

SANBI

Biodiversity for Life

South African National Biodiversity Institute



Annual Report
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Table of Contents

Minister's Foreword	2
General Information	4
General Information	5
Useful Acronyms/Abbreviations	6
Chairperson's Statement	8
Board of Directors	10
Chief Executive Officer's Report	11
Executive Management	14
Legislative and Other Mandates	15
Organisational structure	18
SANBI's Network of Partners	20
Performance Information	22
Programme 1: Render Effective and Efficient Corporate Services	23
Programme 2: Manage and unlock benefits of the network of NBGs as windows into South Africa's biodiversity	28
Programme 3: Build the foundational biodiversity science	36
Programme 4: Assess, monitor and report on the state of biodiversity and increase knowledge for decision making	40
Programme 5: Provide biodiversity policy advice and access to biodiversity information; and, support for climate change adaptation	45
Programme 6: Human capital development (HCD): Drive HCD, education and awareness in response to SANBI's mandate	54
Performance against Predetermined Objectives	62
Corporate Governance Statement	74
Corporate Governance Statement	75
Annual Financial Statements for the Year Ended 31 March 2017	82





Ms BEE Molewa, MP
Minister of Environmental Affairs

Minister's Foreword

It is a pleasure to present to you the 2016/17 Annual Report of the South African National Biodiversity Institute (SANBI), a public entity of the Department of Environmental Affairs.

South Africa's biodiversity springs from the wealth of its ecosystems. Our long coastline, craggy mountains, species-rich deserts, elephant-friendly thickets, montane forests and treed savannahs along with the incomparable Cape Floral Kingdom make this one of the world's most mega diverse countries.

As a public entity, the South African National Biodiversity Institute derives its mandate from the National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004), providing invaluable science-based support to the Department of Environmental Affairs and the environmental sector in general.

As an entity linked to the Department it makes an important contribution to reaching the National Development Plan's (NDP) goal of creating an environmentally sustainable, climate change resilient, low-carbon economy and just society by 2030.

The Scientific Authority provides support not only to the Department of Environmental Affairs, but to the environmental sector in general, enabling us to make sound science-based policy decisions to protect South Africa's rich biodiversity – our natural heritage.

SANBI assists with the regulation trade in species included in the lists of the Threatened or Protected Species (TOPS) regulations and the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).

Determining whether a species may be traded or not is based on the non-detriment findings of the Scientific Authority, which provides recommendations and advice based on a scientific and professional review of available information. For example, it is because of the recommendation of the Scientific Authority that no permits will be issued for leopard hunting in South Africa again during 2017. This decision is based on the Non-Detriment Finding by SANBI, which will be reviewed at the end of the year.

During the 2016/17 financial year, the Scientific Authority provided invaluable assistance to South Africa on issues ranging from the setting of hunting quotas and the DNA barcoding of cycad, to the illegal trade in leopard skins and illegal hunting of oribi, and the captive breeding of white rhino in preparation for 17th Conference of the Parties to CITES (CoP17) held South Africa from 24 September to 4 October 2016.

SANBI's activities include undertaking and promoting research on indigenous biodiversity and its sustainable use, as well as establishing and managing collections of plant and animal specimens.

The institution also manages and maintains the country's ten National Botanical Gardens and their facilities for horticultural display, as well as environmental education, visitor amenities and research, and collecting and disseminating information about biodiversity.

**SANBI continues
to register
impressive progress
in delivering on
their mandate.**

In addition, SANBI assists in the development of a National Biodiversity Framework, including bioregional plans and strategies; as well as coordinated programmes related to the conservation and sustainable use of indigenous biological resources and the rehabilitation of ecosystems.

During the past financial year, SANBI has made an important contribution to national development through its contribution to the National Development Plan's Agenda 2030.

This has been achieved by creating a direct link between biodiversity and development. While SANBI contributes to a number of the critical actions outlined in the Plan, it makes a specific contribution to Critical Action 7 regarding interventions to ensure environmental sustainability and build resilience.

In 2016/17 SANBI produced 42 peer reviewed scientific publications generated by Biosystematics staff, described 11 new plant species and recorded and loaded over 5 000 species pages – 1 014 for animals and 4 916 for plants – onto the SANBI database. Scientists participated in CONABIO (the Convention on Biodiversity Knowledge) in Mexico in November 2016 to strengthen collaboration on biodiversity assessment and monitoring.

SANBI also contributed to an European Union study of sustainable fishing, which showed that recovery of fish stocks following the implementation of sustainable management measures would mean more fish in the sea, more jobs, and a lesser impact on the ecosystem.

Overall, SANBI continues to register impressive progress in delivering on their mandate.

I congratulate the organisation's Board and executive management for their responsible approach to their work and for their professional attitude and meaningful delivery.

As a Department, and government, we remain committed to affirming SANBI's role in South Africa, Africa and worldwide.

It is heartening to be able to state that South Africa's natural resources, our natural heritage, is in good hands in the form of an institution that takes its responsibility seriously.

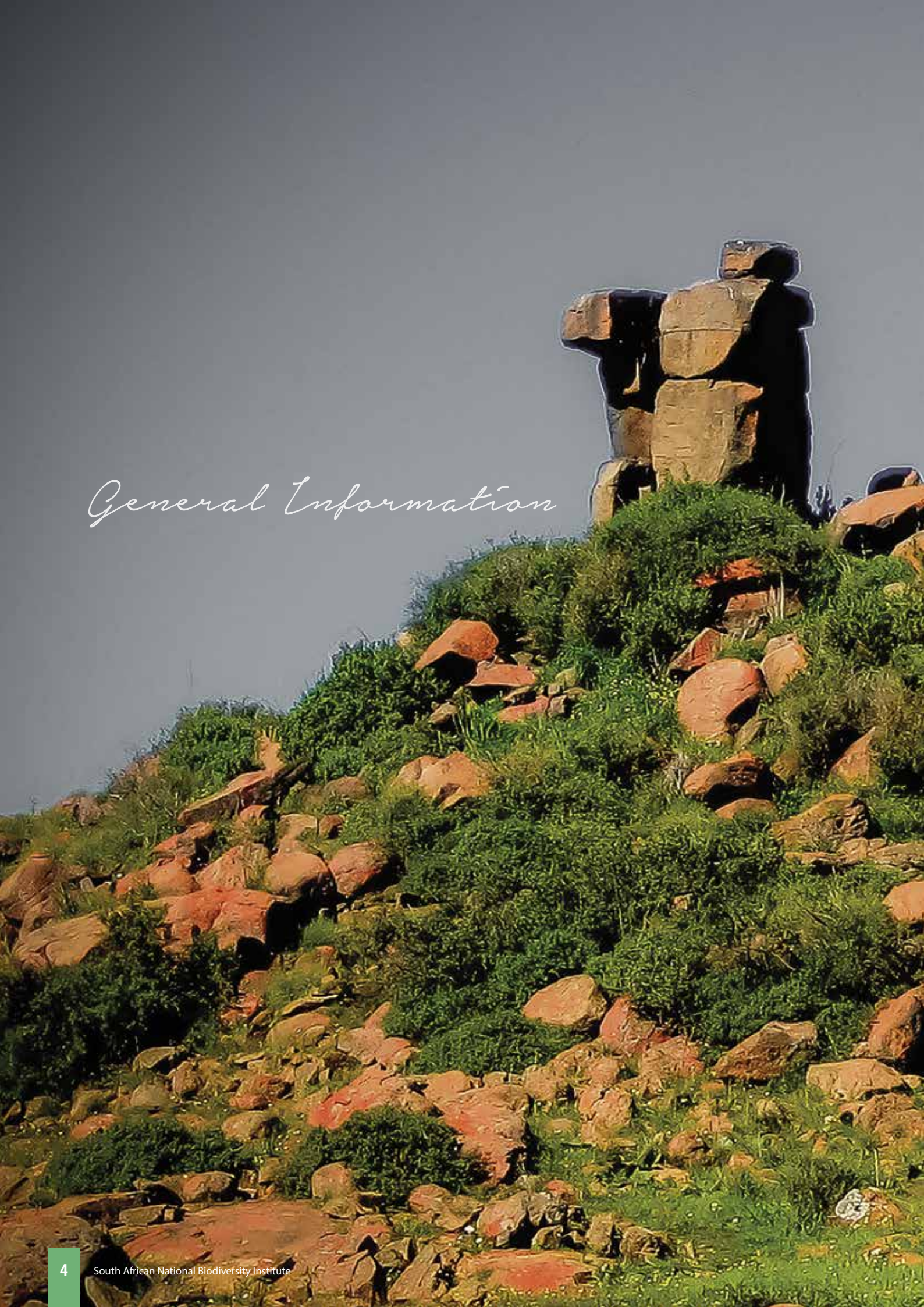
The SANBI 2016/17 Annual Report complies with all statutory reporting requirements of the Public Finance Management Act (PFMA) as well as National Treasury Regulations.



Ms BEE Molewa, MP

Minister of Environmental Affairs



A photograph of a rocky hillside with green vegetation and a large rock formation on top. The hillside is covered in low-lying green plants and scattered reddish-brown rocks. At the top of the hill, there is a large, craggy rock formation that resembles a giant figure. The sky is a clear, pale blue.

General Information

General Information

Name:	South African National Biodiversity Institute
Registration Numbers and/or other relevant numbers (e.g.: FSP):	SANBI is a Schedule 3A Public Entity established in terms of the National Environmental Management: Biodiversity Act, 2004 (No. 10 of 2004)
Head office address:	2 Cussonia Avenue, Brummeria, Pretoria, 0002
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Bank:	Nedbank, 135 Rivonia Road Sandown, Sandton 2196
Board Secretary:	Ms Lebogang Ralepeli



Useful Acronyms/Abbreviations

AAPB	American Archive of Public Broadcasting	EBV	Essential biodiversity variables
AGSA	Auditor-General of South Africa	ECIC	Eastern Cape Implementation Committee
ARC	Agricultural Research Council	ECPTA	Eastern Cape Parks & Tourism Agency
AVE	Advertising value expenditure	EEC	Environmental Education Centre
AWARD	Association for Water and Rural Development	EIA	Environmental Impact Assessment
BAASA	Botanical Artists Association of South Africa	EKZNW	Ezemvelo KZN Wildlife
BCP	Business Continuity Plan	EMG	Environmental Monitoring Group
BEE	Biodiversity Education & Empowerment	EPWP	Expanded Public Works Programme
BGCI	Botanic Gardens Conservation International	ERM	Enterprise Risk Management
BGIS	Biodiversity Geographical Information System	EU	European Union
BHCD	Biodiversity Human Capital Development	EWT	Endangered Wildlife Trust
BIMF	Biodiversity Information Management Forum	EXCO	Executive Management Committee
BMP	Biodiversity Management Plan	FBIP	Foundational Diversity Information Programme
BotSoc	Botanical Society of South Africa	FP6	Framework Programme 6
C.A.P.E.	Cape Action for People and the Environment	GAS	Governance and Strategy Committee
CAPS	Curriculum Assessment Policy Statements	GBIF	Global Biodiversity Information Facility
CATHSSETA	Culture Arts, Tourism, Hospitality & Sport Sector Education & Training Authority	GCF	Green Climate Fund
CBD	Convention on Biological Diversity	GDARD	Gauteng Department of Agriculture and Rural Development
CCBA	Climate Change and Bio adaptation Division	GEF	Global Environment Facility
CEPF	Critical Ecosystem Partnership Fund	GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
CIAGR	Consultative Group on International Agricultural Research	GLOBIS-B	GLOGal Infrastructure for Supporting Biodiversity Research
CIB	Centre for Invasions Biology	GM	Genetically Modified
CIF	Climate Investment Fund	GMO	Genetically Modified Organisms
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora	GSPC	Global Strategy for Plant Conservation
CONABIO	Comisión Nacional para el Conocimiento y Uso de la Biodiversidad	HAWK	Hangklip Art Week
COP	Conference of the Parties	HCD	Human Capital Development
CREW	Custodians for Rare and Endangered Wildflowers	HOCC	Head of Cost Centre
CSIR	Council for Scientific and Industrial Research	HRD	Human Resources Development
CUT	Central University of Technology	ICT	Information and communications technology
DAFF	Department of Agriculture, Forestry and Fisheries	INECC	National Institute of Ecology and Climate, Mexico
DBE	Department of Basic Education	INR	Institute for Natural Resources
DBSA	The Development Bank of Southern Africa	IPBES	Intergovernmental Panel on Biodiversity and Ecosystem Services
DEA	Department of Environmental Affairs	IPCC	Intergovernmental Panel on Climate Change
DG	Director General	ISI	International Scientific Indexing
DLF	Digital Library Federation	IUCN	International Union for Conservation of Nature
DNA	Deoxyribonucleic acid	JBF	Japan Biodiversity Fund
DOA	Delegation of Authority	JERA	Joint Ethno-botanical Research Advocacy, Uganda
DRDLR	Department of Rural Development and Land Reform	KRA	Key Result Areas
DST	Department of Science and Technology	LEDET	Limpopo Department of Economic Development, Environment and Tourism
DUCT	Duzi mMngeni Conservation Trust	LepSoc	Lepidopterists' Society of Africa
DUT	Durban University of Technology	LTSM	Learner Teacher Support Material
DWS	Department of Water and Sanitation	LUI	Land Use Incentive
EAP	Employee Assistance Programme	MAREP	Management, research and planning forums
EBA	Ecosystem-Based Adaptation	MEC	Member of the Executive Council
		MMP	Maintenance management plan

MOA	Memorandum of Agreement	SAIAB	South African Institute for Aquatic Biodiversity
MOP	Member of the Parties	SALGA	South African Local Government Association
MOU	Memorandum of Understanding	SANBI	South African National Biodiversity Institute
MSB	Millennium Seed Bank (UK)	SANCCOB	South African Foundation for the Conservation of Coastal Birds
MSTP	Master Systems Technology Plan	SANEBI	Southern African National Energy Development Institute
MTA	Message Transfer Agent	SANParks	South African National Parks
MTEF	Medium-Term Expenditure Framework	SANReN	South African National Research Network
MTI	Marine Trophic Index	SARChi	The South African Research Chairs Initiative
NBA	National Biodiversity Assessment	SARS	South African Revenue Services
NBF	National Biodiversity Framework	SAWS	South African Weather Service
NBG	National Botanical Garden	SEA	Strategic Environmental Assessment Sustainable Energy Africa NPC
NBSAP	National Biodiversity Strategy and Action Plan	SEIS	SANBI Enterprise Imaging System
NCA	Natural capital accounting	SET	Science, engineering and technology
NDF	Non-detriment Findings	SIS	Skills Intelligence System
NDP	National Development Plan	StatsSA	Statistics South Africa
NDT	National Department of Tourism	SU	Stellenbosch University
NEHAWU	National Education, Health and Allied Workers' Union (South Africa)	TAU	Technical Assistance Unit of National
NEMBA	National Environmental Management: Biodiversity Act	TDWG	Taxonomic Databases Working Group
NFEPA	National Freshwater Ecosystem Priority Areas	TMF	Table Mountain Fund
NGO	Non-Governmental Organisation	TOPS	Threatened or Protected Species
NGP	New Growth Path	TUT	Tshwane University of Technology
NIE	National Implementing Entity	UCPP	uMzimvubu Catchment Partnership Programme
NMMU	Nelson Mandela Metropolitan University	UCT	University of Cape Town
NRF	National Research Foundation	UEIP	uMngeni Ecological Infrastructure Partnership
NRMP	Natural Resource Management Programme	UJ	University of Johannesburg
NSCF	National Facility Science and Technology Forum	UK	United Kingdom
OD	Organisation Development	UKZN	University of KwaZulu-Natal
OHS	Occupational Health and Safety	UNDP	United Nations Development Programme
PES	Payment for Ecosystem Services	UNEP	United Nations Environment Programme
PFMA	Public Finance Management Act	UNFCCC	United Nations Framework Convention on Climate Change
PGWC	Provincial Government of the Western Cape	UNISA	University of South Africa
PPCR	Pilot Programme for Climate Resilience	UNIVEN	University of Venda
ProEcoServe	Project for Ecosystem Services	UNOPS	The United Nations Office for Project Services
RDI	Research, development and innovation	UP	University of Pretoria
RHS	Royal Horticultural Society	UWC	University of the Western Cape
RMFPCom	Risk Management and Fraud Prevention Committee	WCMC	World Conservation Monitoring Centre
SAAMBR	South African Association for Marine Biological Research	WESSA	Wildlife and Environment Society of Southern Africa
SABAP2	Southern African Bird Atlas Project 2	WFO	World Flora Online
SABIF	South African Biodiversity Information Facility	WIL	Work-integrated learning
SACCS	South African Centre for Carbon Capture and Storage	WITS	University of the Witwatersrand
SACE	South African Council for Education	WRC	Water Research Commission
SACN	South African Cities Network	WSP	Workplace Skills Plan
SADC	Southern African Development Community	WWF-SA	World Wildlife Fund-South Africa
SAEON	South African Observation Network	YWP-ZA	Young Water Professionals Network
SAFMA	South African Facilities Management Association		



Mrs ME Magomola
Board Chairperson
South African National Biodiversity Institute

SANBI is committed to driving awareness and providing information on the importance of protecting and conserving biodiversity in our country.

General Information

Chairperson's Statement

Human beings and all of us in South Africa depend on biodiversity in ways that are not always obvious or appreciated. The availability of food, clean water and air depends upon ecosystem products and services. Biodiversity is also responsible for job creation, while providing us with recreation and enjoyment areas. It is for these reasons that SANBI is committed to driving awareness and providing information on the importance of protecting and conserving biodiversity in our country.

A good example of a project to address these priorities is the Karoo BioGaps project funded through the Department of Science and Technology's (DST) Foundational Biodiversity Information Programme (FBIP). This project was developed because of the lack of information on biodiversity in the Karoo, yet such information is essential for sound planning and decision-making.

THE BioGaps project aims to mobilise foundational biodiversity data in a part of our country that historically has been poorly surveyed for biodiversity; the BioGaps project supports the Strategic Environmental Assessment (SEA) for Shale Gas Development and other potential infrastructure development projects in the Karoo basin.

It is a reminder of what we as citizens should be doing to help conserve the biodiversity in South Africa.

SANBI has enjoyed a number of successes during the year under review, to mention a few:

- SANBI's Gardens Expansion Strategy (2016–2030) was developed and approved by the SANBI Board for implementation and this has seen a number of constructions taking place at the different NBGs.
- The NBGs generated an amount of R73,001,424 in own income during the financial year. This is the highest own income amount ever achieved by SANBI's network of NBGs.
- The combined number of visitors to all NBGs for the year totalled 2,084,814, which was 9% higher than the previous financial year (1,915,799). This is the first time in SANBI's history that more than two million visitors were received by the NBGs.
- SANBI's project sponsored by the National Department of Tourism (NDT) was implemented through enhancing the tourism visitor experience in the Walter Sisulu NBG and installing solar panels in the Karoo Desert, Hantam and Free State NBGs as part of the NDT's renewable energy retro-fitment pilot project.
- SANBI received its 34th Gold Medal at the 2016 Royal Horticultural Society (RHS) Chelsea Flower Show, UK.
- The Chief Director: Conservation Gardens & Tourism served on Botanic Gardens Conservation International's International Advisory Council, and together with Dr Abrahamse and Ms Mbizvo, was one of 90 recipients of the Wildlife & Environmental Society of South Africa (WESSA) Lifetime Conservation Achiever Award, in recognition of a lifetime contribution to environmental conservation in South Africa.
- In April 2016, SANBI hosted a BioBlitz near Matjiesfontein in the Karoo to assist with the collection of foundational biodiversity information to support the SEA for Shale Gas Development. Little is known about the plants, animals and other organisms in the Karoo and this event resulted in scientists, naturalists and volunteers conducting a thorough field study to find and identify as many species as possible within the area. The event also marked the launch of the three-year Karoo BioGaps project.

This is just to mention a few of the SANBI projects, a lot more was achieved during this financial year. In reviewing the activities and achievements of SANBI in 2016/17, I am pleased to say that we have made our mark, especially in enhanced stakeholder partnerships to deal with biodiversity issues. Together with our partners, we have made substantial progress in delivering against the tasks at hand. SANBI achievements can also be attributed to improved corporate governance, which saw us put in place a number of policies that enable the organisation to deliver effectively on its mandate.

In conclusion, I would like to say how appreciative SANBI is of all its partners that have supported it in all its endeavours, and contributed to the success that SANBI enjoyed in the year under review. I would be failing to do my job if I don't thank the Minister, who is always willing to lend an ear and avail herself whenever we need her despite her busy schedule. I would like to convey SANBI's sincere appreciation of all our partners that have supported our endeavours, and contributed to the success the organisation has enjoyed in the year under review.

To the members of staff: thank you all for your commitment to the organisation and your passion for delivery. Such dedication will go a long way in assisting SANBI reach new heights going forward.



Mrs ME Magomola
Board Chairperson
South African National Biodiversity Institute



Board of Directors



Mrs ME Magomola
Board Chairperson



Dr T Abrahamse
Chief Executive Officer



Prof. B van Wilgen



Dr ST Cornelius



Dr JM Matjila



Mrs NN Mnqeta



Mr S Gounden



Mrs BD Ngidi



Mrs T Godongwana



Mrs S Mancotywa
DEA representative



Dr Y Seleti
DST representative

Chief Executive Officer's Report

Biodiversity richness is one of South Africa's greatest assets – reflected in the abundant variety of our landscapes, fauna and flora, and ecosystems. It [biodiversity] is vital for human wellbeing and for the resilience and survival of the planet.

In addition to exploring, revealing, celebrating and championing biodiversity, in partnership with our various stakeholders, the Institute's mission is establish, manage, maintain and develop national botanical gardens in the country. So far, SANBI has successfully managed ten National Botanical Gardens (NBGs), each with their own associated tourism infrastructure and conservation estate, as windows to South Africa's biodiversity for the education and enjoyment of all people.

SANBI's value chain

SANBI's science forms part of a value chain that starts with very basic information on biodiversity and builds on these foundations with assessments, experiments, models, pilots and tools communicated through publications and best practice networks. In this way we influence policy makers and contribute to Government's higher objectives of poverty alleviation, job creation and improving human wellbeing.

Foundations of biodiversity: SANBI's work starts with a strong foundation of data surveying, and classifying and mapping South Africa's ecosystems and species. SANBI's herbaria; DNA bank; Millennium Seed Bank; and National Vegetation Map are all examples of this foundational work. This last year an ability to publish species data has greatly accelerated through the Foundational Biodiversity Information Project (FBIP) funded by Department of Science and Technology.

Building Biodiversity Knowledge: Building on the foundation of basic biodiversity data, including assessments and monitoring, gives SANBI the ability to answer questions about the status of the country's biodiversity, as well as the best ways to protect it. Research themes such as threatened species, invasive species, climate change and sustainable wildlife trade fall into this category. This year we hope that SANBI's National Biodiversity Assessment will provide the Minister with seminal information and policy support for greater understanding of South Africa's state of biodiversity and the actions that may be needed to conserve this great asset.

Science into Policy and Action: Using the biodiversity data and research, SANBI translates science into policy and action. Tools, information and targeted policy advice assists decision-makers to consider biodiversity properly in their actions. This past year SANBI successfully assisted the Special Infra Projects (SIPs) by providing invaluable biodiversity information for the Strategic Environmental Assessment (SEA) for Electrification and Gas Development.

Gardens, windows into Biodiversity

For the first time in SANBI's history, the Institute's NBGs have received more than 2 million visitors during the financial year. We are proud to report a total of 2,084,814 visitors in 2016/17, which represents a 9% annual increase in visitor numbers against an Annual Performance Plan (APP) target of 2% annual increase. This is the highest annual visitor number ever achieved by our combined network of gardens.



Dr Tanya Abrahamse
Chief Executive Officer

**For the first time
in SANBI's history,
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financial year.**



General Information

Network of partners

SANBI's mandate is broad and ambitious. From the beginning, the SANBI Board agreed that it should adopt a network institutional model towards delivering on SANBI's mandate and strategic plan through strategic partnerships rather than through massive organisational growth within SANBI itself. The network of partners includes partner organisations, institutions and bodies with broader knowledge networks and communities of practice, with SANBI either leading or playing an influential role.

In addition, the network of partners 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. Our aim is to encourage greater efficiency in the use of scarce fiscal resources and skills, 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 (NBSAP) and the National Biodiversity Framework (NBF).

Additionally, stakeholder engagement is an integral part of developing SANBI's understanding and impact within the biodiversity and scientific arena. To this end SANBI engages our stakeholders on key biodiversity issues through regular communication and involvement in forums, meetings and workshops.

Transformation

Skills and competency development in SANBI and in the biodiversity sector at large remain the biggest challenge to achieving the Institute's vision of biodiversity richness for all. SANBI has increasingly prioritised human capital development resulting in many success stories regarding "growing our own timber".

Human capital development has become a golden thread that runs through all SANBI's activities with work-integrated learning, internship and scholarship programmes aimed at attracting young black scientists and exposing them to a career in biodiversity science. In fact, 2016/17 was a very productive year for the Human Resources (HR) Division. In addition to several in-house training workshops, HR road shows, employee health screenings, career ladder assessments, placement of interns and WIL students, the HR Division also completed the review of job profiles of management staff, aligned to the SANBI mandate, with several new competencies added to the SANBI competency matrix.

SANBI introduced a career ladder for scientists in 2012 to attract and retain scientists and help transform the equity profiles of scientists at SANBI. Scientists have an opportunity to compile a portfolio which presents evidence for their inputs and outputs, for assessment on an annual basis. As at March 2016, SANBI had 42 scientists on the career ladder.

In addition, various donor-funded bioregional programmes and landscape initiatives led by SANBI have provided the opportunity for recruiting new staff into the biodiversity sector, many of whom have gone on to develop careers either in SANBI or in partner organisations. In addition, SANBI has built substantial new skills in the fields of project management and multi-stakeholder process facilitation. This has been a significant positive spin-off from donor-funded programmes, with long-

term benefits for SANBI and the sector well beyond the life of the programmes themselves, including the Institute's rapid accreditation at the National Implementing Entity for the Global Adaptation Fund as well as the Green Climate Fund.

Financial overview

SANBI is a Schedule 3A national public entity under the Department of Environmental Affairs (DEA) that operates within the framework of the Public Finance Management Act. It is reliant on the annual Medium Term Expenditure Framework (MTEF) grant allocation made by the DEA to cover SANBI's personnel and operating expenditure. The MTEF grant is supplemented by SANBI's own income (comprising about 20% of the annual non-infrastructure grant allocated by DEA), generated largely by the network of NBGs, as well as through sponsorships and donor funds received for various mandate-related activities within the Institute.

Acknowledgement/s or Appreciation

SANBI has enjoyed pleasing results in the 2016/17 financial year, due largely to the dedication of all those with a passion for biodiversity and a desire to realise the growth of this vital sector in the economy of South Africa.

I want to hereby thank Ms Edna Molewa, Minister for Environmental Affairs, together with her executive team for their confidence in our organisation and the support they have afforded us. I also want to extend my gratitude and appreciation to the Chairperson, Ms Magomola and the entire Board, past and present, for the vision and strategic direction they have brought to SANBI and for their uncompromising stance with regard to maintaining the highest standards of corporate governance, compliance and transparency of operation.

To my Executive Management team, staff and colleagues, I extend a vote of thanks for the support and cooperation you provided and for the drive and commitment to the achievement of our mandate and in overcoming barriers to success.

Lastly and most importantly a heartfelt thank you to our partners in the industry, all role players and those active globally in related activities for their assistance and collaboration in our efforts to contribute to biodiversity issues.

Protecting and promoting biodiversity for generations to come is truly a labour of love that all of us can be highly proud of.



Dr T Abrahamse
Chief Executive Officer

Executive Management



T Abrahamse
Chief Executive Officer



ME Khoahli
*Chief Corporate Officer;
Corporate Services*



KE Maze
*Chief Director: Biodiversity Information
and Policy Advice*



R Sebola
*Chief Director: Biosystematics
and Collections*



CK Willis
*Chief Director: Conservation Gardens
and Tourism*



L Dlamini
*Director: Marketing and
Communication*



LV Ralepeli
*Director: CEO Office and
Board Secretary*



S Rahlao
MANCO representative to EXCO



L Sithole
Chief Financial Officer



MJ Netshombo
Chief Director: Human Resources



CH Mbizvo
*Head: Biodiversity Science
and Policy Advice*



JS Donaldson
*Chief Director: Biodiversity Research,
Assessment and Monitoring*



Legislative and Other Mandates

Legislative mandate

The South African National Biodiversity Institute was established as a juristic person in terms of Section 10(1) of the National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004). SANBI is a public entity in terms of Section 38(1) (m) of the Public Finance Management Act, 1999 (Act No. 1 of 1999), as amended. It is classified as a schedule 3A entity, i.e. one that will receive substantial support from the National Revenue Fund.

The National Environmental Management: Biodiversity Act stipulates that SANBI's purpose is to assist in achieving the objectives of the Biodiversity Act, which are as follows:

Chapter 1, Part 2 – Objectives of the Act

- (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 is derived from the following sections of the Act:

Chapter 2, Part 1, S11(1) – Functions

The Institute:

- (a) must monitor and report regularly to the Minister on:
 - (i) the status of the Republic's biodiversity;
 - (ii) the conservation status of all listed threatened or protected species and listed ecosystems; and
 - (iii) the status of all listed invasive species;
- (b) must monitor and report regularly to the Minister on the impact of any genetically modified
 - (i) organism that has been released into the environment including the impact on non-target;
 - (ii) organisms and ecological processes, indigenous biological resources and the biological;
 - (iii) 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;



General Information

- (e) must manage, control and maintain all national botanical gardens;
- (f) must manage, control and maintain:
 - (i) herbaria; and
 - (ii) 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 co-ordinate and implement programmes for:
 - (i) the rehabilitation of ecosystems; and
 - (ii) the prevention, control or eradication of listed invasive species;
- (n) must co-ordinate programmes to involve civil society in:
 - (i) the conservation and sustainable use of indigenous biological resources; and
 - (ii) 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:
 - (i) the implementation of this Act and any international agreements affecting biodiversity which are binding on the Republic;
 - (ii) the identification of bioregions and the contents of any bioregional plans;
 - (iii) other aspects of biodiversity planning;
 - (iv) the management and conservation of biological diversity; and
- (v) 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:
 - (i) assigned to it in terms of this Act; or
 - (ii) as may be prescribed.

Chapter 3, Part 2, S 48(3) – The Institute may:

- (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.

Chapter 4, Part 3, S60

(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 the provisions of the Act 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.

Other mandates

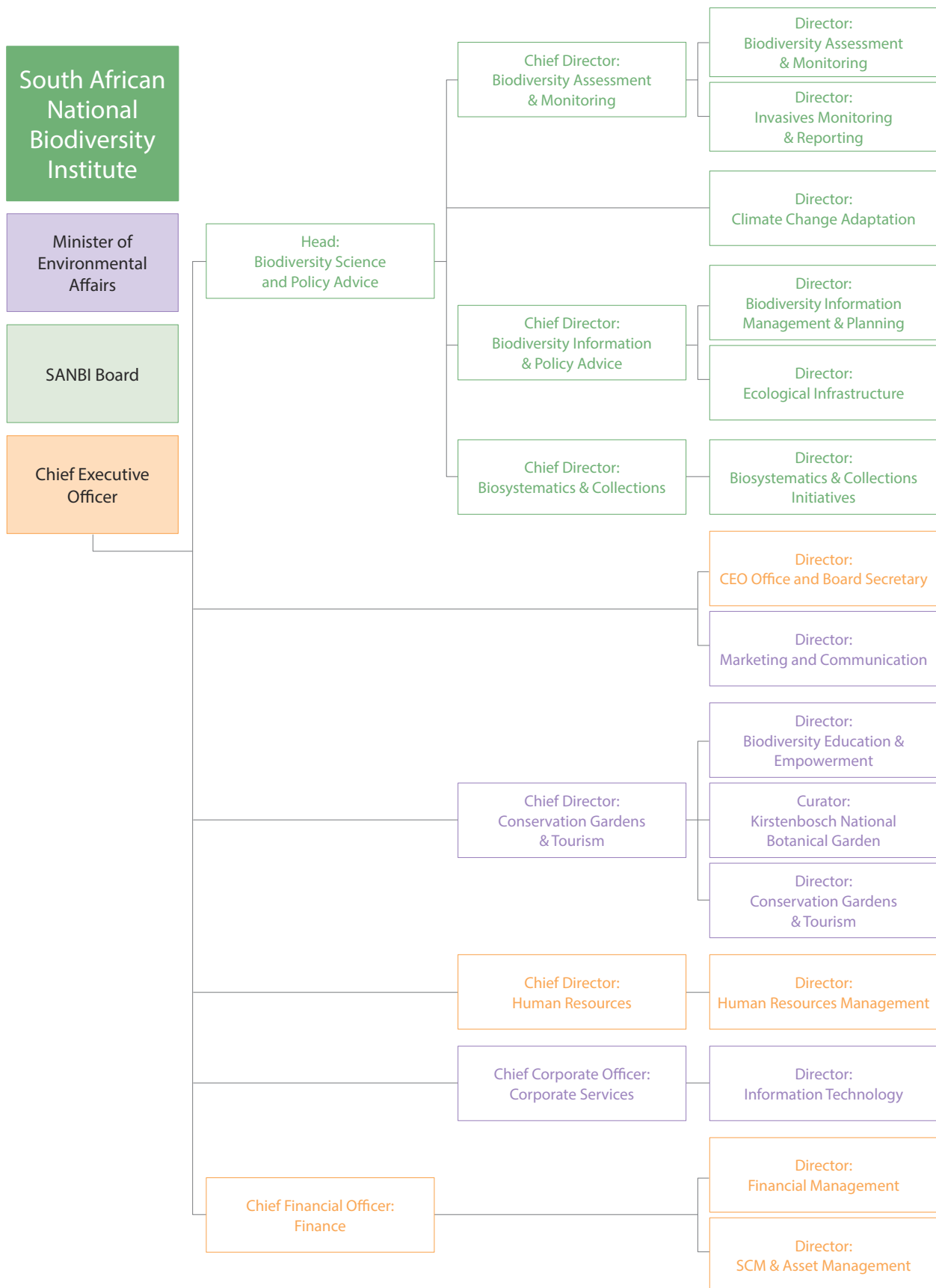
Key priorities are also derived from official sources that identify issues with a high relevance to policy, such as, the National Biodiversity Strategic Action Plan (NBSAP) 2015–2025 the National Biodiversity Framework (NBF), government delivery agreements (Outcome 10), and other national priorities (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 in line with the following legislation:

- National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004)
- Labour Relations Act, 1995 (Act No. 66 of 1995)
- Basic Conditions of Employment Act, 1997 (Act No. 75 of 1997)
- Employment Equity Act, 1998 (Act No. 55 of 1998)
- Skills Development Act, 1998 (Act No. 97 of 1998)
- Skills Development Levies Act, 1999 (Act No. 9 of 1999)
- The Use of Official Languages Act, 2012 (Act No. 12 of 2012).

The Institute also complies with the Public Finance Management Act, 1999 (Act No. 1 of 1999) and relevant Treasury regulations.

Organisational structure



SANBI's Network of Partners

Collaborations with National Departments/Entities

Department of Agriculture, Forestry and Fisheries (DAFF)
Department of Environmental Affairs (DEA)
Department of Rural Development and Land Reform (DRDLR)
Department of Science and Technology (DST)
Department of Water and Sanitation (DWS)
Development Bank of Southern Africa (DBSA)
Expanded Public Works Programme (EPWP)
National Department of Tourism (NDT)
National Research Foundation (NRF)
South African Local Government Association (SALGA)
South African National Parks (SANParks)
South African Weather Service (SAWS)
Statistics South Africa (Stats SA)
Water Research Commission (WRC)

Collaborations with Provincial Departments

Cape Nature
Eastern Cape Department of Economic Development and Environmental Affairs
Eastern Cape Parks and Tourism Agency (ECPTA)
Ezemvelo KZN Wildlife (EKZNW)
Free State Department of Tourism, Environmental and Economic Affairs
Gauteng Department of Agriculture and Rural Development
KwaZulu-Natal Department of Agriculture and Environmental Affairs
Limpopo Department of Economic Development, Environment and Tourism (LEDET)
Mpumalanga Department of Agriculture, Rural Development, Land and Environmental Affairs
Mpumalanga Tourism & Parks Agency
North West Department of Agriculture, Conservation, Environment and Rural Development
Northern Cape Department of Environment and Nature Conservation
Western Cape Department of Agriculture
Western Cape Department of Environmental Affairs and Development Planning





General Information

Collaborations with Municipalities

Cape West Coast Biosphere Reserve
 Cape Winelands District Municipality
 City of Cape Town
 City of Tshwane
 Eden District Municipality
 Ekurhuleni Municipality
 Ehlanzeni Municipality
 eThekweni Municipality
 Gamtoos Irrigation Board
 Gert Sibanda District Municipality
 Joe Gqabi District Municipality
 Midvaal Municipality
 Mopani District Municipality
 Msunduzi Municipality
 Namakwa District Municipality
 Nelson Mandela Bay Municipality
 Nketoana Local Municipality
 Overstrand Municipality
 Setsoto Local Municipality
 uMgungundlovu District Municipality
 West Coast District Municipality

Collaborations with Research Centres

Agricultural Research Council (ARC)
 Albany Museum
 Chrysalis Academy
 Coaltech Research Association
 Council for Geoscience
 Council for Scientific and Industrial Research (CSIR)
 Durban Natural Science Museum
 Iziko Museums of SA
 National Museum, Bloemfontein
 National Research Foundation (NRF)
 National Zoological Gardens of South Africa
 Nelson Mandela Metropolitan University (NMMU)
 North-West University
 Port Elizabeth Museum
 Rhodes University
 South African Environmental Observation Network (SAEON)
 South African Institute of Aquatic Biodiversity (SAIAB)
 South African Medical Research Council
 South African Wildlife College
 Stellenbosch University (SU)
 The KwaZulu-Natal Museum
 Tshwane University of Technology (TUT)
 University of Cape Town (UCT)
 University of Johannesburg (UJ)
 University of KwaZulu-Natal (UKZN)
 University of Pretoria (UP)
 University of South Africa (UNISA)
 University of the Free State
 University of the Western Cape (UWC)
 University of the Witwatersrand (WITS)
 University of Venda (UNIVEN)
 Water Research Commission (WRC)

Collaborations with Non-Governmental Organisations/Businesses

Adaptation Network
Agulhas Biodiversity Initiative Association for Water and Rural Development (AWARD)
BirdLife South Africa
Botanical Society of South Africa
Brenton Blue Trust
Conservation South Africa
Duzi uMngeni Conservation Trust (DUCT)
Endangered Wildlife Trust (EWT)
Environmental Monitoring Group (EMG)
Flower Valley Conservation Trust
Forestry South Africa
Garden Route Botanical Garden
Garden Route Initiative
Gondwana Alive
GreenMatter
GroundTruth
ICLEI – Local Governments for Sustainability
Indigo Development and Change
Institute of Natural Resources
Isimangaliso Wetland Park Authority
Kwelera Nature Reserve Proprietary Limited
Lepidopterist Society of Southern Africa (LepSoc)
Living Lands
NCC – Environmental Services
NCT Forestry Cooperative Ltd
Proteus Initiative
South African Foundation for the Conservation of Coastal Birds (SANCCOB)
SAPPI
South African Association for Marine Biological Research (SAAMBR)
South African Cities Network (SACN)
Sustainable Energy Africa NPC (SEA)
Table Mountain Fund (TMF)
Waterberg Biosphere Reserve
Wildlife and Environment Society of South Africa (WESSA)
Wildlands Conservation Trust
World Wide Fund for Nature South Africa (WWF-SA)

Collaborations with international Entities

Adaptation Fund
American Museum of Natural History
Biodiversity Observation Network (BON)-Development Working Group
Comisión Nacional para el Conocimiento y Uso de la Biodiversidad (CONABIO)
Critical Ecosystems Partnership Fund (CEPF)
Fauna and Flora International
Global Biodiversity Information Facility
Global Environment Facility
Green Climate Fund
International Union for Conservation of Nature (IUCN)
Joint Ethno-botanical Research Advocacy – Uganda (JERA)
JRS Biodiversity Foundation
Norwegian Environment Agency
Royal Botanic Gardens – Kew
UN Statistics Division
UNEP World Conservation Monitoring Centre
United Nations Development Programme
United Nations Environment Programme
Université Pierre et Marie Curie
University of Exeter

Performance Information

Programme 1: Render Effective and Efficient Corporate Services

Purpose: This programme is designed to ensure that SANBI is effective, efficient and accountable, and responds successfully to changing conditions.

