommendations agreed upon and thereafter submit refined plans to the relevant Programme Leader for incorporation.
- The plan is then consolidated at Branch level and thereafter submitted to the CEO for sign-off and submission to the Governance and Strategy Board Committee for review and recommendation to the Board.
- The Governance and Strategy Board Committee's comments are addressed and the final plan is submitted to the Board for approval.
- Upon approval by the Board, the final Strategic Plan is submitted to DEA for tabling in Parliament.

5.3.1 Schedule Final CSP 2015 – 2020 and APP 2015/16

Action	Key dates	Responsible person
A preliminary review by Management of the first draft of the CSP and APP.	30 – 31 July 2014	Senior Management
	1 – 8 August 2014	Programme Leaders
Review and Editing of the 1st draft CSP	8 – 11 August 2014	Head of Branch and Board Secretary
Final review and signing off by the CEO	11 – 12 August 2014	CEO
Consideration and approval by Governance and Strategy Committee (Board Sub-Committee)	14 August 2014	Board Secretary
Submission of the first draft CSP and APP to DEA.	18 August 2014	Board Secretary
Review and Editing of the 2nd draft CSP	23 – 31 October 2014	Programme Leaders
Final review and signing off Head of Branch & OCEO	3-5 November 2014	Head of Branch and Board Secretary
Submission of the 2nd draft CSP and APP to DEA.	6 November 2014	Board Secretary
Review and amendment of the final plans	December 2014 – 20 January 2015	Programme Leaders
Final review and signing off Head of Branch & OCEO	31 January – 6 February 2015	Head of Branch and Board Secretary
Consideration and approval by Governance and Strategy Committee and the Board	11-12 February 2015	Board Secretary
Submission of final CSP and APP to DEA	12 February 2015	Board Secretary

6. Strategic Goal

SANBI is positioned to lead the biodiversity sector of South Africa and is recognised as the first port of call for knowledge, information and policy advice on biodiversity.

The goal is achieved through the following six (6) programmes:

No.	SANBI programmes
1	Render effective and efficient corporate services
2	Manage and unlock benefits of the network of National Botanical Gardens as windows into South Africa's biodiversity
3	Build the foundational biodiversity science
4	Assess, monitor and report on the state of biodiversity and increase knowledge for decision making (including adaptation to climate change)
5	Provide biodiversity policy advice and access to biodiversity information, and support for climate change adaptation
6	Provide human capital development, education and awareness in response to SANBI's mandate

Part B: Strategic objectives

7. PROGRAMMES

7.1 Programme 1: Render effective and efficient corporate services

This programme represents the support areas which underpin all of SANBI's operational activities, which include financial management and sustainability; human resources management; communication and marketing; and information communication services. This Programme is designed to ensure that SANBI is effective, efficient, accountable and responds successfully to changing conditions.

SANBI has adopted a uniform and systematic approach to the management of its performance. This is captured in a policy that covers planning; monitoring; review and evaluation; and reporting systems and processes. The performance management approach adopted ensures that SANBI learns from experience and incorporates lessons learnt into the various Programmes. This Policy is guided by National Treasury Guidelines for Developing Strategic and Operational Plans in the National and Provincial Departments 2005 and National Treasury's Framework for Strategic Plans and Annual Performance Plans 2010.

Resource considerations

- Mobilise financial resources (MTEF and other sources of funding) to implement SANBI's Strategy.
- The Human Resources and Transformation Strategy has been developed and approved. Effective implementation of the Human Resources Strategy is dependent on allocation of sufficient funds.

Risk Management

Human Resources: The main risk identified in this area is attraction, development and retention of required skills and expertise due to inadequate monetary and non-monetary rewards, career development and a transformed working environment. To mitigate this risk, an integrated human resources and transformation strategy has been developed and is being implemented.

Finance: The most significant risk in this area is non-compliance with the PFMA and applicable regulatory requirements. To mitigate this risk, SANBI has put in place financial policies which are aligned to regulations.

Marketing and Communications: Lack of adequate capacity and financial resources are the greatest risks to achieving SANBI's marketing and communication objective. This could result in SANBI's inability to build a strong brand, SANBI's work not being well profiled and a loss of standing and credibility. Lack of awareness of SANBI and its work will also result in the institute failing to achieve its goal of being perceived as a leader in the sector. Poor awareness of SANBI could also result in the Institute missing out on funding opportunities. A lack of resources for marketing will also impact negatively on visitor numbers and income generation through gate takings. This could compromise SANBI's ability to realise its vision—*Biodiversity richness for all South Africans*. To mitigate this risk, the regular sourcing of sponsorships and external funding for events and activities will be actioned, and plans will be designed to match resources available.

Information Technology: In the IT environment a number of risks affecting the delivery of adequate support for business processes and deliverables were identified. These included inadequate capacity and financial resources and the inability to execute an effective business continuity plan and disaster recovery plan. To mitigate these risks, SANBI's technology infrastructure is being migrated to a more stable environment and technical disaster recovery is being put in place with off-site backup facilities.

7.1.1 Programme 1: Render effective and efficient Corporate Services

Programme leaders: Mr Moeketsi Khoahli (MK); Mr Maano Netshiombo (MN); Ms Lorato Sithole (LS) and Lihle Dlamini (LD)

Strategic Objectives		Objective statement	Baseline	Performance Indicators	Target 2019/20	Manager
Programme 1: Render effective and efficient corporate services						
1.1	**SANBI is positioned as an employer of choice in the biodiversity sector**	SANBI strives to be the employer of choice within the Biodiversity sector by attracting, retaining, developing and transforming its workforce.	1% of payroll allocated and spent on staff development.	Percentage of payroll allocated and spent on staff development	3% of payroll allocated and spent on staff development	**MN**
			Approved budget for structured internships and post-graduate studentships	Number of black biodiversity professionals developed through structured internships and post-graduate studentships	140 black biodiversity professionals developed through structured internships and post-graduate studentships	**MN**
1.2	**Implement an effective, efficient and transparent supply chain and financial management system as regulated by PFMA**	Compliant financial management systems and policies are provided to enable effective and sustainable management of resources.	AFS produced for submission to Parliament.	GRAP and PFMA compliant annual financial statements.	Unqualified audit report.	**LS**
1.3	**Effective corporate services rendered to achieve the mandate of SANBI**	Efficient and effective corporate services rendered through good governance and risk management.	Annual Risk Assessment completed.	Percentage availability of SANBI network and business services	90% of network and business services are available	**MK**
			SANBI is compliant with all relevant Acts including SANBI/DEA Protocol and regulations.	All identified risks managed through an annual risk assessment and implementation of the risk management plan.	All identified risks quarterly monitored and managed	**MK**
				Compliance with all relevant Acts and SANBI/DEA protocol through implementation of Compliance Framework	100% compliance with SANBI/DEA protocol	***CM/LR**
1.4	**Building a compelling brand for all stakeholders**	A compelling brand that raises the profile of SANBI is built for all stakeholders through effective marketing and communication services	New corporate identity applied to approximately100% of SANBI collateral, SANBI attends exhibitions, shows and activations/ campaigns, secures concerts and events to continue profiling the Institute and its offerings	Number of marketing initiatives and activities effectively utilised for brand, SANBI promotion, profiling and maintenance of brand visibility.	36 marketing initiatives and activities	**LD**
			Quarterly CEO's letter, staff newsletter and competitions to ensure that staff is kept informed at all times.	Number of appropriate platforms utilised for internal communication to keep internal stakeholders informed.	12 internal communication platforms	**LD**
			At least 1 press release, radio and television interviews and 4 advertisements per quarter this to ensure that SANBI's gardens as tourism assets are being promoted and marketed to target audiences and also to communicate SANBIs work on research and science in relation to biodiversity.	Number of radio, television and print interviews, press releases, media statements and advertisements utilised for external communication to stakeholders.	34 Media initiatives utilised for external communication to stakeholders (radio, television and print interviews, press releases, media statements and advertisements)	**LD**

