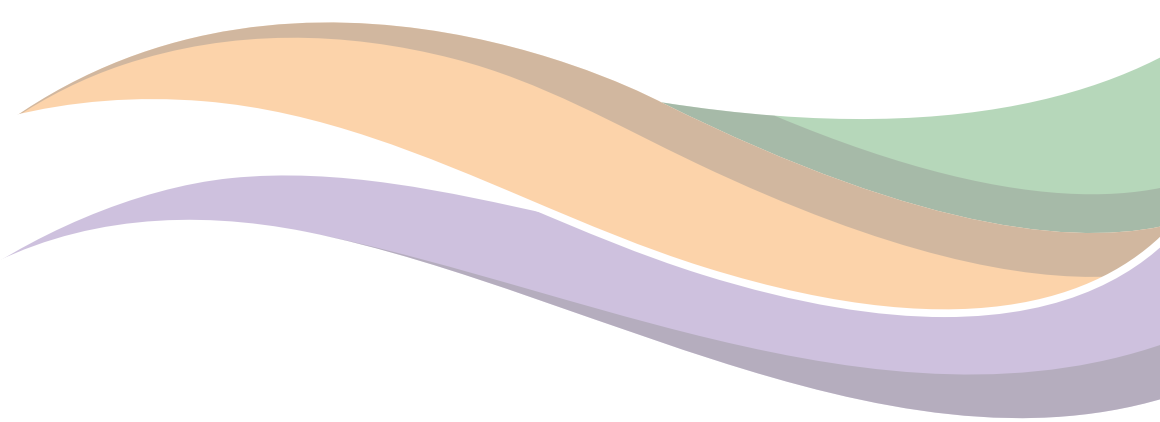
SANBI
Biodiversity for Life
South African National Biodiversity Institute

Annual Report
2021/2022



SANBI
Biodiversity for Life
South African National Biodiversity Institute

The South African National Biodiversity Institute

Annual Report

2021/2022

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GENERAL INFORMATION

Name:	South African National Biodiversity Institute (SANBI)
Registration Numbers and/or other relevant numbers (e.g. FS P):	SANBI is a Public Entity established in terms of the National Environmental Management: Biodiversity Act of 2004 (No. 10 of 2004)
Head office address:	2 Cussonia Avenue, Brummeria, Pretoria, 0184
Postal Address:	Private Bag X101, Silverton, 0184
Contact telephone numbers:	012 843 5200
Email address:	l.ralepeli@sanbi.org.za
Website address:	www.sanbi.org
External Auditor:	Auditor General of South Africa, 17 Park Lane Building, Park Lane, Century City
Bank:	Nedbank, 135 Rivonia Road Sandown, Sandton, 2196
Company Secretary:	Ms Lebogang Ralepeli

@southafricannationalbiodiversityinstitute @NZGPretoria | SA National Biodiversity Institute | @SANBI_ZA @natzoo | SA Biodiversity (SANBI) | sanbi_za

ABBREVIATIONS / ACRONYMS

ABGN	African Botanic Gardens Network
ABR	Applied Biodiversity Research
AFS	Annual Financial Statements
API	African Plants Initiative
APP	Annual Performance Plan
BBBEE	Broad Based Black Economic Empowerment
BGCI	Botanic Gardens Conservation International
BGIS	Biodiversity Geographic Information System
BIM	Biodiversity Information Management
BIOS	Biosystematics
BPM	Biodiversity Planning and Mainstreaming
BS&PA	Biodiversity Science and Policy Advice
CAPE	Cape Action for People and the Environment Programme
CBA	Critical Biodiversity Area
CBD	Convention on Biological Diversity
CCB	Climate Change and Bio-adaptation
CEO	Chief Executive Officer
CITES	Convention on International Trade in Endangered Species
COHORT	Committee of Heads of Organizations of Research & Technology
COP	Conference of the Parties
CREW	Custodians of Rare and Endangered Wildflowers
DFFE	Department of Forestry, Fisheries and the Environment
DSI	Department of Science and Innovation
DWS	Department of Water and Sanitation
ECPTA	Eastern Cape Parks and Tourism Agency
ENE	Estimates of National Expenditure
ESA	Ecological Support Area
GBIF	Global Biodiversity Information Facility
GCP	Global Carbon Project
GEF	Global Environment Facility
GMO	Genetically Modified Organism
GRAP	Generally Recognized Accounting Practices
GSPC	Global Strategy for Plant Conservation
GTI	Global Taxonomy Initiative
HCD	Human Capital Development
HLP	High Level Panel
IAS	Invasive Alien Species
ICLEI	International Council for Local Environmental Initiatives
IPBES	Intergovernmental Platform on Biodiversity and Ecosystem Services