Strategic objectives

- SANBI is positioned as an employer of choice in the biodiversity sector.
- Compliant financial management systems and policies are provided.
- Effective corporate services rendered to achieve the mandate of SANBI.
- Effective communication and technology support services through enhanced communication and technology infrastructure.
- Effective marketing and communication services delivered to internal and external stakeholders.

Key performance areas

- Marketing and Communication
- Human Resources
- Finance
- Information Technologies

Programme performance highlights

Marketing and Communication

SANBI drives high-level communication to the public at large and strives to foster long-lasting relationships with groups with interest in SANBI brand and its offerings.

The role of the Directorate of Marketing and Communication is to undertake internal and external programmes to enable a positive reputation for brand SANBI and to improve its corporate image, manage stakeholder relationships and promote proactive media relations. Continuous communication of organisational key engagements and achievements with internal and external stakeholders is important to keep stakeholders informed. The Directorate also identified a number of leveraging opportunities within hosted events as part of the continuous effort to create awareness of the role of the organisation and, of course, of the SANBI brand and its offerings.

During the year under review the Directorate achieved all of its targets detailed in the action plan for the year 2016/17. Positioning SANBI's brand prominently in the public domain was an important focus of the work and, in this regard, SANBI ensured close liaison with a wide range of media representatives, affording them access to the National Botanical Gardens (NBGs). SANBI's endeavours in this regard proved highly successful, with extensive positive media exposure during the review period. The exposure received totalled R3,775,436.23 in advertising value expenditure (AVE) for local coverage and R9,503,667.97 in AVE for international coverage.

SANBI's interactive website saw growth during the 2016/17 financial year, while since the start of 2017, the organisation simultaneously made gains on Facebook, with followers slowly increasing. During the course of the review period and as an effect of the phenomenal growth of social media in the country, SANBI moved to supplement its Facebook presence with the opening of Twitter,



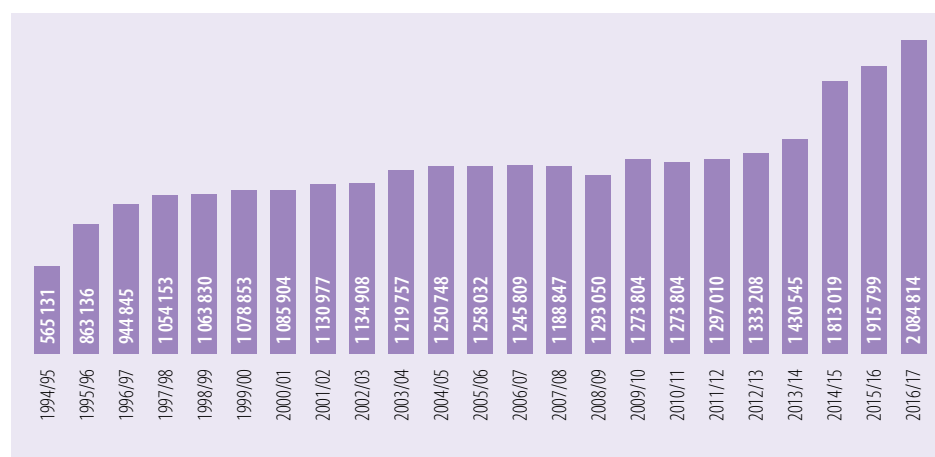
By financial year-end, SANBI had developed a fully-integrated social media strategy, a move that will stand the organisation in good stead in the digital age

Instagram, LinkedIn and YouTube accounts. Importantly, by financial year-end, SANBI had developed a fully-integrated social media strategy, a move that will stand the organisation in good stead in the digital age.

The 2016/17 financial year was utilised to build on the solid communications foundation already in place. SANBI employed a range of print and digital communication vehicles to engage with stakeholders, sharing and imparting information to promote brand SANBI actively and build meaningful awareness around SANBI's offerings.

For the first time in its history, SANBI received more than two million visitors in a financial year. The figure of 2,084,814 in 2016/17 represents a 9% annual increase in visitor numbers, against an Annual Performance Plan target of a 2% annual increase. This is the highest annual visitor number ever achieved by the combined network of NBGs.

Free State (77,580), Hantam (3,313), Harold Porter (63,273), Kirstenbosch (1,095,846) and Pretoria (371,666) all achieved historic record high visitor numbers for the year. Kirstenbosch had its best year ever, receiving over one million visitors for the year (1,095,846) for the third year in succession, and generating R34m in gate income, a 20% increase on last year's R28m gate income. The graph below depicts what SANBI has experienced in terms of growth in visitor numbers through the years, particularly in the year under review.



Total visitors to NBGs (1994/95 – 2016/17)

Human Resources

The 2016/17 year was a very productive period for the Human Resources (HR) Division. In addition to several in-house training workshops, HR road shows, employee health screenings, career ladder assessments, placement of interns and work-integrated learning (WIL) students, the HR Division also completed the review of job profiles of management staff, aligned to the SANBI mandate, with several new competencies added to the SANBI competency matrix.

Employee Profile (as at 31 March 2017) – Contract and Permanent

Race/ Gender	African Male	African Female	Coloured Male	Coloured Female	Indian Male	Indian Female	White Male	White Female	TOTAL
Number	272	156	80	72	4	9	35	63	691
Percentage	39.4	22.6	11.6	10.4	0.6	1.3	5.1	9.1	100

New Appointments (1 April 2016 – 31 March 2017)

Race/ Gender	African Male	African Female	Coloured Male	Coloured Female	Indian Male	Indian Female	White Male	White Female	TOTAL
Number	24	22	2	5	0	1	3	0	57
Percentage	42.1	38.6	3.5	8.8	0.0	1.8	5.3	0.0	100

Employee Health and Wellness programme

SANBI is committed to the promotion of a culture of healthy lifestyle living; this was seen through increased participation of employees in the following health screenings:

- Blood pressure
- Blood glucose
- Cholesterol
- BMI (Body Mass Index)
- HIV testing and counselling.

Building the talent pipeline

SANBI's science internship programme fulfils three objectives, namely to expose students to the possibility of a career in research/science; to provide training in practical skills to achieve SANBI's research mandate; and to provide an opportunity for established research staff to identify students for post-graduate research and as potential future employees within SANBI. In the year under review, SANBI has hosted 32 interns in various programmes.

In addition to hosting interns, SANBI also provides funding for post-graduate studies. The bursaries offer an opportunity for students to work with SANBI scientists on projects that support the mandate of the Institute, while still being registered with a university of their choice. In the year under review, several post-graduate students have been supervised and co-supervised by SANBI scientists.

SANBI has been actively involved in the DST-NRF internship programme since 2009, aimed at providing university graduates and post-graduates with work experience in science, engineering and technology (SET) fields, thereby increasing their chances of employment.

Professional development tally

24 Work integrated learning (WIL) students (horticulture and nature conservation)

1 Kirstenbosch Scholar

32 Internships

7 Honours students

37 Master's students

24 PhD students

12 Postdoctoral fellows

45 Staff bursaries awarded:

22 Undergraduate

3 B.Tech.

1 Post-graduate Diploma

6 Honours

9 Master's

4 PhD



Mariel Bessinger

Intern with Biodiversity Information Management

In April last year I joined SANBI's NRF Internship Programme and was placed with the Biodiversity Information Management Directorate.

My time at SANBI has taught me that effective data management is vital to reaching the goal of the Directorate and the skills I acquired are therefore integrally related to this goal. I have assisted with the restructuring of the Biodiversity Geographical Information System (BGIS) website for the hosting of spatial datasets created by SANBI and data partners, which contribute towards user training workshops in website navigation; uploading content to the Biodiversity Advisor website, for ease of user navigation to the correct biodiversity information provided by SANBI; SANBI's Institutional Repository, an online archive of SANBI's research outputs; and the management of images on the SANBI Enterprise Imaging System (SEIS). I learned that a good team is the key to a successful outcome. The people in my directorate are knowledgeable in their fields and they assisted me by mentoring and teaching me to do my part effectively.

SANBI is the ideal environment for me to lay the long-term foundation of my scientific career. As a collaborative institute, it has assisted with my technical skills development, as well as my ability to partner and collaborate with internal and external partners.

Information Communication Technology

According to the King IV recommendation the Governing Body (the Board, in the case of SANBI) should govern technology and information in a way that supports the organisation's setting and achieving its strategic objectives. The Board should ensure that the assurance services and functions, which include Executive Management, Internal Audit, Enterprise Risk Management and other Regulators, enable an effective control environment and that these support the integrity of information for internal decision-making and generation of the organisation's external reports.

ICT is a pervasive function within SANBI, because of its integrated role in supporting sustaining and growing the business. In line with the ICT Governance Framework, SANBI understands and manages the risks, benefits and constraints of ICT. The Executive Management understands the strategic importance of ICT and assumes responsibility for the governance of ICT. Due to the current structure and size of the organisation, SANBI has outsourced most of the ICT functions to EOH Mthombo (Pty) Ltd.

The broad ICT services rendered and supported through the entire organisation cover areas listed below:

- Service Desk Management
- Desktop Management
- Server Management Administration
- Network Administration and Maintenance (both wide and local area networks)
- Intranet and Internet management
- e-Mail Management and Administration
- IT Architecture Management
- ICT Continuity Management
- Website Management.

SANBI continues to implement the broadband South African National Research Network (SANReN) network project to improve internal and external connectivity to all its national centres. SANReN is a high-speed electronic communications network that is being deployed in South Africa to link research institutions. This research network has enhanced internet browsing speeds at most sites where broadband connectivity is required for dissemination of research information to SANBI's partners and stakeholders locally and internationally.

Facilities Management

SANBI enrolled and registered with the South African Facilities Management Association (SAFMA) for benefits such as professionalisation, accreditation, networking and information sharing. Our personnel responsible for the management of administration buildings and commercial facilities are also enrolled as members of SAFMA and have access to specialised training and other resources.

Business continuity improvement was another one of the highlights for the Pretoria National Botanical Garden where back-up electricity generators were installed. The generators provide an alternative source of power as an essential component of the business continuity preparedness for the garden especially in light of the high demand for our facilities and the marked proliferation of a variety of events on the campus. An agreement was signed with the Department of Environmental Affairs/DEA for the provision of alternative accommodation in an event of a disaster.

The division has mainly had major successes in health and safety and risk management; both had new systems implemented in the last financial year.

Occupational Health and Safety

The Occupational Health and Safety Act, 1993 (Act No. 85 of 1993) requires the employer to provide and maintain as far as reasonably practical a work environment that is safe and without risk to the health of employees.

A health and safety policy was developed, which outlines the responsibilities of management and employees for health and safety. To fulfil this obligation and requirement of the National Occupational Safety Association Health and Safety Management System, a policy statement was developed, which highlights principles and goals embodying the SANBI's commitment to workplace health and safety.

SANBI is committed to the National Occupational Safety Association Five Star Health And Safety Management System which covers the following elements in general:

- Premises and housekeeping
- Mechanical, electrical and personal safeguarding
- Fire management
- Incident management and recording
- Organisational management.

Risk assessment was conducted to identify hazards associated with SANBI's activities and a committed structure was put in place, endorsed in terms of the CEO's delegation authority. Issue base risk assessment was done and continuous task/activity risk assessment on high-risk activities are done and managed by each centre. To fulfil risk assessment requirements, written safe procedures for high-risk activities were developed for implementation by all centres. Emerging risks are identified and put into the risk assessment register. Fire risk assessment is conducted annually in all centres, and findings were reported to the relevant centre for implementation of proper remedial and corrective actions.

Administratively, health and safety is managed across the SANBI centres by the Corporate Services Division and communication is done through the Curators of the different National Botanical Gardens. Health and safety representatives were appointed. Monthly meetings are held through formally established committees.



Programme 2: Manage and unlock benefits of the network of NBGs as windows into South Africa's biodiversity

Purpose: This programme is designed to ensure the effective management, maintenance and development of South Africa's network of NBGs.

Objective statement

- A network of NBGs is managed and maintained to realise benefits to SANBI, civil society and other relevant stakeholders.
- Nature-based tourism and recreational activities are strengthened in all NBGs to contribute to and support SANBI's sustainability.

Key performance areas

- Increased representation and display of indigenous plants in the living collections of SANBI's NBGs or the Millennium Seed Bank Partnership.
- Number of new NBGs established and operational.
- Number of maintenance, development and capital projects completed across SANBI's NBGs.
- Visitor number percentage increased through expanded tourism-related activities and events in NBGs.

Programme performance

SANBI's Gardens Expansion Strategy (2016–2030) was developed and approved by the SANBI Board. Key actions of this strategy to be implemented by 2030 include (a) having at least one NGB established in every province, (b) partnering with conservation agencies to have a demonstration garden representing each of the Desert and Indian Ocean Coastal Belt Biomes, (c) considering opportunities to expand existing gardens, and (d) partnering with other existing botanical gardens through signed Memoranda of Understanding.

South Africa's network of NBGs continued to be consolidated and expanded through the development of draft management plans for the 160 ha portion of the Kwelela NGB in East London, in partnership with the Eastern Cape Parks & Tourism Agency (ECPTA). Phase 2 of the establishment of the Kwelela NGB was initiated with receipt of the title deed for an acquired 10.48 ha land portion. Proclamation of the 10.48 ha of land as part of the existing Kwelela NGB by the Minister of Environmental Affairs is expected in the new financial year. A draft site development plan was prepared for this portion of land. A joint steering committee was established between SANBI and ECPTA to monitor and oversee progress on the development of the garden.

Led by Kirstenbosch, South Africa's NBGs received their highest ever number of visitors and own income generated since the establishment of the network more than 103 years ago. A private bequest left to Kirstenbosch NBGs by the late Mrs Joan Wrench was received by SANBI.

The Gardens Conservation Programme coordinated the response of SANBI NBGs to the Biodiversity Management Plan of Cycads as required in the National Strategy of Cycad Conservation, and a booklet which shows activities, timeframes and responsible people was developed and distributed to relevant SANBI stakeholders. A threatened grassland orchid occurring in the natural areas of the Walter Sisulu NGB, *Brachycorythis conica* subsp. *transvaalensis*, was named the Albertina Sisulu Orchid, after consultation with and approval from the Sisulu family.

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Celebrating SANBI's 34th Gold Medal at the Royal Horticultural Society's Chelsea Flower Show, London, UK

For the third year in succession in its 103-year history, Kirstenbosch received more than a million visitors during the financial year. The Free State (Free State Province), Lowveld (Mpumalanga Province) and Walter Sisulu (Gauteng Province) NBGs were all provincial finalists for the Lilizela Tourism Awards in the Visitor Experience category (sub-category 'Scenic Beauty'). Construction of a new labyrinth in the Lowveld Garden was completed, using external funding sourced and mobilised by local media. The Lowveld Garden was voted the 2016 winner in the category, Best Place to take Out-of-Towners, of the Readers' Choice Best of Mbombela. The Waterwise Children's Garden Manzi Game sponsored by Rand Water was officially launched in the Walter Sisulu NBG. The Walter Sisulu NBG also hosted BirdLife South Africa's annual African Bird Fair. The Pretoria National Botanical Garden hosted the Discovery Jacaranda FM Spring Walk with more than 21,000 participants. The KZN Garden donated a Keyhole Garden (a sustainable gardening method that uses kitchen and garden waste, and grey water as food for the garden) to Siyabonga Helping Hands for Africa to the Esigodini Township in the Edendale area, KwaZulu-Natal.



Mr Phakamani Xaba
Horticulturist, Kirstenbosch NBG

Formally trained as a horticulturist, Phakamani Xaba holds a National Diploma and a B.Tech. degree in Horticulture as well as an M.Sc. in Biodiversity And Conservation Biology, and Cycad Reproductive Biology. He says, "I am fascinated by the use of horticulture as a conservation tool, especially since South Africa is incredibly rich in floral diversity."

Phakamani was introduced to the NBI (later SANBI) as a volunteer in 2000. He later completed a horticultural

studentship at KwaZulu-Natal NBG in 2001, a Kirstenbosch Internship in 2002, and a Kirstenbosch Scholarship in 2003. In 2004 he was an outreach horticulturist in the Overberg region, based at the Harold Porter NBG. He currently works as a research horticulturist at Kirstenbosch, a position he has held since 2007.

The experience he gained at the different gardens includes an opportunity at the KwaZulu-Natal NBG to expand the former muthi garden into a useful plants garden. This included an interpretation component that he designed together with John Roff. He later implemented the useful plants garden concept at the Kirstenbosch and Harold Porter NBGs. He also piloted a community-focused project in the Kogelberg Biosphere Reserve and the Overberg region, to secure environmental awareness and sustainable livelihoods in previously disadvantaged communities and schools.

One of the products of Phakamani's mentoring relationship with John Winter (former curator of Kirstenbosch) has been the development of a new yellow cultivar of *Strelitzia*, called *Strelitzia juncea* ('Centenary Gold') at Kirstenbosch. This led the way for the redevelopment of

new horticultural standards for living plant collections at Kirstenbosch, together with the Dell team, students and interns. Phakamani says, "Through extensive field training with Dr Ernst van Jaarsveld, I have introduced numerous new plants to the collections. In the last few years at Kirstenbosch, I have also worked with Prof. John Donaldson, developing my research skills."

As a result he succeeded in resolving the low seed germination viability of the critically endangered cycad, *Encephalartos latifrons*, at Kirstenbosch. This was part of his M.Sc. project, done in collaboration with the Royal Botanic Garden, Kew, and fully funded by the Mohamed bin Zayed Species Conservation Fund.

Currently Phakamani is involved in a skills transfer partnership programme in Uganda pertaining to cycad conservation. The programme involves bringing together varied skills in plant conservation from China, the United Kingdom and Thailand. He has also published over 40 horticultural articles, many scientific publications and has also authored a book aimed at schools, published by Cambridge University Press.



Opening of the new gate house at the Lowveld NBG

SANBI exhibited at the Royal Horticultural Society's (RHS) Chelsea Flower Show in London for the 41st consecutive year in May 2016 and was awarded its 34th Gold Medal. The exhibition was titled 'Harold Porter National Botanical Garden – A Gateway to the Kogelberg Biosphere Reserve'. The Botanical Artists Association of South Africa (BAASA) hosted an art exhibition, 'Plant', at Kirstenbosch, showcasing both botanical art and insect illustrations. A new book entitled *The Amaryllidaceae of southern Africa* was prepared by Graham Duncan, one of SANBI's longest-serving horticulturists, and published through Umdaus Press.



Ms Berenice Carolus

Curator: Harold Porter NBG

Berenice Carolus completed a National Diploma in Horticulture at the Peninsula Technikon (now known as the Cape Peninsula University of Technology) in 1999 and later obtained a B.Tech in Horticulture. During her years of study, she was exposed to many different horticultural career opportunities, but she soon made up her mind – while completing her first six months as a Work Integrated Learning student in 1998 – that the NBI (now SANBI) was the place she wanted to work. Here she was exposed to fynbos and the intricacies of growing it under the professional guidance of Anthony Hitchcock and Fiona Powrie. It was also during this time

that Berenice was introduced to the Outreach Greening Programme. "Taking part in this programme, going to different schools and assisting with greening school grounds, had a major impact on what I wanted to do once I qualified as a horticulturist," she says. She was one of the lucky few who were fortunate to have completed both their in-service training as well as their two-year internship at Kirstenbosch.

Her career in the NBI officially started in 2001 when she was appointed as junior horticulturist at the Harold Porter NBG. Her duties included managing the nursery and estate teams. One of many special opportunities she will always cherish and remember was when she was chosen as one of the delegates to represent Kirstenbosch and the NBI at the prestigious Chelsea Flower Show in 2003. She says, "It was an experience of a lifetime. Another such opportunity was in 2007 when I represented the organisation at the third Global Botanic Gardens Congress in Wuhan, China."

Berenice's career developed from junior, senior and then chief horticulturist and she was also chosen as part of a group of junior managers within SANBI to do a Junior Management Development Programme through the Stellenbosch University Business School in 2008.

In 2011 Berenice embarked on a brand new and challenging journey as the curator of the Harold Porter NBG. With her passion for outreach greening, she has succeeded – together with a very dedicated education team – in exposing many learners that have never been to a botanical garden to plants and teaching them about biodiversity and the importance of conservation. The Harold Porter NBG has also assisted in greening many schools in the surrounding Overberg region and, together with the Science Career Expo hosted annually, has succeeded in introducing many learners to a range of career possibilities in the field of natural sciences.

Staff development is a priority for Berenice and the Harold Porter NBG staff members are often sent on various training courses and given the opportunity to study. The garden is also actively involved in mentoring several students that are part of the Groen Sebenza Programme. As she says, "It means a lot to me to be able to share my experiences with them and to hopefully instil in them a passion for nature and biodiversity by exposing them to the different career opportunities within the biodiversity sector." It is her vision to reach out to more schools and to give other young horticulturists similar opportunities to grow within the organisation.

The combined number of visitors to all NBGs for the year totalled 2,084,814 which was 9% higher than the previous financial year (1,915,799) and the highest annual visitor number ever achieved by SANBI's network of gardens. Visitor numbers for the financial year increased year-on-year in the following gardens: Free State, Hantam, Harold Porter, Kirstenbosch, KwaZulu-Natal, and Lowveld NBGs and the Pretoria National Botanical Garden. Historic best-ever visitor numbers were reported by the following gardens: Free State, Hantam, Harold Porter, Kirstenbosch and Pretoria National Botanical Gardens. These numbers were attributed largely to promotion and hosting of events (including concerts, community markets, park runs, boot camps, yoga classes, night/lunar trail runs, open air cinemas, flower shows, exhibitions/plant fairs and weddings) and use of the gardens by many tourists, members of the public and various interest groups. The park run event hosted in the Pretoria National Botanical Garden is considered one of the fastest growing park runs in the world.

An income of R73,001,424 was generated by all NBGs combined for the 2016/17 financial year, representing a 14% year-on-year increase on the 2015/16 equivalent income figure. The Kirstenbosch summer sunset concerts were attended by 94,542 visitors. All concerts that were hosted at Kirstenbosch during the summer season generated R34,890,918 in gate income, representing a 20.8% year-on-year increase.

Good progress continued in the implementation of SANBI's DEA-funded Infrastructure Programme, with significant investment for improving and refurbishing the organisation's buildings (including offices, education centres, staff facilities, guest houses, and restaurants/tea rooms) and related infrastructure (such as roads, pathways, parking areas, security infrastructure, bridges, irrigation and sewerage systems), information technology infrastructure as well as research equipment and vehicle recapitalisation. Since the start of the three-year Infrastructure Programme in 2013/14, 39 formal infrastructure and professional services-related tenders (valued at over R500,000 each) with a combined value of R175,727,382 have been processed. In total, 70 contracts below R500,000 have been signed for professional services or minor construction works for infrastructure, with a combined value of R12,928,704.

Repair of flood-damaged pathways and pedestrian bridges in Disa Gorge in the Harold Porter NBG was completed and Disa Gorge re-opened to the public. The new Dawidskraal River Maintenance Management Plan (MMP) for the Harold Porter NBG was approved by the DEA.



Capital Craft's annual festival hosted in the Pretoria NBG



SANBI receiving the Silver Award at The Witness Garden Show

The Karoo Desert NBG started a programme of creating small gardens across the Breede River Valley and Little Karoo to act as small windows into the Karoo Desert NBG's offerings and to sensitise local communities to the value of gardening with local indigenous plants. A sculpture display by the famous Belgian Sculptor, William Sweetlove, entitled 'Water wars', was hosted by Kirstenbosch NBG, which drew attention to the serious environmental problems associated with fresh water and ocean pollution. The KwaZulu-Natal NBG established a partnership with Msunduzi PMB Tourism and the Old Prison Museum (Project Gateway) to develop a tourism route – Westgate Tourism Experience. The KZN NBG hosted the prestigious art sale exhibition for the first time in the garden's London Plane Tree Avenue 'Art in the Park', and received huge media coverage.

Certificates of Excellence were presented from TripAdvisor, the world's largest travel site, to the following NBGs that consistently earned great reviews from travellers: Free State, Harold Porter, Karoo Desert, Kirstenbosch, Lowveld, Walter Sisulu and Pretoria National Botanical Gardens.

Some R10,367,013 has been spent over the past four years on procuring 34 new, more efficient and low-maintenance vehicles across SANBI, including sedans, tractors, bakkies, and trucks. In addition, research equipment to the value of R3,890,252 and information technology-related infrastructure to the value of R17,876,722 have been provided. Major projects completed by the end of the financial year included reconstruction of a pedestrian bridge, revamping and opening of the interpretive Kitso Eco-Centre, and upgraded staff and administration facilities in the Walter Sisulu NBG; repairs, upgrading or replacement of fencing at the Pretoria National Botanical Garden, and the Walter Sisulu and Lowveld NBGs; and the installation of six standby emergency generators at the Pretoria National Botanical Garden (including the garden and the National Herbarium) was completed in the financial year. Re-lining of the 110 Mgl irrigation dam in Kirstenbosch was completed in the 2016 winter season, while construction was started on a new, long-awaited Kirstenbosch administration building, replacing the temporary prefab structures used as offices by SANBI's Kirstenbosch-based Human Resources, Finance and Information Technology sections for the past 30 years. Construction of a new gate house and kiosk at the Lowveld NBG was completed and officially opened. Conversion of a corner unit in the Kirstenbosch Conservatory from a fern unit to a cremnophyte (cliff-hanging plant) display unit was completed with sponsorship received from the Botanical Society of South Africa.

A feasibility study on environmentally sustainable solutions for all SANBI's NBGs across South Africa was commissioned with the aim of implementing recommended and prioritised solutions in the following two financial years through SANBI's dedicated infrastructure programme.



Sculpture display entitled 'Water wars', by William Sweetlove at Kirstenbosch NBG

SANBI completed DEA-funded Expanded Public Works Programme (EPWP) projects in the Free State, KwaZulu-Natal and Walter Sisulu NBGs and the Pretoria National Botanical Garden, providing temporary employment and opportunities for skills development to over 130 previously unemployed workers. The projects provided improvement to the boundary fencing, pathways, irrigation systems, tourism products and removal of alien invasive plants from the natural estates. By the end of the financial year, 17 EPWP workers who had worked in SANBI's NBGs had been appointed into permanent or contract positions within or outside SANBI. Nineteen garden-based Groen Sebenza pioneers were appointed into permanent or contract positions within SANBI, while nine garden-based Groen Sebenza pioneers were appointed into permanent or contract positions outside SANBI.



Mr Thompson Mutshinyalo

Director, Conservation Gardens and Tourism

Thompson Mutshinyalo obtained a National Diploma in Horticulture at the Technikon SA (now UNISA), after which he enrolled and completed a B.Tech. degree in Horticulture. A keen interest in biodiversity conservation prompted him to go forward and do a B.Sc. Honours degree in Environmental Science at the North West University, specialising in biodiversity conservation and ecology.

Thompson had a very long and indirect relationship with the NBI (now SANBI); some of his family were involved

in the eradication of alien invasive plants along the river at the Walter Sisulu NBG, way back in the 1980s. He concluded that, given his line of study and interest in indigenous plants, SANBI was the only institution where he could make a meaningful contribution.

Thompson's own journey with the NBI started in 1998 when he applied for practical training at the Walter Sisulu NBG (formerly the Witwatersrand National Botanical Garden). After completing his in-service training, he worked for the Witkoppen Wildflower Nursery. He came back as a junior horticulturist under the mentorship of Andrew Hankey in early 2001 and also worked in the Pretoria National Botanical Garden as a senior horticulturist, managing the plant collections and index nursery. December 2003 saw him taking a very drastic decision to leave the Institute at a time when the new draft of the NEMBA Act was at a final stage. This was not for long. "Home is home, so after spending three years in what I call leadership and business schooling in another organ of state, I returned in 2007 to lead the Walter Sisulu NBG as curator for almost eight years," he stated.

Thompson currently holds the position of director within the Conservation Gardens and Tourism Division of SANBI. He is grateful for the many opportunities that SANBI exposed him to, such as participating in the Chelsea Flower Show, fieldwork, and management training (specifically, the Middle Management Development Programme through Stellenbosch University), SABONET and the sustainable transformation coaching process.

Thompson finds that the Plants of the Week series on the SANBI website is an ideal platform to write about the many plants he knows. "Finding that some of my articles are referenced in some academic papers, confirmed that the kind of work I do at SANBI can reach many people and benefit the natural science sector," he says.

Thompson's passion is seeing people grow and living in harmony with nature as well as the transferral of biodiversity knowledge from generation to generation. "Given the complexity and challenges of the social, political and economic structure of our current generation, we ought to contribute to the science of biodiversity conservation and its associated ecosystems," he says.

SANBI's Career Ladder for Horticulturists continued to be implemented during the year. New dedicated estate managers were appointed in the Harold Porter, Free State and KZN NBGs. SANBI's horticulturists contributed to international plant conservation and training initiatives in both Uganda and Nigeria during the year. The 30th annual Garden Curators Week was held at the Kwelera NBG in October 2016 and a National Interpretation Week and National Educators Week was also held during the year. Various garden staff participated in work-related training courses, SANBI's staff exchange programme, wellness day events and workshops through the year.

SANBI's project sponsored by the National Department of Tourism (NDT) was implemented through enhancing the tourism visitor experience in the Walter Sisulu NBG and installing solar panels in the Karoo Desert, Hantam and Free State NBGs as part of NDT's renewable energy retro-fitment pilot project.



Solar panels installed at the Hantam NBG



Mr Werner Voigt

Curator: Karoo Desert NBG

Werner Voigt's first encounter with an indigenous plant was when he collected *pypies* (*Gladiolus gracilis*) in the spring for their home.

He later enrolled for a National Diploma in Horticulture at Peninsula Technikon (now Cape Peninsula University of Technology) in 1994 where he learnt, for the first time,

what South Africa's indigenous flora was. His love for indigenous plants was ignited during study excursions to Postberg (on the West Coast) and Kirstenbosch during 1995 while working at a mushroom farm and a retail nursery from 1996 to 1997.

A life-changing opportunity presented itself at the end of 1997 when Werner was accepted for a two-year internship programme at Kirstenbosch where he started working as a young horticultural intern in the nurseries and garden sections of Kirstenbosch.

In October 1999 he took up a permanent horticultural position at the Karoo NBG (now the Karoo Desert NBG) where he grabbed every learning opportunity offered by the then NBI (now SANBI), which included career development, leadership, mentorship and management courses. Numerous plant exploration expeditions to Angola, Namibia, KwaZulu-Natal, the Eastern Cape and elsewhere in South Africa followed, where he

was able to realise his dream of experiencing the wilderness with the plants that interested him most in their natural habitat.

Werner took over curatorship of the Harold Porter NBG in Betty's Bay in May 2007, which honed his management skills. March 2011 saw his return to the Karoo Desert NBG in Worcester, where he had started his permanent career with SANBI as an inexperienced botanical horticulturist, nearly 12 years before.

Together with dedicated staff, Werner now strives to transform SANBI's second oldest NBG into the most interesting succulent garden in the country. Garden development and continuous improvement to the garden's infrastructure are high on the agenda. Hundreds of poorly represented species are continually reintroduced into the garden and many Red Listed species are added to current plant collections or sent for preservation to the Millennium Seed Project based in the UK.



Mr Eugene Marinus
Curator, Hantam NBG

Eugene Marinus grew up in a Western Cape fisherman's village called Kleinmond, situated within the Kogelberg Biosphere Reserve. He joined the Ecological Club for Children Organisations when he was nine years old, not realising what a huge impact this club would have on him and his career in years to come. As time passed, his knowledge of the veld and plants increased as he was exposed to various aspects of the natural environment, due to the excellent mentorship of Peter Slingsby, who ran the club for nearly two decades. At

the age of 10 he proudly remembered his first plant name, *Protea cynaroides*. He stayed involved with the club, even after school when he studied at an engineering college with the ambition to start his own building contracting business.

Eugene started his career with the NBI (now SANBI) on 1 April 1996; since then, he has worked at three different sections within SANBI and in two different provinces. His first opportunity came when he grabbed the opportunity to apply for the position as groundsman at the Harold Porter NBG. He reminisces, "In the first few months at Harold Porter I nearly threw in the towel. It was when the new irrigation system was installed and I ended up in a trench with a pick and shovel, or even a jack hammer for weeks on end that I realised the only way to get out of the trench (literally) was to empower myself. He learned to never say 'that is not in my job description' and subsequently progressed from groundsman I to groundsman II. He gained experience in general garden maintenance, propagation and maintenance of living plant collections in the index nursery as well as plant sales.

When he started at the Kirstenbosch Research Centre in 2001, the world of research and research methodology triggered his interest and this was a turning point in his career. His supervisor at the time, Ingrid Nanni, encouraged him to study further in the field of conservation. He secured funding for his studies through the Table Mountain Fund and convinced SANBI to allow him to study full time. He enrolled at the University of the Western Cape to study towards a degree in biodiversity and conservation biology, majoring in botany and zoology. He is only a few credits away from completing this degree. At present Eugene holds the curatorship of the Hantam NBG. He ploughed his knowledge and experience back into the local community, becoming a founding member of the Nieuwoudtville Eco Club that was founded in 2003. This club offers opportunities to learners to learn about the natural environment and enables them to visit a flower reserve that is within walking distance from town – a first for many. This dedication paid off as three of the six Groen Sebenza Pioneers that are currently employed by the Hantam National Botanical Garden, took part in the Eco Club activities over the years.

Programme highlights

- **SANBI's Gardens Expansion Strategy (2016–2030)** was developed and approved by the SANBI Board.
- The Free State, Karoo Desert, Kirstenbosch, Walter Sisulu, Harold Porter and Lowveld NBGs and Pretoria National Botanical Garden all received **Certificates of Excellence on TripAdvisor** as attractions that consistently earn great reviews from travellers.
- The NBGs generated an amount of **R73,001,424** in own income during the financial year. This is the highest own income amount ever achieved by SANBI's network of NBGs.
- The combined number of visitors to all NBGs for the year totalled **2,084,814**, which was 9% higher than the previous financial year (1,915,799). This is the first time in SANBI's history that more than two million visitors were received by the NBGs.
- **Repair of flood-damaged pathways** and pedestrian bridges in the Harold Porter NBG were completed and Disa Gorge re-opened to the public. The new Dawidskraal River maintenance management plan (MMP) for the Harold Porter NBG was approved by the DEA.
- The Free State (Free State), Lowveld (Mpumalanga) and Walter Sisulu NBGs (Gauteng) were all provincial finalists for the **Lilizela Tourism Awards** in the Visitor Experience category (sub-category 'Scenic Beauty').
- **A significant private bequest** left to Kirstenbosch National Botanical Garden by the late Mrs Joan Wrench was received by SANBI.
- The Kirstenbosch summer sunset concerts were attended by **94,542 visitors**. All concerts hosted at Kirstenbosch during the summer season generated R34,890,918 in gate income.
- SANBI's project sponsored by the NDT was implemented through enhancing the tourism visitor experience in the Walter Sisulu NBG and **installing solar panels** in the Karoo Desert, Hantam and Free State NBGs as part of the NDT's Renewable Energy Retro-fitment pilot project.
- SANBI received its **34th Gold Medal** at the 2016 RHS Chelsea Flower Show, UK.
- The Chief Director: Conservation Gardens & Tourism served on Botanic Gardens Conservation International's International Advisory Council and together with Dr Abrahamse and Ms Mbizvo, was one of 90 recipients of the **WESSA 90 Lifetime Conservation Achiever Award**, in recognition of a lifetime contribution to environmental conservation in South Africa.



Programme 3: Build the foundational biodiversity science

Purpose: To ensure that foundational information on species and ecosystems is generated and collated.

Objective statement

Build foundational biodiversity science.

Key performance areas

- Develop and maintain national collections on biodiversity.
- Undertake, co-ordinate and lead biosystematics research.
- Classify and map ecosystems.

Programme performance

This 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's outputs include some highly-used products such as species checklists, species occurrence data, and online species descriptions. 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 plant collections in the three SANBI herbaria are used as a repository for the plant information and these collections are constantly being expanded (currently more than 2.2 million specimens) and researched to produce improved and accurate spatial data sets. For animals, most of the spatial data for species are generated by partner organisations while SANBI contributes to checking and improving completeness and quality.

SANBI is a member of an international consortium of biodiversity institutions that put together plans and programmes to establish the World Flora Online (WFO) as a global effort to compile a floristic inventory of all plants. This effort addresses Target 1 of the Global Strategy for Plant Conservation (GSPC) (2011–2020), under the governance of the Convention on Biological Diversity (CBD), which states that "an online Flora of all known plants" should be produced. The number of plant species in the world is currently estimated at ca. 400,000, and therefore a baseline of floristic information is required to support conservation efforts in an attempt to minimise loss of the world's biodiversity and to assist in creating a sustainable environment (CBD 2012). To achieve this, the WFO project requires input from a collaborative network of expertise (from individual taxonomists and taxonomic networks to information technology experts) to develop a consensus classification, provide the required content, and create a system that can store and disseminate the floristic data. The sixth Council meeting took place at the Pretoria National Botanical Garden from 10–11 November 2016, preceded by Taxonomic and Technical Working Groups meetings from 8–9 November 2016. There were 29 participants, representing 13 institutions or projects and ten countries. During the meeting, the procedure and protocols to upload the data to create a taxonomic backbone for the WFO was documented and problems were resolved; a side event was also hosted as a case study for a group of taxonomic experts working on the plant family *Melastomataceae* to discuss, for the first time, how to create a consensus classification for the family and to summarise what floristic information is available that can be contributed to the WFO. Insight gained from this experience helped both the Taxonomic and Technical Working Groups to move forward in how to create, load and update portions of the consensus classification.

SANBI is a member of an international consortium of biodiversity institutions that put together plans and programmes to establish the World Flora Online (WFO) as a global effort to compile a floristic inventory of all plants.

This provides an opportunity to invite potential participants to contribute data and expertise and to promote the Consortium, ensuring that the WFO is aimed at being the “fundamental, verified online resource for all known plants in the world” and “providing search capabilities with verified information and link with other existing species databases and catalogues”. This vision was expanded to encompass the WFO being a primary community-based access point for global taxonomic information beyond 2020.

All the Annual Performance Plan targets for the reporting period were achieved, and in most cases exceeded. Other notable achievements include:

- Foundational Biodiversity information Programme (FBIP), a DST-funded Programme:
 - Funding of 25 projects at different institutions across South Africa for the generation and accelerated mobilisation of foundational biodiversity information to the value of R4.5 million.
 - Joint FBIP-BIM Forum was held at Kirstenbosch NBG from 10–13 May, with almost 100 participants from 23 institutions, including various training sessions to prepare the institutions for participation in the FBIP.
 - A call for proposals in taxonomy, data mobilisation, DNA barcoding and the compilation of species information resulted in over 50 submissions. Eighteen small grants were awarded, and three concept notes were selected for full development for large, three-year R6 million grants.
- Input on species to the SEA for Shale Gas Development chapter on biodiversity and ecosystems and participation in the third-authors workshop to finalise the chapter.
- The identification key from the publication *Seed Plants of southern Africa* by Dr Leistner (Strelitzia 10) was converted into an electronic, interactive key and published online on the Biodiversity Advisor (<http://biodiversityadvisor.sanbi.org/wp-content/themes/bst/keys/e-Key-20160604/Index.html>).
- The draft of the Crop Wild Relatives National Strategy & Action Plan was developed in collaboration with ARC and DAFF, funded by Biodiversity International, a member of the Consultative Group on International Agricultural Research (CGIAR).
- Workshops and training:
 - Presentations made by the National Herbarium staff at a training workshop in plant collecting techniques for the National Recordal System (a Department of Science & Technology-funded project) to provincial community participants in the Free State, Eastern Cape and Kwa-Zulu Natal.
 - A training course for animal collections data management was organised for 4–7 October for all museum curators.
 - Training in Specify software for managing animal specimen data was organised and run through FBIP. The four-day course was attended by 25 participants from museums, universities and the private sector.
 - A workshop was held with stakeholders (managers and senior scientists at natural science collections institutions) to agree on objectives and outputs for the NSCF (21–22 October). The operation plan and three-year budget were finalised for NSCF.
 - Three staff members attended the SANBI-CONABIO learning exchange programme from 26 November to 6 December 2016 in Mexico.