Note: * The 3rd performance indicator under 1.3 is managed the office of the CEO

7.2 Programme 2: Manage and unlock benefits of the network of National Botanical Gardens as windows into South Africa's biodiversity

SANBI manages South Africa's network of ten national botanical gardens, currently spread across seven provinces. The ten gardens combined manage over 7,400 ha of natural estate as well as over 190 ha of landscaped areas comprising documented collections of living plants, with their associated biodiversity, for the purposes of conservation, research, display and education. SANBI, through its national botanical gardens, classified internationally as conservation gardens, will expand and strengthen their role (as windows to South Africa's biodiversity) to provide a national footprint in nature-based tourism and showcase SANBI and South Africa's biodiversity. The Gardens will, where feasible, provide support, guidance and advice to other botanical gardens in southern Africa and the rest of the African continent. The Gardens are managed by SANBI's Conservation Gardens & Tourism Division. The Interpretation Programme is coordinated by a National Interpretation Officer, with each garden, with the exception of the Hantam- and Kwelera NBGs, having a dedicated Interpretation Officer. Dedicated environmental education centres are currently located in five of SANBI's national botanical gardens (Free State, Kirstenbosch, Lowveld, Pretoria and Walter Sisulu NBGs), with new education centres planned for the Harold Porter-, Karoo Desert-, Kwelera- and KwaZulu-Natal NBGs.

Expenditure of the Conservation Gardens Programme is expected to increase significantly (in all three areas of personnel, operations and capital infrastructure) in the next five-year period as the new national botanical gardens in the Eastern Cape and Limpopo Provinces are developed and established. Return on investment on new gardens is expected to be slow and will take time as the initial five-year period will require significant personnel, operations and capital investment to secure the sites and establish the basic infrastructure, services and personnel required for effective operation of the new gardens in areas located far from SANBI's key administrative centres (Kirstenbosch and Pretoria). Dedicated annual budgets to cover both capital infrastructure, personnel and operational costs are required from DEA from 2014 to 2020 for the expansion of South Africa's national botanical garden network into the Eastern Cape and Limpopo Provinces.

Resource considerations

Trends in numbers of key staff	Trends in the supply of key inputs
○ Increased staff capacity required to lead, administer and implement SANBI's Gardens Expansion Strategy. ○ New staff will be required to manage and develop the new national botanical gardens. ○ Sufficient capacity in corporate services (HR, IT, Finance, SCM, Marketing, and legal services) to support the establishment and development of two new gardens. ○ Interpretation staff component to be expanded as new gardens are established in the Eastern Cape and Limpopo Provinces. ○ Biodiversity awareness programmes are developed and expanded in existing and new gardens. ○ Horticultural staff skilled in integrated plant conservation programmes. ○ Required leadership and capacity within SANBI to manage and coordinate SANBI's Gardens Conservation Programme and integrated plant conservation programmes (including restoration ecological skills). ○ Increased sponsorships and donations sourced and capacity to source, manage and implement sponsorships and donations, especially in regional gardens.	○ Sufficient grant from DEA for expansion of national botanical gardens (to cover operations, personnel and capital investment requirements) – includes the establishment of new gardens and strategic expansion of existing national botanical gardens into adjacent natural areas ○ Support from SANBI's corporate services sections (Finance, SCM, HR, IT and Marketing) and other research and knowledge-based Divisions to support the establishment and development of new and expanded NBGs ○ Additional and dedicated budgets required for appointment of new personnel, and funding operations and capital infrastructure in the new national botanical gardens anticipated in the Eastern Cape and Limpopo Provinces. ○ Inputs and support required from SANBI's other research and knowledge-based programmes in supplying necessary biodiversity-related information for profiling – this applies to both existing and new gardens ○ Funding for the Gardens Conservation Programme through SANBI's MTEF and strategic seed banking partnerships ○ Training of SANBI horticulturists and other staff on integrated plant conservation programmes ○ Inputs and support required from SANBI's other research and knowledge-based programmes ○ Resources (personnel, equipment (including field vehicles), functional propagation facilities) made available to Gardens for implementation of the plant conservation programmes ○ Increased capacity within the Division and support from SANBI Corporate Services to leverage additional income and business opportunities, as well as organize events (e.g. concerts, expos) and other income-generating activities in the various gardens ○ Increased support to gardens from the Marketing & Communications Directorate (including development of dedicated and relevant marketing plans for each garden and implementation support) ○ Implementation and revision of the MoA between SANBI and BotSoc, for support of the existing and new NBGs ○ Support from SANBI Finance with monitoring and retrieval of income due and received from commercial garden-based tenants ○ Support from SANBI Finance, CCO and SCM Unit in appointment of commercial tenants in gardens

Risk management

Several risks have been identified that may affect the realization of the strategic objectives outlined for this programme.

i. Inability to implement SANBI's Gardens Expansion Strategy. SANBI is expected to establish two new gardens in under-represented provinces by 2016. Additional project funds have been allocated to SANBI by DEA through their infrastructure and EPWP grants to establish these two new gardens, but there is a risk that sufficient personnel and operating funds are available in the long term to ensure these new gardens are sustainable and able to generate income. It is critical that the DEA project funds allocated to support the establishment of new national botanical gardens, and limited expansion of selected existing garden estates, are made available by SANBI and used for their intended purpose.

ii. Lack of sufficient resources to manage the existing network of national botanical gardens and their associated living collections. With current funding constraints, the inability to fill key vacant and new posts in SANBI's network of national botanical gardens, the risks to SANBI's ability to manage these gardens optimally, with fewer human and financial resources available, to an acceptable international standard, are possible. DEA's allocation of EPWP funding to four of SANBI's existing NBGs (Free State, KwaZulu-Natal, Pretoria and Walter Sisulu NBGs) are providing short term relief to these gardens for the duration of the projects but additional funds will need to be sought to support SANBI's other existing gardens, and for those EPWP-funded gardens following the completion of these projects, in order to maintain high standards and enable them to meet their required own income targets. SANBI's strategic relationship with the Millennium Seed Bank Partnership, will need to be supported by SANBI in terms of resources made available to undertake essential field work and maintain the gardens' living plant collections.

iii. Lack of sufficient business skills amongst Curators. With a young, new and energetic cohort of Garden Managers in place within SANBI's Gardens, there is a risk that the Managers do not have sufficient business skills to make use of available opportunities to source additional sponsorships and donations, and ensure that the gardens continue to generate additional income and have fully functional outsourced commercial tenants within their estates. Sharing of skills and implementation of relevant business skills training previously provided to the Curators will improve their ability to effectively manage their gardens as nature-based tourism facilities and commercial enterprises.