IPCC	Intergovernmental Panel on Climate Change
LTSM	Learner Teacher Support Material
MANCO	Management Committee
MAREP	Management, Research and Planning Forum
MCM	Marine and Coastal Management
MSBP	Millennium Seed Bank Partnership
MTEF	Medium Term Expenditure Framework
MTSF	Medium Term Strategic Framework
NBG	National Botanical Garden
NBSAP	National Biodiversity Strategy and Action Plan
NDP	National Development Plan
NEMA	National Environmental Management Act
NEMBA	National Environmental Management Biodiversity Act
NEPAD	New Partnership for Africa's Development
NIE	National Implementing Entity
NRF	National Research Foundation
NRM	Natural Resources Management
NT	National Treasury
NZG	National Zoological Garden
PFMA	Public Finance Management Act
PIP	Project Implementation Plan
SABSP	Southern African Biodiversity Support Programme
SADC	Southern African Development Community
SANBI	South African National Biodiversity Institute
SANParks	South African National Parks
SDGs	Sustainable Development Goals
SIS	Skills Intelligent System
SKEP	Succulent Karoo Ecosystem Programme
SWSA	Strategic Water Source Area
TOPS	Threatened or Protected Species
UNCCD	United Nations Convention to Combat Desertification
UNFCCC	United Nations Framework Convention on Climate Change
WESSA	Wildlife and Environment Society of South Africa
WIL	Work Integrated Learning
WWF	World Wide Fund for Nature

MINISTER'S FOREWORD

It is a pleasure to present the 2021/2022 Annual Report for the South African National Biodiversity Institute.

SANBI, as the leading authority on the conservation, restoration and sustainable management of biodiversity assets and ecological infrastructure, has a significant role to play in achieving our country's ambition to address climate change and biodiversity loss, whilst balancing our country's developmental needs. Key to this role is the ability to provide decision-support services and tools for evidence-based decision-making. I am pleased that SANBI continues to grow in this role as the institute navigates the changing (internal and external) environment.

While there are multiple drivers of biodiversity loss, climate change, pollution, invasive species, over-exploitation and habitat loss remain the primary ones. SANBI's role in research, assessments and reporting is reflective of the response to these biodiversity challenges. Such a response has profound implications on positioning biodiversity as an ecological, economic, and social imperative for our country. Our status as one of the megadiverse countries in the world should place us at an advantage on all matters linked to the contribution of nature of people.

The increasing role of SANBI in advancing the mainstreaming and production of data required for sustainable development is commendable, as are strategic inputs through biodiversity assessment outcomes, spatial prioritisation through the red-listing of species, and ecosystem mapping.

Serving as the Scientific Authority of South Africa, SANBI coordinates the development of non-detriment findings (NDF) for the trade in various species. These follow a specified process to compile expert knowledge, which is followed by the evaluation of potential risk associated with trade based on biological management and regulatory evidence.

We appreciate the role of SANBI in supporting the Department of Forestry, Fisheries and the Environment in the process towards the operationalisation of the High-Level Panel (HLP) recommendations for the management of elephant, rhino, lion and leopard. In that regard, SANBI identified areas of support through the Scientific Authority, in policy development and in practice through pilot projects in the wildlife sector.

In addition to the implementation of the HLP recommendations, the National Zoological Garden (NZG) continues to play a crucial role in

the management and conservation of various animal species. We note, with appreciation, the increasing endeavours to heighten the NZG's role in conservation, education, research and tourism. In the year under review, the NZG continued to closely collaborate with the DFFE in receiving and providing accommodation for an increasing number of confiscated wildlife species.

The role that SANBI continues to play in the multi-faceted National Response Strategy to tackle the catastrophic increase in the illegal harvesting of succulent plants across South Africa's arid zone, particularly in the Succulent Karoo Biome, is appreciated. The response strategy is a collaborative effort by government departments, conservation authorities, non-government organisations and local communities to ensure the survival of our rich succulent flora, whilst promoting sustainable socio-economic development within the country.