Participants of a Wetland Plants Identification training course held at the National Herbarium in collaboration with the Water Research Commission on 3 February 2017



Luvo Magoswana

Scientist at the Compton Herbarium

Luvo comes from a small town outside Klerksdorp in the North West and moved to the Western Cape where he obtained his BSc in Biodiversity and Conservation Biology from the University of the Western Cape. After completing his BSc degree, he was accepted for an NRF internship at the Compton Herbarium, under the direct mentorship of Dr Anthony Magee. This he regards as an eye opener and a direction pointer to his career as a scientist. He recalls the first day of the internship as a hands-on and dirtying of hands first day at work. Unlike his expectation to be uninformed and excluded in an office, he was involved in the Toyota enviro outreach trip in Namaqualand for a period of two weeks, collecting rare plants.

During his internship he published a scientific research paper on the taxonomy of the genus *Hymenolepis* (Asteraceae), in which a new species was described. Luvo then expressed an interest in pursuing a research career in plant taxonomy, a discipline in which there is a shortage of suitably qualified scientist. He enrolled for an Honours degree and a Master's degree, both at the University of the Western Cape. It was while he was completing his Master's degree that he was offered a position as scientist at SANBI in 2016 to continue to do research in plant systematics. He has since progressed in the competitive ranking system at SANBI. He has, to date, published about five first-author research articles and discovered at least two new species. He plans to submit his MSc dissertation in the next month and embark on another project in preparation for his PhD.



Dr Anthony Richard Magee

Plant taxonomist at the Compton Herbarium, Kirstenbosch

Dr Anthony Magee is a plant taxonomist at the Compton Herbarium, South African National Biodiversity Institute. During his eight years with SANBI, his research has focused on the systematics of the early lineages of *Apiaceae* and *Asteraceae*, as well as the floristics, origins and diversification of the Nama Karoo flora. Anthony is an NRF-rated scientist (currently Y1); he serves on the editorial board for the South African Journal of Botany and holds an Honorary Research Associateship with the Department of Botany and Plant Biotechnology at the University of Johannesburg. He is the author of more than 50 scientific papers, an academic book and four book chapters, and has been awarded the Junior Medal for Botany from the South African Association of Botanists as well as the S2A3 Medal from the South African Academy for the Advancement of Science.

To help address the declining national and international capacity in plant taxonomy, Anthony has a strong focus on training and mentoring, and has developed close collaborations with both the University of the Western Cape and University of Johannesburg. Through these collaborative projects he has graduated ten students (one PhD, three MSc and six Hons) and mentored seven interns during the past five years. As a result of their exposure to plant systematics research, all these interns have continued with post-graduate degrees in plant systematics, and two have joined the SANBI workforce.

Anthony's current research group comprises a highly productive and dynamic team of 13 post-graduate students (two PhD, nine MSc, one Hons and one intern) and a postdoctoral fellow. This group published or submitted more than 20 scientific research papers in 2016.



National Herbarium staff and collaborators (Prof. Daniel Nickrent – Southern Illinois University, USA second from the left) on a Thesium field collection trip at Umtamvuna Nature Reserve in February 2017

In driving the development and strengthening of human capital for the sector, 14 Honours and five MSc bursaries were awarded for studies in foundational biodiversity information (i.e. taxonomy, surveys, DNA barcoding, and population genetics). This was made possible through funding (R1.6 million) from the Foundational Diversity Information Programme (FBIP).

- Assessment was conducted on the current state of the Herbarium Collections and facilities at the Thohoyandou Botanical Garden, and recommendations were compiled for future management of the Herbarium in anticipation of the eminent incorporation and proclamation of the Thohoyandou Botanical Garden into SANBI in 2017.
- The South African National Plant Checklist workshop was hosted by SANBI in Pretoria with key national stakeholders on 7 November 2016 to discuss harmonisation and common approaches for plant taxonomy (i.e. plant classification systems, nomenclature, and also in preparation for the World Botanical Congress to be held in 2017).
- The National Herbarium hosted the final dissemination workshop on the Crop Wild Relatives Implementation Plan; a delegation from Angola; and post-graduate students from the University of Johannesburg.
- Complete rearrangement of the entire NBG collection (ca. 600,000 plant specimens) according to a modern phylogenetic classification sequence.



SADC's Crop Wild Relatives Workshop delegates during a visit to the National Herbarium on 25 November 2016



Participants of a Basic Herbarium Techniques training course held at the National Herbarium in August 2016 posing with SANBI presenters



Participants and SANBI staff celebrating completion of a Basic Herbarium Techniques training course held at the National Herbarium in August 2016

The Minister of Science and Technology launched the South African Research Infrastructure Roadmap, which includes 13 facilities, seven of which are being initiated and funded in the first phase in 2016. This phase includes the Natural Science Collections Facility, to which R50 million over three years has been committed. The NSCF is a distributed infrastructure, with a co-ordinating hub to be hosted by SANBI.

Programme highlights

Key outputs:

- **Forty-two (42) peer-reviewed scientific publications** were generated by the Biosystematics staff (18 staff on science career ladder).
- **Eleven (11) new plant species** were described.
- Over **5,900 species pages** (1,014 for animals and 4,916 for plants) were recorded and loaded onto the database.
- Over **51,300 species occurrence data/records** were recorded (35,054 for animals and 16,273 for plants).
- **Processing loan applications** to 61 institutions for over 4,974 specimens.

Participation in key events:

- The **WFO Council meeting** was hosted by SANBI in Pretoria in November, and was attended by over 30 participants representing 13 institutions and 10 countries.

New contracts/programmes:

- **Natural Science Collections Facility business plan** was finalised. An agreement between SANBI and the DST was signed and the first R15 million was transferred to SANBI. The signing of the contract with the DST allowed for the implementation of the National Science Collections Facility for the next medium-term expenditure framework (MTEF), starting 2017/18.



Programme 4: Assess, monitor and report on the state of biodiversity and increase knowledge for decision making

Purpose: This programme generates and synthesises knowledge on the state of biodiversity through research, assessment and monitoring that builds on foundational information from Programme 3. The activities in this programme deepen our understanding of status and trends, and how changes in biodiversity link with other environmental changes to affect human wellbeing.

Strategic objectives

- New biodiversity knowledge created for decision making.
- Scientific evidence on the status of biodiversity (based on monitoring and assessment including that of biodiversity loss) and the risks and benefits, is produced.

Key performance areas

- Research
- Biodiversity assessments
- Monitoring

Programme performance

Under Objective 4.1, SANBI aimed to produce 75 papers in International Scientific Indexing (ISI)-rated journals. This was a very productive year and the total number of papers in ISI-rated journals was 117. The target of 75 for 2016/17 had been reduced from 80 in the previous year due to the retirement and resignation of several senior scientists and a declining trend in publications linked to the loss of PhD-level scientists. However, the publication output was higher than expected and was the second highest number of ISI-rated papers produced in 10 years. This is mainly due to three factors: i) the early publication of a special issue on biological invasions (nine papers); ii) a large number of papers produced by students and post-doctoral fellows; and iii) an increase in productivity linked to the career ladder and the recent graduation of several PhD-level scientists on the career ladder. Overall, this is a very positive situation and means that the publication target should be adjusted upward in the next financial year to reflect the increased outputs.

For the first time, SANBI participated in the horizon scan of emerging issues for global conservation and biological diversity, organised by the Cambridge Conservation Initiative. This was published in *Trends in Ecology and Evolution* and provided an opportunity for African scientists to contribute to the analysis. In a similar vein, SANBI scientists co-authored a global horizon scan for threats to pollinators and pollination services, part of ongoing contributions to science assessments dealing with the global concern regarding the loss of pollinators. These publications reflect SANBI's intention to be more involved with publications that synthesise scientific knowledge and which focus on important policy issues.

Objective 4.2 comprises several large biodiversity assessments and status reports. Firstly, the different components of the National Biodiversity Assessment (NBA) are on track to ensure that the assessment of terrestrial, freshwater, estuarine and marine biodiversity is finalised in 2018. New work was initiated to explore ways to reflect the status of genetic diversity for the first time and a team was established to lead this area of work. Similarly, the 2018 report will include more information on the benefits from biodiversity and a work team was established to direct this assessment.

**SANBI published
the highest number
of International
Scientific
Indexing-rated
papers in 10 years.**



SANBI team with Board and Portfolio Committee members at Kirstenbosch

An important step in the 2016/17 year was the establishment of the Strategic Advisory Committee to ensure that the NBA provides relevant information and has the desired impact in terms of improving the status of biodiversity as well as the benefits that people derive from it. As part of the process to strengthen the science base of the NBA, SANBI participated in a meeting on essential biodiversity variables (EBVs) to determine how work undertaken for the NBA can be aligned with the international EBV process.

A second major status report is the National Report on the Status of Biological Invasions, which is due for release in October 2017. The assessment process was launched during a visit to Kirstenbosch by the Parliamentary Portfolio Committee on Environmental Affairs and SANBI has been working together with the DST/NRF Centre for Invasions Biology (CIB) to compile the data and write up the report. In the lead up to the assessment, SANBI and the CIB convened a conference to discuss the science evidence for the status report and this resulted in 19 papers published in a special issue of African Biodiversity and Conservation.

In addition to status reports, SANBI also leads on Red List Assessments and the assessment of line fish was completed. This extends SANBI's work on the status of economically important groups, which complements the Red List Assessments that have been traditionally focused on taxonomic groups (e.g. plants, birds and mammals). The assessment shows that 16% are threatened with extinction and 60% are of conservation concern, highlighting the need to ensure sustainable use of line fish.



Zanele Mnikathi

Intern with the Invasive Species Programme

Taking on this SANBI internship was the same as deciding on bungee jumping: nerve-racking at the beginning. My

greatest fear was that I was not good enough and had not gained sufficient skills to transition from a university student to an employee.

However, during the course of this internship I have learnt that skills are gained through taking part in initiatives such as internships. I have learnt the importance of professionalism, communication and work ethics through attending meetings, and taking on tasks assigned to me. The SANBI skills training programmes exposed me to new software and computer tricks.

To see and interact with people who work tirelessly on research that influences policy and decision in conservation of nature was inspiring. This internship has reaffirmed that I took the right career path and I am grateful to have been part of this experience.



Nwabisa Malongweni

Intern with the Marine Programme

My internship at SANBI has been an incredible learning experience. I work under the Marine Programme with an amazing team that has mentored me both professionally and academically. As an intern I have acquired skills such as mapping using BGIS and ArcGIS; and georeferencing, digitisation, uploading and identifying marine species on iSpot. Additionally, I have also been involved in various projects that contribute towards the SANBI mandate and I published a feature on the life history and distribution of South African sardine *Sardinops sagax* on the SANBI website.

Through capacity building events, I have had the opportunity to network with colleagues from different divisions within the organisation. The Marine team has been very supportive in helping me develop my career and personal goals and I would like to thank SANBI for this opportunity.



Dr Tlou Masehela

Scientist at the Kirstenbosch Research Centre

Tlou Masehela grew up in Makotopong village, East of Polokwane. He joined SANBI's Ecosystem Services programme in December 2008 as an intern while he was completing his Honours in Botany at the University of Limpopo. At SANBI, he served his three-months' internship under the guidance of Dr Ruan Veldtman and Dr Colleen Seymour where he focused on pollination work. After his internship, he was awarded a SANBI bursary for his MSc which he completed in 2010.

His subject area focused on the floristic composition and ecosystem services linked to the granite outcrops (koppies) of the Mamabolo Mountain Bushveld, in the rural communities of the Capricorn District of Limpopo.

In 2011, Tlou enrolled for his PhD with Stellenbosch University with funding by the Working for Water Programme and the NRF. He recently completed his PhD (part of the HFP) in Entomology, looking at honey bee forage in relation to the different beekeeping practices, crop pollination, and hive theft and vandalism. Aligned to the HFP project was the Global Pollination Project, running in seven developing countries as part of the GEF/UNEP/FAO Global Pollination Project, from 2011 to early 2015. He served as a research assistant for apple and sunflower pollination work for the GPP project from 2011 to 2013. He was also part of the team that represented South Africa for the GPP project at the 1st ApiEcoFlora Symposium held in The Republic of San Marino, in 2012.

Tlou became a permanent SANBI employee in May 2014, leading the GMO programme). His work falls under SANBI's mandate on frequent reporting to the Minister

of Environmental Affairs on any environment impacts resulting from GMOs released into the environment. He also serves on the GMO advisory committee (established under the GMO Act, 1997 (Act No. 15 of 1997)), which deals with Environmental (ecological) Risk Assessments for various GMO applications.

Being part of the South African delegation, under the Department of Environmental Affairs, at the COP 13 meeting, held in Cancun, Mexico, in December 2016 remains one major highlight for Tlou in the GMO field. However, in the local sphere, he has also been part of developing and reviewing a few legislative frameworks and tools, which deal with the different aspects of GMOs. These include: i) Environmental Risk Assessment Framework Genetically Modified Organism (including Plant-Made Pharmaceuticals) and ii) Post-Market Monitoring Framework for GMOs in South Africa.

Two key reports have also been published under the GMO programme, focusing on land use and pesticides for the three commercially grown GM crops (cotton, maize and soybean).



Prof. John Wilson

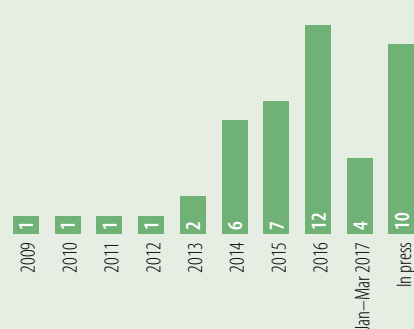
Invasive Species Programme

Prof. John Wilson joined SANBI in May 2009 as the science lead for SANBI's new focus on biological invasions. John says, "Our first task was to identify and deal with alien plants before they became widespread invaders, thus incursion response planning. As of 2010 South Africa had approximately 8,750 introduced plant taxa, 660 recorded as naturalised, 198 included in invasive species legislation, but only 64 subject to regular control. So which taxa should we focus on? Quickly it became clear there simply wasn't enough information for detailed species-level prioritisation. To gather these data we decided a major component

of the programme would be to fund post-graduate student projects."

Students were given a couple of species and tasked with finding out where they were, what they were doing, whether they posed a threat to South Africa, and whether they could be eradicated from the whole of the country. John says that at a basic level this was distribution mapping, but each project could quickly expand to investigate broader questions about the ecological mechanisms determining invasions (or a lack of invasions), or how the socio-economic contexts and the environment interacted to determine where plants were and whether they could be controlled or not. And of course the findings were directly relevant to management and policy: Should a species be regulated? What are the best control measures?

The programme has funded to completion 11 Hons students; five MSc students; and two PhD students, as well as three postdoctoral researchers and seven post-graduate projects with running costs. Currently it has one Hons student; 13 MSc students; three PhD students; and five postdoctoral with additional support for two students in terms of running costs only. The papers produced by these students have been climbing steadily (see graph).



Number of scientific papers produced by SANBI students working on biological invasions

The scheme has expanded to include animal projects as well as broader projects such as understanding introduction pathways, using botanic gardens as sentinel sites to look for new alien pathogens and pests, and looking at developing generalisations across groups of species (including Araceae, Cactaceae, and Proteaceae). John says they have also found that the students have been vitally important in engaging senior researchers throughout the country in their work and so helping to build networks. It has also, of course, helped build human capacity with three current SANBI staff members as graduates of the programme.

As part of a project on genetically modified organisms undertaken with the DEA, SANBI produced reports on 1) an assessment of land use patterns for genetically modified crops (GM) in South Africa; and 2) an assessment of data availability for pesticides use associated with GM crops in South Africa. In addition, a monitoring framework for GMOs that have been released for commercial use, was developed. The framework outlines the monitoring concept and seeks to integrate other monitoring activities (e.g. by industry) to strengthen baseline data and trend data that will contribute to biosafety procedures, measures and regulations.

SANBI usually supports the Scientific Authority by undertaking non-detriment findings and providing evidence to ensure sustainable use of species in trade. South Africa hosted the CITES CoP17 in September 2016 and SANBI played a major role in compiling and assessing scientific evidence relating to the numerous proposals debated. These contributions helped South Africa secure the adoption of its proposals (relating to pangolin, Cape mountain zebra, African ginger, and cycads) and assisted the country to achieve its objectives in relation to other issues such as trade in African lion and hunting trophies.



Spring flowers in the Karoo Desert NGB, Worcester



Ms Anisha Dayaram

Scientist at the Kirstenbosch Research Centre

Ms Anisha Dayaram, scientist at the Kirstenbosch Research Centre, won first prize in the open category of the SAASTA Young Science Communicators Competition. Anisha is an ecologist, runner and serial procrastinator whose primary means of procrastination is creative writing. She has worked in ecological science and conservation since 2012, based at an NPO, an NGO and in private industry.

She currently works as a vegetation scientist with a small team on the vegetation map of South Africa (VEGMAP project) at the South African National Biodiversity Institute.

She lives in Cape Town with her potted *Portulacaria afra*. This is what she says: "I feel quite strongly about changing the perception of scientists as cold, methodical, logic-driven two-dimensional people. We are warm, often funny, and creative. My favourite scientists in history were poets and inventors."



Prof. Krystal A. Tolley

Molecular Ecology

After carrying out postdoctoral research at Stellenbosch University, Krystal Tolley joined SANBI in 2005 as the leader

of the Molecular Ecology programme. She specialises in phylogenetics, phylogeography and biogeographic studies of African reptiles and amphibians, including taxonomy. She has been working in the field of African herpetology for 17 years. She has written two books on African chameleons and has more than 100 peer-reviewed publications.

Krystal feels strongly about the importance of building science capacity, especially in the field of herpetology, and since 2005 she has successfully supervised students, including four BSc (Hons), 11 MSc and three PhD students.

Krystal has participated in and/or led field surveys with field teams comprising collaborators, students and

interns in South Africa, Namibia, Angola, Mozambique, and Malawi. With her co-authors, she has described or revised more than 20 of species and/or genera of lizards and frogs, and in 2017 a new chameleon species from the Democratic Republic of the Congo was named after her.

Krystal has supervised four postdoctoral researchers, as well as countless interns all based at SANBI. She currently supervises three MSc, one PhD student and one WWF intern. She has published more than 45 papers with her SANBI postdoctoral students, students and interns.

In addition, Krystal currently serves as the Red List Focal Point for the IUCN Chameleon Specialist Group, and leads the IUCN Southern African Regional Reptile Specialist Group.



Simone Louw

Intern introduced to the wildlife economy of South Africa

I have been placed within the Biodiversity Research, Assessment & Monitoring Division under the supervision of Prof. John Donaldson, to provide research support for the wildlife economy unit. Through the exposure to the wildlife economy of South Africa, I have gained new knowledge about the wildlife trading industry and illegal trade in South Africa, (a major feature due to our rich diversity), trophy hunting and game farming. This has opened my eyes to a whole new world of conservation and sustainable development in an ever-expanding and changing field.

I attended the 17th Convention on International Trade in Endangered Species of Wild Fauna and Flora's Conference of the Parties (CITES CoP17) this year, which focuses on the international trade in endangered species of wild fauna and flora. The exposure to the process of CITES, and the way in which decisions are made for the protection levels and conservation of endangered species in trade, has led to my decision in pursuing a Master's degree in wildlife trade to be part of the CITES process one day and contribute towards conservation.

The weekly SANBI internship training programme enabled me to improve on or learn new skills essential for scientific research. I have benefited most from the statistical program R, BGIS and ArcGIS, as well as geo referencing and digitisation skills. As part of my fieldwork training, I have learnt how to do bird and vegetation surveys, and in addition, had exposure to community conservation work (Edith Stephens Wetland Park), which was a highlight for me. It was insightful to see successful techniques in which conservation was achieved with the help and involvement of the local communities.

Programme highlights

- **Three staff received their PhDs:** Drs Judy Arnolds, Desika Moodley, and Tlou Masehela.
- **Three young scientists won awards:** Anisha Dayaram and Tlou Masehela won awards in the 2017 Young Scientists Communicators competition (South African Association for the Advancement of Science) and Martina Treurnicht won the 2016 Harper Prize from the British Ecological Society.
- Scientists participated in a **visit to CONABIO** in Mexico to strengthen collaboration on biodiversity assessment and monitoring
- SANBI contributed to an **EU study of sustainable fishing**, which showed that recovery of fish stocks following sustainable management measures would mean more fish in the sea, more jobs, and less impact on the ecosystem.
- As part of SANBI's ongoing support for the biodiversity economy, SANBI scientists led **components of the Biodiversity Lab** held in April and May 2016, and focused on the wildlife economy, bioprospecting and marine tourism.
- SANBI led a **Deep Secrets research cruise**, which surveyed 61 stations in 16 marine ecosystem types, most of them sampled for the first time. The cruise also covered seven Marine Protected Areas (five for the first time) and set the record for the deepest sea bed survey (1,035m).
- **The South African Strategy for Plant Conservation** (a Convention on Biological Diversity [CDB] requirement), was led by SANBI and the Botanical Society of South Africa, and was presented to the Minister of Environmental Affairs on 22 June 2016.
- SANBI organised and co-hosted a **Southern African Development Community (SADC) regional meeting for Scientific Authorities** with specific emphasis on capacity building and an analysis of wildlife trade data.

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

Purpose: The primary focus of this programme is to facilitate the translation of South Africa's biodiversity science into policy and decision-making tools and advice. This programme brings together knowledge and expertise from across the different SANBI programmes and divisions in supporting the development of biodiversity policy and management advice. We do this in the context of South Africa's urgent development imperatives, using biodiversity science to understand how the management and sustainable use of healthy intact ecosystems can maintain, enhance and deliver services to society. Mainstreaming biodiversity into development can contribute to job creation, improved service delivery, inclusive rural development, poverty alleviation, disaster risk management and adaptation to climate change. The programme provides access to biodiversity information and scientific knowledge through ensuring all available scientific information is made freely and openly available to a wide audience through the Biodiversity Advisor.

Objective statements

- Reduce loss, protect, restore and unlock benefits from biodiversity assets and ecological infrastructure.
- Become the authoritative source for data, knowledge and information on South Africa's biodiversity.
- Ensure the best available biodiversity science informs national and international policy processes.
- Vulnerable communities have increased resilience to climate change as a result of direct access climate change adaptation investments.

Key performance areas

- Tools to support management and conservation of biodiversity developed and applied
- Access to biodiversity data, information and knowledge provided.
- Scientific advice to support national and international policy processes provided.
- Policy support on climate change adaptation provided to inform national and international decision-making.

Programme performance

The programme has demonstrated the value of biodiversity assets and ecological infrastructure for unlocking development opportunities and delivering social-economic benefits. It has provided science-based tools and policy advice to promote the integration of biodiversity into other sectors, especially those that impact on biodiversity. The programme has continued to provide support to the DEA and provincial conservation authorities in their development and implementation of biodiversity-related policy and legislation to ensure that best available science informs policy and its implementation. The programme continues to support municipalities in integrating biodiversity assets and ecological infrastructure into their planning and decision-making. SANBI has influenced international agendas for policy, research and monitoring, by participating in CITES and hosting both the National Implementing Entity (NIE) to the Global Adaptation Fund and the Green Climate Fund.



**SANBI completed
a review of
approaches to
urban conservation
in South Africa,
including an
evaluation of the
resource, Growing
Together – Thinking
and Practice of
Urban Nature
Conservators, in
collaboration with
partners in the field.**

Programme highlights

Tools to support management and conservation of biodiversity

South Africa has a long tradition of strong biodiversity science. This science is translated into relevant information and practical advice, which can be used to influence policy through the development of science-based tools and knowledge resources. These tools are developed through collaboration with partners and stakeholders. Their uptake is supported through communities of practice, learning networks and other capacity development opportunities. Mainstreaming of these tools assist in reducing loss, protecting, restoring and unlocking benefits from biodiversity assets and ecological infrastructure.

In partnership with the United Nations Environment Programme – World Conservation Monitoring Centre (UNEP-WCMC), SANBI developed and launched a book entitled *Mapping Biodiversity Priorities: A practical, science-based approach to national biodiversity assessment and prioritisation to inform strategy and action planning*. The book summarises the essential components of South Africa's well-established approach for systematic biodiversity planning. The guide was launched at the National Biodiversity Planning Forum in June 2016. Following the launch SANBI presented a webinar on the book hosted by the National Biodiversity Strategy and Action Plan (NBSAP) Forum international webinar series organised by the United National Development Programme. Over 130 people from a wide range of countries and organisations participated in the webinar.

SANBI has initiated the piloting of the mapping biodiversity priorities methodology in other African countries together with the CBD Secretariat and World Conservation Monitoring Centre (WCMC), with support from the Japan Biodiversity Fund (JBF). Botswana, Mozambique and Ethiopia have expressed an interest in piloting the methodology and options are currently being explored with these three countries.

SANBI completed and distributed the *Lexicon of Biodiversity Planning* in South Africa. There is an established history and strong community of practice for systematic biodiversity planning in South Africa. Over many years of progress in developing biodiversity plans and related products, a vocabulary of terms has developed. The purpose of the Lexicon is to provide standard definitions of key concepts and frequently used terms, to ensure clear understanding, consistency and credibility.

SANBI completed a review of approaches to urban conservation in South Africa, including an evaluation of the resource, *Growing Together – Thinking and Practice of Urban Nature Conservators*, in collaboration with partners in the field. Products of the review include an evaluation report; six case studies which add value in making the case for biodiversity; and a policy brief which offers guidance to SANBI, the biodiversity sector more broadly, and municipalities and other role players outside the biodiversity sector.

SANBI hosted the joint BIMF-FBIP Forum in May 2016. The key focus of the joint Forum was to connect the biodiversity information management community to share information and gain a better understanding of institutional needs, priorities and capacity related to biodiversity data across the sector. More than 100 participants attended the joint Forum, including regional delegates from Kenya and Benin, as well as partners from museums, research institutions, universities and government departments.





Mr Mpfunzeni Tshindane

Project Officer, Climate Change Adaptation

Mpfunzeni Tshindane joined SANBI in 2011 after receiving an internship from the Department of Science and Technology and the National Research Foundation's (DST/NRF) internship programme. He had completed a Bachelor's degree in Environmental Sciences at the University of Venda and before joining SANBI, Mpfunzeni wrote his Honours dissertation in Environmental Sciences at the University of Venda.

He was involved in building and establishing a database of remotely sensed data for further scientific research within the Climate Change division, establishing a firm footing in digitising, assessing and analysing cartographic and satellite data for the Division's strategic plan of conducting a long-term analysis on land cover change and its relationships with climate change trends.

After completing an extended internship programme, Mpfunzeni received an MSc sponsorship to further his studies in Environmental Sciences at the University of KwaZulu-Natal. Building on the database that he started during his internship programme, he assessed and quantified the impacts of land-use and land cover change at the Duiwenhoks catchment under the supervision of Ms Zuziwe Nyareli and Professor Guy Midgley from Stellenbosch University. The highlight of Mpfunzeni's MSc career was an invitation in 2013 to present his MSc proposal at the 1st Africa Climate Conference in Tanzania. He also received invitations to contribute to the Global Change Conference and the Academy of Science of South Africa (ASSAf) Annual

Young Scientists Conference in 2014. Following this, he presented his MSc findings at the Our Common Future under Climate Change conference hosted by the United Nations Educational, Scientific and Cultural Organization (UNESCO) in Paris, France in 2015. In the same year, he was also awarded a GreenMatter fellowship.

While completing his MSc dissertation, Mpfunzeni joined the Climate Change Adaptation division in 2015 as a project officer for the Small Grants Facility (SGF) project funded by the Adaptation Fund. He currently works with project partners from the Department of Environmental Affairs, NGOs, civil society organisations and community-based organisations, involved in the implementation of the SGF project. He plays a key role in coordinating and providing project management support to the National Implementing Entity (NIE) and its project partners.

One of the highlights of Mpfunzeni's career as a project officer includes networking with civil society, government, parastatals, NGOs and academia, to build resilience to climate variability and change.

SANBI hosted the 13th annual Biodiversity Planning Forum in Wilderness, Western Cape, in June 2016. The Forum attracted nearly 200 participants from national and provincial departments, local government, public entities, research institutes and universities and the private sector. The theme for the Forum was foundations for biodiversity assessments and focused on the foundational information on which biodiversity assessments and plans are based, including data limitations and potential solutions, research needs and novel approaches. Key sessions discussed the uptake of spatial data into environmental assessment initiatives including the Strategic Integrated Projects (SIPs), implementing biodiversity plans at the municipal level, assessing and mapping ecological condition and the Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES) Africa Assessment.

SANBI hosted the two-day Freshwater Ecosystem Network in July 2016 with over 60 freshwater champions from national and provincial departments, public entities, non-governmental organisations and independent consultants participating. This network aims to strengthen the technical ability of partners in the freshwater biodiversity arena, and encourages building links amongst peers who are playing similar roles by sharing lessons and experiences. A training session on wetland mapping was held as part of the meeting.

Over the past three years, SANBI has partnered with the DEA's Natural Resource Management Programme (NRMP) to coordinate management, research and planning forums (MAREPs). These have formed the central hub of the community of practice within the natural resource management sector. This platform gathers managers, researchers and planners to present and discuss the most recent innovations, developments and challenges encountered within the natural resource management sector with the intention of reducing duplication of efforts and increasing collaborative approaches across the sector. SANBI convened three MAREPs in partnership with NRMP:

- Social-Ecological Systems Thinking MAREP (July 2016) created a platform to discuss integrated and community-based approaches to natural resource management through creating a space that engaged with living landscapes and situated knowledge systems.
- The National MAREP (October 2016) gathered NRM practitioners across the sector to share and update the forum about the current and new outcomes in the natural resources management arena, particularly on policies and partnership building; operations and implementation lessons; and capacity development and research in the natural resource management sector.

- The Executive MAREP (February 2017) built on a previous Executive MAREP session, with the objective of exploring opportunities for unlocking and securing ecological infrastructure investments in the natural resource management sector through identification of diverse funding streams and financial mechanisms.

SANBI hosted the Provincial and Metro Biodiversity Planning Working Group in October 2016. This learning network provides an opportunity for provincial and metro biodiversity planners to discuss the technical issues involved in systematic biodiversity planning and ensure a level of consistency in spatial biodiversity plans across the country.

SANBI participated in the CONABIO Learning Exchange in Mexico in December 2016. CONABIO is the National Commission for Knowledge and Use of Biodiversity in Mexico and SANBI presented and shared lessons on how South Africa undertakes systematic biodiversity planning and the National Biodiversity Assessment. SANBI and CONABIO will continue to share experiences on approaches to biodiversity planning and assessments and management of biodiversity information.

SANBI and Statistics South Africa (Stats SA) are leading South Africa's work on ecosystem accounting and have established a Strategic Advisory Committee on Ecosystem Accounting. Ecosystem accounting and biodiversity accounting form part of the growing field of natural capital accounting (NCA), which aims to systematically measure stocks of natural resources and the flows of benefits they provide, so that this information can be used in decision-making by the public and private sectors. SANBI and the DEA represented South Africa at a workshop on Natural Capital Accounting in Africa (Nairobi, June 2016), linked to the Gaberone Declaration for Sustainable Development. SANBI presented work on pilot ecosystem accounts in South Africa, and the workshop developed a statement for taking NCA forward at the country level and establishing an NCA community of practice in the African region.

SANBI finalised the Land User Incentives project which include a spatial framework for the evaluation of applications for the 2017-18 Land User Incentive (LUI) programme. This work forms part of SANBI's support to the DEA NRMP and included refining the criteria and process for determining where to invest resources in ecosystem restoration. SANBI also worked with the Institute for Natural Resources (INR) to align its finer-scale prioritisation approach with the national prioritisation in support of the Land User Incentive. Lessons learned from the two-day work session with INR will be used to improve SANBI's current methodology for prioritisation across all DEA NRMPs.

In its capacity as coordinator of the uMngeni Ecological Infrastructure Partnership (UEIP), SANBI led the development of a 20-year strategy for the partnership which currently comprises 23 signatories. The approved strategy articulates a mission statement for the UEIP that focuses on harnessing the potential of intact, functioning ecosystems to complement built infrastructure; enabling investment in rehabilitation and management; enhancing collaboration and joint learning; and improving capacity at all points along the science-society-policy-practice continuum. SANBI hosted a learning exchange between the UEIP and the uMzimvubu Catchment Partnership Programme (UCPP) in November 2016. This capacity-building event enabled exchange of ideas and sharing of lessons, experiences, challenges and successes in their respective catchments and led to the two partnerships committing to future co-operation to further invest in ecological infrastructure to address catchment management challenges.

Through a DST-funded project, SANBI has initiated the establishment of a catchment-based ecological infrastructure research, development and innovation (RDI) platform in two selected catchments, the Berg and Breede in the Western Cape, and the Umzimvubu catchment in the Eastern Cape. The aim of these platforms is to provide an opportunity for coordination, sharing of information and lesson by practitioners and researchers, improved uptake of research and building the community of practice around ecological infrastructure. These platforms will build on the lessons learnt from established catchment-based initiatives like the UEIP.

The Biodiversity and Land Use Project, implemented by SANBI, was initiated in 2015 with funding from the Global Environmental Facility (GEF) and aims to support municipalities in effectively regulating land use to ensure biodiversity continues to provide essential ecosystem services. Over the past year, SANBI signed implementation agreements with the World Wildlife Fund South Africa (WWF-SA),

NCT Forestry Co-operative Limited (NCT), the Eastern Cape Parks and Tourism Agency (ECPTA), the Ehlanzeni District Municipality and the uMgungundlovu District Municipality. These agreements are aimed at strengthening the uptake of biodiversity priorities into planning and land use management. SANBI also hosted the inception workshop for developing biodiversity management plans (BMPs) for a group of traditionally used medicinal plant species (October 2016) as part of the Biodiversity and Land Use Project.

SANBI held a stakeholder workshop in June 2016 for the development of the five-year GEF-funded project entitled 'Unlocking Biodiversity Benefits through Development Finance in Critical Catchments'. The GEF 6 project will implement interventions at both national policy and institutional development level, through demonstration initiatives in two catchments. The project is being developed in partnership with the Development Bank of Southern Africa (DBSA) and will secure \$7.2 million from 2017–2021.

SANBI continued to support co-ordination structures for the Fynbos and Succulent Karoo biomes, known as C.A.P.E. and SKEP respectively. Our engagement includes offering collaborative strategic leadership, secretariat services and communications functions towards achieving the partnership's 20 year vision. Three electronic newsletters were produced for each bioregional programme, reaching well over 3,000 government and civil society stakeholders.

Access to biodiversity data, information and knowledge

SANBI has been elected to act as the Convener for the GBIF-Africa network and hosted the sixth GBIF-Africa Regional meeting in July 2016 with nine GBIF Participant Country Nodes. The purpose of the meeting was to ensure coordination of biodiversity informatics on the continent, to review the status of the Nodes, and to develop the 2016–2018 GBIF-Africa Work Plan. SANBI-GBIF continues to host the GBIF-Africa regional representative, and drives the Africa position through the GBIF Nodes Steering Group. SANBI also participated in the GBIF Governing Board meeting in Brazil as part of the South African delegation, together with the DST in November 2016.

SANBI developed a SANBI regional engagement strategy to guide SANBI's efforts in the region in support of national and regional priorities for biodiversity management. The South African Node of GBIF has also launched the JRS Biodiversity Foundation-funded 'Africa Biodiversity Challenge', a two-year project which aims to provide funding for the mobilisation of data, development of capacity and coordination of networks in biodiversity information management in three African countries.

SANBI hosted a meeting with the GLOBal Infrastructure for Supporting Biodiversity Research (GLOBIS-B) on EBVs in October 2016. SANBI used the opportunity to gain a better understanding of international approaches to biodiversity indicator development and the information systems that support them.



Ms Tanya Layne

Learning Network Development

Tanya Layne joined SANBI and the biodiversity sector at the same time in 2002.

Tanya was appointed the project manager for Cape Flats Nature. Through the donor-funded C.A.P.E. programme,

she expanded her knowledge in the field built generalist capacities, from a two-week introduction to environmental management at UCT, to workshops on topics such as project management and creative approaches to conflict, to participation in Fynbos Forum, field trips and a wide range of partnership meetings.

Based on her work in Cape Flats Nature, she was offered a funded place in a leadership programme with the Proteus Initiative, which SANBI supported. Tanya attended several three-day modules over a three-year period from 2009 to 2012. She then realised that the only way she could find her way through the challenges she was experiencing at work, was to work on her own development. So, out of the leadership programme, she registered for a Master's in Reflective Social Practice with the Proteus Initiative, accredited through London Metropolitan University. This was

supported through SANBI's further studies policy, but Tanya raised further funds through a GreenMatter professional development grant, an international WWF Prince Bernhard Scholarship, and out of her own pocket.

The Master's was a combination of course work and a short dissertation, working with observation, self-awareness and reflections as foundational faculties for social process facilitation. Tanya's dissertation, 'Seeing wholeness in a fragmenting world', explored working out a holistic practice in the bureaucracy. In this time, her role in the organisation shifted to focus on learning network co-ordination. Even before the change, she was responsible for co-ordinating efforts to build capacity amongst interns, and with it, she supports the Biodiversity Information and Policy Advice Division's efforts to work on developing and offering the policy advice that SANBI is mandated to give to government.

SANBI participated in the Taxonomic Databases Working Group (TDWG) annual conference hosted in Costa Rica in December 2016. The conference focused on taxonomic databases, data standards, data quality, as well as biodiversity informatics tools currently available. It was attended by countries leading in the field of biodiversity informatics and provided an opportunity for SANBI to learn and engage on how our biodiversity data can add value at the global scale.

SANBI launched the following two redeveloped sites:

- BGIS website (<http://bgis.sanbi.org/>) in April 2016. BGIS manages spatial biodiversity planning information and makes this information easily accessible and available. The redeveloped BGIS has a new design, improved search functionality, mobile access and user authentication.
- Plants of Southern Africa (POSA) website (<http://newposa.sanbi.org/>) in June 2016. This website provides access to South African plant names (taxa), specimens (herbarium sheets) and observations of plants made in the field (botanical records). Data are obtained from the National Herbarium in Pretoria, the Compton Herbarium in Cape Town and the KwaZulu-Natal Herbarium in Durban.

SANBI published three scientific books during the year, including an Identification Guide to *southern African Grasses*, a *Dragonfly Biotic Index* and *Beeplants* of South Africa. SANBI also published, in collaboration with MBLS Publishing, a book entitled *Thembi and Themba visit a national botanical garden*, which has been translated into seven languages and distributed to school libraries in all the provinces.

SANBI celebrated the centenary of the Mary Gunn Library housed in the National Herbarium in Pretoria and dates back to 1916. The centenary was celebrated at an event where past SANBI staff members shared stories about Mary Gunn, the librarian after whom the library was named in 1969.

SANBI hosts the Chair for BHL-Africa which aims to provide open access to valuable information held in Africa's biodiversity institutions. The Biodiversity Heritage Library (BHL) project was named a joint-winner of the inaugural Digital Library Federation (DLF) 2016 Community/Capacity Award, along with the American Archive of Public Broadcasting (AAPB). The DLF Community/Capacity Award honours constructive, community-minded capacity-building in digital libraries, archives, and museums. The 16 nominees included organisations, projects, and individuals from a vast array of discipline.



Ms Fahiemah Daniels

Deputy Director: Biodiversity Planning

After finishing her Honours degree in 2004, Fahiemah Daniels joined SANBI in 2005 as a Red List officer, inputting data into the Red List data base and learning how to do Red List assessments for plants. In 2006, she started as a SANBI-funded MSc student at the University of Cape Town where she joined the Conservation Biology Masters Programme, which allowed her to build foundations in a range of conservation-related fields, one of which was land-use planning and conservation GIS. With her recent knowledge in GIS and having had some background in understanding the Red Listing of species process, the listing of threatened terrestrial ecosystems was a perfect

project for her. Under the supervision of Dr Anthony Rebelo and Ms Domitilla Raimondo, she was able to contribute to the listing of threatened ecosystems (a Biodiversity Act requirement for SANBI). Fahiemah completed her MSc degree in 2007.

Fahiemah remained at SANBI as a research scientist, using and improving her GIS and spatial analysis skills on projects that included analyses for projects such as the plant conservation strategy and state of biodiversity reporting.

In mid-2009, Fahiemah was employed as GIS specialist for the biodiversity planning team, where she improved her technical skills in the spatial analysis for the terrestrial component of the National Biodiversity Assessment 2011. In 2012, under the guidance of Jeffrey Manuel, the scope of work of her work was expanded beyond spatial analysis as she learned to use her GIS skills for policy and biodiversity planning.

By 2013, Fahiemah had the opportunity to do three weeks of GIS training and attend two international GIS conferences, funded mostly by the International Society for Conservation GIS. The training and exposure through the conferences equipped her with new skills which she had not been able to acquire at SANBI.