7.2.1 Programme 2: Manage and unlock benefits of the network of National Botanical Gardens as windows into South Africa's biodiversity

Programme Leader: Mr Christopher Willis (CW)

	Strategic Objectives	Objective statement	Baseline	Performance Indicators	Target 2019/20	Manager
Programme 2: Manage and unlock benefits of the network of National Botanical Gardens as windows into South Africa's biodiversity						
2.1	**A network of National Botanical Gardens are managed and maintained**	SANBI's National Botanical Gardens are managed, maintained and developed through strategic partnerships to realize benefits to SANBI, civil society and other relevant stakeholders	Through involvement in implementation of the Convention on Biological Diversity (CBD), SANBI is contributing towards two international plant conservation initiatives (International Agenda for Botanic Gardens in Conservation (through Botanic Gardens Conservation International or BGCI) and the Global Strategy for Plant Conservation (GSPC), 2010 to 2020)	Increased representation and display of indigenous plants in the living collections of SANBI's National Botanical Gardens or the Millennium Seed Bank Partnership.	At least 100 new indigenous South African plant species incorporated into the living collections represented in SANBI's network of NBGs or the Millennium Seed Bank Partnership	**CW**
			Signed MoA with the Royal Botanic Gardens, Kew's (UK) international Millennium Seed Bank Partnership (2011 to 2015) which contributes towards the implementation of specific targets (particularly Target 8) of the GSPC			
			New Garden Records Database developed			
			Gardens Expansion Strategy approved by the SANBI Board in November 2010 and submitted to DEA	Number of new National Botanical Gardens established and operational	2 new national botanical gardens established, developed and operational (one in the Eastern Cape and one in the Limpopo Province)	**CW**
			Dedicated annual Gardens Expansion budget allocation made available to SANBI from DEA for the period 2013/14 to 2015/16 (R49.337 million)			
			Dedicated infrastructure budget allocated to SANBI for the period 2013/14 to 2015/16 (R150 million)			
			Site identified for new national botanical garden in the Eastern Cape. Kwelera National Botanical Garden proclaimed by the DEA Minister on 25 July 2014 (Phase 1 of 2 phases).)			
			MoA signed between SANBI, ECPTA and DEDEAT for the co-management of the Kwelera Nature Reserve as the natural portion of the proposed Kwelera National Botanical Garden.			
			EPWP allocations earmarked by DEA for new gardens planned for the Eastern Cape (R30 million) and Limpopo (R20 million) Provinces.			
			Nine National Botanical Gardens with associated SANBI estates, infrastructure and living collections (biological assets), located in six provinces.	Number of best-practice maintenance, development and capital infrastructure projects completed across SANBI's National Botanical Gardens.	25 maintenance and development projects per Garden and ten (10) corporate SANBI capital infrastructure projects completed across SANBI's NBGs Partnership	**CW**
2.2	**Revenue generating activities are strengthened in all National Botanical Gardens**	Revenue generating activities are strengthened in all National Botanical Gardens to contribute to SANBI's sustainability	Income Generation Plan for SANBI's gardens included as part of SANBI's Finance Strategy • External review conducted of commercial operations across SANBI's national botanical gardens • Business skills training given to Curators of SANBI's National Botanical Gardens • R42,301,556 own income generated by all National Botanical Gardens combined for 2013/14	Percentage own income and visitor numbers increased through expanded and more effective revenue generating activities in National Botanical Gardens	20% cumulative increase in own income from baseline generated by National Botanical Gardens 10% cumulative increase in visitor numbers from baseline received by National Botanical Gardens	**CW**

	Strategic Objectives	Objective statement	Baseline	Performance Indicators	Target 2019/20	Manager
			• 1,430,545 visitors received by all National Botanical Gardens combined in 2013/14 • One-and-half (1.5) % annual increase in visitor numbers. • Four (4)% annual increase in own income.			

7.3 Programme 3: Build the foundational biodiversity science

The outputs of Programme 3 underpin the SANBI value chain by providing foundational information on biodiversity that forms the basis for SANBI's assessment and monitoring work (Programme 4) and provides an essential input into biodiversity planning and policy advice (Programme 5). The programme addresses key questions relating to what biodiversity occurs in South Africa (genes, species and ecosystems), how it can be named and classified, and where it occurs. The programme outputs include some highly used products such as species lists, ecosystem maps and classification (such as the vegetation map of South Africa), and online species and ecosystems data. These outputs are strongly dependent on key resources such as SANBI's herbaria, and on the taxonomic research carried out by SANBI and partner institutions, as well as a range of other biophysical data. The primary objective of Programme 3 is to ensure that *foundational information on species and ecosystems is generated and collated, and the main outputs from this programme are the ecosystem classification and spatial datasets for ecosystems and species.*

The priorities for the programme are derived from the needs for foundational information in monitoring, assessment and spatial planning activities in Programmes 4 and 5.The National Biodiversity Assessment 2011 highlights the need to address gaps in taxonomic knowledge and research in South Africa, as well as the need to further develop and formalise the National Ecosystem Classification System. Work on building this science foundation will feed directly into the National Biodiversity Assessment 2017, which forms part of Programme 4.

Resource Consideration

These data are dependent on other activities in SANBI and those carried out by partner organisations, and can only be produced through surveys, research to name and classify species and ecosystems, and to document where they occur in South Africa. In the Biosystematics Division the plant collection in the SANBI herbaria are used as a repository for the plant information and these collections are expanded and researched to produce an expanded and accurate spatial data set. For animals most of the spatial data for species are generated by partner organisations but SANBI contributes to checking and improving completeness and quality. The main resource considerations for this programme are associated with the maintenance and expansion of the plant collections, research which documents species and ecosystems in collaboration with partners, and the staff to co-ordinate, compile, check, maintain and manage data sets and related information.

Risk management

Several risks have been identified that may affect the realization of the strategic objectives outlined for this programme. These risks are described below together with a discussion of mitigation measures.

i. Shortage of capacity in key areas. There continues to be a shortage of professional staff in key areas of the SANBI mandate, especially relating to research and data management, and ecosystem mapping and classification (particularly for freshwater ecosystems). The risk is being managed through development of more formal networks with partner organisations, skilling young scientists from designated groups to fill some of these key roles, and outsourcing some functions where funding permits.

ii. Limited funding available for expansion of mandate to include animals. Additional posts have been allocated to work with partner organisations to access spatial datasets for animals, but the staff complement for animals will always be smaller than for plants, and there is very limited operational budget available to expand the work. This risk is being managed by applying for funding through various external sources, and by harnessing the resources of other organisations.

iii. Dependence on partner organisations and external funding. The Foundational Biodiversity Information Programme which is managed by SANBI and funded through the Department of Science & Technology will provide research and outputs that contribute to Programme 3 through the allocation of grants to a large number of researchers at other institutions. There are risks associated with delays in transfer of funds from DST, and non-delivery by grant recipients. This risk will need to be managed by ongoing engagement with DST and NRF (which disperses the grants), and regular engagement and communication with grant holders so that the value of the data and its use is understood.