SANBI also leads the technical process to prioritise Strategic Water Source Areas (SWSAs) in support of the achievement of the Medium-Term Strategic Framework target, which aims to secure 11 of the 22 strategic water sources by 2024. These nationally important areas provide freshwater for downstream communities, including urbanised areas that support half of South Africa's population and nearly two-thirds of its economy. The evidence generated and provided through coordination is crucial for ensuring that SWSAs remain in excellent ecological condition so as to continue providing good quality water.

I take this opportunity to thank SANBI for its outstanding performance to deliver on its mandate. I am pleased to present to you the SANBI Annual Report for 2021/2022, which complies with all statutory reporting requirements of the Public Finance Management Act, as well as the National Treasury Regulations.

MS BARBARA CREECY
Minister of Forestry, Fisheries and the Environment

CHAIRPERSON'S STATEMENT

I am pleased to take the helm as the newly appointed Chairperson of the Board of the South African National Biodiversity Institute. The Minister of Forestry, Fisheries and the Environment, Ms Barbara Creecy appointed the new Board on 1 October 2021 for a three-year term ending 30 September 2024. Since its appointment, the Board has worked closely with SANBI's management team to ensure that the institute remains on track to achieve its annual performance targets and to continue to fulfil its mandate as outlined in the National Environmental Management: Biodiversity Act No. 10 of 2004 (NEMBA).

It is a delight to report that SANBI has achieved its APP targets for the year under review and has set itself ambitious new targets for the upcoming financial year. While the COVID-19 pandemic has had a devastating impact on organisations, economies, and lives in the last two years, SANBI's management has demonstrated strategic forethought and resilience which has seen the institute continue to operate under enormously difficult circumstances.

SANBI's financial sustainability plan approved by the Board in 2018 has enabled the institute to implement activities to mitigate the effects of the pandemic. These included optimisation of income sources from the national botanical gardens which saw, amongst other interventions, the implementation of a dual pricing structure in April 2021 according to which international visitors paid higher prices at Kirstenbosch National Botanical Garden. This resulted in increased revenue generated from international visitors while South African visitors expressed gratitude that prices for the Southern African Development Community visitors remained affordable.

Ably led by the management team, SANBI implemented cost containment measures which resulted in the institute achieving a stable financial position. While funding from the Medium-Term Expenditure Framework grant and project funding has seen the institute able to cover its human capital requirements, there remain challenges in generating sufficient income for operations. The Board has tasked SANBI management to pursue diversified income streams including exploring its intellectual property to unlock the associated economic value, promoting the use of the science-based knowledge products, increasing the research outputs, increased visitor numbers or events, and facilitating the implementation of the foreign donor-funded projects to support biodiversity conservation whilst contributing to the financial sustainability of the organisation.

Human capital development and transformation remain key strategic levers for delivery against SANBI's mandate. In support of this aspect of SANBI's work, the Board approved SANBI's Transformation Charter on 25 November 2021. This Charter aims to articulate SANBI's stance on transformation, records SANBI's commitments to transformation, outlines the transformation strategy and action plans, as well as provides the means of measuring progress and achievements. This is a landmark accomplishment which has a bearing on the future of SANBI as an organisation and its role in advancing the developmental agenda of the country. The Board is fully committed to supporting SANBI's transformation objectives as outlined in this Charter.

The SANBI Board and I are honoured to be entrusted with the responsibility of leading and guiding the institute's management in delivering on its mandate. I am particularly appreciative of the professionalism and dedication demonstrated in executing the institute's strategy by the Chief Executive Officer, the executive management, and staff who have worked tirelessly in striving to achieve and deliver on SANBI's goals.

SANBI has weathered the effects of the global COVID-19 pandemic and as the world begins to open, the Board is satisfied that it is prepared to take advantage of the opportunities presented by the 'new normal'. The Board is confident that the institute, despite having limited resources, has shown its agility and innovative thinking.

I would like to take this opportunity to thank the Board of SANBI, including our stakeholders and partners for their generous and continuous support, thereby enabling the institute to accomplish organisational excellence.

I wish to thank the Ministry of Forestry, Fisheries and the Environment, including the Parliamentary Portfolio Committee on Environment, Forestry and Fisheries for their unwavering support and over-sight. I would like to convey my sincere gratitude to Minister Barbara Creecy and Deputy Minister Makhotso Sotyu for their steadfast leadership in advocating the value of biodiversity for economic and social prosperity in the country, the region and globally.