In 2015, Fahiemah was appointed as the Deputy Director: Biodiversity Planning, where she led the team of technicians who support the development of SANBI's biodiversity planning and policy-related spatial products. Some of her highlights include leading the spatial analysis for the Strategic Environmental Assessment (2014–2016) of the Electricity Grid Transmission line Strategic Integrated Project for South Africa. The project received great reviews in parliament; leading the development of the spatial tools for the Land Use Incentive programme of work at SANBI in support of the NRM of the Department of Environmental Affairs; contributing author of the biodiversity chapter of the SEA for Shale Gas Development; serving on the biodiversity plan review panel; providing biodiversity planning products, advice and analyses for SANBI staff and external stakeholders; spatial data management and dissemination; creating ArcGIS online web mapping applications; leading the spatial analysis for the terrestrial component of the National Biodiversity Assessment 2011; 80 hours of advanced training in ArcGIS for Environmental Analysis (including spatial analyst, geodatabases and linear referencing), at the University of California, Davis, in 2013; and ArcGIS online training, creation of Web maps and feature services for ArcGIS online, at ESRI Redlands, California, in 2013.



Mr Tsamaelo Malebu

GIS specialist: Biodiversity Information and Policy Advice Division

Tsamaelo grew up in the small town of Reitz in the Free State. His journey at SANBI started in 2009 when he joined the Biodiversity Planning division as a geographic information system (GIS) intern. At the time, he had a BSc with Honours from the University of the Witwatersrand majoring in Conservation and Ecology.

His first project as an intern was digitising the national estuaries which feed into the 2011 National Biodiversity

Assessment (NBA) Estuaries technical report. His involvement with the project unlocked a wide range of opportunities whereby he was later appointed as GIS technician (2010) and more recently (2016) as GIS specialist. Tsamaelo says he has been given ample opportunities to partake in numerous key projects. These include developing maps for the National Biodiversity Assessment (NBA) 2011, which is the reporting document about the state of biodiversity in the country; developing and designing the spatial footprint framework to illustrate the grasslands programme impact; supporting the development of spatial outputs and reports for Mining and Biodiversity Guidelines and Grasslands Ecosystem Guidelines; leading the development of biodiversity priority areas map, Department of Environmental Affairs Municipal profile and refinement of CAPE fine-scale project; providing spatial analysis support to SEAs for South Africa's Strategic Integrated Projects (SIPs), Global Environmental Facility (GEF) 5 & 6 projects development and National Implementation Entity (NIE) project development; and providing technical support

to the marine programme where he was involved in a Presidential initiative to unlock the ocean economy (Operation Phakisa). He also represented SANBI in the South African delegation at the BMU-ICI (German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety) proposal workshop in Namibia, to develop a regional marine spatial planning programme for the Benguela Current Commission in partnership with the German government.

Tsamaelo represents SANBI on numerous National Working Groups (i.e. National Working Group Marine Spatial Planning; Ocean & Coastal Information Management System (WG6); and Technical Working on Ecological & Biological Significant Areas (EBSA) where he provides technical guidance and support about the importance and integration of biodiversity information on development or planning.

Tsamaelo is currently doing his Master's at the Nelson Mandela Metropolitan University where he is looking at ecosystem services provided by fisheries.

Scientific advice to support national and international policy processes

SANBI was responsible for contributing biodiversity information and leading the spatial analysis to identify biodiversity priorities on two SEAs in support of the national government's SIPs, including the SEA for Shale Gas Development and the Electricity Grid Infrastructure SEA.

The SEA for Shale Gas Development comprises 18 components, across social, environmental and economic sectors. Each component is authored by specialist teams from academia, industry, government and civil society. SANBI led the biodiversity component and was also responsible for improving the baseline biodiversity knowledge of the Karoo as well as supporting the biodiversity component in terms of integrating spatial information. In April 2016, SANBI hosted a BioBlitz near Matjiesfontein in the Karoo to assist with the collection of foundational biodiversity information to support the SEA for Shale Gas Development. Little is known about the plants, animals and other organisms in the Karoo and this event resulted in scientists, naturalists and volunteers conducting a thorough field study to find and identify as many species as possible within the area. The event also marked the launch of a three-year Karoo BioGaps Project.

Following a public comment period, the final report, *Shale Gas Development in the Central Karoo: A Scientific Assessment of the Opportunities and Risks*, was released in November 2016, together with a summary for policymakers. The outputs and key messages from the biodiversity chapter of the SEA are currently being incorporated into the minimum environmental impact assessment (EIA) requirements for shale gas development.

The Electricity Grid Infrastructure SEA aims to ensure efficient and effective expansion of strategic electricity grid infrastructure for South Africa. SANBI conducted the spatial analyses and mapping, and developed a bird and bat monitoring tool, to support the Electricity Grid Infrastructure SEA.

In addition to the analyses required, SANBI also undertook a multi-criteria decision support and least-cost pathway analyses (using the outputs of the Electricity Grid Infrastructure SEA) to identify pathways of least environmental sensitivity across the Electricity Grid Infrastructure corridors. These pathways are designed to help Eskom make informed decisions about where in the landscape electricity power line networks can be routed with minimal impact on the environment.

SANBI supports biodiversity stewardship through providing capacity building opportunities, building the communities of practice, mobilising resources, and supporting policy development and the development



Performance Information: Programme 5

of incentives. In partnership with the Endangered Wildlife Trust, SANBI hosted a three-day Biodiversity Stewardship Learning Exchange. Over 60 biodiversity stewardship practitioners, including government and non-governmental organisation (NGO) partners, shared lessons and experiences on biodiversity stewardship from across the provinces. It was agreed that a learning exchange be held annually to ensure that biodiversity stewardship capacity is continually developed. The Biodiversity Stewardship Technical Working Group, convened by SANBI, held two meetings during the year. The working group includes representatives from DEA, SANBI, DAFF, provincial conservation agencies, SANParks and a number of NGOs involved in the technical and process aspects of conserving land through biodiversity stewardship agreements with private and communal land owners. The working group has embarked on an initiative to update the 2009 Biodiversity Stewardship Guideline and develop a Biodiversity Stewardship Policy. Through the Biodiversity and Land Use Project, SANBI has funded the Fiscal Benefits Project with BirdLife South Africa, which is working to make tax incentives accessible to landowners who participate in biodiversity stewardship. In December 2016 the first successful tax incentive was placed in a landowner's tax return, which translates into a significant benefit to the landowner.

SANBI participated in various national and international science policy engagements, including:

- The 13th meeting of the Convention on Biological Diversity Conference of Parties (CBD COP 13) in Cancun, Mexico (December 2016) as part of the South African delegation. The theme for COP 13 was 'Mainstreaming Biodiversity for Well-Being' and SANBI shared lessons on its mainstreaming work at a side event.
- The Africa Drought conference in Namibia as part of the South African delegation.
- The SAEON Science Policy meeting in April; SANBI's lessons learnt regarding incorporating science into policy were presented.
- SANBI was invited to attend the 7th Biennial LandCare conference in Kimberley, Northern Cape with the theme of 'Making a LandCare difference towards Land Degradation Neutrality'. SANBI highlighted some of its work with the agricultural sector at an exhibition stand.

Policy support on climate change adaptation to inform national and international decision making

SANBI was accredited with the Green Climate Fund (GCF) in October 2016. The GCF is the largest operating entity of the United Nations Framework Convention on Climate Change (UNFCCC) which finances projects aimed at responding to climate change. SANBI is only the second South African institution to achieve this accreditation, and it is one of only 41 organisations globally to have been successful in its accreditation. SANBI is accredited to develop projects in climate change adaptation and mitigation, to a value of USD50 million per project. This accreditation opens an opportunity for SANBI to support South Africa's climate change adaptation ambitions further.

SANBI initiated the programming for two GCF projects, with guidance from DEA. SANBI also provided support to DEA in the development of a South African strategy for the GCF and participated in a GCF Africa programming meeting in October 2016. A national stakeholder workshop was convened in February 2017 as part of the stakeholder consultation process for the development of SANBI's first GCF project, a Small Grant's Facility (SGF) for climate change adaptation. The workshop was attended by 67 stakeholders representing national and local government, multi-lateral organisations, academia, the private sector, NGOs and community-based organisations. The intention of the workshop was to allow institutions that have distributed or received small grants in South Africa to share challenges and success stories. The constructive discussions will inform the design of the SANBI-led GCF SGF.

During its application for accreditation, SANBI was invited to submit a SGF project concept to the GCF for the scaling up of its adaptation fund small grants facility project. This project concept, worth USD10 million, was submitted and approved for full funding proposal develop. This proposal development process will be completed in mid-2017.

As the National Implementing Entity (NIE) for the Adaptation Fund, SANBI presented at a round table with other African Direct Access Entities in Kenya in October 2016. SANBI shared project experiences on the SGF and the uMngeni Resilience Project. SANBI participated at the UNFCCC COP22 in Marrakech, Morocco, in December 2016 and presented lessons learnt from the NIE.



The SGF is an innovative pilot project in South Africa which is funded by the Adaptation Fund and is being implemented in two districts municipalities, including Namakwa in the Northern Cape and the Mopani in Limpopo. To date, six full project proposals have been approved, four of which are under implementation and a further six projects are in development. These projects will directly benefit rural communities through the development of water-wise and climate-smart vegetable gardens, installation of compost toilets, and purchase of heat-tolerant goats.

Local farmers in the uMgungundlovu District have recently started benefiting from the interventions of the uMngeni Resilience Project, a USD 7.5 million project funded by the Adaptation Fund through SANBI. Working in partnership with the University of KwaZulu-Natal (UKZN), about 170 small-scale farmers in the Swayimane area reported improved crop yields at the end of the 2016 growing season. These improved yields are a result of climate-smart farming techniques, such as planting a number of different drought-tolerant crops and vegetables, which include reintroduction of traditional crops to the area. As a result of improved yields, farmers have been able to sell surplus crops and vegetables. The income from these sales will be used to purchase seed for the next growing season.

SANBI attended the Africa Learning Forum on Adaptation in Dakar (ALFA 2017) in March 2017. The Forum provided 78 participants from 23 countries with the opportunity to share lessons and build linkages on climate change adaptation responses. The main outcome of the workshop was the development of a draft African communiqué on characteristics of good adaptation practices in the continent. SANBI and DEA shared lessons learned and success stories, and facilitated group discussions on project implementation and governance.

The Climate Investment Fund (CIF) invited SANBI to attend a workshop in Livingstone, Zambia, in February 2017. Staffed a session on the importance of sustainable livelihoods in improving the capacity of communities to address climate change, based on SANBI's experience through implementing climate change adaptation projects. The intention of the presentation and related discussions was to share lessons learned with other African countries implementing adaptation projects through the Pilot Programme for Climate Resilience (PPCR).

In 2016, the DEA requested SANBI to provide science-based policy advice on the development of a guideline document for the identification and implementation of EbA projects in South Africa. The guideline sets out principles and criteria for EbA, as well as practical tools for EbA project development and research. A technical stakeholder workshop was held in March 2017 to present and discuss the guideline for EbA. The guideline contains several innovative elements of relevance for EbA projects and research programmes in South Africa and abroad.

Although relatively new, South Africa's work in EbA has received a fair amount of international attention, and SANBI has presented its work at various meetings, including the Adaptation Futures conference in Rotterdam in May 2016. The presentation was well received and culminated in SANBI's invitation to participate in an international Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) project on EbA. South Africa has also been selected to host the 2018 Adaptation Futures Conference in Cape Town, with the University of Cape Town (UCT) and SANBI as co-hosts. SANBI participated at an international ecosystem-based adaptation meeting in Mexico City where collaboration opportunities were discussed with Mexico's National Institute of Ecology and Climate Change (INECC) and GIZ.



Programme 6: Human capital development (HCD): Drive HCD, education and awareness in response to SANBI's mandate

Purpose: Biodiversity Education Empowerment and HCD is a cross-cutting programme intended to transform the sector 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 in the biodiversity sector so as to address not only historical legacies of a bottom-heavy sector but also chronic capacity shortages in leadership, especially by black South Africans, and specifically black females.

Strategic objectives

- A transformed and suitably skilled workforce for the biodiversity sector is developed.
- All national botanical gardens are promoted and used as platforms for biodiversity awareness, education and recreation.
- Civil society is engaged to contribute to science, monitoring and biodiversity conservation.

Key performance areas

- Number of black biodiversity professionals developed through human capital development initiatives, including structured internships, post-graduate studentships, and a fellowship programme for the achievement of a transformed and skilled workforce in the biodiversity sector.
- Number of beneficiaries participating in the Biodiversity Careers Programme aimed at attracting young people into the biodiversity sector.
- Number of users and beneficiaries of NBGs and school-based programmes for education, awareness, training and recreation.
- Number of platforms facilitated for civil society engagement, which contribute to biodiversity monitoring and biodiversity conservation.

Programme performance

SANBI's Biodiversity Education and Empowerment (BEE) directorate is part of a national sectoral consortium/partnership programme supporting teacher professional development known as 'Fundisa for Change'. Through this programme, SANBI's Environmental Education Centres (EEC) facilitated two teacher workshops where 75 teachers were trained.

Furthermore, a partnership was struck between the South African National Energy Development Institute (SANEDI), specifically the South African Centre for Carbon Capture and Storage (SACCCS) and BEE. The partnership's aim is to increase awareness and capacity amongst learners and teachers on concepts and issues related to water, climate change, mitigation and adaptation, carbon capture and storage. Through this partnership, the Pretoria National Botanical Garden EEC, together with SANEDI staff, conducted workshops for 135 teachers from 102 schools from the Mpumalanga Department of Education. The workshops took the format of five two-day workshops. A training programme was also done for 22 participants (SANBI staff members and interns) on the concept of carbon capture and storage (as related to climate change) with the aim of increasing knowledge to be incorporated into existing and future learning programmes.

Through the
'Schools in the
Garden' initiative
SANBI's BEE
directorate reached
56,573 beneficiaries
exceeding target by
13.14%, including
764 learners with
physical and mental
challenges from
22 schools for
special educational
needs.



Capacity Development Workshops for Teachers in partnership with SANEDI (SACCS)

The successful partnership between WWF SA and BEE in 2015/16 on Biodiversity Careers Programme for university students led to Nedbank's further funding of the programme in 2016/17 financial year. The partnership has matured and consequently WWF supports BEE with fundraising only, while BEE has full responsibility for programme conceptualisation and delivery. Through the programme, BEE delivered university career expos and fairs, aimed mainly at exposing undergraduate students to career opportunities and pathways within companies and organisations in the biodiversity sector. Universities were selected based on their location in relation to the SANBI BEE centres nationally, as well as exhibition costs. As a result, biodiversity careers were showcased at 11 universities this year, namely, University of the Western Cape (UWC), University of the Free State, Central University of Technology (CUT) (Free State), University of KwaZulu-Natal, Durban University of Technology (DUT), Sefako Makgatho Medical and Health Sciences University, University of South Africa (UNISA), University of Limpopo, North West University, Vaal University of Technology and University of Johannesburg. Approximately 1,936 students engaged with the biodiversity careers information at the BEE stands at these universities; anecdotal evidence seems to indicate that a large proportion of these students had previously not been aware of many opportunities that exist in the biodiversity sector.

The second aspect of the programme, Showcasing Biodiversity Careers, is the Green Career Excursion. This programme is more focused and targets a limited number of students from various universities. To expose them to a variety of biodiversity careers through sessions with experts and professionals in their place of work. Twenty students from North West University (Potchefstroom Campus) were hosted for two weeks by BEE staff members at the Pretoria National Botanical Garden and Walter Sisulu NGB EECs. The students were exposed to eight different organisations: SANBI; City of Tshwane's Rietvlei Nature Reserve; the National Zoological Garden; the Ditsong Natural History Museum; ESKOM; Johannesburg Water; Rand Water; and the Department of Rural Environment & Agricultural Development. The students spent on average four hours at each organisation for presentations by and discussions with biodiversity professionals about their work and their careers. Thus the students were exposed to a range of biodiversity careers in an in-depth and meaningful manner. One student wrote of her experience:

"The excursion was informative in the sense that we were a lot more exposed to different career paths inside the biological field. The 'behind-the-scenes' and hands-on experience exposed [us] to the actual work being done, which helped with decisions on the future of the specific careers. This week helped [us] to decide whether [we are] in the right career path, or which one [we] would be more interested in. The interaction with employees in the specific fields helped to get clarity on the responsibility each career entails. Overall the excursion was extremely helpful to us all. I would recommend it to future students."



Performance Information: Programme 6

SANBI's BEE directorate has a track record for mentoring and training youth of more than a decade, particularly non-school going and unemployed youth (with or without matric), and graduates. Without any dedicated funding, this intervention has reached 73 youth; 61 are now in employment, with some of them furthering their studies. In 2016/17 the Pretoria National Botanical Garden EEC facilitated a more formal capacity development programme. A partnership was established with the Roodeplaats Nature Reserve of the Gauteng Department of Agriculture and Rural Development (GDARD). Through this programme nine nature conservation students were supported to fulfil their work-integrated obligation. The Pretoria National Botanical Garden EEC supported them with the environmental education while the Roodeplaats Nature Reserve supported them with the environmental management component. As part of their training and mentoring, the nine students taught learning programmes in the BEE Biodiversity Education Programme.

Through the 'Schools in the Garden' Programme, 55,373 beneficiaries were reached, exceeding the 2016/17 target of 50,000 beneficiaries by 13.14%. While many schools and other organisations remain loyal clients to this programme year after year, in most cases, the learners, new students or youth selected come in each year. Therefore, every year this programme allows young people (the majority of whom would never have visited a NBG before) to gain new knowledge and skills relating to biodiversity through real interactions with nature. Additional steps were once again taken by the BEE centres to diversify the beneficiaries of this programme. The following was achieved: 11,397 learners from 144 schools participating in the programme for the first time; 764 learners with a range of physical and mental challenges from 22 schools for special educational needs; 15 youth groups with 556 beneficiaries; and nine adult groups with 209 beneficiaries.



University Biodiversity Careers Programme in partnership with WWF and Nedbank – students on an excursion at one of the potential biodiversity employer



Capacity Development Workshops for Teachers in partnership with SANEDI (SACCCS)



The Outreach Greening Programme continues to change the face of many schools with water-wise indigenous gardens developed by the directorate. In 2016/17 a partnership was reached with Botanical Society of South Africa (BotSoc) through which eight schools were selected for greening. The selection of schools, location of school gardens and selection of plants are all done and linked to support biodiversity conservation and management. Plants selected are climate resilient, encourage bee foraging and improve and expand green corridors for certain bird species. Workshops on basic horticulture skills have been conducted for the greening teams and planting has taken place in six schools.

BEE supported an SABC initiative called 'Raise your Hand' whereby an indigenous container garden was developed in Paarl, Western Cape, using recycled motor car tyres. The plan is to expand the garden by replanting some of the plants in garden beds once the current water restrictions are lifted.

BEE centres celebrated eight environmental days and weeks: Biodiversity Day, Environmental Week, Arbor Week, Wetlands Week, Water Week, Climate Change Week, Weedbuster Week and Marine Week. These celebrations took a variety of formats: events with speeches as well as environmental actions (planting indigenous gardens, planting trees, and clean-up campaigns); special lessons in the NBGs as well as in contexts linked to the specific environmental day or week (in wetlands, and on beaches); and various community engagements in partnership with other environmental organisations. A total of 6,866 beneficiaries participated in these celebrations this year.

A total of 707 beneficiaries were reached through three holiday programmes conducted by each BEE centre. The programmes are conducted in the NBGs, thus drawing children and youth from diverse backgrounds over the school holiday periods to educate and entertain them through activities such as art, games, story-telling and nature treasure hunts.

The BEE directorate has taken an innovative approach to delivering the primary and high schools career programme. The selected primary schools receive a package of information about a number of biodiversity careers and a brief on how to stage the play to be performed. The participating learners, guided by their teachers, use the information pack (made up of booklets, information cards and DVDs) over a period of time to research their selected biodiversity careers and preparing short play about each career. The brief indicates that the play has to include a sense of what the career entails, which school subjects and university degree (if applicable) one would need for the career. The BEE staff members then facilitate a 'dress rehearsal' where each group of learners performs their short play, and advice is given and assistance with certain props provided. On the day of the Primary School Career Visit, as the event is known, the career plays are performed (often in front of a few grades) but sometimes to the entire school. Short speeches are made and the importance of subject choices is reiterated. This programme has proven to be very successful in raising awareness about biodiversity careers in a fun-filled, yet educational way.



BEE staff conducting Primary School Biodiversity Careers Programme



Biodiversity Careers Programme for High School at the Pretoria National Botanical Garden EE Centre

The High School Career Programme takes the format of a very structured expo. Various environmental organisations and universities are invited to participate as well as various directorates and units within SANBI; stands or engagement points are established for each. (The term engagement point, refers to instances where an area is used instead of a stand; for example, a section of a laboratory or a herbarium or a plant production nursery. Schools are invited and divided into groups of about 20 learners. Each group is escorted from one stand or point of engagement to the next in a planned route and each group spends between 15 to 20 minutes there where a representative of a particular biodiversity career informs them what the work entails, what one could study in order to enter the career, as well as potential career pathways. When universities are present, they are able to inform the learners about admission processes, fees and bursaries. This year, 969 beneficiaries participated in the BEE primary career programme and 1,439 in the high school career programme.



Mr Ismail Ebrahim
CREW CFR Node Manager

Ismail Ebrahim started his SANBI journey in 1998 (at the National Botanical Institute) when he joined the Protea Atlas Project as a Starfish 2000 intern. The Starfish programme was an initiative to provide matriculants and

graduates with opportunities to gain work experience. Interns were placed with various organisations for three to six months and paid a small stipend. This internship was a real turning point for him and he attributes the passion he has for nature to that early career experience working with the Protea Atlas Project. Spending time with passionate conservationists and amateur botanists in the field enabled him to build his interest and passion for nature. Reflecting on this period has given him great insight into how he can provide the right environment for interns to learn and grow their passion for the environment.

After the Protea Atlas Project came to an end and after a short stint in a family business, he returned to SANBI as the project co-ordinator of the Custodians of Rare and Endangered Wildflowers (CREW) programme.

One of Ismail's highlights at SANBI was successfully propagating *Serruria furcellata*, which at the time was listed as extinct. Ismail says, "It is rewarding to know that I played a small part in saving a plant from extinction." As one of the mentors at SANBI, Ismail has really enjoyed supporting interns to develop their skills and knowledge. Ismail says the role of a mentor is to create an enabling environment for interns to deepen and expand their abilities. He believes that developing technical skills is not the only important aspect of mentorship but mentors also have to build the necessary 'soft skills' such as effective communication, good work ethic, and relationship building. He hopes that his passion for nature is contagious and that it influences people to be more involved in conserving our biological heritage.



Awareness Raising programme with community members on biodiversity crimes

The Combatting Biodiversity Crimes programme, initiated last year, is growing from strength to strength. Despite current severe staff shortages, three BEE centres facilitated this programme, reaching a total of 336 beneficiaries. At the Free State NBG, the focus was on rhino poaching with the event taking the format of a fun-run, a fun-walk and aerobics. In the Eastern Cape, a coastal area where cycad poaching is rife, was identified. The traditional leaders and certain community members were invited to an event where presentations were done about various aspects of cycads, including their value to biodiversity, and their potential role in sustainable livelihoods. Lastly in Pretoria, a fun-walk with community environmental workers from the Ekurhuleni Municipality focusing on biodiversity crimes linked to indigenous medicinal plants was conducted.

Programme highlights

The Pretoria EEC participated in the 'Take-A-Girl-Child to Work' programme. A group of 56 girls from two schools in Soweto were sponsored by the Australia-South Africa Alumni Association, and a biodiversity careers day involving six SANBI scientists in different careers and a visit to the National Herbarium was conducted. Catering was sponsored by Milkplum Nursery and the SANBI's Mary Gunn Library as part of its Centenary Celebration.



Learners from Letsibogo Girls High, who participated in the annual Take-A-Girl-Child to Work campaign

Partnership with Miss Earth South Africa

Pretoria EEC was invited to make a presentation on biodiversity at the Gauteng regional final of the Miss Earth South Africa competition. In his presentation, Mr Cyprian Mathaba, Senior Environmental Education Officer, challenged contestants to support environmental/ biodiversity conservation programmes. One contestant, Nozipho Magagula, took up the challenge. Ms Magagula contacted Mr Mathaba for assistance in preparing a programme to celebrate World Environmental Day at Crawford Preparatory School. Ms Magagula also sourced funds for transport, entrance and catering costs for the Zodwa School for mentally disabled learners to visit the Pretoria National Botanical Garden. We are excited to report that Nozipho won the South African Miss Earth pageant, and went to represent South Africa at the International Miss Earth pageant in the Philippines.



Mr Tebogo Cyprian Mathaba with Miss Earth South Africa, a 4th year medical student from Atteridgeville, Pretoria, during World Environment Day celebration

GreenMatter's contribution

GreenMatter is the implementation programme responsible for the National Biodiversity Human Capital Development Strategy (2010–2030), co-led by SANBI and the Lewis Foundation on behalf of the sector. Focusing predominantly on transformation and high-level skills development for improved biodiversity management, GreenMatter has grown the Fellowship programme to date in support of 93 Masters, post-graduates and professional development students, researchers and specialists since 2012. In 2016, the WWF-Nedbank Green Trust continued to fund the development of the remaining 10 (of the original 20) emerging leaders in the Professional Development category, and the Mapula Foundation has continued its support for developing research capacity for biosphere reserves in South Africa. The Harry Crossley Foundation has continued support for six PhD fellows based at Stellenbosch University and UCT.

"It has been an exciting learning experience being part of the Fellowship thus far.. I look forward to broadening my professional skills and using the opportunity to network with social innovators in the biodiversity sector." – Francois Louw, Fundraising Manager, SANCCOB

In 2016 we hosted two Professional Development Workshops to facilitate the uptake of leadership skills and innovative problem solving techniques. Fellows benefit from this by applying teachings to group-work projects working alongside other fellows.

"The workshop was really insightful and helped me understand myself a bit better with regards to what motivates and drives me, and identifying what I would define as success. Learning about the other fellows and discussing with them was a highlight, and still is. In 4 days, I got the skills to look at my own career and structure my growth trajectory in a holistic way – focusing on myself and how I influence the community around me." – Palesa Natasha Mothapo, Postdoctoral Researcher – Stellenbosch University, Alien Invasive Management

Together with partners, the Young Water Professionals Network (YWP-ZA), and the DEA, GreenMatter led the conceptualisation and piloted the implementation of the Imvelisi National Roadshow. Imvelisi is focused on supporting the development of aspiring entrepreneurs in the biodiversity and water space. Four roadshows were held in four provinces; namely KwaZulu-Natal, Limpopo, North West and Free State, which involved introductory presentations on examples of businesses in the green economy, idea interrogation, business models, and bodies that offer financial support. A combined total of 121 people attended these roadshows across the country. The aim was to raise awareness amongst the general public and targeted stakeholders about Imvelisi; to drive participation on the Imvelisi pre-Bootcamp roadshows and, ultimately, the Bootcamp; to profile the initiatives and programmes of the Imvelisi project partners; and to profile the various career and entrepreneurial opportunities in the water, biodiversity and green sector.

The GreenMatter supported the Fundisa for Change initiative, comprising over 30 partners, for strengthened advocacy and accreditation of the training of trainers. In addition, the Fundisa for Change approach and materials have received the endorsement of the South African Council for Educators (SACE). A narrative infographic was developed as an essential tool for further advocacy work.

As part of its advocacy role, the GreenMatter team was also instrumental in strategic inputs in the Africa Environmental Education and Training Strategy and Action Plan 2015–2024, as well as ongoing support and input into the National Environmental Skills Summit Planning Forum.

As part of GreenMatter's commitment to celebrate high achievers in the biodiversity sciences, support of the National Science and Technology Forum (NSTF) Awards is ongoing, with Prof. Michael Samways from Stellenbosch University as the recipient for 2016.



*Performance against
Predetermined Objectives*

Predetermined Objectives Report 2016/17

Strategic objective(s)	Key performance indicators	Planned target 2016/17	Actual achievement 2016/17 (achieved, partially achieved, not achieved, exceeded target and modification)	Deviation from planned target to actual achievement
Programme 1: Render effective and efficient corporate services				
1.1: SANBI is positioned as an employer of choice in the biodiversity sector	Percentage of payroll allocated and spent on staff development.	2% of payroll allocated and spent on staff development.	100% achieved. 2% of payroll allocated and spent on staff development.	
	Transformed Institute that reflects the demography of the South African population.	57% male staff on permanent and contract employment.	Exceeded target.	56.6% male staff on permanent and contract employment. The annual target was to reduce the male staff on permanent and contract employment to 57%. The target has slightly been exceeded.
		43% female staff on permanent and contract employment.	Exceeded target.	43.4% female staff on permanent and contract employment. The annual target was to increase the female staff on permanent and contract employment to 43%. The target has slightly been exceeded.
		3% people with disabilities on permanent and contract employment.	100% achieved. 3% People with disabilities on permanent and contract employment.	
1.2: Implement an effective, efficient and transparent supply chain and financial management system as regulated by the PFMA	GRAP- and PFMA-compliant annual financial statements (AFS).	Unqualified AFS produced to comply with PFMA and GRAP requirements.	100% achieved. The financial transaction were accurately captured and reconciliations were performed according to the system of internal control.	
1.3: Improved financial sustainability of the Institute	Percentage increase of income generated on rental, admission sales and other income.	2% increase on own income.	Exceeded target.	22% increase over the previous year and 41% increase over corresponding period in the prior year.
1.4: Effective corporate services rendered to achieve the mandate of SANBI	Percentage availability of SANBI ICT network and ICT business services.	90% of ICT network and business services are available.	100% achieved. The systems uptime of 90% was fully achieved. The networks and business applications are running consistently and were available to users above the uptime threshold set.	
	All identified risks managed through an annual risk assessment and implementation of the Risk Management Plan.	Updated, mitigated and monitored risks.	100% achieved. All risks identified during the risk assessment workshops and included in the risk register were mitigated, constantly monitored in line with the Combined Assurance Model and reported to the Audit and Risk Committee for progress.	
	Compliance with all relevant Acts and SANBI/DEA protocol through implementation of a Compliance Framework.	Quarterly Performance Report monitored against the approved Annual Performance Plan (APP), including PFMA, Cash and ENE Reports, on a quarterly basis by DEA according to specified timeframes set out by the department.	100% achieved. All quarterly reports were compiled and reported on to various Board committees and submitted on the due date to the DEA and National Treasury.	
1.5: Building a compelling brand for all stakeholders	Number of marketing initiatives identified and utilised for SANBI promotion, profiling and external communication to stakeholders.	4 shows, 4 exhibitions, 12 concerts, 12 events and 4 campaigns/activations.	100% achieved. All shows, exhibitions, concerts, events and campaigns/activations were carried out as planned.	
	Number of appropriate platforms utilised for internal communication.	4 internal communication platforms.	100% achieved. All CEO's letters and staff newsletter produced and staff competition co-ordinated.	

Strategic objective(s)	Key performance indicators	Planned target 2016/17	Actual achievement 2016/17 (achieved, partially achieved, not achieved, exceeded target and modification)	Deviation from planned target to actual achievement
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 (NBGs) are managed and maintained to realise benefits to SANBI, civil society and other relevant stakeholders	Increased representation and display of indigenous plants in the living collections of SANBI's NBGs or the Millennium Seed Bank Partnership.	20 new indigenous plant species added to the living collections of the combined network of NBGs and/or Millennium Seed Bank Partnership.	100% achieved. 20 indigenous species added to the living collections of the network of NBGs and/or Millennium Seed Bank Partnership.	
	Number of new NBGs established and operational.	Implementation of the MoA between SANBI and LEDET for the management of the new NGB in the Limpopo Province.	Not achieved.	Draft SLA developed between SANBI and LEDET. Combined task team comprising DEA, SANBI, LEDET, Provincial and National Departments of Public Works established. Four posts for the new NGB advertised by SANBI.
		Implementation of the Kwelela Nature Reserve Management Plan between SANBI and ECPTA for the management of the Kwelela NGB in the Eastern Cape.	Not achieved.	SANBI and ECPTA SteerCom established and functional. Management Plan implemented for the new NGB. DEA Minister requested to proclaim the 10ha SANBI land as part of the Kwelela NGB.
	Number of maintenance, development and capital infrastructure projects completed across SANBI's NBGs.	45 maintenance/development projects and two (2) SANBI capital infrastructure projects completed.	100% achieved. 45 maintenance/development projects and two (2) SANBI capital infrastructure projects 100% completed.	
2.2: Nature-based tourism and recreational activities are strengthened in all NBGs in order to contribute to and support SANBI's sustainability	Percentage visitor numbers increased through expanded tourism-related activities and events in NBGs.	Minimum of two percent (2%) annual increase in visitor numbers.	Exceeded target. 9% increase.	2,084,814 visitors received (compared with 1,915,799 in 2015/16); representing a 9% annual increase in visitor numbers. Due to tourism sector growth and increased number and popularity of events hosted in various NBGs.
Programme 3: Build the foundational biodiversity science				
3.1: Foundational biodiversity information is developed through describing and classifying species and ecosystems in South Africa	Number of plant and animal species for which descriptive and classification information has been compiled.	Information on 4,200 South African plant and 1,000 animal species compiled.	Exceeded target. 4,916 South African plant compiled and 1,014 animal species compiled.	Exceeded target on plant species pages by 716 due to the inclusion of species descriptions from the existing flora of southern Africa in its entirety (gymnosperms and angiosperms), as it was more sensible to upload all of these descriptions from the series together, instead of splitting the information. Exceeded target on animal species pages by 14 because we received 14 more from a partner.
	Number of ecosystem classification systems and maps developed for the National Biodiversity Assessment.	Actions and plans to finalise ecosystem classification systems and maps, as approved by the National Committee, completed (for terrestrial, fresh water, estuarine and marine realms).	100% achieved. The actions and plans approved by National Committee and completed.	

Strategic objective(s)	Key performance indicators	Planned target 2016/17	Actual achievement 2016/17 (achieved, partially achieved, not achieved, exceeded target and modification)	Deviation from planned target to actual achievement
Programme 3: Build the foundational biodiversity science				
3.1: Foundational biodiversity information is developed through describing and classifying species and ecosystems in South Africa (continued)	Number of quality controlled records for plant specimens in SANBI's herbaria, and for animal specimens in museums or based on observations, added to databases.	12,000 records added to plant database; 35,000 records added to animal database.	Exceeded target. 16,473 records added.	Exceeded plant database records added with 4,743 records (16,473 records added for the year) due to extra capacity received from internship and additional allocation of tasks to contract personnel in the Invasive Species Programme. Exceeded animal database records by 54 because data were contributed by many researchers, some who delivered more than their allocations.
Programme 4: assess, monitor and report on the state of biodiversity and increase knowledge for decision-making, including climate change				
4.1: New biodiversity knowledge created for decision-making	Number of research papers published in ISI journals.	75 publications (20 from Biosystematics & Collections; 55 from Biodiversity Research, Assessment & Monitoring).	Exceeded target. In total 117 papers in ISI journals.	The target was based on a declining trend in ISI publications since 2012 and the loss of several senior scientists. The intention is to achieve above the target (based on career ladder requirements) and the high achievement is due to (i) early publication of a special issue on biological invasions (9 papers); (ii) changes in the publishing format with an increase in early online publications, and (iii) a substantial increase in papers published with partner organisations.
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	Number of national scientific synthesis and assessment reports produced.	NBA 2018 Operational Plan meeting targets agreed to by the Core Reference Group and Steering Committee.	100% achieved.	
		National Invasive Species Report (NISR) 2017 initiated and Data Acquisition Plan implemented.	Not achieved. NISR initiated.	NISR was initiated and the plan partially implemented.
		GMO monitoring plan submitted.	100% achieved. GMO Monitoring Plan submitted to the DEA.	
		One Red List Assessment (spiders) completed and core reference group approved, report workplan approved: - Test data analysis for National Invasives Report - Monitoring Plan for GMOs	100% achieved. Redlist assessment for line fish completed. Assessments are posted on the official national Red List website for South Africa Species Status and Information.	
	Number of annual updates of non-detriment findings for the Scientific Authority to support NEMBA regulations.	One update for Non-Detriment Findings for the Scientific Authority	Not achieved.	The final report will be submitted late due to other urgent matters that arose from the 17 th CITES Conference of the Parties (trade in lion bones, leopard monitoring, and applications to export rhino).
	Number of large (>R2 million) cooperative research and Assessment programmes that have delivered knowledge and data.	Three large research and assessment programmes initiated (SEAKEYS, Invasive Species Programme, BioGAP).	100% achieved. SEAKeys and ISP completed, BioGap on target.	

Strategic objective(s)	Key performance indicators	Planned target 2016/17	Actual achievement 2016/17 (achieved, partially achieved, not achieved, exceeded target and modification)	Deviation from planned target to actual achievement
Programme 5: Provide biodiversity policy advice and access to biodiversity information; and support for climate change adaptation				
5.1: Tools to support management and conservation of biodiversity developed and applied	Number of tools and knowledge resources developed to support mainstreaming of biodiversity assets and ecological infrastructure in production sectors and natural resource management.	Two tools produced, including an Ecosystem Restoration Decision Support Tool and an Online User Tool for accessing biodiversity information.	100% achieved. Two tools included: - A spatial framework for the evaluation of applications for the 2017/18 Land User Incentive (LUI) Programme to support the DEA Natural Resource Management Programme in determining where to invest resources in ecosystem restoration. - A data publishing tool for monitoring the impacts of energy infrastructure on birds and bats was developed (http://eia.sanbi.org/). The need for this tool was identified through the development of the Wind and Solar Strategic Environmental Assessment (SEA) due to the negative impact of grid and renewable energy infrastructure on birds and bats. SANBI development the tool as part of the SEA for Electricity Grid Infrastructure.	
		Three knowledge resources developed and disseminated.	100% achieved. Three knowledge resource developed, including The Lexicon of Biodiversity Planning in South Africa; factsheet on the uMngeni Ecological Infrastructure Partnership and a factsheet on the Biodiversity Land Use Project.	
	Number of co-ordination or learning mechanisms convened to share lessons and build capacity among provincial, municipal or other relevant decision-makers.	Four learning or co-ordination events convened.	100% achieved. Four learning or co-ordination events hosted, including the Biodiversity Planning Forum, the Biodiversity Information Management Forum, the Freshwater Ecosystem Network and the National Management, Research and Planning (MAREP) Forum.	
		Four training sessions convened.	100% achieved. Four training sessions held, including Geo-referencing training, the UEIP-UCPP Learning Exchange to build capacity in catchment management, and two training sessions on Biodiversity GIS (BGIS).	

Strategic objective(s)	Key performance indicators	Planned target 2016/17	Actual achievement 2016/17 (achieved, partially achieved, not achieved, exceeded target and modification)	Deviation from planned target to actual achievement
Programme 5: Provide biodiversity policy advice and access to biodiversity information; and support for climate change adaptation (continued)				
5.2: Access to biodiversity data, information and knowledge provided	Number of biodiversity records published.	An increase of 50,000 records published.	Exceeded target. This target was adjusted at mid-term to an annual target of 114,000 records published. A total of 114,385 records were published (Q2 = 25,000; Q3 = 14,385 and Q4 = 75,000). These biodiversity records included botanical records of plant observations made in the field, records of marine species and trawl survey data. These records are published online, allowing users access to this biodiversity data.	An additional 385 (< 0.4% increase) records were published in Q3 as the dataset of biodiversity records received from SANBI partners was slightly larger than anticipated.
5.3: Scientific advice to support national and international policy processes provided	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 organs of state responded to within timeframe stipulated.	100% achieved. 100% of written requests responded to providing scientific advice to support national policy processes, including on marine spatial planning, marine protected areas, sustainable land management and management of biodiversity assets.	
5.4: Policy support on climate change adaptation provided to inform national and international decision-making	An effective National Implementing Entity to the Global Adaptation Fund shares lessons and experiences on a number of national and international platforms to inform Climate Change Adaptation Policy.	Lessons and experience from NIE projects captured to inform two national and two international platforms on climate change adaptation policy.	100% achieved. Lessons and experiences from NIE were shared at four fora, including Adaptation Futures 2016, Treasury Innovation Fund Workshop, UNFCCC COP, and ICLEI Local Climate Solutions for Africa: Water and Climate Congress.	
	Number of biodiversity sector tools into which climate change adaptation has been mainstreamed.	A biodiversity tool into which climate change adaptation will be incorporated is identified.	100% achieved. The biodiversity tool, a Guideline for Identification and Implementation of Ecosystem-based Adaptation (EbA) Projects in South Africa was completed.	