7.3.1 Programme 3: Build the foundational biodiversity science
Programme leader: Prof. Gideon Smith

	Strategic Objectives	Objective statement	Baseline	Performance Indicators	Target 2019/20	Manager
Programme 3: Build the foundational biodiversity science						
3.1	**Foundational information about species and ecosystems in South Africa is developed and maintained**	A systematic set of information on the classification, description, spatial distribution, and extent of species and ecosystems is available as a foundation for further research and monitoring, assessments, implementation of regulations, and management of biodiversity *((*NEMBA; the National Biodiversity Strategy and Action Plan; *NBF priority action 8)*.	A foundational biodiversity information programme has been implemented together with DST/NRF to generate relevant information	Number of quality controlled records added to spatial data for species;	200,000 records added to spatial data sets.	**GS**
			A classification system for terrestrial ecosystems is in place based on the vegetation map and a classification for wetlands has been published	Number of species for which information has been compiled;	Information for a total of 25,000 species is compiled	**GS**
			Initial spatial information is available for plants, butterflies, and reptiles, but additional data for plants and animals requires compilation and quality control.	Number of environments for which ecosystem classification systems developed;	Classifications for four environments	**JD**
			SANBI is co-ordinating the compilation of an e-flora and an e-fauna which will provide information about South Africa's species	Number of national maps showing distribution of ecosystems;	Four national maps	**JD, KM**

7.4 Programme 4: Assess, monitor and report on the state of biodiversity and increase knowledge for decision making including adaptation to climate change

The outputs of this programme underpin the SANBI value chain by providing the knowledge base on biodiversity that informs SANBI's contributions to policy and decision-making relating to managing biodiversity and optimizing its benefits to people. The programme has two primary objectives, i.e.

- *That foundational information on species and ecosystems is assessed, prioritised, and analysed*
- *That scientific evidence on the status of biodiversity, risks and benefits is produced, in order to inform policy and decision making*

The priorities for the programme are derived from various sources that identify issues with a high relevance to policy makers, such as the National Environmental Management Biodiversity Act (NEMBA), the National Biodiversity Strategy and Action Plan (NBSAP), the National Biodiversity Framework (NBF), the Research, Development and Evidence Framework for the sector, government delivery agreements (Outcome 10) and now MTSF, and other national priorities (e.g. the White Paper on the national climate change response, wildlife trade, the green economy). The programme includes outputs directly related to these priorities and includes performance measures that reflect innovation as well as productivity. SANBI also plays a leadership role in the development and implementation of the biodiversity research agenda and this work is considered to form part of the overall objective of providing scientific evidence to inform policy and decision making.

Resource Consideration

Over the past five years, SANBI has consolidated its research and monitoring efforts to focus on priority issues, building on existing expertise especially for plants. In 2013, additional resources were allocated to zoological work and this emphasis will continue in the period 2015 - 2020to ensure that an inventory of South African animals is completed and that Red List assessments, and non-detriment findings for animals are carried out for priority species. SANBI is in the process of re-developing a national monitoring framework which will enable the Institute to fulfill its monitoring and reporting obligations and provide government with key data on the state of the environment and the flow of benefits to society. SANBI will be using its resources to coordinate and synthesize data as well as to mobilize data sources within the biodiversity sector. Over the next five years, SANBI will need to source additional funding to support the implementation of the monitoring framework.

Risk management

Several risks have been identified that may affect the realization of the strategic objectives outlined for this programme. These risks are described below together with a discussion of mitigation measures.

i. Shortage of capacity in key areas. There continues to be a shortage of professional staff in key areas of the SANBI mandate, especially relating to monitoring and assessment, and ecosystem classification. The shortage of zoologists has been addressed through recruitment and the establishment of a zoology strategy but the challenge for ecosystem classification and monitoring functions remains a reality The risk is being managed through development of more formal networks with partner organisations, skilling young scientists from designated groups to fill some of these key roles, and outsourcing some functions where funding permits.

ii. Dependence on short term funding for key areas of the mandate. The programme continues to rely on short term project funding for key parts of the SANBI mandate. In 2012 and 2013, ca. 50% of funding for Programme 3 was dependent on project funds not from SANBI's MTEF allocation and this trend will continue into the foreseeable future. Reliance on project funding means that certain deliverables are at risk if the nature or extent of the funding changes during the 5-year planning period. Project funding is also typically short term and this presents problems with developing and retaining core skills and competencies that are required to meet the performance objectives for Programme 3. The risks associated with dependence on project funding will be managed by reviewing deliverables derived from externally funded projects so that they are realistic in relation to the project funding cycle.

(ii) Uncertainty regarding the capacity of the Managed Network to fulfill SANBI's mandate in respect of Programme 3. Partnerships have not been formalized to ensure delivery of specific outputs relating to research, monitoring and assessment so it is not clear whether these objectives can be met without additional resources that mobilize inputs from the managed network. The risk will be mitigated by reviewing the outputs that are required from the managed network in order for SANBI to meet its targets and by formalizing agreements with identified partners to ensure the delivery of these outputs.

7.4.1 Programme 4: Assess, monitor and report on the state of biodiversity and increase knowledge for decision making (including adaptation to climate change)
Programme Leader: Prof. John Donaldson (JD)

	Strategic Objectives	Objective statement	Baseline	Performance Indicators	Target 2019/20	Manager
Programme 4: Assess, monitor and report on the state of biodiversity and increase knowledge for decision making including adaptation to climate change						
4.1	**New biodiversity knowledge created**	New biodiversity knowledge, derived from primary research and synthesis, is published in peer reviewed scientific literature so that it is accessible to stakeholders	• 497 papers in scientific journals over the past 5 years at an average of 95 papers per year. Due to internal capacity constraints , the target for 2020 for SANBI is adjusted downwards (the number of papers nationally outside of SANBI may be increased)	Number of research papers published in ISI journals	400 papers in ISI journals	**JD**
4.2	**Scientific evidence on the status of biodiversity (based on monitoring and assessment including that of biodiversity loss) and the risks and benefits, is provided**	Scientific evidence is produced, in order to inform policy and decision making, through research, monitoring and reporting on the status of species and ecosystems, invasive species, the impacts of genetically modified organisms, responses to climate change, support for the wildlife economy and benefits of biodiversity. (NEMBA, the National Biodiversity Strategy and Action Plan, the National Biodiversity Framework priority actions 4.1, 4.3, 8, 10, 15, 19 & 28)	• The National Biodiversity Assessment was published in 2011 • a framework for GMO monitoring was produced in 2009 • 12 NDF assessments were completed for the Scientific Authority, representing ca. 60% of prioritised taxa. • A list of potentially invasive species (suspect list) was published in 2012/13	Number of national scientific synthesis & assessment reports produced	Five reports (NBA, National Invasives Report, GMO report, Species status report, Red List Assessments)	**JD**
				Annual updates of species assessments to support NEMBA regulations	Five updates (one per year) for (i) national invasive species lists and (ii) non detriment findings for the Scientific Authority	

7.5 Programme 5: Provide biodiversity policy advice and access to biodiversity information; and, support climate change adaptation

The need for socio-economic development in South Africa is well recognised and is highlighted in our National Development Plan (NDP). Chapter 5 of the NDP emphasises the need to rehabilitate and conserve ecosystems and biodiversity assets to maintain their integrity and the vital services they provide, in order to contribute to the country's development goals. **Maintaining and restoring priority ecosystems is a form of investment in the country's productive infrastructure**, which underpins social and economic development. South Africa is one of the most biodiverse countries in the world and has a wealth of ecological infrastructure that is still relatively intact. Mainstreaming biodiversity considerations in development can contribute to job creation, improved service delivery, inclusive rural development, poverty alleviation, disaster risk management and adaptation to climate change.