Strategic objective(s)	Key performance indicators	Planned target 2016/17	Actual achievement 2016/17 (achieved, partially achieved, not achieved, exceeded target and modification)	Deviation from planned target to actual achievement
Programme 6: provide human capital development, biodiversity education and awareness in response to SANBI's mandate				
6.1: A transformed and suitably skilled workforce for biodiversity is developed	Number of black biodiversity professionals developed through human capital development initiatives, including structured internships, post-graduate studentships and a fellowship programme for the achievement of a transformed and skilled workforce in the biodiversity sector.	92 professionals developed through structured internships and post-graduate studentships.	Not achieved. 66 professional were developed.	Annual target was not achieved as only 66 out of the 92 professionals were developed. The targets for WIL, interns, fellows and Honours were met, but the target for Masters and PhDs was not met as degrees have not been completed.
	Number of beneficiaries participate in the Biodiversity Careers Programme aimed at attracting young people into the biodiversity sector.	1,000 beneficiaries participate in Biodiversity Careers Programme.	Exceeded target. 1,338 Beneficiaries participated.	Target of 1,000 was exceeded by 338, as a result a total of 1,338 beneficiaries participated. The main reason for exceeding the target is because additional funding was secured through WWF. Another factor is the opening of the Kwekwele NBG, which created opportunities to work with schools in that area.
6.2: All NBGs are promoted and used as platforms for biodiversity awareness, education and recreation	Number of users and beneficiaries of NBGs and school-based programmes for education, awareness, training and recreation have been increased.	50,000 NBGs and school-based beneficiaries have been reached.	Exceeded target. 55,373 beneficiaries reached.	The annual target of 50,000 was been exceeded as a total of 55,373 beneficiaries were reached. The target was exceeded because of the investment to promote the newly developed Biodiversity education programme at certain education centres. Figures have been particularly high at the Pretoria NBG EE Centre.
6.3: Civil society is engaged to contribute to science, monitoring and biodiversity conservation	Number of platforms facilitated for civil society engagement that contribute to biodiversity monitoring and biodiversity conservation.	Three platforms strengthened and facilitated.	100% achieved. The annual assessment of iSpot records; review of SABAP contract were fully achieved.	

Predetermined Objectives Report 2015/16

Strategic objective(s)	Key performance indicators	Planned target 2015/16	Actual achievement 2015/16 (achieved, partially achieved, not achieved, exceeded target and modification)	Deviation from planned target to actual achievement
Programme 1: Render effective and efficient corporate services				
1.1: SANBI is positioned as an employer of choice in the biodiversity sector	Percentage of payroll allocated and spent on staff development.	2% of payroll allocated and spent on staff development.	100% achieved. The 2% of payroll allocated was spent on staff development.	
	Number of black biodiversity professionals developed through structured internships and post-graduate studentships.	60 black biodiversity professionals developed through structured internships and post-graduate studentships.	100% achieved. 60 black biodiversity professionals developed through structured internships and post-graduate studentships.	
1.2: Implement an effective, efficient and transparent supply chain and financial management system as regulated by the PFMA	GRAP- and PFMA-compliant annual financial statements.	Unqualified AFS produced to comply with PFMA and GRAP requirements. (AG's report).	100% achieved. Unqualified, PFMA- and GRAP-compliant AFS produced.	
1.3: Effective corporate services rendered to achieve the mandate of SANBI	Percentage availability of SANBI network and business services.	90% of ICT services are available.	100% achieved. 90% of ICT Services are available.	
	All identified risks managed through an annual risk assessment and implementation of the Risk Management Plan.	Update, mitigate and monitor risks.	100% achieved. Risks were update, mitigated and monitored.	
	Compliance with all relevant Acts and SANBI/DEA protocol through the implementation of a Compliance Framework.	Reporting monitored according to specified timeframes.	100% achieved. Reporting was monitored according to specified timeframes, on a quarterly basis.	
1.4: Building a compelling brand for all stakeholders	Number of marketing initiatives and activities effectively utilised for brand and SANBI promotion, profiling and maintenance of brand visibility.	4 shows, 4 exhibitions, 12 concerts, 12 events and 4 campaigns/activations.	100% achieved. 4 shows, 4 exhibitions, 12 concerts, 12 events and 4 campaigns/activations took place during the year.	
	Number of appropriate platforms utilised for internal communication to keep internal stakeholders informed.	4 internal communication platforms.	100% achieved. 4 internal communication platforms took place during the year.	
	Number of radio, television and print interviews, press releases, media statements and advertisements utilised for external communication to stakeholders.	4 radio interviews, 4 television interviews, 12 advertisements and 16 press releases.	100% achieved. 4 radio interviews, 4 television interviews, 12 advertisements and 16 press releases were done during the year.	

Strategic objective(s)	Key performance indicators	Planned target 2015/16	Actual achievement 2015/16 (achieved, partially achieved, not achieved, exceeded target and modification)	Deviation from planned target to actual achievement
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	Increased representation and display of indigenous plants in the living collections of SANBI's NBGs or the Millennium Seed Bank Partnership.	20 new indigenous plant species added to the living collections of the combined network of NBGs and/or Millennium Seed Bank.	100% achieved. 20 new indigenous plant species were added to the living collections of the combined network of NBGs and/or Millennium Seed Bank.	
	Number of new NBGs established and operational.	Documents submitted to DEA for the proposed proclamation of a new NGB in the Limpopo Province.	100% Achieved. Documents were submitted to DEA for the proposed proclamation of a new NGB in the Limpopo Province.	
		Documents submitted to DEA for the proposed proclamation of 10 ha of land as part of the Kwelela NGB.	100% achieved. Documents were submitted to DEA for the proposed proclamation of 10 ha of land as part of the Kwelela NGB.	
	Number of best practice maintenance, development and capital infrastructure projects completed across SANBI's NBGs.	Five (5) maintenance/development projects per NGB and two (2) corporate SANBI capital infrastructure projects completed.	100% achieved. Five (5) maintenance/development projects per NGB and two (2) corporate SANBI capital infrastructure projects have been completed.	
2.2: Revenue generating activities are strengthened in all National Botanical Gardens	Percentage own income and visitor numbers increased through expanded and more effective revenue-generating activities in NBGs.	2 percent (2%) annual increase in visitor numbers (Spreadsheet).	Exceeded target by 4%, this resulted in a 6% annual increase in visitor numbers.	The annual target was exceeded by 4% due to an increased number of events hosted in the gardens, Kirstenbosch, Pretoria and Walter Sisulu NBGs in particular, fewer summer rain-affected days in the northern gardens, and a range of SANBI marketing interventions. The gardens, as nature-based tourism destinations, have also benefited from the continued popularity of the tree canopy walkway or 'boomslang' in Kirstenbosch.
		Six percent (6%) annual increase in own income (financial statements).	Exceeded target by 3%, this resulted in a 9% annual increase in own income.	
Programme 3: Build the foundational biodiversity science				
3.1: Foundational information about species and ecosystems in South Africa is developed and maintained	Number of quality controlled records added to spatial data for species.	60,000 records added to plant and animal spatial databases.	100% achieved. 60,000 records were added to plant and animal spatial databases.	
	Number of species for which information has been compiled.	Information on 5,000 South African plant and animal species compiled.	100% achieved. Information on 5,000 South African plant and animal species was compiled.	
	Number of environments for which ecosystem classification systems developed.	Plan to finalise classification systems for four environments consolidated and accepted.	100% achieved. The classification systems for four environments were consolidated and accepted.	
	Number of national maps showing distribution of ecosystems.	One national map.	100% achieved. One national map was completed.	

Strategic objective(s)	Key performance indicators	Planned target 2015/16	Actual achievement 2015/16 (achieved, partially achieved, not achieved, exceeded target and modification)	Deviation from planned target to actual achievement
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	Number of research papers published in ISI journals.	80 publications.	Exceeded target by 16 publications (in total 96 publications were produced).	The annual target was exceeded by 16 publications. This was due to two factors. 1. The DHET added to the list of accredited journals and 9 papers were published in these newly accredited journals. 2. There was also an increase in publications by students finishing off their theses, which contributed to 5 additional papers in ISI-rated journals and 2 in DHET-accredited journals. The total for the year was 85 papers in ISI-rated journals and 11 in other DHET-accredited journals.
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	Number of National Scientific Synthesis and Assessment Reports produced	NBA 2018 initiated.	100% achieved. NBA 2018 was initiated.	
		National Invasive Species Assessment (NISA) 2017 initiated.	100% achieved. NISA 2017 was initiated.	
		One Red List Assessment (mammals) completed.	100% achieved. One Red List Assessment (mammals) was completed.	
	Annual updates of species assessments to support NEMBA regulations.	One update for National Invasive Species Lists and Non-Detriment Findings for the Scientific Authority.	100% achieved. One update for National Invasive Species Lists and Non-Detriment Findings for the Scientific Authority was completed.	
Programme 5: Provide biodiversity policy advice and access to biodiversity information; and support for climate change adaptation				
5.1: Tools to support management and conservation of biodiversity developed and applied	Number of tools developed to support mainstreaming of biodiversity assets and ecological infrastructure in production sectors and resource management.	Two tools produced.	100% achieved. The two tools were produced.	
		Three knowledge resources demonstrating the value of biodiversity developed and disseminated.	100% achieved. The three knowledge resources demonstrating the value of biodiversity were developed and disseminated.	
	Number of co-ordination or learning mechanisms convened to share lessons and build capacity.	Four learning or co-ordination events convened. (Attendance registers, meeting minutes, programmes).	100% achieved. The four learning or co-ordination events were convened.	
		Three training sessions held for provincial, municipal or other relevant decision-makers for uptake of tools. (Attendance registers, programmes).	100% achieved. Three training sessions were held for provincial, municipal or other relevant decision-makers for uptake of tools.	
5.2: Access to biodiversity data, information and knowledge provided	Number of biodiversity records collected.	An increase of at least 50,000 records collected.	100% achieved. An increase of at least 50,000 records collected.	
	Number of registered users on the Biodiversity Advisor website.	At least 1% increase in registered users.	100% achieved. At least 1% increase in registered users.	

Strategic objective(s)	Key performance indicators	Planned target 2015/16	Actual achievement 2015/16 (achieved, partially achieved, not achieved, exceeded target and modification)	Deviation from planned target to actual achievement
Programme 5: Provide biodiversity policy advice and access to biodiversity information; and support for climate change adaptation (continued)				
5.4: Policy support on climate change adaptation provided to inform national and international decision-making	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 (*).	100% achieved. Lessons and experience from NIE projects captured to inform 20 national and/or international platforms on climate change adaptation policy were achieved.	
	Number of ecosystem-based adaptation tools developed.	Draft Strategic Framework for Ecosystem-based Adaptation developed collaboratively.	100% achieved. Draft Strategic Framework for Ecosystem-based Adaptation was developed collaboratively.	
Programme 6: Human capital development (HCD): Drive human capital development, education and awareness in response to SANBI'S mandate (previously Programme 5)				
6.1: A transformed and suitably skilled workforce for the biodiversity sector is developed	Resource teachers and student teachers to provide relevant, quality biodiversity education to school learners (foundation building).	An additional 100 teachers and student teachers, taking numbers to 700, have been exposed to biodiversity conservation education.	Exceeded target by 100, thus 300 teachers were exposed.	The annual target was 100 teachers and student teachers and 200 were reached by financial year-end. The set target was exceeded by 100. More funding than anticipated was secured, enabling higher number of beneficiaries to be reached.
	Support biodiversity graduates, practitioners and leaders through a holistic development programme.	12 additional fellows supported financially and provided with 2 professional development opportunities.	Exceeded target by 12 fellows thus 24 fellows supported.	The annual target was 12 fellows and 24 fellows were reached by financial year-end, thus the target was exceeded by 12. More funding than anticipated was secured, enabling higher number of beneficiaries to be reached.
	Number of individuals participating in Groen Sebenza and job creation initiatives with a percentage coming from designated groups.	1,000 unemployed youth skilled and hosted in the biodiversity sector.	Exceeded target by 10 unemployed youth skilled and hosted.	Annual target was 1,000 and achievement of target was at 1,010 by financial year-end, thus the set target was exceeded by 10. Availability of funds and the strategy to replace as and when attrition occurred enabled the target to be achieved.
	Drive innovation and improved career guidance in universities towards producing stronger skills for biodiversity (higher education innovation).	An additional 2 universities engage in Careers for Biodiversity programme	100% achieved. Engaged two additional universities in Careers for Biodiversity programme.	
	Sector organisations share best practice to effectively identify and address their skills needs, train and retain talented professionals in the sector (institutional strengthening).	15 participants from the DEA participate in workshops and organisational activities.	Target partially achieved.	The DEA hosted a workshop in the North West during 2015 that covered the HRD Toolkit. 5 DEA employees attended. The rest were from provincial, municipal and partner institutions. The approach had changed to support municipal and provincial partners going forward.
	Contribute to platform and activities for biodiversity human capital development (HCD) interaction and co-ordination (national co-ordination 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.	100% achieved. 1 National Event was implemented with a 10% increase in the spread of partners from previous years.	

Strategic objective(s)	Key performance indicators	Planned target 2015/16	Actual achievement 2015/16 (achieved, partially achieved, not achieved, exceeded target and modification)	Deviation from planned target to actual achievement
Programme 6: Human capital development (HCD): Drive human capital development, education and awareness in response to SANBI'S mandate (previously Programme 5) (continued)				
6.2: All NBGs are promoted and used as platforms for biodiversity awareness, education and recreation	Number of users and beneficiaries of NBGs and school-based programmes for education, awareness, training and recreation have been increased.	48 000 NBG and school-based beneficiaries have been reached (statistics table).	Exceeded target by 7,351 beneficiaries, thus 55,351 beneficiaries were reached.	The annual target was 48,000 beneficiaries and 55,351 beneficiaries were reached by financial year-end, thus the target was exceeded by 7,351. The target was exceeded due to increased human resources from the Groen Sebenza Programme.
6.3: Civil society is engaged to contribute to science, monitoring and biodiversity conservation	Number of platforms strengthened and facilitated for civil society engagement that contribute to biodiversity monitoring and biodiversity conservation.	Three platforms strengthened and facilitated (CREW, iSpot, SABAP) (attendance register, meeting minutes/notes).	100% achieved. Three platforms were strengthened and facilitated.	



Corporate Governance Statement

Corporate Governance Statement

Corporate governance is the set of processes, customs, policies, laws and institutions affecting the way a corporation (or company) is directed, administered or controlled. An important theme of corporate governance is the nature and extent of accountability of particular individuals in the organisations, and the mechanisms that try to reduce or eliminate the principal-agent problem. Corporate governance also includes the relationships among the many stakeholders involved and the goals for which the corporation is governed. In contemporary business corporations, the main external stakeholder groups are shareholders, debt holders, trade creditors, suppliers, customers and communities affected by the corporation's activities. Internal stakeholders are the board of directors, executives and other employees.

The South African National Biodiversity Institute (SANBI) subscribes to and is committed to complying with the principles and standards of integrity and accountability expressed in the Public Finance Management Act (PFMA), relevant National Treasury Regulations and where applicable and practical, the King IV Report principles and recommendations on Corporate Governance. We are aware of the King VI report with revised compliance requirements, which will give further guidelines on Corporate Governance.

The Institute's Board, its Sub-committees and the Executive Management Committee (EXCO) ensure that the Institute complies with these principles.

Appointment and composition of the Board

According to Section 15 of the National Environmental Management: Biodiversity Act, 10 of 2004, the SANBI Board Members are appointed by the Executive Authority for a term of three years. In terms of the PFMA, the Board is the Accounting Authority of the Institution. Members of the EXCO attend Board meetings by invitation. The Board meets quarterly or whenever required for specific extraordinary meetings. The business of the Board and its functions are conducted in line with the approved Board Manual. The Board induction is conducted on appointment of the new Board. The focus areas of the Induction sessions usually cover the following, *et al*:

- Broad introduction of SANBI
- Financial position
- Enterprise Risks Management
- Fund Raising Strategy and Sustainability
- ICT Governance Framework implementation
- Human Resources Programme
- Marketing and Communication initiatives and activities
- Five-year Strategic Plan
- Annual Performance Plan
- Capex, Opex and Projects Budgets.



SANBI put best practices in place to foster good and co-operative relationships and employee participation at all levels of the institute.



Corporate Governance Statement

The Board consists of not fewer than seven and not more than nine members who are appointed by the Minister of Environmental Affairs. The Board further includes the Director-General, or an official of the Department of Environmental Affairs designated by the Director-General, and the Chief Executive Officer of the SANBI.

The SANBI Board members for the period 1 April 2016 – 31 March 2017

- Mrs ME Magomola (Board Chairperson)
- Prof. B van Wilgen
- Dr ST Cornelius
- Dr JM Matjila
- Mrs NN Mnqeta
- Mr S Gounden
- Mrs BD Ngidi
- Mrs T Godongwana
- Mrs S Mancotywa (DEA representative)
- Dr Y Seleti (DST representative)
- Dr T Abrahamse (Chief Executive Officer)

Fiduciary duties

With regard to fiduciary duties, the Accounting Authority for the SANBI exercises the duty of skill and care in the quest to ensure reasonable protection of the assets of the entity. The roles of the Chairperson and Chief Executive Officer do not vest in the same person and the Chairperson is a non-executive member of the Institute. The Chairperson and Chief Executive Officer with the support of the Board, the Sub-Committees and EXCO, ensure that the mandate of the Institute is achieved.

Board assessment

The evaluation of the Board, its committees and the individual directors should be performed every year. Board members are asked to complete a self-assessment questionnaire to determine their perceptions of the strengths and weaknesses of the Board in the context of their fiduciary accountability to provide direction, guidance and governance of the Institute. The questionnaire reflects the individual perceptions of Board Members. In order to make sense of these comments, to eliminate duplications, and to capture the essence and spirit of the comments, it was decided by the Governance and Strategy Committee (GAS) to consolidate these into one edited report.

Board sub-committees

For operational effectiveness, the Board has appointed Sub-Committees for key functional areas of the Institute. These Sub-Committees comprise members of the Board and independent members who are well versed in their lines of business. Members are appointed for a term concurrent with that of the Board. All Sub-Committees of the Board are chaired by members of the Board. Any Board member may request or be requested to attend a Board Sub-Committee meeting. SANBI has developed a framework for Sub-committees' responsibilities to ensure focused oversight of each Sub-committee and to avoid duplication.

The role of the sub-committees is to advise the board on:

- The Institute's mandate
- The strategic direction of the Institute
- The implementation of the Corporate Strategic Plan and Annual Performance Plan
- The monitoring and evaluation of key performance objectives
- Establishing and approval of budgeting requirements.

Committee	1 April 2016 to 31 March 2017
Audit and Risk Committee [#]	Dr ST Cornelius (Chairperson) Mrs T Godongwana Board Member Mr GJ Dladla (Independent member appointed effective 01/04/2015 – 26/01/2016) Mr J Makoro (Independent Member appointed effective 01/09/2015) Mr T Zororo (Independent Member appointed effective 01/09/2015) Dr T Abrahamse (CEO) (<i>ex officio</i>) Ms. E Makau (DEA: Chief Financial Officer) (<i>ex officio</i>) Ms L Sithole (Chief Financial Officer) (<i>in attendance</i>)
Governance and Strategy Committee	Mr S Gounden (Chairperson) Dr JM Matjila Mrs BD Ngidi Dr T Abrahamse (CEO) (<i>ex officio</i>) Mr M Khoahli (<i>in attendance</i>)
Human Resources and Remuneration Committee	Dr JM Matjila (Chairperson) Dr Y Seleti Mrs. BD Ngidi Dr T Abrahamse (CEO) (<i>ex officio</i>) Mr M Netshiombo (<i>in attendance</i>)
Research, Development and Innovation Committee	Mrs NN Mnqeta (Chairperson) Prof. B van Wilgen Dr Y Seleti Prof. C Chimimba (Independent member appointed effective 01/09/2015) Dr L Dziba (Independent member appointed effective 01/09/2015) Dr T Abrahamse (CEO) (<i>ex officio</i>) Ms C Mbizvo (<i>in attendance</i>)

[#] As required by Treasury Regulation 27, the Board appointed an Audit and Risk Committee to assist with the discharge of its duties. The terms of reference of this Committee have been approved by the Board. The Committee meets four times per year and one extra-ordinary meeting is held during the end of May annually, to consider the draft annual financial statements.

Attendance record of meetings

BOARD MEETINGS					
Number of meetings each member attended					
Names	27 May 2016	26 August 2016	25 November 2016	24 February 2017	Total
Ms ME Magomola	✓	✓	✓	✓	4
Dr J Matjila	✓	✓	✓	✓	4
Dr ST Cornelius	✓	✓	✓	✓	4
Ms NN Mnqeta	✓	✓	✓	✓	4
Ms BD Ngidi	✓	✓	✓	✓	4
Mr S Gounden	-	✓	✓	-	2
Ms T Godongwana	✓	-	✓	-	2
Prof. B van Wilgen	✓	✓	✓	✓	4
Dr Y Seleti	-	-	✓	✓	2
Ms S Mancotywa	✓	✓	-	✓	3
Dr T Abrahamse (CEO)	✓	✓	✓	✓	4

AUDIT AND RISK COMMITTEE						
Number of meetings each member attended						
Names	22 April 2016	27 May 2016	28 July 2016	28 October 2016	27 January 2017	Total
Dr ST Cornelius	✓	✓	✓	-	✓	4
Ms T Godongwana	✓	✓	-	✓	✓	4
Mr GJ Dladla (Resigned effective 26 Jan 2017)	-	-	✓	-		1
Mr T Zororo	✓	✓	-	-	✓	3
Mr J Makoro	✓	-	✓	✓	-	3

GOVERNANCE AND STRATEGY COMMITTEE MEETINGS					
Number of meetings each member attended					
Names	11 May 2016	1 August 2016	10 November 2016	9 February 2017	Total
Mr S Gounden	✓	✓	✓	✓	4
Ms BD Ngidi	✓	✓	✓	✓	4
Dr J Matjila	-	✓	✓	✓	3

HUMAN RESOURCES AND REMUNERATION COMMITTEE MEETINGS						
Number of meetings each member attended						
Names	12 May 2016	30 June 2016	16 August 2016	9 November 2016	8 February 2017	Total
Dr J Matjila	✓	✓	✓	✓	✓	5
Ms BD Ngidi	✓	✓	✓	✓	✓	5
Dr Y Seleti	✓	✓	-	✓	✓	4

RESEARCH, DEVELOPMENT AND INNOVATION COMMITTEE MEETINGS					
Number of meetings each member attended					
Names	16 May 2016	01 August 2016	15 November 2016	21 February 2017	Total
Ms NN Mnqeta	✓	✓	✓	✓	4
Ms S Mancotywa	-	✓	✓	-	2
Prof. B van Wilgen	✓	✓	✓	✓	4
Dr Y Seleti	✓	-	-	-	1
Prof. CT Chimimba	✓	✓	✓	✓	4
Dr L Dziba	✓	✓	-	✓	3

Management structure

The Executive Management Committee comprises the Chief Executive Officer (as Chairperson), Head of Biodiversity Science and Policy Advice, Chief Financial Officer, Chief Corporate Officer, all Chief Directors as well as Directors (as and when required). This Committee meets monthly and additionally meets on *ad hoc* basis as deemed necessary. The role of the Committee is to ensure the co-ordinated and efficient execution of all functions delegated to it by the Board.

The management structure of the Institute is geographically decentralised because of the wide geographical spread and activities of its various units. The head of each Unit is called a Head of Cost Centre (HOCC).

Implicit in the concept is a substantial measure of delegation of both responsibility and authority, which in turn requires effective control and evaluation systems. Both financial and management responsibilities are delegated and clearly communicated to the HOCCs. These officers are actively involved in the budget development and take responsibility for the disciplined management of their cost centre budgets within clearly defined policies, procedures and Delegations of Authority (DOA) approved by the Board.

Audit

The Auditor-General of South Africa (AGSA) is appointed as the external auditor of the SANBI in terms of the Public Audit Act, No.25 of 2004. The Institution also has an internal audit function that is outsourced to a private audit firm for a period of three years. The Board, through the Audit and Risk Committee, exercises oversight on financial reporting and internal control systems

Enterprise risk management

A culture of risk management is inculcated in the Institute. Management is continuously developing and enhancing its risk and control procedures to improve the mechanisms for identifying and monitoring risks. An annual Enterprise Wide Risk assessment, facilitated by the Chief Corporate Officer, was conducted with all the Divisions during the year under review. The results of the assessment were reviewed by the Audit and Risk Committee and subsequently approved by the SANBI Board. The identified risks were assigned to risk owners who report progress on risk control action plans and mitigation measures.

An Enterprise Risk Management (ERM) system, BarnOwl, has been implemented and is being used to monitor progress on the risk action plans as well as mitigation plans of Occupational Health Safety findings.

Management have taken the ERM to a higher maturity level by developing the Business Continuity Plan (BCP) which the Audit and Risk Committee considered and submitted to the Board for approval. Based on the mature ERM culture within SANBI, the Combined Assurance Model was developed and is being used to report on the adequacy and effectiveness of all the assurance providers to the Audit and Risk Committee on a quarterly basis.

The Risk Management and Fraud Prevention Sub-committee (RMFPCoM) which is under the auspices of the Audit and Risk Committee and chaired by the Chief Corporate Officer, adjudicates on alleged fraud cases reported through the whistle-blowing system or other approved means. This Sub-committee functions according to the Terms of Reference approved by the Audit and Risk Committee. A Fraud Prevention Plan is in place.

A Whistle-Blowing Hotline is fully functional and is administered by the South African Corporate Fraud Management Institute. The management of the hotline has been outsourced to a private company. The company reports any cases of fraud or misconduct to management and Internal Auditors for investigation if warranted.

Cases of loss and/or damages to assets are recorded into a Loss Control Register and dealt with by the management Liability Assessment Sub-Committee. Sanctions are always administered in cases of negligent losses and damages that can be attributed to recklessness and carelessness by staff.

Delegation of authority (DOA)

The Board approved the DOA Framework for effective operational requirements. This clarifies lines of authority and powers for various transactions the Institute undertakes. The DOA is regularly reviewed and amended to suit the operations of the Institute and for alignment with National Treasury Instructions and other Regulations, especially the Procurements and Cost Containment Guidelines.

Internal control systems

Internal Control is a process, effected by an entity's board of directors, management, and other personnel, designed to provide reasonable assurance regarding the achievement of objectives relating to the following areas:

- Operations – effectiveness, efficiency, safeguarding of assets
- Reporting – reliability, timeliness, transparency
- Compliance – within regulatory environment.

Financial and operational systems of internal control are adhered to as required by applicable Regulations and Laws. Management has a fundamental responsibility to develop and maintain effective internal control. These controls are designed to provide reasonable assurance that transactions are concluded in accordance with management authority, assets are protected and the financial transactions are properly recorded.

Internal Audit (IA)

The SANBI has the internal audit function that is outsourced to an external service provider which is currently Grant Thornton. The internal auditors report to the Audit and Risk Committee according to the approved internal audit charter. Included in the internal audit charter is a structured internal audit approach, premised on the International Standards for the Professional Practice of Internal Auditors (ISPPIA) as prescribed by the Institute of Internal Auditors (IIA).

Furthermore it is the requirement of Treasury Regulation 27.2.7 that IA must prepare in consultation with and for approval by the Audit and Risk Committee, a risk-based, three-year rolling IA plan.

Management of Information and Communications Technology (ICT)

The Board is responsible for Information and Communications Technology (ICT) governance. The Board delegated aspects of oversight of ICT governance to the Audit and Risk Committee, which provides formal feedback to the Board. There is an approved SANBI Information Technology Policy Framework (Principles & Guidelines) based on the notion that ICT governance exists to inform and align decision making for information technology planning, policy and operations in order to meet business objectives, ascertain that risk are managed appropriately and verify that resources are being used responsibly and strategically. There is an ICT Governance Framework with an implementation plan that is monitored by the Audit and Risk Committee on a quarterly basis. An ICT Steering Committee is established at a management level to deal with ICT Governance and advises EXCO on ICT strategic matters.

Employment equity

The Employment Equity Plan in the SANBI is monitored by the Employment Equity and Training Committee. The primary aim of the Employment Equity Plan is to achieve the following:

- Compliance with the provisions and legal requirements of the Employment Equity Act, 1998 (Act No. 55 of 1998)
- Promotion of equal opportunity and fair treatment in employment through the elimination of unfair discrimination
- Implementing affirmative action measures to redress the disadvantages in employment experienced by designated groups to ensure their equitable representation in all occupational categories and levels in the workplace
- Accommodation of physically challenged people through modification and adjustment of the physical working environment
- Attraction, development and retention of staff members with emphasis on those from designated groups.

SANBI strives to achieve its Employment Equity Vision through the following initiatives:

- Implementation of all critical success factors for effective Employment Equity transformation
- Provision of necessary personnel and financial resources
- Utilising the SANBI structures to consult and communicate with all employees, either directly or indirectly
- Putting in place the enabling systems and working environment geared towards the maximisation of advancement of persons from designated groups
- Employee participation is encouraged by putting best practices in place to foster good and co-operative relationships and employee participation at all levels of the Institute. Union representation, staff meetings, focus groups and task teams are all instrumental in facilitating participation.

Code of conduct

A Code of Conduct that applies to all staff members has been approved and is being implemented. The Code of Conduct facilitates sound business ethics in the Institute and plays an important role in defining the organisational culture and in governing corrective and effective discipline within the Institute. It is a standard annexure to all letters of appointment to ensure that new staff members are well informed.

A Code of Conduct for Board members has also been developed and implemented, and all Board members are required to sign the Code and are also subjected to it.

Conflict of interest

As part of the appointment protocol, all new staff members of the Institute are obliged to complete a Declaration on Conflict of Interest when they are appointed. Management members sign this declaration in all meetings. The Bid Committee members also sign the declaration in every procurement adjudication meeting. All Board members are, in keeping with the PFMA, required to complete a Disclosure of Interest declaration, annually and at every Board and Sub-Committee meetings. Registers of declaration of interest are kept.

Supply chain management

During this financial year, the Institute updated and aligned all procurement systems, policies, processes and practices with PFMA and Treasury prescripts on Supply Chain Management. The SANBI complied with the reporting requirements of the DEA and National Treasury by regularly reporting on the supply chain management system, and activities.

Legislative framework

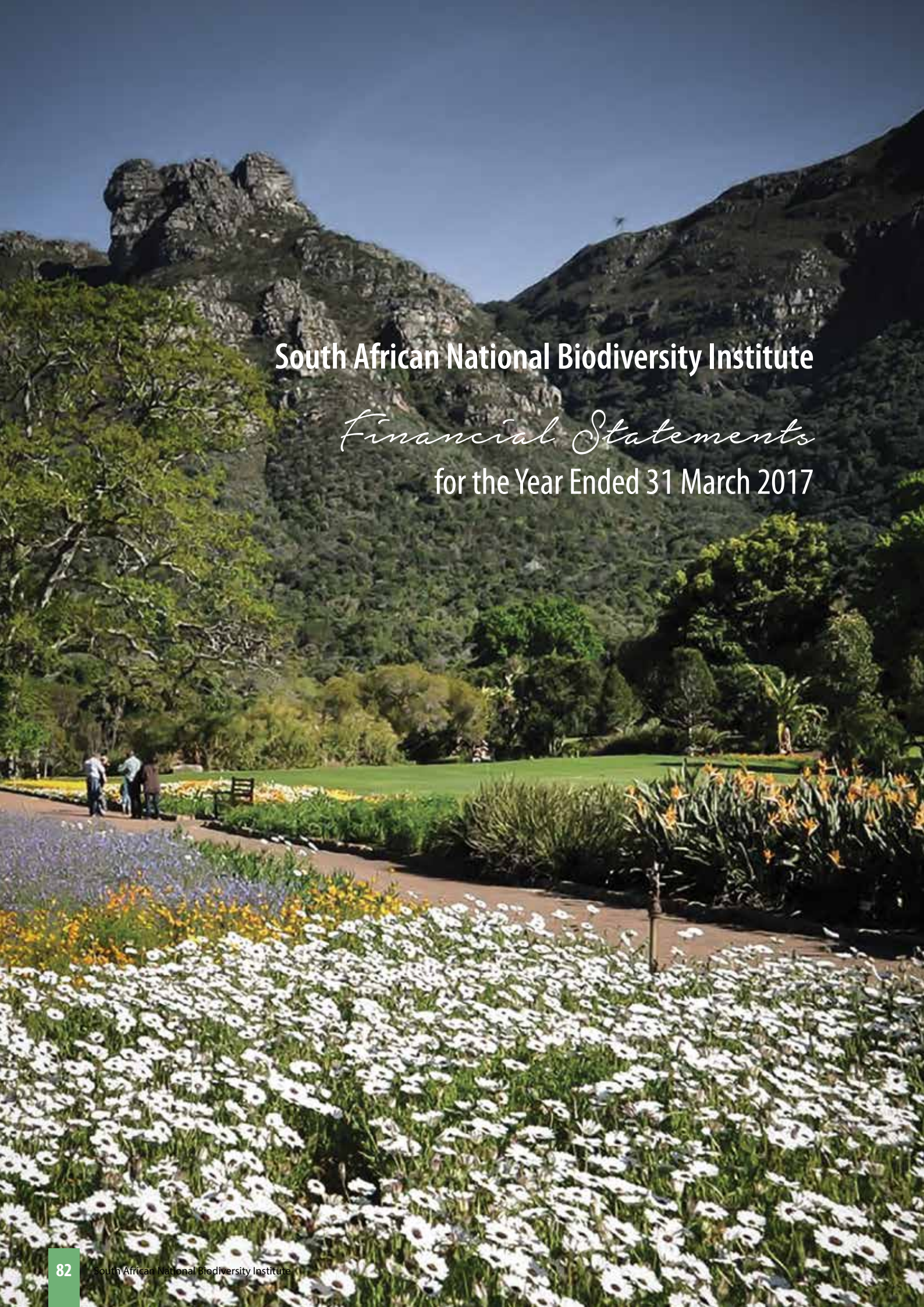
The Institute, being a Section 3A Public Entity, has to comply with a number of laws, including:

- National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004)
- Labour Relations Act, 1995 (Act No. 66 of 1995)
- Basic Conditions of Employment, 1997 (Act No. 75 of 1997)
- Employment Equity Act, 1998 (Act No. 55 of 1998)
- Skills Development Act, 1998 (Act No. 97 of 1998)
- Skills Development Levies Act, 1999 (Act No. 9 of 1999)
- Public Finance Management Act, 1999 (Act No. 1 of 1999) (PFMA)
- Occupational Health and Safety Act, 1993 (Act No. 85 of 1993)
- Generally Recognised Accounting Practice (GRAP)
- Compensation for Occupational Injuries and Diseases Act, 1993 (Act No. 130 of 1993)
- Promotion of Access to Information Act, 2000 (Act No. 2 of 2000)
- Government Immovable Asset Management Act, 2007 (Act No. 19 of 2007)
- Protection of Personal Information Act, 2007 (Act No. 4 of 2013).



Dr Tanya Abrahamse
Chief Executive Officer





South African National Biodiversity Institute

Financial Statements
for the Year Ended 31 March 2017

General Information

Country of incorporation and domicile	South Africa
Controlling entity	Department of Environmental Affairs
Auditors	Auditor-General of South Africa
Nature of business and principal activities	SANBI plays a leadership role in: • Generating, co-ordinating and interpreting the knowledge and evidence required to support policies and decisions relating to all aspects of biodiversity • The human capital development strategy of the sector. SANBI also manages the National Botanical Gardens as windows to South Africa's biodiversity for recreation, education and research purposes.
Members of the Board	Ms ME Magomola (Board Chairperson) Dr T Abrahamse (Chief Executive Officer) Dr ST Cornelius Ms T Godongwana Mr S Gounden Ms S Mancotywa Dr JM Matjila Ms NN Mnqeta Ms BD Ngidi Dr Y Seleti Prof. B van Wilgen
Independent sub-committee members	Prof. CT Chimimba Mr JG Dladla Dr L Dziba Mr J Makoro Mr T Zororo
Board Secretary	Ms L Ralepeli
Registered office	2 Cussonia Avenue Brummeria Pretoria 0002
Postal address	Private Bag X101 Pretoria 0001
Bankers	Nedbank Limited Absa Limited

Index

The reports and statements set out below comprise the financial statements presented to parliament.

Index	Page
Report of the Audit and Risk Committee	85
Statement of Responsibility of the Board	87
Report of the Auditor-General	88
Annexure – Auditor-General's Responsibility for the Audit	91
Report by the Accounting Authority	92
Statement of Financial Position	96
Statement of Financial Performance	97
Statement of Changes in Net Assets	98
Cash Flow Statement	99
Statement of Comparison of Budget and Actual Amounts	100
Accounting Policies	101
Notes to the Financial Statements	118
The following supplementary information does not form part of the financial statements and is unaudited:	
Annexure A – Project sponsorships and donations	144

Report of the Audit and Risk Committee

We are pleased to present our report for the financial year ended 31 March 2017.

Audit and Risk Committee members and attendance

The Audit and Risk Committee consisted of five external members listed hereunder and held the following meetings for the financial year under review:

Name of member	Number of meetings	Meetings attended
Dr ST Cornelius (Board Member and Chairperson)	5	4
Ms T Godongwana (Board Member)	5	4
Mr GJ Dladla (Independent Member: Resigned 26 Jan 2017)	5	1
Mr T Zororo (Independent Member)	5	3
Mr J Makoro (Independent Member)	5	3
Dr T Abrahamse (CEO and Board Member)*	5	4
Ms L Sithole (<i>Ex Officio</i> : SANBI CFO)*	5	5

* By permanent invitation

Audit and Risk Committee responsibility

The Audit and Risk Committee reports that it has complied with its responsibilities arising from Section 51(1)(a) of the PFMA and Treasury Regulation 27.1. The Audit and Risk Committee has adopted appropriate formal Terms of Reference as its Audit and Risk Committee Charter, has regulated its affairs in compliance with this charter, and has discharged all its responsibilities as contained therein.

The effectiveness of internal control

The system of internal controls is designed to provide cost-effective assurance that assets are safeguarded and that liabilities and working capital are efficiently managed. The Audit and Risk Committee has evaluated all significant and material issues raised in reports issued by the Internal Audit function, the Audit Report on the annual financial statements, and management letter of the Auditor-General, and is satisfied that they have all been, or are being, appropriately resolved. In line with the PFMA and the King III Report on Corporate Governance, the Internal Audit function and other assurance providers provided the Audit and Risk Committee and management with assurance that the internal controls are appropriate and effective for those areas included in the annual operational plan. This is achieved by means of the risk management process, as well as the identification of corrective actions and suggested enhancements to the controls and processes. The Audit and Risk Committee has evaluated the work performed by the Internal Audit function and other assurance service providers. Based upon this evaluation, the committee reports that the systems of internal controls for the period under review were effective and efficient.

The work performed by the outsourced Internal Audit function was based on an approved risk-based Internal Audit Plan for the year under review. The Internal Audit function conducted the following reviews during the 2016/17 financial year:

- Supply Chain Management
- Finance, including Asset Management and Project Funding Management
- Human Capital Management
- Enterprise Risk Management
- IT General Controls
- Marketing and Tourism
- Corporate Governance
- Gardens Revenue Follow-up
- Biodiversity Collections Management
- Performance against Objectives
- Fraud Hotline.

We are satisfied with the evaluation of the internal control environment as communicated to us, and having consideration for the entity's action plans to remedy the weaknesses reported during the financial year.

Evaluation of the financial statements

The Audit and Risk Committee is satisfied with the content and quality of monthly and quarterly reports prepared and issued by the Institute during the year under review.

The Audit and Risk Committee has:

- a) Reviewed and discussed the audited annual financial statements to be included in the Annual Report with the Office of the Auditor-General and the Accounting Officer;
- b) Reviewed the Auditor-General's management letter and management's response thereto;
- c) Reviewed the accounting policies; and
- d) Reviewed significant adjustments resulting from the audit.

The Audit and Risk Committee concurs and accepts the Auditor-General's conclusions on the annual financial statements and is of the opinion that the audited annual financial statements be accepted and read together with the report of the Auditor-General..



Dr ST Cornelius

Chairperson: Audit and Risk Committee

Statement of Responsibility of the Board

The South African National Biodiversity Institute (SANBI) was established in terms of the National Environmental Management: Biodiversity Act, 2004 (No. 10 of 2004) and is subject to the provisions of the Public Finance Management Act, 1999 (No. 1 of 1999) (PFMA).