South Africa has a long tradition of excellent biodiversity science, but **the challenge is often to link this science with policy and implementation**. Programme 5 responds to this challenge by ensuring that biodiversity assets and ecological infrastructure inform policy and decision-making in a range of sectors. South Africa is one of the few countries to have a statutory biodiversity institute able to play the role of bridging agent at the interface between science and policy. This means that SANBI is uniquely placed to ensure that South Africa's internationally renowned biodiversity science is used to further sustainable development.

SANBI's 'value chain' connects the foundational science of ecosystems and species (Programme 3) to research, assessment and monitoring of biodiversity (Programme 4), to support the provision of science-based policy advice (Programme 5), which in turn contributes to unlocking human well-being and a sustainable economy.

Programme 5 uses a range of mechanisms to achieve this, outlined below. These mechanisms are applied across several interlinked thematic areas, also briefly outlined.

Biodiversity information management forms part of Programme 5 and is vital for ensuring that scientific data on ecosystems and species is collated, co-ordinated and made accessible to a range of users. SANBI's Biodiversity Advisor web portal is the visible endpoint of an integrated information management architecture, providing a one-stop shop for free access to biodiversity information and value-added tools that support the integration of biodiversity considerations in planning and decision-making. With thousands of registered users and hundreds of visits per day, the Biodiversity Advisor is widely used and in growing demand.

South Africa is a global leader in **spatial biodiversity planning**, which involves identifying geographic biodiversity priority areas in the landscape or seascape, to inform management, conservation and sustainable use of biodiversity. Through Programme 5, SANBI plays a leading role in developing and maintaining a countrywide community of practice for biodiversity planning, and ensuring that biodiversity plans across the country use consistent methods and terminology and are based on the best available science.

Spatial biodiversity plans underpin a range of **science-based tools** to support planning and decision-making. Examples of science-based tools developed by SANBI include: municipality biodiversity summaries, which provide biodiversity maps and statistics in easily accessible form to municipalities; the Mining & Biodiversity Guideline, which provides maps of areas where mining should be avoided from a biodiversity point of view; and a spatial decision-support tool to guide the allocation of resources by Working for Water and other natural resource management programmes in DEA. SANBI also provides support for the application and uptake of these science-based tools, through training courses and ongoing follow-up support for users.

The work of Programme 5 includes co-ordinating and undertaking **demonstration projects** that test new ways of unlocking the power of biodiversity assets and ecological infrastructure for socio-economic development. Innovations developed through these pilots can then be taken up and rolled out in other areas, and can inform the development of implementation of biodiversity policy. Examples currently underway are the uMngeni Ecological Infrastructure Partnership, which focuses on maintaining and restoring ecological infrastructure in the greater uMngeni catchment to support water provision for the city of Durban; and the Biodiversity and Land-Use Management Project, which is funded by the Global Environment Facility and focuses on mainstreaming biodiversity into land-use regulation and management at the municipal scale, through a combination of policy work at the national level as well as implementation in the Ehlanzeni, uMgungundlovu, Amathole and Cape Winelands districts.

The success of Programme 5 depends on effective national and international collaboration involving key decision-makers across government, civil society and the private sector. SANBI plays a strategic leadership role in convening a series of **communities of practice and learning networks**, which provide an essential mechanism for distilling, capturing and sharing knowledge and

lessons for improved biodiversity management. Some of these communities of practice and learning networks have a spatial focus (for example, the Fynbos biome), and others have a thematic focus (for example, land reform, biodiversity stewardship, freshwater ecosystems).

In addition to convening collaborative forums, it is often important to disseminate knowledge to a broader audience, nationally and internationally. The work of Programme 5 includes developing **knowledge resources that demonstrate the value of biodiversity assets and ecological infrastructure**, such as case studies and factsheets, based on our experience and that of our partners.

A core aspect of SANBI's mandate is to provide **science-based policy advice** on biodiversity-related matters. This advice is provided to DEA, to other organs of state (for example, Department of Water and Sanitation, provincial conservation authorities, municipalities), and in support of international programmes and conventions (for example, CBD, CITES, Intergovernmental Platform on Biodiversity and Ecosystem Services). Advice to DEA includes ensuring that the implementation of key tools in the Biodiversity Act, such as listing of threatened ecosystems and species, publication of bioregional plans, and development of the National Biodiversity Framework, is based on sound science.

The seven mechanisms described above are applied across several interlinked **thematic areas of work**, all contributing to mainstreaming biodiversity in planning and development.

Ecological infrastructure: Ecological infrastructure refers to naturally functioning ecosystems that deliver valuable services to people. The concept has emerged as an effective way to communicate the value of healthy ecosystems, which includes contributing to water security, food security, and reducing the risk of disasters associated with extreme weather events and climate change. Investing in ecological infrastructure presents a low-cost, high-return development strategy with multiple social, economic and environmental gains. SANBI has taken a lead role in communicating and convening initiatives involved in promoting the maintenance of healthy ecological infrastructure.

Municipal support: Much land-use planning and decision-making occurs at a municipal level, making municipalities a vital sphere of government for effective on-the-ground management of biodiversity assets and ecological infrastructure. SANBI's municipal initiatives support the integration of biodiversity considerations into Integrated Development Plans and Spatial Development Frameworks, as well as other municipal management tools and frameworks. This work is often undertaken in partnership with others, including DEA's Local Government Support Programme, National Treasury's Cities Support Programme, and the international initiative Local Governments for Sustainability (ICLEI).

Environmental management: South Africa has well-developed legislation governing environmental impact assessment (EIA) and other mechanisms for environmental management, including authorisations in the agricultural and mining sectors. Ensuring that biodiversity considerations are integrated in EIAs and other authorisations plays a key role in ensuring that developments are appropriately located to avoid or minimise impacts on biodiversity assets and ecological infrastructure. SANBI's work in this thematic area includes involvement in Strategic Environmental Assessments (SEAs) for the Strategic Integrated Projects (SIPs) co-ordinated and driven by the Presidential Infrastructure Co-ordinating Commission as part of the implementation of the NDP.

Rural development and land reform: Conservation has traditionally been seen as being at odds with land reform, but South Africa's wealth of biodiversity assets can actually support the land reform agenda and the diversification of rural livelihood options, especially in agriculturally marginal areas. Through biodiversity stewardship programmes, in which landowners enter into contractual agreements with conservation authorities, communal landholders can retain their land while sharing in a range of benefits. To demonstrate and further explore this potential, SANBI leads a Land Reform Biodiversity Stewardship programme in partnership with the Department of Rural Development and Land Reform and provincial conservation authorities.