The PFMA requires the Accounting Authority (the Board) to ensure that the SANBI keeps full and proper records of its financial affairs. The financial statements should fairly present the state of affairs of the SANBI, its financial results, its performance against predetermined objectives and its financial position as at the end of the reporting period in terms of the effective South African Standards of GRAP, including any interpretations, guidelines and directives issued by the Accounting Standards Board (ASB).

The financial statements are the responsibility of the Board. The External Auditors are responsible for independently auditing and reporting on the financial statements.

These financial statements are based on appropriate accounting policies, supported by reasonable and prudent judgments and estimates, and have been prepared on the going-concern basis. The Board has reviewed the SANBI's cash flow forecast for the year ending 31 March 2018 and considered the risks and challenges for the future. In light of this review and the current financial position, the Board is satisfied that the SANBI has adequate resources or has access to adequate resources to continue in operational existence in the short term.

To enable the Board to meet the above-mentioned responsibilities, it sets standards and implements systems of internal control. The controls are designed to provide cost-effective assurance that assets are safeguarded, and that liabilities and working capital are efficiently managed.

Policies, procedures, structures and approval frameworks provide direction, accountability and division of responsibilities, and contain self-monitoring mechanisms. The controls throughout the SANBI focus on the critical risk areas identified by operational risk management and confirmed by Executive Management. Both management and the Internal Auditors closely monitor the controls and actions taken to correct deficiencies as they are identified.

Based on the information and explanations given by management and the Internal Auditors and discussions held with the Auditor-General of South Africa on the result of their audits, the Board is of the opinion that the internal accounting controls are adequate to ensure that the financial records may be relied on for preparing the financial statements, and accountability for the assets and liabilities is maintained.

Nothing significant has come to the attention of the Board to indicate that any material breakdown has occurred in the functioning of these controls, procedures and systems during the year under review.

In the opinion of the Board, based on the information available to date, the financial statements fairly present the financial position of the SANBI as at 31 March 2017 and the results of its operations and cash flow information for the year.

The financial statements of the SANBI for the year ended 31 March 2017, which have been prepared on the going-concern basis, have been approved by the Board and signed on its behalf by:



Ms ME Magomola
Chairperson of the SANBI Board



Dr T Abrahamse
Chief Executive Officer: SANBI

Report of the Auditor-General to Parliament on the South African National Biodiversity Institute

Report on the audit of the financial statements

Opinion

1. I have audited the financial statements of the South African National Biodiversity Institute, set out on page 96 to 143, which comprise the statement of financial position as at 31 March 2017, the statement of financial performance, statement of changes in net assets, cash flow statement and statement of comparison of budget and actual amounts for the year then ended, as well as the notes to the financial statements, including a summary of significant accounting policies.
2. In my opinion, the financial statements present fairly, in all material respects, the financial position of the South African National Biodiversity Institute as at 31 March 2017, and its financial performance and cash flows for the year then ended in accordance with the South African Standards of Generally Recognised Accounting Practice (SA Standards of GRAP) and the requirements of the Public Finance Management Act of South Africa, 1999 (Act No. 1 of 1999) (PFMA).

Basis for opinion

3. I conducted my audit in accordance with the International Standards on Auditing (ISAs). My responsibilities under those standards are further described in the Auditor-General's responsibilities for the audit of the financial statements section of my report.
4. I am independent of the public entity in accordance with the International Ethics Standards Board for Accountants' *Code of Ethics for Professional Accountants* (IESBA code), together with the ethical requirements that are relevant to my audit in South Africa. I have fulfilled my other ethical responsibilities in accordance with these requirements and the IESBA code.
5. I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my opinion.

Other matter

6. I draw attention to the matter below. My opinion is not modified in respect of this matter.

Unaudited supplementary schedules

7. The supplementary information, set out on page 144 to 145, does not form part of the financial statements and is presented as additional information. I have not audited these schedules, and accordingly, I do not express an opinion thereon.

Responsibilities of the Accounting Authority for the financial statements

8. The Accounting Authority is responsible for the preparation and fair presentation of the financial statements in accordance with the SA Standards of GRAP and the requirements of the PFMA, and for such internal control as the Accounting Authority determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.
9. In preparing the financial statements, the Accounting Authority is responsible for assessing the public entity's ability to continue as a going concern, disclosing, as applicable, matters relating to going concern and using the going-concern basis of accounting, unless there is an intention to liquidate the public entity or to cease operations, or there is no realistic alternative but to do so.

Auditor-General's responsibilities for the audit of the financial statements

10. My objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes my opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with the ISAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.
11. A further description of my responsibilities for the audit of the financial statements is included in the annexure to this report.

Report on the audit of the Annual Performance Report

Introduction and scope

12. In accordance with the Public Audit Act of South Africa, 2004 (Act No. 25 of 2004) (PAA) and the general notice issued in terms thereof, I have a responsibility to report material findings on the reported performance information against predetermined objectives for selected programmes presented in the Annual Performance Report. I performed procedures to identify findings but not to gather evidence to express assurance.
13. My procedures address the reported performance information, which must be based on the approved performance planning documents of the public entity. I have not evaluated the completeness and appropriateness of the performance indicators included in the planning documents. My procedures also did not extend to any disclosures or assertions relating to planned performance strategies and information in respect of future periods that may be included as part of the reported performance information. Accordingly, my findings do not extend to these matters.
14. I evaluated the usefulness and reliability of the reported performance information in accordance with the criteria developed from the Performance Management and Reporting Framework, as defined in the general notice, for the following selected programmes presented in the Annual Performance Report of the public entity for the year ended 31 March 2017:

Programmes	Pages in the annual performance report
Programme 2 – manage and unlock benefits of the network of NBGs as windows into South Africa's biodiversity	Page 64
Programme 3 – build the foundational biodiversity	Page 64
Programme 4 – assess, monitor and report on the state of biodiversity and increase knowledge for decision-making, including climate change	Page 65
Programme 5 – provide biodiversity policy advice and access to biodiversity information, and support for climate change adaption	Page 66
Programme 6 – provide human capital development, biodiversity education and awareness in response to SANBI's mandate	Page 68

15. I performed procedures to determine whether the reported performance information was properly presented and whether performance was consistent with the approved performance planning documents. I performed further procedures to determine whether the indicators and related targets were measurable and relevant, and assessed the reliability of the reported performance information to determine whether it was valid, accurate and complete.
16. I did not raise any material findings on the usefulness and reliability of the reported performance information for the above-mentioned programmes.

Other matters

17. I draw attention to the matters below.

Adjustment of material misstatements

18. I identified material misstatements in the Annual Performance Report submitted for auditing. These material misstatements were on the reported performance information of programme 2 – manage and unlock benefits of the network of NBGs as windows into South Africa's biodiversity, programme 4 – assess, monitor and report on the state of biodiversity and increase knowledge for decision-making, including climate change, and programme 6 – provide human capital development, biodiversity education and awareness in response to SANBI's mandate. As management subsequently corrected the misstatements, I did not raise any material findings on the usefulness and reliability of the reported performance information.

Achievement of planned targets

19. Refer to the Annual Performance Report on page 63 to 68 for information on the achievement of planned targets for the year and explanations provided for the under- or overachievement of a number of targets.

Unaudited supplementary information

20. The supplementary information set out on page 69 to 73 does not form part of the Annual Performance Report and is presented as additional information. I have not audited this information and, accordingly, I do not report thereon.

Report on the audit of compliance with legislation

Introduction and scope

21. In accordance with the PAA and the general notice issued in terms thereof, I have a responsibility to report material findings on the compliance of the public entity with specific matters in key legislation. I performed procedures to identify findings, but not to gather evidence to express assurance.
22. I did not identify any instances of material non-compliance in respect of the compliance criteria for the applicable subject matters.

Other information

23. The public entity's Accounting Authority is responsible for the other information. The other information comprises the information included in the Annual Report, which includes the Audit and Risk Committee's report. The other information does not include the financial statements, the auditor's report and those selected programmes presented in the Annual Performance Report that have been specifically reported on in the auditor's report.
24. My opinion on the financial statements and findings on the reported performance information and compliance with legislation do not cover the other information and I do not express an audit opinion or any form of assurance conclusion thereon.
25. In connection with my audit, my responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements and the selected programmes presented in the Annual Performance Report, or my knowledge obtained in the audit, or otherwise appears to be materially misstated. If, based on the work I have performed on the other information obtained prior to the date of this auditor's report, I conclude that there is a material misstatement of this other information, I am required to report that fact.

Internal control deficiencies

26. I considered internal control relevant to my audit of the financial statements, reported performance information and compliance with applicable legislation; however, my objective was not to express any form of assurance thereon. I did not identify any significant deficiencies in internal control.

Auditor General

Auditor-General
Cape Town
7 August 2017



AUDITOR - GENERAL
SOUTH AFRICA

Auditing to build public confidence

Annexure – Auditor-General’s Responsibility for the Audit

1. As part of an audit in accordance with the ISAs, I exercise professional judgment and maintain professional scepticism throughout my audit of the financial statements, and the procedures performed on reported performance information for selected programmes and on the public entity’s compliance with respect to the selected subject matters.

Financial statements

2. In addition to my responsibility for the audit of the financial statements, as described in the auditor’s report, I also:
 - Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for my opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
 - Obtain an understanding of internal control relevant to the audit to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the public entity’s internal control.
 - Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the governing Board, which constitutes the Accounting Authority.
 - Conclude on the appropriateness of the use of the going-concern basis of accounting in the preparation of the financial statements by the governing Board, which constitutes the Accounting Authority. I also conclude, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the public entity’s ability to continue as a going concern. If I conclude that a material uncertainty exists, I am required to draw attention in my auditor’s report to the related disclosures in the financial statements about the material uncertainty or, if such disclosures are inadequate, to modify the opinion on the financial statements. My conclusions are based on the information available to me at the date of the auditor’s report. However, future events or conditions may cause the public entity to cease operating as a going concern.
 - Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

Communication with those charged with governance

3. I communicate with the Accounting Authority regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that I identify during my audit.
4. I also confirm to the Accounting Authority that I have complied with relevant ethical requirements regarding independence, and communicate all relationships and other matters that may reasonably be thought to have a bearing on my independence and, where applicable, related safeguards.

Report by the Accounting Authority

The Accounting Authority of SANBI hereby presents its report for the year ended 31 March 2017 to the Executive Authority and Parliament of the Republic of South Africa.

Services rendered by SANBI

The narrative section of this Annual Report gives a more in-depth discussion of key performance indicators and an overview of programme performance. Key projects delivered during the period under review, as well as services offered by the Institute are also discussed in the narrative section of this report.

Corporate governance arrangements

Information pertaining to corporate governance is explained in the Corporate Review section of this Annual Report.

Performance information

In line with the requirements of the National Treasury, performance targets are set on an annual basis and performance against these targets is reported to the National Treasury through the Department of Environment Affairs on a quarterly basis after approval by the Board. The Department of Environment Affairs assesses the quarterly performance reports and gives SANBI feedback, which has been positive during the year under review.

Executive Management's interest in contracts

In the current financial year SANBI did not enter into any material contracts wherein its Executive Management had interest.

Preparation and presentation of the annual financial statements

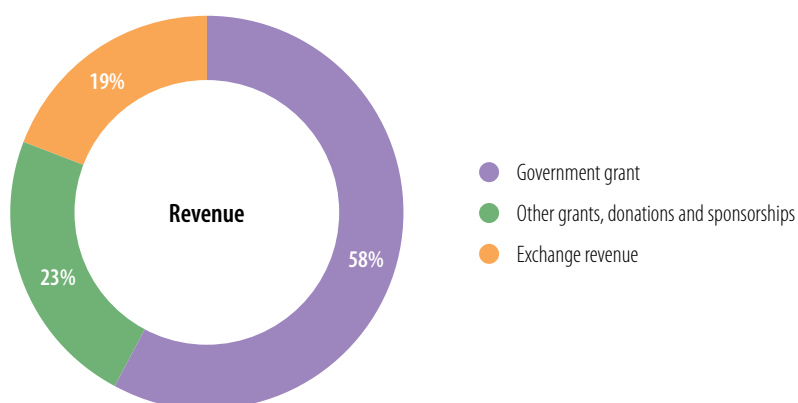
SANBI has adopted the South African Standards of Generally Recognised Accounting Practices (GRAP).

Financial highlights

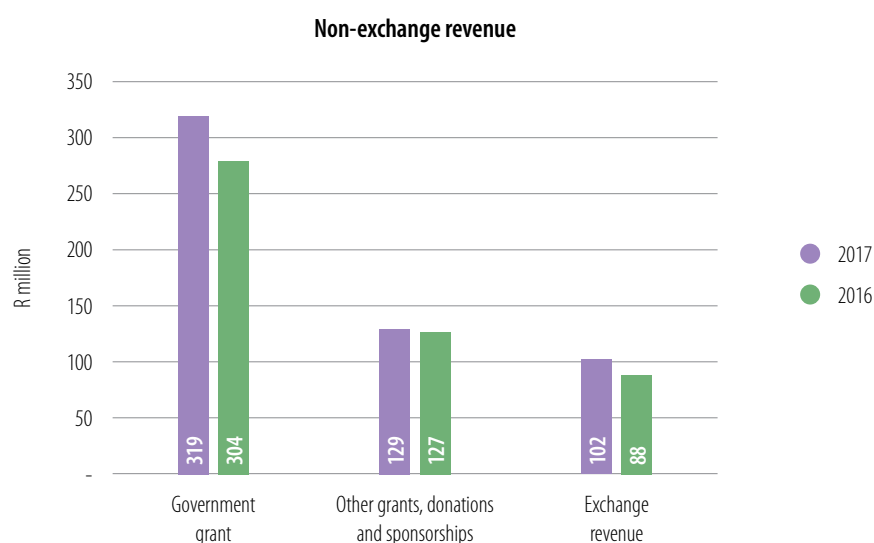
The financial position and performance of the operations and programme activities of SANBI are cited with notes in the financial statements which form an integral part of this Annual Report. Material facts and circumstances that occurred between the accounting date and date of this report have been accordingly accounted for.

Revenue

Total revenue is cited in the statement of financial performance under two main categories, namely non-exchange revenue and exchange revenue. Overall revenue increased by 6% year-on-year to R551 million from R519 million.

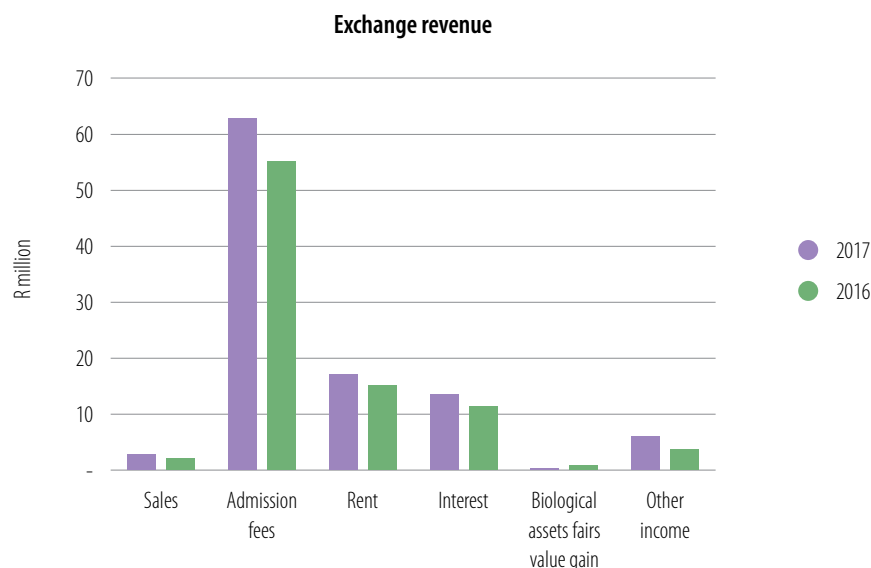


Non-exchange revenue comprise government grants, other grants, sponsorships and donations. This category of revenue accounts for 81% of total revenue. The government grant increased by 5% year-on-year. Other grants, donations and sponsorships comprise 23% of total revenue. This income stream has grown by 2% to R129 million from R127 million last year.



Exchange revenue comprises 19% of total revenue. It consists of the Institute's revenue generation activities. The main contributor is admission fees through the gates. Overall, there is a year-on-year increase of 16%.

Exchange revenue comprises the following:

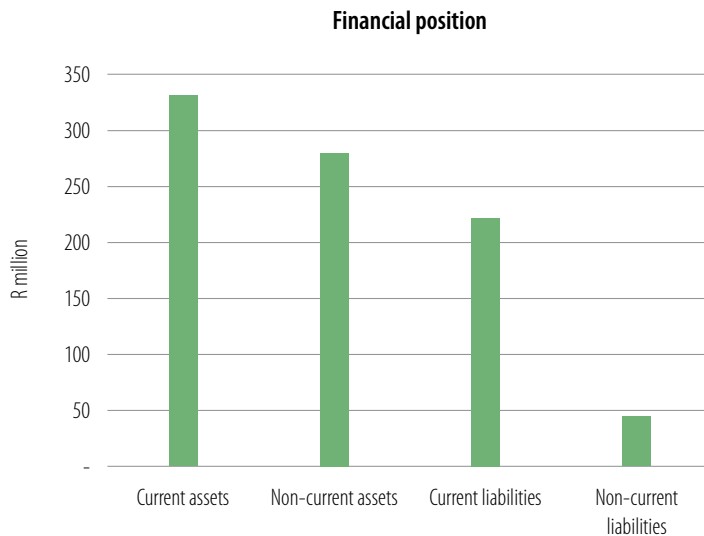


Expenses

Overall expenditure has increased with 4% year-on-year, whilst employee costs has overall decreased by 3% from R271 million to R263 million year-on-year.

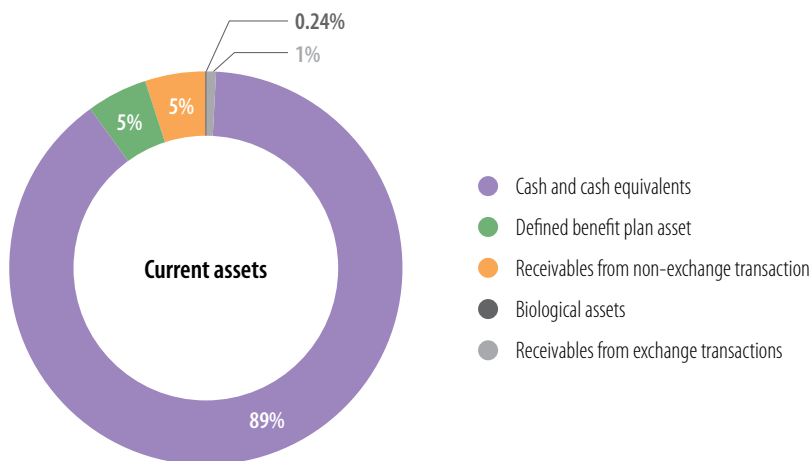
Financial position

Overall, the cash reserves are sufficient to meet the short-term needs as well as obligations arising from project funds received. The Institute is solvent, with total assets exceeding total liabilities by an adequate margin.



Current assets

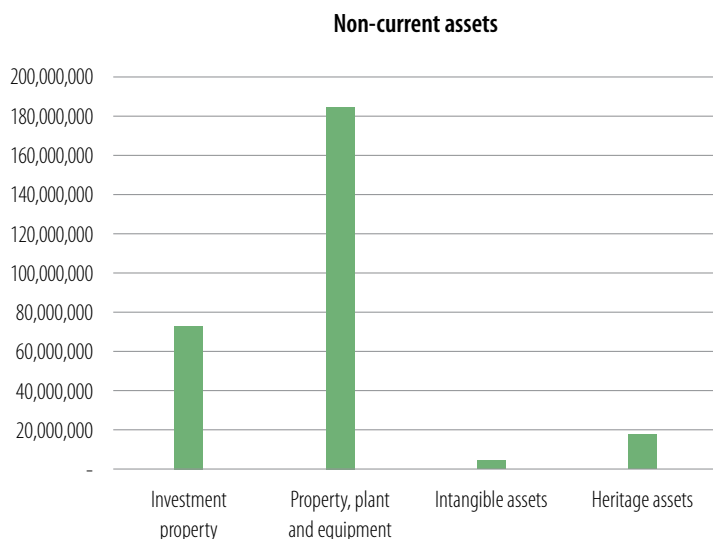
At R331 million, current assets exceed current liabilities of R221 million by a good margin, which reflects the healthy liquidity position of the Institute. The liquidity position is in an acceptable current ratio band of 1; 1.5:1 and 1.2:1 of the previous financial year. The cash and cash equivalents comprising 89% of total current assets, are fully committed in terms of agreements with service providers, project donors and sponsors, and are thus restricted.



Non-current assets

The non-current assets of the Institute are managed and protected by Management with due diligence. Appropriate insurance cover is in place and any loss or damage to property is systematically investigated and remedial measures are promptly implemented. The oversight of these measures falls under the auspices of the Audit Committee and the Governance and Strategy Committee. During the year under review, these assets grew by 2%.

The following graph depicts the proportion of these assets in the current financial year.



Current liabilities

Current liabilities have increased by 20% from the previous financial year due to an increase in unspent committed project funds. These funds are ring fenced towards projects which have already been committed.

Non-current liabilities

The financial position of the Institute remains healthy, with total assets exceeding total liabilities by a large margin. Non-current liabilities have significantly increased by 79% from the previous financial year due to an increase in the defined benefit liability as a result of the annual actuarial valuation. The Board will do its utmost to maintain this positive solvency position.

Address

Registered office: South African National Biodiversity Institute
2 Cussonia Avenue
Brummeria
Pretoria
0002

Private Bag X101
Pretoria
0001

Auditors

SANBI as a schedule 3A Public Entity, is audited by the Auditor-General South Africa.

Statement of Financial Position

Figures in Rand	Note(s)	2017	2016
Assets			
<i>Current assets</i>			
Cash and cash equivalents	3	295 055 155	217 830 437
Receivables from exchange transactions	4	3 877 633	3 490 303
Biological assets	5	790 055	1 589 946
Operating lease asset		751 487	17 696
Receivables from non-exchange transactions	6	14 520 713	14 119 134
Employee benefit asset	15	16 144 020	-
		331 139 063	237 047 516
<i>Non-current assets</i>			
Property, plant and equipment	7	184 551 511	178 224 826
Investment property	8	72 985 367	75 286 262
Heritage assets	9	17 682 262	17 682 262
Intangible assets	10	4 343 961	2 832 254
		279 563 101	274 025 604
Total assets		610 702 164	511 073 120
Liabilities			
<i>Current liabilities</i>			
Unspent conditional grants and receipts	11	166 502 378	125 221 776
Payables from exchange transactions	12	51 140 078	56 243 836
Transfers payable (non-exchange)	13	-	4 405 487
Provisions	14	3 688 101	3 613 619
		221 330 557	189 484 718
<i>Non-current liabilities</i>			
Employee benefit obligation	15	44 569 000	24 587 000
Total liabilities		265 899 557	214 071 718
Net assets		344 802 607	297 001 402
Accumulated surplus		344 802 607	297 001 402

Statement of Financial Performance

Figures in Rand	Note(s)	2017	2016
Revenue			
<i>Revenue from exchange transactions</i>			
Admission fees		62 921 260	55 284 819
Rent received		17 137 960	15 160 690
Interest received		13 436 017	11 247 890
Other income	16	5 988 931	3 648 899
Sales		2 733 899	2 058 046
Fair value gain less cost to sell on biological assets		207 848	856 861
Gain on foreign exchange		-	332
Total revenue from exchange transactions		102 425 915	88 257 537
<i>Revenue from non-exchange transactions</i>			
Transfer revenue			
Government grants		319 331 000	304 412 000
Other grants, bequests, sponsorships and donations	17	129 589 135	126 645 122
Total revenue from non-exchange transactions		448 920 135	431 057 122
Total revenue		551 346 050	519 314 659
Expenditure			
Employee related costs	18	(263 338 406)	(271 853 761)
Operating expenses	19	(202 596 929)	(185 725 194)
Depreciation and amortisation		(24 857 893)	(21 493 264)
Repairs and maintenance	20	(6 480 087)	(4 918 318)
Lease rentals on operating lease		(718 375)	(724 075)
Loss on disposal of assets		(5 487 144)	(473 060)
Debt impairment	21	(66 011)	(34 816)
Total expenditure		(503 544 845)	(485 222 488)
Surplus for the year		47 801 205	34 092 171

Statement of Changes in Net Assets

Figures in Rand	Accumulated surplus	Total net assets
Balance at 01 April 2015	262 909 231	262 909 231
Changes in net assets		
Surplus for the year	34 092 171	34 092 171
Total changes	34 092 171	34 092 171
Balance at 01 April 2016	297 001 402	297 001 402
Changes in net assets		
Surplus for the year	47 801 205	47 801 205
Total changes	47 801 205	47 801 205
Balance at 31 March 2017	344 802 607	344 802 607

Cash Flow Statement

Figures in Rand	Note(s)	2017	2016
Cash flows from operating activities			
<i>Receipts</i>			
Government grants		319 331 000	304 412 000
Other grants, bequests, sponsorships and donations		165 881 600	77 342 514
Commercial and other income		101 528 828	87 328 930
		586 741 428	469 083 444
<i>Payments</i>			
Employee costs		(259 466 377)	(268 793 722)
Suppliers and other payments		(214 167 800)	(209 358 516)
		(473 634 177)	(478 152 238)
Net cash flows from operating activities	23	113 107 251	(9 068 794)
Cash flows from investing activities			
Purchase of property, plant and equipment	7	(32 126 012)	(39 058 646)
Proceeds from sale of property, plant and equipment	7	242 004	156 055
Purchase of investment property	8	(115 000)	(6 013 361)
Purchase of other intangible assets	10	(3 883 525)	(3 237 237)
Purchases of heritage assets	9	-	(2 850 000)
Net cash flows from investing activities		(35 882 533)	(51 003 189)
Net increase/(decrease) in cash and cash equivalents		77 224 718	(60 071 983)
Cash and cash equivalents at the beginning of the year		217 830 437	277 902 420
Cash and cash equivalents at the end of the year	3	295 055 155	217 830 437

Statement of Comparison of Budget and Actual Amounts

Budget on cash basis

Figures in Rand	Approved budget	Adjustments	Final budget	Actual amounts on comparable basis	Difference between final budget and actual
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Statement of financial performance

Revenue

Revenue from exchange transactions

Sales	-	-	-	2 733 899	2 733 899
Admission fees	68 053 474	-	68 053 474	62 921 260	(5 132 214)
Rent received	14 730 202	-	14 730 202	16 206 718	1 476 516
Interest received	11 093 000	-	11 093 000	13 436 017	2 343 017
Other income	19 809 793	-	19 809 793	5 988 931	(13 820 862)
Proceeds on disposal of assets	-	-	-	242 003	242 003
Total revenue from exchange transactions	113 686 469	-	113 686 469	101 528 828	(12 157 641)

Revenue from non-exchange transactions

Government grants	319 331 000	-	319 331 000	319 331 000	-
Other grants, bequests, sponsorships and donations	85 050 072	-	85 050 072	165 881 600	80 831 528
Total revenue from non-exchange transactions	404 381 072	-	404 381 072	485 212 600	80 831 528
Total revenue	518 067 541	-	518 067 541	586 741 428	68 673 887

Expenditure

Employee related costs	(265 791 961)	-	(265 791 961)	(259 466 377)	6 325 584
Lease rentals on operating lease	(718 375)	-	(718 375)	(718 375)	-
Repairs and maintenance	(6 546 207)	-	(6 546 207)	(6 480 087)	66 120
Operating expenses	(245 010 998)	-	(245 010 998)	(243 093 873)	1 917 125
Total expenditure	(518 067 541)	-	(518 067 541)	(509 758 712)	8 308 829
Surplus before taxation	-	-	-	76 982 716	76 982 716
Actual amount on comparable basis as presented in the budget and actual comparative statement	-	-	-	76 982 716	76 982 716

Reconciliation

Basis difference

Depreciation and amortisation	(24 857 893)
Loss on sale of assets	(5 487 144)
Non-cash items	(4 038 674)

Timing difference

Capital expenditure	36 124 535
Unspent project committed funds	(41 280 602)
Adjustments for accrual basis accounting entries	10 358 267

Actual amount in the statement of financial performance

47 801 205

Reasons for material variances between budget and actuals amounts are detailed in note 26.

Accounting Policies

1. Presentation of financial statements

The financial statements have been prepared in accordance with the Standards of Generally Recognised Accounting Practice (GRAP), issued by the Accounting Standards Board in accordance with Section 91(1) of the Public Finance Management Act, (Act 1 of 1999).

These financial statements have been prepared on an accrual basis of accounting and are in accordance with historical cost convention as the basis of measurement, unless specified otherwise. They are presented in South African Rand.

A summary of the significant accounting policies, which have been consistently applied in the preparation of these financial statements, are disclosed below.

These accounting policies are consistent with the previous period.

1.1 Presentation currency

These financial statements are presented in South African Rand, which is the functional currency of the entity.

1.2 Going concern assumption

These financial statements have been prepared based on the expectation that the entity will continue to operate as a going concern for at least the next 12 months.

1.3 Significant judgements and sources of estimation uncertainty

In preparing the financial statements, management is required to make estimates and assumptions that affect the amounts represented in the financial statements and related disclosures. Use of available information and the application of judgement is inherent in the formation of estimates. Actual results in the future could differ from these estimates which may be material to the financial statements. Significant judgements include:

Trade receivables

The entity assesses its trade receivables for impairment at the end of each reporting period. In determining whether an impairment loss should be recorded in surplus or deficit, the surplus makes judgements as to whether there is observable data indicating a measurable decrease in the estimated future cash flows from a financial asset.

Provisions

Provisions were raised and management determined an estimate based on the information available. Additional disclosure of these estimates of provisions are included in note 14 – Provisions.

Contingent provisions

Contingencies recognised in the current year required estimates and judgments, refer to note on entity combinations.

Post-retirement benefits

The present value of the post-retirement obligation depends on a number of factors that are determined on an actuarial basis using a number of assumptions. The assumptions used in determining the net cost (income) include the discount rate. Any changes in these assumptions will impact on the carrying amount of post-retirement obligations.

The cost of defined benefit pension plans and other post-employment medical benefits, as well as the present value of the pension obligation is determined using actuarial valuations. The actuarial valuation involves making assumptions about discount rates, expected rates of return of assets, future salary increases, mortality rates and future pension increases. All assumptions are reviewed at each reporting date. In determining the appropriate discount rate, management considers the interest rates of corporate bonds in the respective country with an AAA or AA rating. The mortality rate is based on publicly available mortality tables for the specific country.

Future salary increases and pension increases are based on expected future inflation rates for the specific country.

Other key assumptions for pension obligations are based on current market conditions. Additional information is disclosed in note 15.

1.3 Significant judgements and sources of estimation uncertainty (continued)

Effective interest rate

The entity used the prime interest rate to discount future cash flows.

Allowance for doubtful debts

On debtors an impairment loss is recognised in surplus and deficit when there is objective evidence that it is impaired. The impairment is measured as the difference between the debtors carrying amount and the present value of estimated future cash flows discounted at the effective interest rate, computed at initial recognition.

1.4 Biological assets that form part of an agricultural activity

The entity recognises a biological assets that form part of an agricultural activity or agricultural produce when, and only when:

- the entity controls the asset as a result of past events;
- it is probable that future economic benefits or service potential associated with the asset will flow to the entity; and
- the fair value or cost of the asset can be measured reliably.

Biological assets that form part of an agricultural activity are measured at their fair value less costs to sell.

The fair value of the vine/pine plantations is based on the combined fair value of the land and the vines/pine trees. The fair value of the raw land and land improvements is then deducted from the combined fair value to determine the fair value of the vines/pine trees.

A gain or loss arising on initial recognition of biological assets that form part of an agricultural activity or agricultural produce at fair value less costs to sell and from a change in fair value less costs to sell of a biological assets that form part of an agricultural activity is included in surplus or deficit for the period in which it arises.

Where market-determined prices or values are not available, the present value of the expected net cash inflows from the asset, discounted at a current market-determined pre-tax rate, where applicable, is used to determine fair value.

1.5 Investment property

Investment property is property (land or a building – or part of a building – or both) held to earn rentals or for capital appreciation or both, rather than for:

- use in the production or supply of goods or services;
- administrative purposes; or
- sale in the ordinary course of operations.

Investment property is recognised as an asset when, it is probable that the future economic benefits or service potential that are associated with the investment property will flow to the entity, and the cost or fair value of the investment property can be measured reliably.

Investment property is initially recognised at cost. Transaction costs are included in the initial measurement.

Where investment property is acquired through a non-exchange transaction, its cost is its fair value as at the date of acquisition.

Costs include costs incurred initially and costs incurred subsequently to add to, or to replace a part of, or service a property. If a replacement part is recognised in the carrying amount of the investment property, the carrying amount of the replaced part is derecognised.

Cost model

Investment property is carried at cost less accumulated depreciation and any accumulated impairment losses.

1.5 Investment property (continued)

Depreciation is provided to write down the cost, less estimated residual value by equal installments over the useful life of the property, which is as follows:

Item	Useful life
Property – buildings	40–50 years

Investment property is derecognised on disposal or when the investment property is permanently withdrawn from use and no future economic benefits or service potential are expected from its disposal.

Gains or losses arising from the retirement or disposal of investment property is the difference between the net disposal proceeds and the carrying amount of the asset and is recognised in surplus or deficit in the period of retirement or disposal.

Compensation from third parties for investment property that was impaired, lost or given up is recognised in surplus or deficit when the compensation becomes receivable.

The entity separately discloses expenditure to repair and maintain investment property in the notes to the financial statements (see note 20).

The entity discloses relevant information relating to assets under construction or development, in the notes to the financial statements (see note 7).

1.6 Property, plant and equipment

Property, plant and equipment are tangible non-current assets (including infrastructure assets) that are held for use in the production or supply of goods or services, rental to others, or for administrative purposes, and are expected to be used during more than one period.

The cost of an item of property, plant and equipment is recognised as an asset when:

- it is probable that future economic benefits or service potential associated with the item will flow to the entity; and
- the cost of the item can be measured reliably.

Property, plant and equipment is initially measured at cost.

The cost of an item of property, plant and equipment is the purchase price and other costs attributable to bring the asset to the location and condition necessary for it to be capable of operating in the manner intended by management. Trade discounts and rebates are deducted in arriving at the cost.

Where an asset is acquired through a non-exchange transaction, its cost is its fair value as at date of acquisition.

Where an item of property, plant and equipment is acquired in exchange for a non-monetary asset or monetary assets, or a combination of monetary and non-monetary assets, the asset acquired is initially measured at fair value (the cost). If the acquired item's fair value was not determinable, it's deemed cost is the carrying amount of the asset(s) given up.

The initial estimate of the costs of dismantling and removing the item and restoring the site on which it is located is also included in the cost of property, plant and equipment, where the entity is obligated to incur such expenditure, and where the obligation arises as a result of acquiring the asset or using it for purposes other than the production of inventories.

Recognition of costs in the carrying amount of an item of property, plant and equipment ceases when the item is in the location and condition necessary for it to be capable of operating in the manner intended by management.

Property, plant and equipment is carried at cost less accumulated depreciation and any impairment losses.

Property, plant and equipment are depreciated on the straight-line basis over their expected useful lives to their estimated residual value.

1.6 Property, plant and equipment (continued)

The useful lives of items of property, plant and equipment have been assessed as follows:

Item	Depreciation method	Average useful life
Buildings	Straight-line	40–50 years
Plant and machinery	Straight-line	5–10 years
Furniture and fixtures	Straight-line	5–10 years
Motor vehicles	Straight-line	5–10 years
Office equipment	Straight-line	5–10 years
IT equipment	Straight-line	3–8 years

The depreciable amount of an asset is allocated on a systematic basis over its useful life.

The depreciation method used reflects the pattern in which the asset's future economic benefits or service potential are expected to be consumed by the entity. The depreciation method applied to an asset is reviewed at least at each reporting date and, if there has been a significant change in the expected pattern of consumption of the future economic benefits or service potential embodied in the asset, the method is changed to reflect the changed pattern. Such a change is accounted for as a change in an accounting estimate.

The entity assesses at each reporting date whether there is any indication that the entity expectations about the residual value and the useful life of an asset have changed since the preceding reporting date. If any such indication exists, the entity revises the expected useful life and/or residual value accordingly. The change is accounted for as a change in an accounting estimate.

The depreciation charge for each period is recognised in surplus or deficit, unless it is included in the carrying amount of another asset.

Items of property, plant and equipment are derecognised when the asset is disposed of, or when there are no further economic benefits or service potential expected from the use of the asset.

The gain or loss arising from the derecognition of an item of property, plant and equipment is included in surplus or deficit when the item is derecognised. The gain or loss arising from the derecognition of an item of property, plant and equipment is determined as the difference between the net disposal proceeds, if any, and the carrying amount of the item.

Assets which the entity holds for rentals to others and subsequently routinely sell as part of the ordinary course of activities, are transferred to inventories when the rentals end and the assets are available-for-sale. Proceeds from sales of these assets are recognised as revenue. All cash flows on these assets are included in cash flows from operating activities in the cash flow statement.

The entity separately discloses expenditure to repair and maintain property, plant and equipment in the notes to the financial statements (see note 20).

The entity discloses relevant information relating to assets under construction or development, in the notes to the financial statements (see note 7).

1.7 Intangible assets

An asset is identifiable if it either:

- is separable, i.e. is capable of being separated or divided from an entity and sold, transferred, licensed, rented or exchanged, either individually or together with a related contract, identifiable assets or liability, regardless of whether the entity intends to do so; or
- arises from binding arrangements (including rights from contracts), regardless of whether those rights are transferable or separable from the entity or from other rights and obligations.

A binding arrangement describes an arrangement that confers similar rights and obligations on the parties to it as if it were in the form of a contract.

An intangible asset is recognised when:

- it is probable that the expected future economic benefits or service potential that are attributable to the asset will flow to the entity; and
- the cost or fair value of the asset can be measured reliably.

1.7 Intangible assets (continued)

The entity assesses the probability of expected future economic benefits or service potential using reasonable and supportable assumptions that represent management's best estimate of the set of economic conditions that will exist over the useful life of the asset.

Where an intangible asset is acquired through a non-exchange transaction, its initial cost at the date of acquisition is measured at its fair value as at that date.

Expenditure on research (or on the research phase of an internal project) is recognised as an expense when it is incurred.

Intangible assets are carried at cost less any accumulated amortisation and any impairment losses.

The amortisation period and the amortisation method for intangible assets are reviewed at each reporting date.

Internally generated goodwill is not recognised as an intangible asset.

Amortisation is provided to write down the intangible assets, on a straight-line basis, to their residual values as follows:

Item	Depreciation method	Average useful life
Computer software	Straight-line	3–8 years

1.8 Heritage assets

Assets are resources controlled by an entity as a result of past events and from which future economic benefits or service potential are expected to flow to the entity.

Carrying amount is the amount at which an asset is recognised after deducting accumulated impairment losses.

Class of heritage assets means a grouping of heritage assets of a similar nature or function in an entity's operations that is shown as a single item for the purpose of disclosure in the financial statements.

Cost is the amount of cash or cash equivalents paid, or the fair value of the other consideration given to acquire an asset at the time of its acquisition or construction or, where applicable, the amount attributed to that asset when initially recognised in accordance with the specific requirements of other Standards of GRAP.

Heritage assets are assets that have a cultural, environmental, historical, natural, scientific, technological or artistic significance and are held indefinitely for the benefit of present and future generations.

Recognition

The entity recognises a heritage asset as an asset if it is probable that future economic benefits or service potential associated with the asset will flow to the entity, and the cost or fair value of the asset can be measured reliably.

Initial measurement

Heritage assets are measured at cost.

Where a heritage asset is acquired through a non-exchange transaction, its cost is measured at its fair value as at the date of acquisition.

Subsequent measurement

After recognition as an asset, a class of heritage assets is carried at its cost less any accumulated impairment losses.

Impairment

The entity assess at each reporting date whether there is an indication that it may be impaired. If any such indication exists, the entity estimates the recoverable amount or the recoverable service amount of the heritage asset.

Transfers

Transfers from heritage assets are only made when the particular asset no longer meets the definition of a heritage asset.

Transfers to heritage assets are only made when the asset meets the definition of a heritage asset.

1.8 *Heritage assets (continued)*

Derecognition

The entity derecognises heritage assets on disposal, or when no future economic benefits or service potential are expected from its use or disposal.