Biodiversity economics: South Africa's biodiversity and ecological infrastructure represent an important but under-realised asset for economic development. This emerging thematic area of work focuses on quantifying the contribution of biodiversity to the economy (not necessarily in monetary terms), and demonstrating the links between biodiversity and the economy. It includes a project on biodiversity-related employment, as well as a partnership project with Statistics South Africa on national ecosystem accounting.

Programme 5 also includes South Africa's **National Implementing Entity to the Global Adaptation Fund**. NIEs are national entities that enable access to global funding for climate change adaptation. SANBI was accredited as an NIE prior to the UNFCCC COP17 in 2011, and since then has worked to develop transparent governance structures for the NIE, as well as an investment framework to guide project selection and development processes. The NIE aims to obtain approval for and support the implementation of two South African projects with a total value of USD10 million. Through this work and the lessons that emerge, SANBI will provide policy support to DEA's climate change adaptation programme of work. SANBI's NIE experience will also be an important informant for international discussions about the architecture of future climate finance.

Resource considerations

- SANBI plays a pivotal role in unlocking the biodiversity sector's contribution to the green economy. The foundations for this work have been laid through a range of donor and government funded programmes, which now need to be embedded and taken to scale in order to realise their potential. In order to optimise this contribution in the above areas, SANBI needs to significantly expand its scientific and policy advice capacity. New MTEF funds are required to secure the core knowledge and capacity base of the SANBI post donor support. This will improve SANBI's ability to make a positive impact on South Africa's development imperatives and will also provide a strengthened foundation from which to leverage additional donor funds.

Risk management

Several risks have been identified that may affect the realisation of the strategic objectives outlined for this programme. These risks are described below together with a discussion of mitigation measures.

i. Inability to attract and retain specialised staff with critical skills and experience. This risk will be mitigated in several ways. Firstly, careful scoping of the required skills will be done through the SANBI workforce planning process and then, through engagement with the biodiversity human capital development programme, a skills pipeline will be developed through interventions such as internships, training and development, and mentorship. This risk will be further mitigated through ensuring that posts are evaluated and remunerated appropriately. Wherever possible, skills critical to SANBI's mandate that are currently housed within donor-funded contract posts will be internalised within the organisation's permanent establishment once donor support ceases.

ii. Reliance on donor funding for core MTEF operational requirements to sustain programmes. Key components of Programme 5 rely heavily on donor funding, despite being core elements of SANBI's mandate. Applications for new donor grants as well as additional MTEF resources will be sought timeously as risk mitigation strategies. Furthermore SANBI will focus on identifying where current donor-funded work can be embedded in external organisations during and beyond the duration of the donor funding.

iii. Lack of backbone IT infrastructure to accommodate new systems requirements for easy and free access to biodiversity information. The lack of a robust backbone IT infrastructure to accommodate the new systems and bandwidth requirements will limit the opportunity to ensure easy and free access to biodiversity information. The investment in the IT backbone infrastructure is a prerequisite for successful biodiversity information management practices. To mitigate this risk IT requirements for new systems will be scoped collaboratively with SANBI IT services.

7.5.1 Programme 5: Provide biodiversity policy advice and access to biodiversity information and support for climate change adaptation

Programme Leader: Ms Kristal Maze (KM)

	Strategic Objectives	Objective Statement	Baseline	Performance Indicators	Target 2019/20	Manager
5. Provide policy advice, access to biodiversity information, and support for climate change adaptation						
5.1	**Tools to support management and conservation of biodiversity developed and applied**	Tools to reduce loss, protect, restore and unlock benefits from biodiversity assets and ecological infrastructure developed and their uptake supported	Tools developed include: Framework for Investments in Ecosystem Services; Grazing Guidelines for Grasslands Biodiversity; Grassland Ecosystem Guideline; Guidelines for Grassland Management in the forestry sector finalised; Gauteng Biodiversity Toolkit; Mining and Biodiversity Guideline and user version; Draft Wetland Offsite Mitigation Guideline; Wetland Offsite Mitigation Banking Institutional Framework; Atlas of high risk wetlands for mining; Conservation planning tool and biodiversity screening tools in forestry sector; Gauteng Lifestyle Estates guideline, Green Servitudes Regulatory Tool for City of JHB; Feasibility of one Investment in Ecological Infrastructure pilot project determined; sustainable forest management with small growers in KZN & Eastern Cape piloted. NRM Landuser Decision Support Tool developed. Branding biodiversity toolkit developed; Fourteen knowledge resources for demonstrating the value of biodiversity developed and disseminated; Making the Case Implementation Strategy developed; One Making the Case film produced: In the Age of Adaptation: Biodiversity and Climate Change; eight SKEP and six CAPE case studies capturing lessons developed; set of three infographics produced for COP 17.	Number of tools developed to support mainstreaming of biodiversity assets and ecological infrastructure in production sectors and resource management	Ten tools produced and fifteen knowledge resources demonstrating the value of biodiversity developed and disseminated	**KM**
			The following national events have been convened: Offshore Environmental Forum; National Biodiversity Planning Forum; Land Reform and Biodiversity Stewardship Learning Exchange; Grasslands Partners Forum; CAPE Partners Conference; SKEP Partners Conference; MPAH Forum; Freshwater Ecosystem Network; CAPE Project Developers Forum; CAPE Landscape Initiative Knowledge Exchange; CAPE and SKEP learning exchanges; an average of four training sessions held annually for provincial, municipal or other relevant decision-makers for uptake of tools.	Number of coordination or learning mechanisms convened to share lessons and build capacity	Twenty learning or co-ordination events convened and 15 training sessions held for provincial, municipal or other relevant decision makers	**KM**
5.2	**Access to biodiversity data, information and knowledge provided**	SANBI has become the authoritative source for data, knowledge and information on SA's biodiversity through promoting shared value nationally and internationally.	11 815 938 records collected.	Number of biodiversity records collected	An increase of at least 250 000 records collected	**KM**
			1400 registered users on the Biodiversity Advisor website	Percentage increase in registered users on the Biodiversity Advisor website	At least **5%** increase in registered users	