The gain or loss arising from the derecognition of a heritage asset is included in surplus or deficit when the item is derecognised (unless the Standard of GRAP on leases requires otherwise on a sale and leaseback).

1.9 *Financial instruments*

A financial instrument is any contract that gives rise to a financial asset of one entity and a financial liability or a residual interest of another entity.

Credit risk is the risk that one party to a financial instrument will cause a financial loss for the other party by failing to discharge an obligation.

Currency risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in foreign exchange rates.

Derecognition is the removal of a previously recognised financial asset or financial liability from an entity's statement of financial position.

Fair value is the amount for which an asset could be exchanged, or a liability settled, between knowledgeable willing parties in an arm's length transaction.

A financial asset is:

- cash;
- a residual interest of another entity; or
- a contractual right to:
 - receive cash or another financial asset from another entity; or
 - exchange financial assets or financial liabilities with another entity under conditions that are potentially favourable to the entity.

A financial liability is any liability that is a contractual obligation to:

- deliver cash or another financial asset to another entity; or
- exchange financial assets or financial liabilities under conditions that are potentially unfavourable to the entity.

Interest rate risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market interest rates.

Liquidity risk is the risk encountered by an entity in the event of difficulty in meeting obligations associated with financial liabilities that are settled by delivering cash or another financial asset.

Market risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market prices. Market risk comprises three types of risk: currency risk, interest rate risk and other price risk.

Other price risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market prices (other than those arising from interest rate risk or currency risk), whether those changes are caused by factors specific to the individual financial instrument or its issuer, or factors affecting all similar financial instruments traded in the market.

A financial asset is past due when a counterparty has failed to make a payment when contractually due.

A residual interest is any contract that manifests an interest in the assets of an entity after deducting all of its liabilities. A residual interest includes contributions from owners, which may be shown as:

- equity instruments or similar forms of unitised capital;
- a formal designation of a transfer of resources (or a class of such transfers) by the parties to the transaction as forming part of an entity's net assets, either before the contribution occurs or at the time of the contribution; or
- a formal agreement, in relation to the contribution, establishing or increasing an existing financial interest in the net assets of an entity.

1.9 Financial instruments (continued)

Transaction costs are incremental costs that are directly attributable to the acquisition, issue or disposal of a financial asset or financial liability. An incremental cost is one that would not have been incurred if the entity had not acquired, issued or disposed of the financial instrument.

Financial instruments at cost are investments in residual interests that do not have a quoted market price in an active market, and whose fair value cannot be reliably measured.

Initial recognition

The entity recognises a financial asset or a financial liability in its statement of financial position when the entity becomes a party to the contractual provisions of the instrument.

The entity recognises financial assets using trade date accounting.

Initial measurement of financial assets and financial liabilities

The entity measures a financial asset and financial liability initially at its fair value plus transaction costs that are directly attributable to the acquisition or issue of the financial asset or financial liability.

Subsequent measurement of financial assets and financial liabilities

The entity measures all financial assets and financial liabilities after initial recognition using the following categories:

- Financial instruments at amortised cost.

All financial assets measured at amortised cost, or cost, are subject to an impairment review.

Reclassification

The entity does not reclassify a financial instrument while it is issued or held unless it is:

- combined instrument that is required to be measured at fair value; or
- an investment in a residual interest that meets the requirements for reclassification.

If a reliable measure becomes available for an investment in a residual interest for which a measure was previously not available, and the instrument would have been required to be measured at fair value, the entity reclassifies the instrument from cost to fair value.

Gains and losses

A gain or loss arising from a change in the fair value of a financial asset or financial liability measured at fair value is recognised in surplus or deficit.

For financial assets and financial liabilities measured at amortised cost or cost, a gain or loss is recognised in surplus or deficit when the financial asset or financial liability is derecognised or impaired, or through the amortisation process.

Derecognition

Financial assets

The entity derecognises a financial asset only when:

- the contractual rights to the cash flows from the financial asset expire, are settled or waived;
- the entity transfers to another party substantially all of the risks and rewards of ownership of the financial asset; or
- the entity, despite having retained some significant risks and rewards of ownership of the financial asset, has transferred control of the asset to another party and the other party has the practical ability to sell the asset in its entirety to an unrelated third party, and is able to exercise that ability unilaterally and without needing to impose additional restrictions on the transfer. In this case, the entity:
 - derecognise the asset; and
 - recognise separately any rights and obligations created or retained in the transfer.

1.9 Financial instruments (continued)

Financial liabilities

The entity removes a financial liability (or a part of a financial liability) from its statement of financial position when it is extinguished – i.e. when the obligation specified in the contract is discharged, cancelled, expires or waived.

Presentation

Interest relating to a financial instrument or a component that is a financial liability is recognised as revenue or expense in surplus or deficit.

Losses and gains relating to a financial instrument or a component that is a financial liability is recognised as revenue or expense in surplus or deficit.

A financial asset and a financial liability are only offset and the net amount presented in the statement of financial position when the entity currently has a legally enforceable right to set off the recognised amounts and intends either to settle on a net basis, or to realise the asset and settle the liability simultaneously.

In accounting for a transfer of a financial asset that does not qualify for derecognition, the entity does not offset the transferred asset and the associated liability.

1.10 Taxation

Tax expenses

No provision has been made for taxation as SANBI is exempt from income tax in terms of Section 10 of the Income Tax Act, 1962 (Act No. 58 of 1962).

1.11 Leases

A lease is classified as a finance lease if it transfers substantially all the risks and rewards incidental to ownership. A lease is classified as an operating lease if it does not transfer substantially all the risks and rewards incidental to ownership.

When a lease includes both land and buildings elements, the entity assesses the classification of each element separately.

Operating leases – lessor

Operating lease revenue is recognised as revenue on a monthly basis as the higher of the minimum contractually agreed amount or as a percentage of the lessee's turnover.

Income for leases is disclosed under revenue in the statement of financial performance.

Operating leases – lessee

Operating lease payments are recognised as an expense on a straight-line basis over the lease term. The difference between the amounts recognised as an expense and the contractual payments are recognised as an operating lease asset or liability.

1.12 Impairment of cash-generating assets

Cash-generating assets are assets managed with the objective of generating a commercial return. An asset generates a commercial return when it is deployed in a manner consistent with that adopted by a profit-oriented entity.

Impairment is a loss in the future economic benefits or service potential of an asset, over and above the systematic recognition of the loss of the asset's future economic benefits or service potential through depreciation (amortisation).

Carrying amount is the amount at which an asset is recognised in the statement of financial position after deducting any accumulated depreciation and accumulated impairment losses thereon.

A cash-generating unit is the smallest identifiable group of assets managed with the objective of generating a commercial return that generates cash inflows from continuing use that are largely independent of the cash inflows from other assets or groups of assets.

Costs of disposal are incremental costs directly attributable to the disposal of an asset, excluding finance costs and income tax expense.

Depreciation (amortisation) is the systematic allocation of the depreciable amount of an asset over its useful life.

1.12 Impairment of cash-generating assets (continued)

Fair value less costs to sell is the amount obtainable from the sale of an asset in an arm's length transaction between knowledgeable, willing parties, less the costs of disposal.

Recoverable amount of an asset or a cash-generating unit is the higher of its fair value less costs to sell and its value in use. Useful life is either:

- the period of time over which an asset is expected to be used by the entity; or
- the number of production or similar units expected to be obtained from the asset by the entity.

Criteria developed by the entity to distinguish cash-generating assets from non-cash-generating assets are as follows:

Identification

When the carrying amount of a cash-generating asset exceeds its recoverable amount, it is impaired.

The entity assesses at each reporting date whether there is any indication that a cash-generating asset may be impaired. If any such indication exists, the entity estimates the recoverable amount of the asset.

Value in use

When estimating the value in use of an asset, the entity estimates the future cash inflows and outflows to be derived from continuing use of the asset and from its ultimate disposal and the entity applies the appropriate discount rate to those future cash flows.

Basis for estimates of future cash flows

In measuring value in use, the entity bases cash flow projections on reasonable and supportable assumptions that represent management's best estimate of the range of economic conditions that will exist over the remaining useful life of the asset. Greater weight is given to external evidence.

Recognition and measurement (individual asset)

If the recoverable amount of a cash-generating asset is less than its carrying amount, the carrying amount of the asset is reduced to its recoverable amount. This reduction is an impairment loss.

An impairment loss is recognised immediately in surplus or deficit.

Any impairment loss of a revalued cash-generating asset is treated as a revaluation decrease.

Cash-generating units

Cash-generating units are identified consistently from period to period for the same asset or types of assets, unless a change is justified.

The carrying amount of a cash-generating unit is determined on a basis consistent with the way the recoverable amount of the cash-generating unit is determined.

An impairment loss is recognised for a cash-generating unit if the recoverable amount of the unit is less than the carrying amount of the unit. The impairment is allocated to reduce the carrying amount of the cash-generating assets of the unit on a pro rata basis, based on the carrying amount of each asset in the unit. These reductions in carrying amounts are treated as impairment losses on individual assets.

In allocating an impairment loss, the entity does not reduce the carrying amount of an asset below the highest of:

- its fair value less costs to sell (if determinable);
- its value in use (if determinable); and
- zero.

The amount of the impairment loss that would otherwise have been allocated to the asset is allocated pro rata to the other cash-generating assets of the unit.

Where a non-cash-generating asset contributes to a cash-generating unit, a proportion of the carrying amount of that non-cash-generating asset is allocated to the carrying amount of the cash-generating unit prior to estimation of the recoverable amount of the cash-generating unit.

1.12 Impairment of cash-generating assets (continued)

Reversal of impairment loss

The entity assess at each reporting date whether there is any indication that an impairment loss recognised in prior periods for a cash-generating asset may no longer exist or may have decreased. If any such indication exists, the entity estimates the recoverable amount of that asset.

A reversal of an impairment loss for a cash-generating asset is recognised immediately in surplus or deficit.

Redesignation

The redesignation of assets from a cash-generating asset to a non-cash-generating asset, or from a non-cash-generating asset to a cash-generating asset only occur when there is clear evidence that such a redesignation is appropriate.

1.13 Impairment of non-cash-generating assets

Cash-generating assets are assets managed with the objective of generating a commercial return. An asset generates a commercial return when it is deployed in a manner consistent with that adopted by a profit-oriented entity.

Non-cash-generating assets are assets other than cash-generating assets.

Impairment is a loss in the future economic benefits or service potential of an asset, over and above the systematic recognition of the loss of the asset's future economic benefits or service potential through depreciation (amortisation).

Carrying amount is the amount at which an asset is recognised in the statement of financial position after deducting any accumulated depreciation and accumulated impairment losses thereon.

A cash-generating unit is the smallest identifiable group of assets managed with the objective of generating a commercial return that generates cash inflows from continuing use that are largely independent of the cash inflows from other assets or groups of assets.

Costs of disposal are incremental costs directly attributable to the disposal of an asset, excluding finance costs and income tax expense.

Depreciation (amortisation) is the systematic allocation of the depreciable amount of an asset over its useful life.

Fair value less costs to sell is the amount obtainable from the sale of an asset in an arm's length transaction between knowledgeable, willing parties, less the costs of disposal.

Recoverable service amount is the higher of a non-cash-generating asset's fair value less costs to sell and its value in use. Useful life is either:

- the period of time over which an asset is expected to be used by the entity; or
- the number of production or similar units expected to be obtained from the asset by the entity.

Identification

When the carrying amount of a non-cash-generating asset exceeds its recoverable service amount, it is impaired.

The entity assesses at each reporting date whether there is any indication that a non-cash-generating asset may be impaired. If any such indication exists, the entity estimates the recoverable service amount of the asset.

Value in use

Value in use of non-cash-generating assets is the present value of the non-cash-generating assets remaining service potential.

Depreciated replacement cost approach

The present value of the remaining service potential of a non-cash-generating asset is determined as the depreciated replacement cost of the asset. The replacement cost of an asset is the cost to replace the asset's gross service potential. This cost is depreciated to reflect the asset in its used condition. An asset may be replaced either through reproduction (replication) of the existing asset, or through replacement of its gross service potential. The depreciated replacement cost is measured as the reproduction or replacement cost of the asset, whichever is lower, less accumulated depreciation calculated on the basis of such cost, to reflect the already consumed or expired service potential of the asset.

1.13 Impairment of non-cash-generating assets (continued)

Recognition and measurement

If the recoverable service amount of a non-cash-generating asset is less than its carrying amount, the carrying amount of the asset is reduced to its recoverable service amount. This reduction is an impairment loss.

An impairment loss is recognised immediately in surplus or deficit.

Reversal of an impairment loss

The entity assess at each reporting date whether there is any indication that an impairment loss recognised in prior periods for a non-cash-generating asset may no longer exist or may have decreased. If any such indication exists, the entity estimates the recoverable service amount of that asset.

A reversal of an impairment loss for a non-cash-generating asset is recognised immediately in surplus or deficit.

Redesignation

The redesignation of assets from a cash-generating asset to a non-cash-generating asset or from a non-cash-generating asset to a cash-generating asset only occur when there is clear evidence that such a redesignation is appropriate.

1.14 Employee benefits

Employee benefits are all forms of consideration given by an entity in exchange for service rendered by employees.

A qualifying insurance policy is an insurance policy issued by an insurer that is not a related party (as defined in the Standard of GRAP on Related Party Disclosures) of the reporting entity, if the proceeds of the policy can be used only to pay or fund employee benefits under a defined benefit plan and are not available to the reporting entity's own creditors (even in liquidation) and cannot be paid to the reporting entity, unless either:

- the proceeds represent surplus assets that are not needed for the policy to meet all the related employee benefit obligations; or
- the proceeds are returned to the reporting entity to reimburse it for employee benefits already paid.

Termination benefits are employee benefits payable as a result of either:

- an entity's decision to terminate an employee's employment before the normal retirement date; or
- an employee's decision to accept voluntary redundancy in exchange for those benefits.

Other long-term employee benefits are employee benefits (other than post-employment benefits and termination benefits) that are not due to be settled within twelve months after the end of the period in which the employees render the related service.

Short-term employee benefits

Short-term employee benefits are employee benefits (other than termination benefits) that are due to be settled within twelve months after the end of the period in which the employees render the related service.

Short-term employee benefits include items such as:

- wages, salaries and social security contributions;
- short-term compensated absences (such as paid annual leave and paid sick leave) where the compensation for the absences is due to be settled within twelve months after the end of the reporting period in which the employees render the related employee service;
- bonus, incentive and performance-related payments payable within twelve months after the end of the reporting period in which the employee renders the related service; and
- non-monetary benefits (for example, medical care and free or subsidised goods or services, such as housing, cars and cellphones) for current employees.

1.14 Employee benefits (continued)

When an employee has rendered service to the entity during a reporting period, the entity recognise the undiscounted amount of short-term employee benefits expected to be paid in exchange for that service:

- as a liability (accrued expense), after deducting any amount already paid. If the amount already paid exceeds the undiscounted amount of the benefits, the entity recognise that excess as an asset (prepaid expense) to the extent that the prepayment will lead to, for example, a reduction in future payments or a cash refund; and
- as an expense, unless another standard requires or permits the inclusion of the benefits in the cost of an asset.

The expected cost of compensated absences is recognised as an expense as the employees render services that increase their entitlement, or in the case of non-accumulating absences when the absence occurs. The entity measure the expected cost of accumulating compensated absences as the additional amount that the entity expects to pay as a result of the unused entitlement that has accumulated at the reporting date.

The entity recognises the expected cost of bonus, incentive and performance-related payments when the entity has a present legal or constructive obligation to make such payments as a result of past events and a reliable estimate of the obligation can be made. A present obligation exists when the entity has no realistic alternative but to make the payments.

Post-employment benefits

Post-employment benefits are employee benefits (other than termination benefits) which are payable after the completion of employment.

Post-employment benefits: Defined contribution plans

Defined contribution plans are post-employment benefit plans under which an entity pays fixed contributions into a separate entity (a fund) and will have no legal or constructive obligation to pay further contributions if the fund does not hold sufficient assets to pay all employee benefits relating to employee service in the current and prior periods.

When an employee has rendered service to the entity during a reporting period, the entity recognises the contribution payable to a defined contribution plan in exchange for that service:

- as a liability (accrued expense), after deducting any contribution already paid. If the contribution already paid exceeds the contribution due for service before the reporting date, an entity recognises that excess as an asset (prepaid expense) to the extent that the prepayment will lead to, for example, a reduction in future payments or a cash refund; and
- as an expense, unless another standard requires or permits the inclusion of the contribution in the cost of an asset.

Where contributions to a defined contribution plan do not fall due wholly within twelve months after the end of the reporting period in which the employees render the related service, they are discounted. The rate used to discount reflects the time value of money. The currency and term of the financial instrument selected to reflect the time value of money is consistent with the currency and estimated term of the obligation.

Post-employment benefits: Defined benefit plans

Defined benefit plans are post-employment benefit plans other than defined contribution plans.

Actuarial gains and losses comprise experience adjustments (the effects of differences between the previous actuarial assumptions and what has actually occurred) and the effects of changes in actuarial assumptions. In measuring its defined benefit liability the entity recognise actuarial gains and losses in surplus or deficit in the reporting period in which they occur.

Actuarial assumptions

Actuarial assumptions are unbiased and mutually compatible.

Financial assumptions are based on market expectations, at the reporting date for the period over which the obligations are to be settled.

The rate used to discount post-employment benefit obligations (both funded and unfunded) reflect the time value of money. The currency and term of the financial instrument selected to reflect the time value of money is consistent with the currency and estimated term of the post-employment benefit obligations.

1.14 Employee benefits (continued)

Post-employment benefit obligations are measured on a basis that reflects:

- estimated future salary increases;
- the benefits set out in the terms of the plan (or resulting from any constructive obligation that goes beyond those terms) at the reporting date; and
- estimated future changes in the level of any state benefits that affect the benefits payable under a defined benefit plan, if, and only if, either:
 - those changes were enacted before the reporting date; or
 - past history, or other reliable evidence, indicates that those state benefits will change in some predictable manner, for example, in line with future changes in general price levels or general salary levels.

Assumptions about medical costs take account of estimated future changes in the cost of medical services, resulting from both inflation and specific changes in medical costs.

1.15 Provisions and contingencies

Provisions are recognised when:

- the entity has a present obligation as a result of a past event;
- it is probable that an outflow of resources embodying economic benefits or service potential will be required to settle the obligation; and
- a reliable estimate can be made of the obligation.

The amount of a provision is the best estimate of the expenditure expected to be required to settle the present obligation at the reporting date.

Where some or all of the expenditure required to settle a provision is expected to be reimbursed by another party, the reimbursement is recognised when, and only when, it is virtually certain that reimbursement will be received if the entity settles the obligation. The reimbursement is treated as a separate asset. The amount recognised for the reimbursement does not exceed the amount of the provision.

Provisions are not recognised for future operating deficits.

Contingent assets and contingent liabilities are not recognised. Contingencies are disclosed in note 25.

1.16 Revenue from exchange transactions

Revenue is the gross inflow of economic benefits or service potential during the reporting period when those inflows result in an increase in net assets, other than increases relating to contributions from owners.

Measurement

Revenue is measured at the fair value of the consideration received or receivable.

Sale of goods

Revenue from the sale of goods is recognised when all the following conditions have been satisfied:

- the entity has transferred to the purchaser the significant risks and rewards of ownership of the goods;
- the entity retains neither continuing managerial involvement to the degree usually associated with ownership nor effective control over the goods sold;
- the amount of revenue can be measured reliably;
- it is probable that the economic benefits or service potential associated with the transaction will flow to the entity; and
- the costs incurred or to be incurred in respect of the transaction can be measured reliably.

1.16 Revenue from exchange transactions (continued)

Rendering of services

When the outcome of a transaction involving the rendering of services can be estimated reliably, revenue associated with the transaction is recognised by reference to the stage of completion of the transaction at the reporting date. The outcome of a transaction can be estimated reliably when all the following conditions are satisfied:

- the amount of revenue can be measured reliably;
- it is probable that the economic benefits or service potential associated with the transaction will flow to the entity;
- the stage of completion of the transaction at the reporting date can be measured reliably; and
- the costs incurred for the transaction and the costs to complete the transaction can be measured reliably.

When the outcome of the transaction involving the rendering of services cannot be estimated reliably, revenue is recognised only to the extent of the expenses recognised that are recoverable.

Service revenue is recognised by reference to the stage of completion of the transaction at the reporting date. Stage of completion is determined by services performed to date as a percentage of total services to be performed.

Interest, royalties and dividends

Revenue arising from the use by others of entity assets yielding interest, royalties and dividends or similar distributions is recognised when:

- it is probable that the economic benefits or service potential associated with the transaction will flow to the entity; and
- the amount of the revenue can be measured reliably.

Interest is recognised, in surplus or deficit, using the effective interest rate method.

Royalties are recognised as they are earned in accordance with the substance of the relevant agreements.

Dividends or similar distributions are recognised, in surplus or deficit when, the entity's right to receive payment has been established.

Service fees included in the price of the product are recognised as revenue over the period during which the service is performed.

1.17 Revenue from non-exchange transactions

Non-exchange transactions are transactions that are not exchange transactions. In a non-exchange transaction, an entity either receives value from another entity without directly giving approximately equal value in exchange, or gives value to another entity without directly receiving approximately equal value in exchange.

Transfers are inflows of future economic benefits or service potential from non-exchange transactions, other than taxes.

Recognition

An inflow of resources from a non-exchange transaction recognised as an asset is recognised as revenue, except to the extent that a liability is also recognised in respect of the same inflow.

Measurement

Revenue from a non-exchange transaction is measured at the amount of the increase in net assets recognised by the entity.

Gifts, bequests and donations, including goods and services in-kind

Gifts and donations, including goods in kind, are recognised as assets and revenue when it is probable that the future economic benefits or service potential will flow to the entity and the fair value of the assets can be measured reliably.

1.18 Cost of sales

When inventories are sold, the carrying amount of those inventories is recognised as an expense in the period in which the related revenue is recognised. The amount of any write-down of inventories to net realisable value and all deficits of inventories are recognised as an expense in the period the write-down or loss occurs. The amount of any reversal of any write-down of inventories, arising from an increase in net realisable value, is recognised as a reduction in the amount of inventories recognised as an expense in the period in which the reversal occurs.

1.19 Investment income

Investment income is recognised on a time-proportion basis using the effective interest method.

1.20 Borrowing costs

Borrowing costs are interest and other expenses incurred by an entity in connection with the borrowing of funds.

Borrowing costs are recognised as an expense in the period in which they are incurred.

1.21 Translation of foreign currencies

Foreign currency transactions

A foreign currency transaction is recorded, on initial recognition in Rand, by applying to the foreign currency amount the spot exchange rate between the functional currency and the foreign currency at the date of the transaction.

At each reporting date:

- foreign currency monetary items are translated using the closing rate;
- non-monetary items that are measured in terms of historical cost in a foreign currency are translated using the exchange rate at the date of the transaction; and
- non-monetary items that are measured at fair value in a foreign currency are translated using the exchange rates at the date when the fair value was determined.

Exchange differences arising on the settlement of monetary items or on translating monetary items at rates different from those at which they were translated on initial recognition during the period or in previous financial statements are recognised in surplus or deficit in the period in which they arise.

Cash flows arising from transactions in a foreign currency are recorded in Rand by applying to the foreign currency amount the exchange rate between the Rand and the foreign currency at the date of the cash flow.

1.22 Fruitless and wasteful expenditure

Fruitless expenditure means expenditure which was made in vain and would have been avoided had reasonable care been exercised.

All expenditure relating to fruitless and wasteful expenditure is recognised as an expense in the statement of financial performance in the year that the expenditure was incurred. The expenditure is classified in accordance with the nature of the expense, and where recovered, it is subsequently accounted for as revenue in the statement of financial performance.

1.23 Irregular expenditure

Irregular expenditure as defined in section 1 of the PFMA is expenditure other than unauthorised expenditure, incurred in contravention of or that is not in accordance with a requirement of any applicable legislation, including:

- (a) this Act; or
- (b) the State Tender Board Act, 1968 (Act No. 86 of 1968), or any regulations made in terms of the Act; or
- (c) any provincial legislation providing for procurement procedures in that provincial government.

National Treasury practice note no. 4 of 2008/09, which was issued in terms of sections 76(1) to 76(4) of the PFMA, requires the following (effective from 01 April 2008):

Irregular expenditure that was incurred and identified during the current financial and which was condoned before year-end and/or before finalisation of the financial statements must also be recorded appropriately in the irregular expenditure register. In such an instance, no further action is also required, with the exception of updating the note to the financial statements.

Irregular expenditure that was incurred and identified during the current financial year and for which condonement is being awaited at year-end must be recorded in the irregular expenditure register. No further action is required, with the exception of updating the note to the financial statements.

1.23 Irregular expenditure (continued)

Where irregular expenditure was incurred in the previous financial year and is only condoned in the following financial year, the register and the disclosure note to the financial statements must be updated with the amount condoned.

Irregular expenditure that was incurred and identified during the current financial year and which was not condoned by the National Treasury or the relevant authority must be recorded appropriately in the irregular expenditure register. If liability for the irregular expenditure can be attributed to a person, a debt account must be created if such a person is liable in law. Immediate steps must thereafter be taken to recover the amount from the person concerned. If recovery is not possible, the accounting officer or accounting authority may write off the amount as debt impairment and disclose such in the relevant note to the financial statements. The irregular expenditure register must also be updated accordingly. If the irregular expenditure has not been condoned and no person is liable in law, the expenditure related thereto must remain against the relevant programme/expenditure item, be disclosed as such in the note to the financial statements and updated accordingly in the irregular expenditure register.

1.24 Segment information

A segment is an activity of an entity:

- that generates economic benefits or service potential (including economic benefits or service potential relating to transactions between activities of the same entity);
- whose results are regularly reviewed by management to make decisions about resources to be allocated to that activity and in assessing its performance; and
- for which separate financial information is available.

Reportable segments are the actual segments which are reported on in the segment report. They are the segments identified above or alternatively an aggregation of two or more of those segments where the aggregation criteria are met.

1.25 Budget information

The entity is typically subject to budgetary limits in the form of appropriations or budget authorisations (or equivalent), which is given effect through authorising legislation, appropriation or similar.

General purpose financial reporting by the entity shall provide information on whether resources were obtained and used in accordance with the legally adopted budget.

The approved budget is prepared on a cash basis and presented by economic classification linked to performance outcome objectives.

The approved budget covers the fiscal period from 01-04-2016 to 31-03-2017.

The budget for the economic entity includes all the entity's approved budgets of entities under its control.

The financial statements and the budget are not prepared on the same basis of accounting therefore a reconciliation between the statement of financial performance and the budget have been included in the financial statements, refer to note 28.

Comparative information is not required.

1.26 Related parties

The entity operates in an economic sector currently dominated by entities directly or indirectly owned by the South African Government. As a consequence of the constitutional independence of the three spheres of government in South Africa, only entities within the national sphere of government are considered to be related parties.

Management are those persons responsible for planning, directing and controlling the activities of the entity, including those charged with the governance of the entity in accordance with legislation, in instances where they are required to perform such functions.

Close members of the family of a person are considered to be those family members who may be expected to influence, or be influenced by, management in their dealings with the entity.

Only transactions with related parties not at arm's length or not in the ordinary course of business are disclosed.

1.27 Events after the reporting date

Events after the reporting date are those events, both favourable and unfavourable, that occur between the reporting date and the date when the financial statements are authorised for issue. Two types of events can be identified:

- those that provide evidence of conditions that existed at the reporting date (adjusting events after the reporting date); and
- those that are indicative of conditions that arose after the reporting date (non-adjusting events after the reporting date).

The entity will adjust the amount recognised in the financial statements to reflect adjusting events after the reporting date once the event occurred.

The entity will disclose the nature of the event and an estimate of its financial effect or a statement that such estimate cannot be made in respect of all material non-adjusting events, where non-disclosure could influence the economic decisions of users taken on the basis of the financial statements.

Notes to the Financial Statements

2. New standards and interpretations

GRAP 20: Related parties

The objective of this standard is to ensure that a reporting entity's financial statements contain the disclosures necessary to draw attention to the possibility that its financial position and surplus or deficit may have been affected by the existence of related parties and by transactions and outstanding balances with such parties.

An entity that prepares and presents financial statements under the accrual basis of accounting (in this standard referred to as the reporting entity) shall apply this standard in:

- identifying related party relationships and transactions;
- identifying outstanding balances, including commitments, between an entity and its related parties;
- identifying the circumstances in which disclosure of the items in (a) and (b) is required; and
- determining the disclosures to be made about those items.

This standard requires disclosure of related party relationships, transactions and outstanding balances, including commitments, in the consolidated and separate financial statements of the reporting entity in accordance with the Standard of GRAP on consolidated and separate financial statements. This standard also applies to individual financial statements.

Disclosure of related party transactions, outstanding balances, including commitments, and relationships with related parties may affect users' assessments of the financial position and performance of the reporting entity and its ability to deliver agreed services, including assessments of the risks and opportunities facing the entity. This disclosure also ensures that the reporting entity is transparent about its dealings with related parties.

The standard states that a related party is a person or an entity with the ability to control or jointly control the other party, or exercise significant influence over the other party, or vice versa, or an entity that is subject to common control, or joint control. As a minimum, the following are regarded as related parties of the reporting entity:

- a person or a close member of that person's family is related to the reporting entity if that person:
 - has control or joint control over the reporting entity;
 - has significant influence over the reporting entity;
 - is a member of the management of the entity or its controlling entity.
- an entity is related to the reporting entity if any of the following conditions apply:
 - the entity is a member of the same economic entity (which means that each controlling entity, controlled entity and fellow controlled entity is related to the others);
 - one entity is an associate or joint venture of the other entity (or an associate or joint venture of a member of an economic entity of which the other entity is a member);
 - both entities are joint ventures of the same third party;
 - one entity is a joint venture of a third entity and the other entity is an associate of the third entity;
 - the entity is a post-employment benefit plan for the benefit of employees of either the entity or an entity related to the entity. if the reporting entity is itself such a plan, the sponsoring employers are related to the entity;
 - the entity is controlled or jointly controlled by a person identified in (a); and
 - a person identified in (a)(i) has significant influence over that entity or is a member of the management of that entity (or its controlling entity).

The standard furthermore states that related party transaction is a transfer of resources, services or obligations between the reporting entity and a related party, regardless of whether a price is charged.

The standard elaborates on the definitions and identification of:

- close member of the family of a person;
- management;
- related parties;
- remuneration; and
- significant influence.

2. New standards and interpretations (continued)

The standard sets out the requirements, *inter alia*, for the disclosure of:

- control;
- related party transactions; and
- remuneration of management.

The effective date of the standard is not yet been set by the Minister of Finance.

The entity expects to adopt the standard for the first time when the Minister sets the effective date for the standard.

It is unlikely that the standard will have a material impact on the entity's financial statements.

GRAP 109: Accounting by Principals and Agents

The objective of this standard is to outline principles to be used by an entity to assess whether it is party to a principal-agent arrangement, and whether it is a principal or an agent in undertaking transactions in terms of such an arrangement. The standard does not introduce new recognition or measurement requirements for revenue, expenses, assets and/or liabilities that result from principal-agent arrangements. The standard does, however, provide guidance on whether revenue, expenses, assets and/or liabilities should be recognised by an agent or a principal, as well as prescribe what information should be disclosed when an entity is a principal or an agent.

It furthermore covers: Definitions, identifying whether an entity is a principal or agent, accounting by a principal or agent, presentation, disclosure, transitional provisions, and effective date.

The effective date of the standard is not yet set by the Minister of Finance. It is unlikely that the standard will have a material impact on the entity's financial statements.

GRAP 32: Service Concession Arrangements: Grantor

The objective of this standard is to prescribe the accounting for service concession arrangements by the grantor, a public sector entity.

It furthermore covers: Definitions, recognitions and measurement of a service concession asset, recognition and measurement of liabilities, other liabilities, contingent liabilities, and contingent assets, recognition of other revenue, presentation and disclosure, transitional provisions, and the effective date.

The effective date of the standard is not yet set by the Minister of Finance.

It is unlikely that the standard will have a material impact on the entity's financial statements.

GRAP 108: Statutory Receivables

The objective of this standard is to prescribe accounting requirements for the recognition, measurement, presentation and disclosure of statutory receivables.

It furthermore covers: Definitions, recognitions, derecognition, measurement, presentation and disclosure, transitional provisions, as the effective date.

The effective date of the standard is not yet set by the Minister of Finance.

It is unlikely that the standard will have a material impact on the entity's financial statements.

IGRAP 17: Service Concession Arrangements where a Grantor Controls a Significant Residual Interest in an Asset

This interpretation of the Standards of GRAP provides guidance to the grantor where it has entered into a service concession arrangement, but only controls, through ownership, beneficial entitlement or otherwise, a significant residual interest in a service concession asset at the end of the arrangement, where the arrangement does not constitute a lease. This interpretation of the Standard of GRAP shall not be applied by analogy to other types of transactions or arrangements.

A service concession arrangement is a contractual arrangement between a grantor and an operator in which the operator uses the service concession asset to provide a mandated function on behalf of the grantor for a specified period of time. The operator is compensated for its services over the period of the service concession arrangement, either through payments, or through receiving a right to earn revenue from third party users of the service concession asset, or the operator is given access to another revenue-generating asset of the grantor for its use.

2. New standards and interpretations (continued)

Before the grantor can recognise a service concession asset in accordance with the Standard of GRAP on Service Concession Arrangements: Grantor, both the criteria as noted in paragraph .01 of this Interpretation of the Standards of GRAP need to be met. In some service concession arrangements, the grantor only controls the residual interest in the service concession asset at the end of the arrangement, and can therefore not recognise the service concession asset in terms of the Standard of GRAP on Service Concession Arrangements: Grantor.

A consensus is reached, in this Interpretation of the Standards of GRAP, on the recognition of the performance obligation and the right to receive a significant interest in a service concession asset.

The effective date of the interpretation is not yet set by the Minister of Finance.

It is unlikely that the interpretation will have a material impact on the entity's financial statements.

Figures in Rand	2017	2016
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3. Cash and cash equivalents

Cash and cash equivalents consist of:

Short-term deposits	262 981 288	191 004 598
Bank balances	30 768 737	25 645 841
Cash on hand	1 305 130	1 179 998
	295 055 155	217 830 437

Cash on current accounts at banks earn interest. Short-term deposits are made for varying periods of between one day and three months, depending on the immediate cash requirements of SANBI and earn interest at the respective short-term deposit rates.

The use of certain of the funds is restricted as disclosed in note 17.

Credit quality of cash at bank and short term deposits, excluding cash on hand

The credit quality of cash at bank and short-term deposits, excluding cash on hand that are neither past due nor impaired can be assessed by reference to external credit ratings (if available) or historical information about counterparty default rates:

Credit rating

Nedbank Limited Standard and Poors B	262 981 288	191 004 598
Nedbank Limited Standard and Poors B	30 768 737	25 645 841
	293 750 025	216 650 439

4. Receivables from exchange transactions

Trade debtors (net of provisions for doubtful debts)	2 427 664	2 450 293
Accrued income	1 194 703	679 730
Sundry receivables	255 266	360 280
	3 877 633	3 490 303

Trade receivables consist mainly of rental income from restaurants. Trade receivables are non-interest bearing and based on 30 days from invoice.

Fair value of trade and other receivables

Trade and other receivables	3 877 633	3 490 303
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Amounts neither past due nor impaired are considered fully recoverable. No credit quality issues are noted.

4. Receivables from exchange transactions (continued)

Figures in Rand	2017	2016
<i>Trade and other receivables past due but not impaired</i>		
Trade and other receivables which are less than three months past due are not considered to be impaired. At 31 March 2017 R413 366 (2016: R45 457) were past due but not impaired.		
The ageing of amounts past due but not impaired is as follows:		
Three months past due	413 366	45 457
<i>Trade and other receivables impaired</i>		
As of 31 March 2017, trade and other receivables of R276 742 (2016: R210 731) were impaired and provided for.		
The amount of the provision was R276 742 as of 31 March 2017 (2016: R210 731).		
The ageing of these loans is as follows:		
One to three months	5 339	-
Over three months	271 403	210 731
<i>Reconciliation of provision for impairment of trade and other receivables</i>		
Opening balance	210 731	184 765
Provision for impairment	66 011	34 816
Amounts written off as uncollectible	-	(8 850)
	276 742	210 731
5. Biological assets		
Plants for resale	790 055	1 589 946
Carrying value of biological assets carried at fair value less costs to sell	790 055	1 589 946
Biological assets recognised as an expense during the year	1 007 739	1 201 786
These biological assets consist of plants for sale in SANBI's nurseries and are therefore consumable biological assets. The fair value of these plants was determined using an estimated selling price based on marked prices at SANBI nurseries. Given that no additional staff is employed for selling the plants and very little time is actually spent by existing staff on selling plants, costs to sell are considered negligible, and are therefore not taken into consideration in determining the valuation of the plants. As these plants represent excess stock of plants actually grown for use in the gardens, the period between when the plants meet the definition of biological assets and actual sale is too short to result in changes in value either of a physical or market-related nature.		
6. Receivables from non-exchange transactions		
Project funds	10 310 815	9 480 427
Other grants	-	4 638 707
Other receivables from non-exchange revenue	4 209 898	-
	14 520 713	14 119 134

7. Property, plant and equipment

Figures in Rand	2017			2016		
	Cost	Accumulated depreciation and accumulated impairment	Carrying value	Cost	Accumulated depreciation and accumulated impairment	Carrying value
Buildings	176 767 137	(40 833 068)	135 934 069	168 589 254	(36 579 059)	132 010 195
Motor vehicles	39 045 551	(19 505 736)	19 539 815	34 526 624	(15 004 425)	19 522 199
Operational equipment	29 866 086	(11 408 820)	18 457 266	63 051 708	(42 394 675)	20 657 033
Construction work in progress	10 620 361	-	10 620 361	6 035 399	-	6 035 399
Total	256 299 135	(71 747 624)	184 551 511	272 202 985	(93 978 159)	178 224 826

Figures in Rand	Opening balance	Additions	Disposals	Depreciation	Impairment loss	Total
<i>Reconciliation of property, plant and equipment – 2017</i>						
Buildings	132 010 195	8 177 883	-	(4 254 009)	-	135 934 069
Motor vehicles	19 522 199	4 799 911	(56 197)	(4 726 098)	-	19 539 815
Operational equipment	20 657 033	14 563 256	-	(11 090 072)	(5 672 951)	18 457 266
Construction work in progress	6 035 399	4 584 962	-	-	-	10 620 361
	178 224 826	32 126 012	(56 197)	(20 070 179)	(5 672 951)	184 551 511

Figures in Rand	Opening balance	Additions	Disposals	Transfers	Depreciation	Total
<i>Reconciliation of property, plant and equipment – 2016</i>						
Buildings	110 401 035	26 716 788	-	(1 167 920)	(3 939 708)	132 010 195
Motor vehicles	21 796 082	1 771 584	(215 175)	-	(3 830 292)	19 522 199
Operational equipment	22 100 317	5 740 795	(256 540)	-	(6 927 539)	20 657 033
Construction work in progress	-	4 867 479	-	1 167 920	-	6 035 399
	154 297 434	39 096 646	(471 715)	-	(14 697 539)	178 224 826

Figures in Rand	2017	2016
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Property, plant and equipment in the process of being constructed or developed

Cumulative expenditure recognised in the carrying value of property, plant and equipment

Buildings	10 620 361	6 035 399
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There is no property, plant and equipment that is taking a significantly longer period of time to complete than expected.

There is no property, plant and equipment where construction or development has been halted either during the current or previous reporting period(s).

In accordance with the mandate as envisaged in the National Environmental Management: Biodiversity Act (NEMBA), SANBI is responsible for managing, controlling and maintaining all National Botanical Gardens. The majority of the land that is currently utilised for National Botanical Gardens in the Republic belong to the different tiers of government, and the control of the land is vested in SANBI in accordance with its mandate.

A register containing the details of property, plant and equipment is available for inspection at the Institute's registered office.

There are no restrictions, as no title/property, plant and equipment is pledged as security for any liabilities.

8. Investment property

Figures in Rand	2017			2016		
	Cost	Accumulated depreciation and accumulated impairment	Carrying value	Cost	Accumulated depreciation and accumulated impairment	Carrying value
Investment property	96 750 845	(23 765 478)	72 985 367	96 635 845	(21 349 583)	75 286 262

Figures in Rand	Opening balance	Additions	Depreciation	Total
<i>Reconciliation of investment property – 2017</i>				
Investment property	75 286 262	115 000	(2 415 895)	72 985 367

Figures in Rand	Opening balance	Additions	Depreciation	Total
<i>Reconciliation of investment property – 2016</i>				
Investment property	71 599 873	6 013 361	(2 326 972)	75 286 262

A register containing the details of investment property is available for inspection at the registered office of the entity.

There are no restrictions, as no title/investment property is pledged as security for any liabilities.

9. Heritage assets

Figures in Rand	2017			2016		
	Cost	Accumulated impairment losses	Carrying value	Cost	Accumulated impairment losses	Carrying value
Conservation areas	17 682 262	-	17 682 262	17 682 262	-	17 682 262

Figures in Rand	Opening balance	Total
<i>Reconciliation of heritage assets – 2017</i>		
Conservation areas	17 682 262	17 682 262

Figures in Rand	Opening balance	Additions	Total
<i>Reconciliation of heritage assets – 2016</i>			
Conservation areas	14 832 262	2 850 000	17 682 262

The above information relates only to transactions in land purchase that are held indefinitely for the benefit of present and future generations. The land is protected, kept unencumbered, cared for and preserved for its natural heritage. Other heritage assets which are not held for sale are as follows:

9. Heritage assets (continued)

The SANBI has a rich and valuable collection of original watercolour plates and pen and ink drawings housed at herbaria in Pretoria and Cape Town. The Pretoria collection was built up from around 1916 by the former Botanical Research Institute, as the original artwork for its many journals and books. It continues to be added to as new papers and books are published. Additional smaller collections of artwork were acquired by means of bequests to the nation or purchased by grants.

The SANBI Herbaria houses archived specimens of dried plant material mounted on cardboards or in packets, stored in cupboards arranged in an accessible system. These plant specimens are kept in modern steel cabinets with magnetic sealing doors (some are kept in older wooden cabinets made of different kinds of wood and now forming a valuable collection of examples of worked timber). The collection currently stands at approximately 2 million specimens of which 1.2 million are computerised. Most specimens are from Southern Africa, but the collection extends into the rest of Africa and surrounding islands and includes small collections from outside Africa. Vascular plants, bryophytes, and lichens are represented.

The collection of the National Herbarium (PRE) was extended by several valuable collections over the years, including that of EE Galpin and, in 1952, the Transvaal Museum (TRV). More recently the Saasveld Herbarium and the Forestry Herbarium (PRF) were incorporated in the National Herbarium (PRE), currently making it, by far, the largest herbarium in Africa.

The oldest specimen in this collection is a specimen of *Erica mammasa*, collected by WJ Burchell (1781–1863) on the Cape Flats near Salt River in January 1811. Other historically significant specimens in the collection include: *Dichrostachys cinerea subsp. africana* var. *africana* collected by Burke & Zeyher on their first trip to the Magaliesberg in 1841 and *Ochna pulchra*, collected by General JC Smuts near the Pienaars River, 50 miles west of Warmbaths, in October 1932.

There are approximately 10 000 type specimens in the collections of the National Herbarium. Type specimens are scientifically significant specimens in the collection as they are acting as a reference for the plant name, upon which the name is based.

The cryptogrammic collection of the National Herbarium consists of more than 80 000 mounted specimens of bryophytes (Hornworths, liverworts and mosses). It contains the largest and most representative collection of Southern African cryptogams. The PRE cryptogrammic herbarium is the largest of its kind in Africa and one of the largest in the southern hemisphere.

The SANBI has two main libraries – the Mary Gunn Library in Pretoria and the Harry Molteno Library in Cape Town. They rank amongst the biggest botanical libraries in the southern hemisphere and are a valuable resource for information on Southern African flora and biodiversity.

The Mary Gunn Library dates back to 1916 and is housed in the National Herbarium in Pretoria and is currently the most comprehensive botanical library of its kind in Africa and serves as one of the important botanical and biodiversity resource in Africa. The library houses a magnificent Africana and Rare Antiquarian Book Collection such as the 18 broadsheet edition of Redouté's *Les Liliacées* (1807–1816) and the Xylotech Book Collection by Clementz H. Wehdemann (early 1800s).

The Harry Molteno Library at Kirstenbosch dates back to 1913 when the Garden was founded but was officially started in 1921. Since that time it has grown considerably and has moved several times. It is presently housed in the Kirstenbosch Research Centre.

The mission of the SANBI libraries is to meet the information needs of all SANBI staff and to address a public demand for comprehensive, easily accessed information on the biodiversity of Southern Africa.

10. Intangible assets

Figures in Rand	2017			2016		
	Cost	Accumulated amortisation and accumulated impairment	Carrying value	Cost	Accumulated amortisation and accumulated impairment	Carrying value
Computer software	17 793 574	(13 449 613)	4 343 961	13 910 048	(11 077 794)	2 832 254

Figures in Rand	Opening balance	Additions	Disposals	Amortisation	Total
<i>Reconciliation of heritage assets – 2017</i>					
Computer software	2 832 254	3 883 525	-	(2 371 818)	4 343 961

Figures in Rand	Opening balance	Additions	Disposals	Amortisation	Total
<i>Reconciliation of heritage assets – 2016</i>					
Computer software	4 259 166	3 237 237	(195 397)	(4 468 752)	2 832 254

Figures in Rand	2017	2016
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11. Unspent conditional grants and receipts

Movement during the year

Balance at the beginning of the year	125 221 776	165 043 957
Additions during the year	180 240 368	154 578 541
Income recognition during the year	(139 037 062)	(203 881 149)
Debit balances transferred to receivables from non-exchange transactions	77 296	9 480 427
	166 502 378	125 221 776

12. Payables from exchange transactions

Trade payables	7 659 194	5 981 767
Income received in advance	167 408	175 373
Other payables	6 156 895	13 732 405
Service bonuses	6 199 498	5 952 457
Accrued expense	17 801 397	19 186 077
Leave liability	13 155 686	11 215 757
	51 140 078	56 243 836

Payables from exchange transactions are non-interest bearing and are normally settled within 30 days.

13. Transfers payable (non-exchange)

Transfers payable	-	4 405 487
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14. Provisions

Figures in Rand	Opening balance	Additions	Utilised during the year	Total
<i>Reconciliation of provisions – 2017</i>				
Performance and related incentives	3 613 619	3 867 908	(3 793 426)	3 688 101

Figures in Rand	Opening balance	Additions	Utilised during the year	Total
<i>Reconciliation of provisions – 2016</i>				
Performance and related incentives	3 052 580	3 914 876	(3 353 837)	3 613 619

The provision for performance incentives is based on 1.5% of total budgeted employee remunerations and other related incentives is based on past cost with incremental percentage, where deemed necessary.

15. Employee benefit obligations

Post-retirement benefits

The South African National Biodiversity Institute retirement funds consist of the South African National Biodiversity Institute Provident Fund and the South African National Biodiversity Institute Pension Fund. The values have been calculated by independent actuaries.

Membership of the funds are a prerequisite for all permanently employed staff employed as from 01 December 1994.

The policy is to provide retirement benefits for employees by means of separate Pension and Provident Funds to which both employee and employer respectively contribute in equal proportion.

The Provident Fund is a defined contribution fund, except for members in service on or before 30 November 1995 who qualify for a defined benefit from the fund. The Pension Fund is also a defined contribution fund. The employer contributes to the Provident Fund while the employees' contribution is paid to the Pension Fund.

Retirement benefit income statement amounts are included in personnel costs.

Figures in Rand	2017	2016
Total employer's contributions	15 645 744	11 609 649
<i>Fair value of the defined benefit obligation</i>		
Opening balance	(268 259 643)	(272 306 919)
Interest cost	(25 758 356)	(20 922 806)
Current service cost	(12 124 055)	(11 075 308)
Benefits paid	17 671 594	29 685 097
Actuarial (loss)/gain	(11 066 620)	6 360 293
Present value of obligation as at 31 March 2017	(299 537 080)	(268 259 643)

15. Employee benefit obligations (continued)

Figures in Rand	2017	2016
<i>Fair value of plan assets</i>		
Opening balance	304 436 502	288 847 770
Expected return on plan assets	29 267 511	22 258 638
Contributions	15 645 744	11 609 649
Benefits paid	(17 671 594)	(29 685 097)
Actuarial (loss)/gain on plan assets	(13 341 332)	11 405 542
Fair value of plan assets as at 31 March 2017	318 336 831	304 436 502
<i>Amounts recognised in the statement of financial position</i>		
Present value of funded obligation	(299 537 080)	(268 259 643)
Fair value of plan assets	318 336 832	304 436 502
Surplus/(deficit) in plan	18 799 752	36 176 859
Unrecognised actuarial (gains)/losses	(2 655 732)	(36 176 859)
	16 144 020	-
<i>Post-retirement benefits</i>		
In terms of GRAP 25 an asset should not be recognised in the entity's statement of financial position unless the entity has control of the asset, the asset arises due to past events (e.g. excess contributions) and the entity has beneficial use of the assets (e.g. via a contribution holiday or cash refund). A liability must always be recognised. The values have been calculated by independent actuaries.		
Current service cost	12 124 055	11 075 308
Interest on obligation	25 758 356	20 922 806
Expected return on plan assets	(29 267 511)	(22 258 638)
Net actuarial (gains)/losses recognised in the current year	24 407 952	(17 765 834)
	33 022 852	(8 026 358)
<i>Key actuarial assumptions in determining the above positions</i>		
Discount rate annualised yield on R213 (2016: R213) (%)	9.50%	9.70%
Inflation rate (%)	7.00%	7.70%
Expected rate of salary increases (Inflation +1%) (%)	8.00%	8.70%
Expected rate of return on plan assets (Actuarial valuation) (%)	9.50%	9.70%

Figures in Rand	2013	2014	2015	2016	2017
<i>Defined benefit pension plan</i>					
Defined benefit obligation	(243 576 237)	(236 177 923)	(272 306 919)	(268 259 643)	(299 537 080)
Plan assets	220 975 885	258 059 792	288 847 770	304 436 502	318 336 832
Surplus/(deficit)	(22 600 352)	21 881 869	16 540 851	36 176 859	18 799 752
Experience adjustments on plan liabilities	32 662 647	(17 200 523)	26 160 337	(6 360 293)	11 066 620
Experience adjustments on plan assets	12 950 640	26 823 597	16 435 545	11 405 541	(13 341 332)

15. Employee benefit obligations (continued)

Figures in Rand	2017	2016
<i>Post-retirement medical aid benefits</i>		
Amounts recognised in the statement of financial performance		
Service cost	1 186 000	1 068 000
Interest cost	2 185 000	1 919 000
Actuarial (gain)/loss recognised	17 225 000	68 000
Total included in employee benefits [(gain)/expense]	20 596 000	3 055 000
Amounts recognised in the statement of financial position		
<i>Post-employment medical obligations</i>		
Present value of funded obligations:		
- Members	33 557 000	18 461 000
- Non-members	11 012 000	6 126 000
	44 569 000	24 587 000
Movements in the net liability in the statement of financial position		
<i>Post-employment medical obligation</i>		
Net liability at start of year present value of funded obligations:	24 587 000	22 088 000
Interest cost	2 185 000	1 919 000
Current service cost	1 186 000	1 068 000
Benefit payment	(614 000)	(556 000)
Projected accrued services liability at end of the year	27 344 000	24 519 000
Actuarial (gain)/loss	17 225 000	68 000
	44 569 000	24 587 000
<i>Principal actuarial assumptions at statement of reporting date</i>		
Discount rate 31 March (%)	8.49%	9.00%
General increases to medical aid subsidy (%)	7.22%	8.19%
Proportion continuing membership at retirement (%)	100.00%	100.00%
Proportion of retiring members who are married (%)	90.00%	90.00%
Retirement age (years)	65	65

Projection of liability to 31 March 2018

The projection of the results from 01 April 2017 to 31 March 2018, assuming that the experience follows the assumptions exactly, is as follows:

Post-employment medical obligation

Net liability at start of year 1 April 2017	44 569 000
Interest cost	3 740 000
Current service cost	2 088 000
Benefit payments	(1 038 000)
Projected accrued service liability as at 31 March 2018	49 359 000

15. Employee benefit obligations (continued)

Sensitivity analysis

The results are dependent on the assumptions used. In order to illustrate the sensitivity of the actuarial results to changes in certain key variables, the actuaries have recalculated the liabilities using the following assumptions:

- A 1% increase/decrease in the medical aid maximum cap inflation will result in the following amounts as disclosed below
- A PA(90) and PA(90)-2 in the assumed level of mortality will result in the following amounts as disclosed below PA(90)-2 (PA(90) with a two-year adjustment) means that, to each beneficiary a mortality rate of an individual two years younger than that beneficiary was attached. A lighter mortality rate implies that the individual lives longer than expected in the valuation basis.

Figures in Rand	-1% Medical Aid and maximum cap inflation	Valuation Assumption	+1% Medical Aid and maximum cap inflation
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Medical aid and maximum cap inflation

Total accrued liability	38 084 000	44 569 000	52 703 000
Service cost	1 713 000	2 088 000	2 572 000
Interest cost	3 188 000	3 740 000	4 429 000

Figures in Rand	Valuation basis PA (90)	PA (90)-2
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Mortality

Employer's accrued liability	44 569 000	47 407 000
Employer's service cost	2 088 000	2 206 000
Employer's interest cost	3 740 000	3 979 000

Figures in Rand	2017	2016
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16. Other income

Sundry income	3 259 605	2 327 495
Guided tours	760 142	665 671
Insurance refund	1 695 190	264 211
Staff transport	162 467	166 598
Use of garden facilities	111 207	127 749
Professional services	-	48 754
Public functions	320	33 054
Commission received	-	15 367
	5 988 931	3 648 899

17. Other grants, bequests, sponsorships and donations

Other grants, bequests, sponsorships and donations	129 589 135	126 645 122
Total public contributions and donations	180 272 868	77 342 514
Unspent conditional grants and receipts	(50 683 733)	49 302 608
	129 589 135	126 645 122

Refer to Annexure A for a detailed schedule of other grants, sponsorships and donations. Certain amounts received are subject to conditions stipulated by grantors to restrict the use of these funds to clearly defined objectives. The balance of these funds remaining at year end forms part of cash resources disclosed in note 3.

Figures in Rand	2017	2016
18. Employee related costs		
Basic	236 812 485	246 644 136
Senior management services allowances	12 863 327	12 094 392
Housing benefits and allowances	6 960 877	6 006 927
Overtime payments	4 724 601	4 613 363
WCA	728 515	1 028 549
Medical aid – company contributions	640 732	846 780
Cell phone allowances	601 690	613 842
Pensioners annuities	6 179	5 772
	263 338 406	271 853 761
Employee related costs – MTEF funded	237 577 314	216 357 163
Employee related costs – Projects funded	25 761 092	55 496 598
	263 338 406	271 853 761
19. Operating expenses		
Advertising	815 746	919 216
Assessment rates and municipal charges	114 165	88 603
Auditors remuneration	4 656 979	4 557 257
Bank charges	1 760 183	1 154 664
Biological asset cost	1 324 560	1 374 639
Bursaries	7 603 207	6 657 475
Cleaning	3 794 484	3 823 301
Conferences and seminars	4 558 335	4 259 747
Consulting and professional fees	42 327 414	43 146 369
Electricity	6 947 571	5 877 972
Entertainment	129 491	129 150
Field trips	599 874	553 150
Hire of equipment	231 601	224 876
Insurance	2 588 582	2 474 087
IT expenses	11 507 536	6 822 655
Marketing	8 049 440	4 224 705
Motor vehicle expenses	5 267 797	2 279 524
Postage and courier	559 810	581 223
Printing and stationery	5 036 298	3 373 211
Project implementer costs	21 288 548	8 037 331
Protective clothing	734 569	683 188
Recruitment costs	2 174 014	1 452 148
Refuse	399 775	371 251
Security	11 520 424	10 026 588
Staff welfare	816 569	1 596 822
Subscriptions and membership fees	143 009	608 287
Sundry expenses	6 640 645	8 367 546
Sundry garden and operating expenses	22 187 089	35 388 608
Telephone and fax	3 076 137	3 160 299
Training	4 205 950	4 625 491
Travel – local	15 717 225	13 450 131
Travel – overseas	3 202 144	3 059 253
Water	2 559 810	2 364 188
Uniforms	57 948	12 239
	202 596 929	185 725 194

19. Operating expenses (continued)

Figures in Rand	2017	2016
Operating expenses – MTEF funded	131 289 390	103 226 865
Operating expenses – Projects funded	71 307 539	82 498 329
	202 596 929	185 725 194
20. Repairs and maintenance		
Expenditure incurred to repair and maintain property, plant and equipment	6 441 410	4 747 784
Expenditure incurred to repair and maintain investment property	38 677	170 534
	6 480 087	4 918 318
21. Debt impairment		
Provision for impairment movement	66 011	25 966
Bad debts written off	-	8 850
	66 011	34 816
22. Auditors' remuneration		
Fees and disbursements	4 646 387	4 557 257
Expenses	10 592	-
	4 656 979	4 557 257
23. Cash generated from operations		
Surplus	47 801 205	34 092 171
Adjustments for:		
Depreciation and amortisation	24 857 893	21 493 264
Loss on sale of assets	5 487 144	473 060
Fair value adjustments	(207 848)	(856 861)
Debt impairment	66 011	34 816
Movements in operating lease assets	(733 791)	146 205
Movements in retirement benefit assets and liabilities	3 837 980	2 499 000
Movements in provisions	74 482	561 039
Biological asset cost	1 007 739	1 201 786
Foreign exchange gain	(5 898)	(332)
Changes in working capital:		
Receivables from exchange transactions	(447 441)	15 604
Other receivables from non-exchange transactions	(401 579)	(14 119 134)
Payables from exchange transactions	(5 103 761)	(19 192 718)
Transfers payable (non-exchange)	(4 405 487)	4 405 487
Unspent conditional grants and receipts	41 280 602	(39 822 181)
	113 107 251	(9 068 794)

Figures in Rand	2017	2016
24. Commitments		
<i>Authorised capital expenditure</i>		
Already contracted for but not provided for		
Property, plant and equipment	122 966 310	70 840 066
Total capital commitments		
Already contracted for but not provided for	122 966 310	70 840 066
This committed expenditure relates to property and will be financed by retained surpluses, existing cash resources, funds internally generated and government grants.		
<i>Operating leases – as lessee (expense)</i>		
Minimum lease payments due		
- within one year	731 558	701 214
- in second to fifth year inclusive	373 386	724 408
	1 104 944	1 425 622
Operating lease payments represent rentals payable by the entity for certain of its office equipment. Leases are negotiated for an average term of three years and rentals are fixed for an average of three years. No contingent rent is payable.		
25. Contingencies		
<i>Guarantees</i>		
Staff housing guarantees, estimated maximum	118 170	118 170
Recoverable from retirement funds	(118 170)	(118 170)
	-	-

SANBI assists qualifying officials partly for housing loans from financial institutions. For this purpose agreements have been entered into with approved financial institutions to the effect that SANBI will guarantee a maximum of 20% of the housing loan for which a person qualifies. The maximum amount is based on the official's basic salary. SANBI guaranteed 8 loans in the current year (2016: 8). The guarantees are fully recoverable from the employees' cash portion of their retirement fund.

Claims submitted by third parties

Claims totalling R10 000 have been submitted by 3rd parties for losses suffered at various gardens or inflicted by SANBI property. The claims have been submitted to insurers for assessment of liability. The claims are still under investigation.

26. Reconciliation of budget and actual amounts

Material differences between budget and actual amounts

Overall, there was underspending on the budget as a result of timing differences between the funds received and project plans. The variances between the final budget and actual amount which are greater than 10% are explained below:

Income

Other grants, bequests, sponsorships, donations

Amount per the financial statements is net of accounting adjustments. Certain high value projects were initiated during the financial year, ahead of the original expected commencement date resulting in a increase in donor funds received.

26. Reconciliation of budget and actual amounts (continued)

Rent received

The variance is the result of improved processes relating to rental of property and facilities as well as the increased number of hirers of the facilities.

Other income

Negative variance arose from lower than expected collections from non-core income.

Expenses

Capital Expenses

Certain significant capital projects span more than one financial year.

Expenditure is thus incurred in a subsequent period to which the cash is actually received.

27. Related parties

Relationships

Controlling entity	Department of Environmental Affairs
Entities under common control	South African National Parks South African Weather Services iSimangaliso Wetland Park
Members of key management	Refer to note 29

Figures in Rand	2017	2016
<i>Related party balances</i>		
Trade receivables		
Department of Environmental Affairs	10 148 870	653 124
South African National Parks	3 510	2 080
<i>Related party transactions</i>		
Government grants		
Department of Environmental Affairs	319 331 000	304 412 000
Other grants, bequests, sponsorships and donations		
Department of Environmental Affairs	46 749 343	46 653 613
Sales		
Department of Environmental Affairs	270 000	568 474
South African National Parks	5 310	-
Purchases		
Department of Environmental Affairs	351 401	305 225
iSimangaliso Wetland Park	69 318	495 582
South African National Parks	-	1 341 325

27. Related parties (continued)

Figures in Rand	2017	2016
SANBI's mandate derives from the National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004), and is a public entity as listed in Schedule 3A of the Public Finance Management Act, 1999 (Act No. 1 of 1999) as amended. In the ordinary course of business, the entity enters into various sales and purchase transactions on an arm's length basis at market rates with other state controlled entities.		
SANBI does not have control or significant influence over any other entity. Management is required to declare all instances of interests in contracts relating to SANBI's business.		
<i>Compensation to board members, sub-committee members and other key management</i>		
Board members remuneration	696 724	342 856
Independent committee members remuneration	121 952	63 984
Executive committee remuneration	12 992 551	11 704 616
	13 811 227	12 111 456

28. Capital management policy

The objective of SANBI is to maintain a strong capital base so as to maintain public sector confidence and to sustain future development of SANBI. The Institute is a Schedule 3A public entity and reports to the Department of Environmental Affairs (DEA) and the latter reports to National Treasury.

29. Risk management

Financial risk management

The entity's activities expose it to a variety of financial risks: market risk (including foreign exchange risk, fair value interest rate risk and cash flow interest rate risk), credit risk and liquidity risk.

SANBI has developed a comprehensive risk strategy in terms of Treasury Regulation 27.2 (require a public entity to have a comprehensive risk management strategy, which includes a fraud prevention plan) in order to monitor and control these risks. The risk management process relating to each of these risks is discussed under the headings below.

SANBI's overall risk management programme focuses on the unpredictability of financial markets and seeks to minimise potential adverse effects on SANBI's financial performance. SANBI does not use derivative financial instruments to hedge risk exposures. Risk management is performed by management under policies approved by the Executive Management Committee. Management identifies, evaluates and manages financial risks in close co-operation with SANBI's operating units.

Liquidity risk

The entity's risk to liquidity is as a result of the funds available to cover future commitments. The entity manages liquidity risk through an ongoing review of future commitments and credit facilities.

Cash flow forecasts are prepared.

Prudent liquidity risk management implies maintaining sufficient cash and obtaining the continued commitment from the Department of Environmental Affairs for the government grant and related project funding.

Due to the nature of the business, management maintains flexibility in funding by maintaining expenses below budget.

29. Risk management (continued)

The table below analyses SANBI's financial liabilities into relevant maturity groupings based on the remaining period at the statement of Financial Position date to the contractual maturity date. The amounts disclosed in the table are the contractual, undiscounted cash flows. Carrying amounts equate to their fair values.

Figures in Rand	Less than 1 year	Between 1 and 2 years	Between 2 and 5 years	Over 5 years
<i>At 31 March 2017</i>				
Trade and other payables	31 617 484	-	-	-

Figures in Rand	Less than 1 year	Between 1 and 2 years	Between 2 and 5 years	Over 5 years
<i>At 31 March 2016</i>				
Trade and other payables	38 900 264	-	-	-

Credit risk

Credit risk is the risk that one party to a financial instrument will cause a financial loss for the other party by failing to discharge an obligation. Financial assets, which potentially subject SANBI to the risk of non-performance by counterparties, consist mainly of cash and cash equivalents and accounts receivable. SANBI limits its treasury counterparty exposure by only dealing with well-established financial institutions approved by National Treasury through the approval of their cash management policy in terms of Treasury Regulations. SANBI's exposure is continuously monitored by the Accounting Authority. SANBI does not have any material exposure to any individual or counterparty. SANBI's largest concentration of credit risk is limited mainly to the sale of plants. No events occurred in the industry during the financial year that may have an impact on the accounts receivable that have not been adequately provided for. SANBI no longer assists qualifying employees to obtain 100% housing loans from financial institutions without a cash deposit, as financial institutions concentrate more on the affordability rather than what the staff member qualifies for. However, these guarantees are fully recoverable from the employees' cash portion of their retirement fund. Due to the nature of the Institute's financial instruments it is highly unlikely that the Institute will encounter difficulty in raising funds to meet commitments associated with financial instruments.

Figures in Rand	2017	2016
<i>Maximum exposure to credit risk of financial assets at year-end</i>		
Trade receivables	3 877 633	3 490 303
Cash and cash equivalents	295 055 155	216 650 439
	298 932 788	220 140 742
<i>Fair value of financial assets at year-end</i>		
Trade receivables	3 877 633	3 490 303
Cash and cash equivalents	295 055 155	217 830 437
	298 932 788	221 320 740

29. Risk management (continued)

Market risk

Interest rate risk

Interest rate risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market interest rates. SANBI obtains competitive rates from approved financial institutions on a monthly basis.

As SANBI has significant interest-bearing assets, SANBI's income and operating cash flows are dependent on changes in market interest rates. SANBI reviews its interest rate exposure on a regular basis. Market rates are compared with stable and credit-rated financial institutions. Various institutional rates are simulated taking into consideration terms of deposits, availability of cash resources and any related risk factors. SANBI's exposure to interest rate risk and the effective interest rates on financial instruments at the financial reporting date are as follows:

Figures in Rand	2017	2016
<i>Assets</i>		
Cash deposits: 6% effective interest (2016: 5%)	262 981 288	191 004 598
<i>Sensitivity analysis</i>		
Investment income at a 1% deposit rate increase	2 629 812	1 910 045
<i>Sensitivity analysis</i>		
Investment income at a 1% deposit rate decrease	(2 629 812)	(1 910 045)
Based on these scenarios, the impact of a positive 1% shift in deposit interest rates will have a R2 629 812 (2016: R1 910 045) impact on income.		
<i>Foreign exchange risk</i>		
The entity does not operate internationally, but undertakes some transactions denominated in foreign currencies, and is thus exposed to foreign exchange risk arising from fluctuations in foreign currencies. The entity does not hedge itself against exposure to foreign exchange risk. Foreign currency exposure at financial year-end relates to trade payables and is disclosed in the note to the Annual Report.		
At 31 March 2017, if the currency had strengthened by 11% against the US dollar with all other variables held constant, the surplus for the year would have been R12 542 (2016: R67 919) higher, mainly as a result of foreign exchange gains or losses on translation of US dollar.		
<i>Foreign currency exposure at statement of financial position date</i>		
Liabilities		
USD 7 101 (2016: 299)	95 579	4 470
GBP 1 100 (2016: 31 000)	18 442	668 419
EUR nil (2016: 370)	-	6 308
Exchange rates used for conversion of foreign items were:		
USD	13.4599	14.9506
GBP	16.7650	21.5618
EUR	14.3947	17.0497

Figures in Rand	2017	2016
30. Board and executive members' emoluments		
<i>Board and committee members</i>		
Ms ME Magomola (Board Chairperson)	89 194	31 072
Dr T Abrahamse (Chief Executive Officer)***	-	-
Prof. CT Chimimba*	26 368	6 432
Dr ST Cornelius	85 250	42 152
Mr JG Dladla* (resigned 26 January 2017)	6 592	12 528
Dr L Dziba*	29 664	12 864
Ms T Godongwana	54 492	35 344
Mr S Gounden	69 648	38 936
Mr LJ Makoro*	29 664	16 080
Ms S Mancotywa**	-	-
Dr JM Matjila	124 140	64 496
Ms NN Mnqeta	89 424	42 152
Ms BD Ngidi	105 472	50 784
Dr Y Seleti**	-	-
Prof. BW van Wilgen	79 104	37 920
Mr T Zororo*	29 664	16 080
	818 676	406 840

* Independent sub-committee member

** No honoraria were paid – state employee

*** Remunerated as executive member

Figures in Rand	Basic	Non-pensionable allowances	Bonuses	Pension and medical benefits	Total 2017
<i>Executive members</i>					
TE Abrahamse (Chief Executive Officer)	1 242 877	552 782	76 140	119 204	1 991 003
CH Mbizvo (Head of Branch: Biodiversity Research, Policy and Knowledge Management)	1 138 264	520 574	68 604	111 358	1 838 800
L Sithole (Chief Financial Officer)	1 117 405	289 985	58 556	85 590	1 551 536
ME Khoahli (Chief Corporate Officer)	835 121	366 059	51 104	103 407	1 355 691
MJ Netshiombo (Chief Director: Human Resources)	945 648	216 766	48 872	104 304	1 315 590
CK Willis (Chief Director: Conservation Gardens and Tourism)	812 045	362 291	48 872	101 676	1 324 884
RJ Sebola (Chief Director: Biosystematics and Collections)	792 688	200 046	-	75 111	1 067 845
JS Donaldson (Chief Director: Biodiversity Research, Information and Monitoring)	786 778	339 549	47 438	99 781	1 273 546
KE Maze (Chief Director: Biodiversity Planning and Policy Advice)	788 231	338 097	47 438	99 890	1 273 656
	8 459 057	3 186 149	447 024	900 321	12 992 551

30. Board and executive members' emoluments (continued)

Figures in Rand	Basic	Non-pensionable allowances	Bonuses	Pension and medical benefits	Total 2016
<i>Executive members</i>					
TE Abrahamse (Chief Executive Officer)	1 213 019	529 068	70 756	125 881	1 938 724
CH Mbizvo (Head of Branch: Biodiversity Research, Policy and Knowledge Management)	1 092 952	501 801	-	106 316	1 701 069
L Sithole (Chief Financial Officer)	1 124 582	281 737	24 375	86 128	1 516 822
ME Khoahli (Chief Corporate Officer)	810 192	365 473	-	90 389	1 266 054
MJ Netshimbo (Chief Director: Human Resources)	903 939	215 533	44 527	92 140	1 256 139
CK Willis (Chief Director: Conservation Gardens and Tourism)	774 805	344 980	44 527	87 735	1 252 047
RJ Sebola (Chief Director: Biosystematics and Collections)	287 235	71 309	-	26 911	385 455
JS Donaldson (Chief Director: Biodiversity Research, Information and Monitoring)	752 070	334 443	43 220	86 030	1 215 763
KE Maze (Chief Director: Biodiversity Planning and Policy Advice)	752 070	329 163	-	91 310	1 172 543
	7 710 864	2 973 507	227 405	792 840	11 704 616

Figures in Rand	2017	2016
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31. Operating lease – as lessor

Minimum lease payments due

- Within one year	4 388 598	3 284 390
- Between two to five years	7 590 824	8 653 809
- Later than five years	223 677	525 512
	12 203 099	12 463 711

Figures in Rand	At amortised cost	Total
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32. Financial instruments disclosure

Categories of financial instruments – 2017

Financial assets

Cash and cash equivalents	295 055 155	295 055 155
Trade and other receivables from exchange transactions	3 877 633	3 877 633
	298 932 788	298 932 788

Financial liabilities

Trade and other payables from exchange transactions	31 617 484	31 617 484
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32. Financial instruments disclosure (continued)

Figures in Rand	At amortised cost	Total
<i>Categories of financial instruments – 2016</i>		
Financial assets		
Cash and cash equivalents	216 650 439	216 650 439
Trade and other receivables from exchange transactions	3 340 754	3 340 754
	219 991 193	219 991 193
Financial liabilities		
Trade and other payables from exchange transactions	38 900 264	38 900 264
<i>Financial instruments in statement of financial performance – 2017</i>		
Interest income (calculated using effective interest method) for financial instruments at amortised cost	13 436 017	13 436 017
<i>Financial instruments in statement of financial performance – 2016</i>		
Interest income (calculated using effective interest method) for financial instruments at amortised cost	11 247 890	11 247 890

33. Segment information

General information

Identification of segments

The entity is organised and reports to management on the basis of mandated areas. The segments were organised around the type of service delivered and the target market. Management uses these segments for determining strategic objectives. Segments were aggregated for the type of services and target market for reporting purposes.

Information reported about these segments is used by management as a basis for evaluating the segments' performances and for making decisions about the allocation of resources. The disclosure of information about these segments is also considered appropriate for external reporting purposes.

Types of goods and/or services by segment

These reportable segments as well as the goods and/or services for each segment are set out below:

Reportable segment

Conservation gardens and tourism
Science policy and research

Goods and/or services

National Botanical Gardens and related materials
Biodiversity research and policy advice

33. Segment information (continued)

2017

Figures in Rand	Conservation garden and tourism	Science policy and research	Total
Revenue			
Revenue from non-exchange transactions	166 898 302	227 316 972	394 215 274
Revenue from exchange transactions	153 963 360	1 248 226	155 211 586
Interest revenue	482 638	1 572 249	2 054 887
Total segment revenue	321 344 300	230 137 447	551 481 747
Group revenue			(135 697)
Entity's revenue			551 346 050
Expenditure			
Salaries and wages	88 796 332	157 050 859	245 847 191
Other expenses	63 616 801	85 144 646	148 761 447
Total segment expenditure	152 413 133	242 195 505	394 608 638
Total segmental surplus			156 873 109
Total revenue reconciling items			(135 697)
Group expenditure			(108 936 207)
Total segment surplus			156 873 109
Entity's surplus for the period			47 801 205

Figures in Rand	Conservation garden and tourism	Science policy and research
Other information		
Capital expenditure (excluding additions to financial instruments and post-employment benefit liabilities)	2 485 913	2 038 168

Additions to non-current assets, total assets and total liabilities of segments have not been disclosed as the amounts are not regularly provided to management for review.

33. Segment information (continued)

2016

Figures in Rand	Conservation garden and tourism	Science policy and research	Total
Revenue			
Revenue from non-exchange transactions	80 203 807	143 647 954	223 851 761
Revenue from exchange transactions	70 635 849	1 028 363	71 664 212
Interest revenue	814	1 447 171	1 447 985
Total segment revenue	150 840 470	146 123 488	296 963 958
Group revenue			222 350 701
Entity's revenue			519 314 659
Expenditure			
Salaries and wages	80 731 170	90 253 143	170 984 313
Other expenses	32 458 434	75 993 682	108 452 116
Total segment expenditure	113 189 604	166 246 825	279 436 429
Total segmental surplus			17 527 529
Total revenue reconciling items			222 350 701
Group expenditure			(205 786 059)
Total segment surplus			17 527 529
Entity's surplus for the period			34 092 171

Additions to non-current assets, total assets and total liabilities of segments have not been disclosed as the amounts are not regularly provided to management for review.

Measurement of segment surplus or deficit, assets and liabilities

Basis of accounting for transactions between reportable segments

The accounting policies of the segments are the same as those described in the summary of significant accounting policies.

Information about geographical areas

Science policy and research segment is not defined to a specific geographical location.

The entity's conservation garden and tourism operations are in seven of the nine provinces. The Eastern Cape values are not disclosed as the NBG is not operational at present.

33. Segment information (continued)

The table below indicates their relevant geographical information after eliminating inter segmental transfers:

2017

Figures in Rand	External revenues from non-exchange transactions	External revenues from exchange transactions	Total expenditure
Gauteng	26 043 153	9 306 908	30 439 944
Western Cape	45 086 437	55 784 491	35 043 929
Free State	6 835 893	1 134 929	8 408 856
KwaZulu-Natal	5 949 662	818 329	6 295 660
Mpumalanga	11 833 444	1 350 430	11 771 465
Northern Cape	1 653 148	204 455	1 980 551
Total	97 401 737	68 599 542	93 940 405

The comparative figures and the value of non-current assets are excluded from the above table as the necessary information is not available and the cost to develop it would be excessive.

2016

Figures in Rand	External revenues from non-exchange transactions	External revenues from exchange transactions	Total expenditure
Gauteng	21 951 121	9 797 932	30 774 533
Western Cape	37 365 235	55 468 463	44 394 655
Free State	-	1 259 186	6 837 451
KwaZulu-Natal	5 516 771	1 042 034	6 026 745
Mpumalanga	11 018 270	1 402 025	10 852 792
Northern Cape	1 721 903	198 575	1 716 833
Total	77 573 300	69 168 215	100 603 009

Figures in Rand	2017	2016
34. Irregular expenditure		
Add: Irregular expenditure – Current year	95 887	-
Less: Amounts condoned	(95 887)	-
	-	-

Figures in Rand

Details of irregular expenditure condoned	Action taken	
Incorrect calculations of pricing for quotation	Investigated and condoned by CEO	17 549
Purchase without approval	Disciplinary action taken and condoned by CEO	60 587
Purchase without approval	Disciplinary action taken and condoned by CEO	17 751
		95 887

35. Events after the reporting date

In terms of an agreement between the Minister of Science and Technology and the Minister of Environment Affairs the functions of the National Zoological Gardens will be transferred to SANBI. The proposed effective date of the transfer is 01 October 2017.

Annexure A – Project sponsorships and donations

Figures in Rand	March 2017	March 2016
Government		
Council for Scientific and Industrial Research (CSIR)	-	1 721 501
Department of Environmental Affairs	46 749 343	46 653 613
Department of Science and Technology	15 577 000	525 207
Department of Tourism	-	2 500 000
Gauteng Department of Agriculture Conservation and Environment	-	36 000
National Research Foundation (NRF)	6 129 001	9 247 003
National Treasury – Jobs Fund	13 612 053	3 900 089
Rand Water	15 000	24 790
South African National Energy Development Institute	44 000	30 800
Water Research Commission	600 000	-
	82 726 397	64 639 003
Foreign		
Adaptation Fund	13 122 446	-
Biodiversity International	70 762	75 306
Conservation South Africa	-	1 291 151
Critical Ecosystem Partnership Fund (via Birdlife SA)	223 680	-
Global Biodiversity Information Facility (GBIF)	182 119	-
Global Environment Facility (via Development Bank of South Africa)	1 704 286	-
JRS Biodiversity Foundation	665 158	506 791
National Geographic Society	244 290	-
Royal Botanic Gardens Kew	1 077 431	1 435 373
Smithsonian Institute	521 258	307 267
United Nations Development Programme (UNDP)	16 032 409	6 500 546
United Nations Environmental Programme (UNEP)	429 035	-
Universite Pierre et Marie Curie	141 251	-
University of Exeter	180 656	-
World Conservation Union (IUCN)	-	144 224
World Wide Fund for Nature (WWF)	250 000	-
	34 844 781	10 260 658
Corporate		
Brimstone Investment Corporation Limited	-	100 000
Peter Gilder	-	14 830
Plantandia Jewellery	50 000	-
Prins and Prins	-	28 333
Uwe Koetter	-	19 068
	50 000	162 231
Individuals and organisations		
Dylan Lewis	62 500	62 500
ESP Strategic Marketing Solutions	-	60 000
The Botanical Society of South Africa	2 686 950	1 296 323
University of Cape Town	30 000	-
	2 779 450	1 418 823

The supplementary information presented does not form part of the financial statements and is unaudited.

Figures in Rand	March 2017	March 2016
Trusts		
BOE Trust Ltd	30 000	30 000
Botanical Education Trust	-	22 100
Dr Sunshine	36 999	21 613
Estate Late Derek Fitzroy du Toit	-	60 000
Estate Late Getrude Rycroft	-	100 000
Estate Late Hugh FR Stewart	99 968	-
Estate Late Joan Kathleen Boteville Wrench	59 298 442	-
Estate Late Pauline Marguerite Groves	20 000	-
Frances M Hawes Bequest	788	-
HR Hill Trust	97 781	87 096
NF Oppenheimer	20 000	-
Sundry	-	4 155
The Green Trust	225 000	504 000
	59 828 978	828 964
Other		
Bench donations	35 000	16 000
Sundry donations	8 261	16 836
	43 261	32 836
Total sponsorships and donations		
Total donations, other granters and sponsorship for the year	180 272 868	77 342 514
Unspent committed project funds released/(transferred) for the year	(50 683 733)	49 302 608
	129 589 135	126 645 122

The supplementary information presented does not form part of the financial statements and is unaudited.

Notes

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For submission in terms of the Public Finance Management Act, No. 1 of 1999,
August 2012

ISSN 1021-7460

We acknowledge the photographic contributions of SANBI staff, fellow
researchers and conservationists with appreciation.