	Strategic Objectives	Objective Statement	Baseline	Performance Indicators	Target 2019/20	Manager
5.3	**Scientific advice to support national and international policy processes provided**	Policy advice provided to DEA and other organs of state, to ensure that best available biodiversity science informs national and international policy processes	Support provided to DEA on: Listing of threatened terrestrial ecosystems ; listing of threatened river ecosystems developed as part of the NBA 2011; N&S for Biodiversity Management Plans for Ecosystems; Draft National Biodiversity Offsets Framework ; BMP-S for *Encephalartos latifrons* and *Pelargonium sidoides* ; list of Threatened or Protected Species (TOPS) list for input into regulations ; strategy to implement marine offshore spatial management ; policy and fiscal incentives related to biodiversity stewardship; National Strategy for Protected Area Expansion; LTAS; White Paper on Climate Change; Biodiversity Stewardship Guideline and draft Biodiversity Stewardship Policy; National Climate Change Response White Paper; SIP 8 (Electrical Grid Infrastructure) process; regular meetings and reporting of the Scientific Authority; NRM Programmes for planning, research and M&E. Submitted bioregional plans reviewed by Bioregional Plan Review Panel. Support provided to provinces for development of provincial spatial biodiversity plans. Participation in Water Sector Leadership Group and Water Pricing Strategy Review; contributed to the National Water Resource Strategy II, agricultural mainstreaming strategy; input provided into agriculture sector policy; participation in National Coordinating Forum for SPLUMA. Support provided to DEA on the 5th Country Report, 2nd and 3rd National Communication to the UNFCCC; negotiations at UNFCCC SBSTA; CBD COP 10, CBD COP 11, CBD COP 12, COP16/MOP6, COP 17/MOP7, COP18/MOP8, Ramsar, CITES COP 16; support provided for CITES plants and animals committee and COP 14, COP 15; relevant CBD and IUCN/SSC meetings attended; participation in international science/policy committees including IPBES and Future Earth.	Percentage of policy requests from DEA, provinces, municipalities and other organs of state responded to within timeframe stipulated in the request	100% of written requests from DEA and other relevant requests responded to within timeframe stipulated	**KM/JD**
5.4	**Policy support on climate change adaptation provided to inform national and international decision making**	Experiences and lessons emerging from the implementation of projects that are supported through SA's NIE to the Adaptation Fund, and through the development of biodiversity and climate change adaptation implementation plans, support national and international decision climate change adaptation policy	Two fully developed project concepts submitted to the Adaptation Fund for approval; NIE lessons and experiences shared at three international and three national meetings	An effective National Implementing Entity to the Global Adaptation Fund shares lessons and experiences on a number of national and/or international platforms to inform climate change adaptation policy	Lessons and experience from NIE projects captured to inform 20 national and/or international platforms on climate change adaptation policy	**MB**
			Methodology for the development of biodiversity and climate change adaptation implementation plans agreed	Number of Ecosystem Based Adaptation tools developed	Eight provincial level Ecosystem based Adaptation implementation plans developed	

7.6 Programme 6: Provide human capital development, education and awareness in response to SANBI's mandate

The programme, human capital development, education and awareness is a cross cutting programme with the intention to ensure that the sector is transformed through identification, attraction and retention of priority and rare skills amongst South Africans especially the youth. It is also the programme's intention to up-skill those already within the biodiversity sector so as to address not only historical legacies of a bottom heavy sector but also chronic capacity shortages of leadership especially by black South Africans. A key deliverable of this programme in the next few years are a Public Private Partnership to roll out Human Capital Development Strategy for the biodiversity sector, called GreenMatter and a DBSA-funded programme 'Catalysing access to employment and job opportunities in the biodiversity sector called Groen Sebenza'. These programmes will continue to contribute to the identification of critical skills as well as the sector's capacity to work cohesively towards developing and retaining talented young people in the sector. Critical to all of this will also be the sector's ability to respond to developed capacity through sustainable job creation and enterprise development. Over and above this, the programme provides a platform for science, policy and society to interface.

Resource considerations

The Programme needs adequate human and financial resourcing so as to effectively respond to its support function to other activities within the Institute and the sector as a whole.
Currently the biodiversity human capital development strategy is implemented through mobilising additional funding from donors and partners. While this model is currently working, SANBI needs to consider how to further increase capacity and resources so as to ensure sustainability of current efforts and to enable it to lead the direction of biodiversity human capital development going forward. The education and empowerment function needs ongoing refinement to ensure its relevance to SANBI's mandate as well as its support function to other programmes. The resource strategy for this function therefore needs to be finalised and implemented.

Risk management

i. Loss of influence and leadership in HCD

The risk is the loss of leadership and influence of the human capital development programme (within SANBI and the partnership), will result in reduced stakeholders support and relevance. This risk is mitigated by instituting clear governance structures and ongoing stakeholder communication on programme activities and effective implementation of sector relevant projects.

ii. Reliance on external funding

The risk is reliance on external funding as some functions are not adequately catered for within the MTEF allocation. The mitigation measure is to raise other sources of funding for these functions and in addition to this, ensure that SANBI's MTEF allocation contributes more substantially to the Programme needs.

7.6.1 Programme 6: Provide human capital development, education and awareness in response to SANBI's mandate
Programme leader: Ms Vivian Malema (VM)

	Strategic Objectives	Objective statement	Baseline	Performance Indicators	Target 2019/20	Manager
Programme 6: Provide human capital development, education and awareness in response to SANBI's mandate						
6.1	**A transformed and suitably skilled workforce for the biodiversity sector is developed.**	Human Capital Development and job creation have contributed to the achievement of a transformed and suitable skilled biodiversity sector workforce.	600 teachers and student teachers have been exposed to biodiversity conservation education	Resource teachers and student teachers to provide relevant, quality biodiversity education to school learners (Foundation Building)	An additional 100 teachers and student teachers have been exposed to biodiversity conservation education. (Total of 700) 13 partners brought on board.	**VM**
			50 graduates, practitioners and leaders have been supported through the GreenMatter Fellowship holistic development programme	Support Biodiversity graduates, practitioners and leaders through a holistic development programme	12 additional fellows supported financially and provided with 2 professional development opportunities	
			800 individuals participating in Groen Sebenza and GreenMatter capacity development and job creation initiatives	Number of individuals participating in Groen Sebenza and job creation initiatives with a percentage coming from designated groups	1000 beneficiaries reached through Groen Sebenza and GreenMatter capacity development and job creation initiatives. 75% of the beneficiaries will be from designated groups	
			10 universities engaged in improving career guidance for biodiversity	Drive innovation and improved career guidance in universities towards producing stronger skills for biodiversity (Higher Education Innovation)	An additional 3 universities engage in Careers for biodiversity programme.	
			New modules developed	Sector organizations share best practice to effectively identify and address their skills needs, train and retain talented professionals in the sector (Institutional Strengthening)	An additional 20 sector partners participate in workshops, undertake aligned organizational activities, or adopt principles from Toolkits.	
			2 Events held	Contribute to platform and activities for biodiversity Human Capital Development (HCD) interaction and coordination (National Coordination and Advocacy) Percentage increase in participants from previous years.	1 National Event implemented with a 10% increase in the spread of partners from previous years.	
6.2	**All national botanical gardens are promoted and used as platforms for biodiversity awareness, education and recreation.**	National botanical gardens used for biodiversity education, training and awareness recreation to achieve sustainable management practices amongst diverse users.	44 000 beneficiaries reached through school group activities predominantly garden based.	Number of users and beneficiaries of botanical gardens and school-based programmes for education, awareness, training and recreation have been increased.	54 000 beneficiaries of garden and school-based programmes have been reached	**VM**
6.3	**Civil society is engaged to contribute to science, monitoring and biodiversity conservation.**	Civil society is engaged through various initiatives in order to contribute to biodiversity conservation and monitoring.	3 platforms developed and supported for plants (CREW), birds (SABAP) and general biodiversity (iSpot)	Number of platforms strengthened and facilitated for civil society engagement that contribute to biodiversity monitoring and biodiversity conservation	4 platforms facilitated.	**JD**

Part C: Links to other plans

8. Links to the long-term infrastructure and other capital plans

Table 1: SANBI long-term infrastructure and other capital investment plans: 2014–2020

No.	Project name	Programme	Location	Project description/ type of structure	Outputs	Estimated project costs (Thousand)	Project duration	
							Start	Finish
1	New vehicles.	Across SANBI.	All SANBI centres.	New and replacement vehicles.	Vehicles.	R15 000	2015	2020
2	New Education centres.	CG&T/BEE.	Betty's Bay, Pietermaritzburg.	New Education centres in the KZN, Karoo Desert and HP NBGs.	Buildings.	R9 000 (R3 000 each)	2014	2017
3	Administration building.	HR, Finance, IT	Cape Town.	New permanent administration building.	Buildings.	R50 000	2014	2017
4	Long-term ecological research facilities.	CG&T/Applied Research.	Hantam NBG, Nieuwoudtville.	Long-term ecological research facilities, including computer & research labs, library, accommodation.	Buildings.	R10 000	2014	2020
5	Security infrastructure.	CG&T.	Various gardens.	New and replacement of existing boundary security fencing.	Fencing, access control, CCTV, servers.	R10 000	2014	2020
6	Fire suppression systems in herbaria.	Biosystematics.	Cape Town, Durban.	Replacement of existing fire detection and suppression systems in two SANBI herbaria.	Fire suppression systems.	R5 000	2013	2017
7	New Eastern Cape National Botanical Garden.	CG&T.	East London.	Establishment of required infrastructure in a new national botanical garden.	Buildings, fencing, parking, ablutions, pathways, irrigation, nursery infrastructure.	R50 000	2015	2020
8	New Limpopo National Botanical Garden.	CG&T.	Thohoyandou.	Establishment of required infrastructure in a new national botanical garden.	Buildings, fencing, parking, ablutions, pathways, irrigation, nursery infrastructure.	R20 000	2015	2020
11	Expanded and improved parking areas.	CG&T.	Kirstenbosch, Walter Sisulu, Pretoria NBGs.	Expanded car parking areas.	Parking areas.	R10 000	2014	2017
12	Horticultural equipment.	CG&T.	Various gardens.	New horticultural equipment.	New and more efficient horticultural equipment.	R5 000	2015	2020
13	IT Infrastructure.	IT.	Pretoria/ Kirstenbosch.	New and replacement IT infrastructure across SANBI.	IT infrastructure.	R20 000	2013	2020
14	Renewable energy infrastructure.	CG&T.	All SANBI centres.	New renewable energy infrastructure.	Building infrastructure.	R20 000	2015	2020
15	Research equipment.	Applied research/ Biosystematics.	Pretoria/ Kirstenbosch.	Research equipment.	Research/ lab equipment.	R6 000	2014	2020

Total new and replacement assets						**R230 000**		
1	Bridges and banks along the Crocodile River.	CG&T.	Roodepoort/ Mogale City.	Repairs to existing bridges damaged by erosion across the Crocodile River in the Walter Sisulu NBG.	Bridge and river bank repairs.	R5 000	2014	2020
2	Maintenance of thatch roofs.	CG&T.	Various gardens.	Annual maintenance of thatch roofs across various gardens.	Roof maintenance.	R10 000	2015	2020
3	Roof repairs.	CG&T.	Walter Sisulu, Free State, Kirstenbosch.	Building roof repairs.	Roof replacement.	R5 000	2014	2020
4	Road repairs.	CG&T.	Various gardens.	Paving/tar repair of roads and paths across various gardens.	Road repairs.	R4 000	2014	2020
5	Vehicle repairs.	CG&T.	Various gardens.	Repairs to existing vehicles, including tractors, lawnmowers.	Vehicle repairs.	R5 000	2014	2020
6	Ablutions: maintenance & repairs.	CG&T.	Various gardens.	Maintenance and repairs to existing ablution facilities.	Building maintenance and repairs.	R2 000	2014	2020
Total maintenance and repairs						**R31 000**		
1	Upgrade irrigation systems.	CG&T.	Various gardens.	Upgraded irrigation systems.	Irrigation system upgrade.	R5 000	2014	2018
2	Upgrading staff houses, store rooms, staff facilities.	CG&T.	Various gardens.	Upgrades, additions to buildings and staff facilities.	Building upgrades and additions.	R5 000	2014	2017
3	Upgrades to SANBI concert stages.	CG&T.	Various gardens.	Upgrades and additions to existing concert stages and associated canopies.	Building upgrades and additions.	R5 000	2014	2020
Total upgrades and additions						**R15 000**		

9. Conditional grants

Not applicable.

10. Public entities

Not applicable.

11. Public-private partnerships

None.

Annexure A: Acronyms and Abbreviations

Full Name	Acronyms/Abbreviation
African Botanic Gardens Network	ABGN
African Plants Initiative	API
Applied Biodiversity Research	ABR
Biodiversity Information Management	BIM
Biodiversity Planning and Mainstreaming	BPM
Biosystematics	BIOS
Board Secretary	BS
Chief Directors	CDs
Chief Executive Officer	CEO
Chief Financial Officer	CFO
Chief Corporate Officer	CCO
Convention on Biological Diversity	CBD
Convention on International Trade in Endangered Species	CITES
Convention of the Parties	COP
Committee of Heads of Organisations of Research and Technology	COHORT
Climate Change and Bio-adaptation	CCB
Department of Environmental Affairs	DEA
Department of Science and Technology	DST
Department of Water Affairs	DWA
Directors	D
Executive Committee	EXCO
Global Biodiversity Information Framework	GBIF
Genetically Modified Organism	GMO
Global Carbon Project	GCP
Global Environment Facility	GEF5
Global Taxonomy Initiative	GTI
Human Capital Development	HCD
Inter-governmental Panel on Climate Change	IPCC
Invasive Alien Species	IAS
Intergovernmental Platform on Biodiversity and Ecosystem Services	IPBES
Learner Teacher Support Material	LTSM
Management Committee	MANCO

Annexure A: Acronyms and Abbreviations (*continued*)

Full Name	Acronyms/Abbreviation
Marine and Coastal Management	MCM
Master Systems Information Technology Plan	MSTP
Medium Term Expenditure Framework	MTEF
Medium Term Strategic Framework	MTSF
Ministers and Members of the Executive Council	MINMEC
Meetings with Technical Officers and Heads of Departments	MINTECH
National Biodiversity Framework	NBF
National Biodiversity Strategy and Action Plan	NBSAP
National Botanical Garden	NBG
National Environmental Management Act	NEMA
National Environmental Management Biodiversity Act	NEMBA
National Research Foundation	NRF
National Treasury	NT
New Partnership for Africa's Development	NEPAD
Project Implementation Plan	PIP
Public Finance Management Act	PFMA
Skills Intelligent System	SIS
South African National Biodiversity Institute	SANBI
South African National Parks	SANParks
Southern African Biodiversity Support Programme	SABSP
Southern African Development Community	SADC
Succulent Karoo Ecosystem Programme	SKEP
Threatened or Protected Species	TOPS
Unites Nations Convention to Combat Desertification	UNCCD
Wildlife and Environment Society of South Africa	WESSA

Note 1: Definition of Herbarium (*plural: Herbaria*): a collection of dried specimens of plants systematically arranged.

Note 2: Some of the targets are shared by more than one Programme /Division therefore in these cases two names will be reflected in the 'Manager's column'