PROF. EDWARD NESAMVUNI
Chairperson
South African National Biodiversity Institute Board

BOARD OF DIRECTORS

Prof. Edward Nesamvuni
Board Chairperson

Ms Beryl Ferguson
Deputy Board Chairperson

Dr Lesley Luthuli

Dr Mmaphaka Tau

Dr Pulane Molokwane

Dr Reginald Legoabe

Mr Leluma Matooane

Mr Paul Daphne

Mr Shonisani Munzhedzi

Ms Skumsa Ntshanga

CHIEF EXECUTIVE OFFICER'S REPORT

The 2021–2022 financial year commenced with the country still firmly in the grips of the COVID-19 pandemic. SANBI's management remained committed to ensuring that staff and visitors to its gardens remained safe and protected. The consequences of the pandemic were felt throughout the organisation as we lost a number of beloved colleagues and the institute's ability to generate own income through its operations was severely limited.

Despite the difficult economic conditions under which the institute continues to operate, I am pleased to report on SANBI's achievements and obligations for the 2021–2022 financial year.

In the past year, SANBI fulfilled its primary mandate through generating and coordinating evidence required to support policies and decisions relating to better management and conservation of South Africa's biological diversity. SANBI played a unique role within the conservation sector of linking scientific knowledge with direct policy advice.

As part of its Gardens Expansion Programme, SANBI has pursued the establishment of new national botanical gardens in the Limpopo and North West provinces. Throughout the process, SANBI has been working with the Department of Forestry, Fisheries, and the Environment (DFFE), the Department of Agriculture, Land Reform and Rural Development, provincial conservation authorities and community leadership in the Limpopo Province. Following these engagements, Minister Barbara Creecy formally declared the Thohoyandou National Botanical Garden in Government Gazette No. 45426 published on 5 November 2021. The formal launch of the Thohoyandou National Botanical Garden was launched on the International Day for Biological Diversity on 22 May 2022.

In the North West Province engagements are continuing with the provincial conservation authorities and the North West Parks Board for the establishment of a future national botanical garden in the province. Additional land has been secured with the support of the World Wide Fund for Nature South Africa to expand the Walter Sisulu and Harold Porter national botanical gardens. These are momentous milestones as SANBI makes it contribution to government's priorities of economic transformation, job creation and skills, health, and education.

In the pursuit of its research mandate SANBI published the second *The status of biological invasions and their management in South Africa* report, which was launched by DFFE Minister

Barbara Creecy on 28 May 2021. The report highlights the increasing trend in biological invasions in South Africa and the risk these pose to biodiversity, including the potentially destructive effects of the failure to address the impact of invasives in the country. The significance of this work is that the evidence-based knowledge has provided for integrated responses by all sectors affected by the impact of invasive species in the country. The report was well received through extensive media coverage on print, broadcast and social media platforms.

The work on adaptation continues to prioritise efforts to build resilience to climate change through SANBI's Adaptation Fund projects. The lessons learned through these projects are informing SANBI's exciting work towards unlocking finance for nature-based solutions to climate change, and the development of several Green Climate Fund project proposals. Emerging proposals include ecosystem-based adaptation for the management of floods, fires and dry spells and the securing of strategic water source areas. These projects are implemented in socio-economically stressed areas enabling SANBI to make a meaningful and long-lasting impact at a local level.

SANBI, through the biosecurity and ecological infrastructure component of the Presidential Employment Stimulus (PES) Programme created 954 job opportunities, 488 of which were filled by women, with 495 being placed at the national botanical and zoological gardens. This contributed to the improvement of South Africa's high youth unemployment and enhanced livelihoods especially in rural areas. Through awareness raising activities and training on conserving ecological infrastructure communities have become more empowered. These opportunities supported South Africa's green economic recovery as a result of the COVID-19 pandemic and enabled SANBI to strengthen its capacity and continue to deliver on its mandate.

SANBI submitted a proposal for the Groen Sebenza which was approved by DFFE in December 2021 paving the way for DFFE to grant SANBI R100 million over a three-year period, 2022/23–2024/25. Through this funding, 1 050 beneficiaries will be recruited and placed nationally across various organisations including all three tiers of government departments, non-governmental organisations and the private sector. Interns will be provided with training, mentoring, computing equipment, personal protective equipment (PPE), mobile data, and some operational funding will also be extended to host organisations.

SANBI also secured R11 million per annum for the next three years to roll out a skilled jobs component of work to supplement the Groen Sebenza Internship Programme currently underway. This allocation will target skilled unemployed graduates in the biodiversity sector. The two funding mechanisms will work together to capacitate the unemployed youth in the biodiversity sector to build an active citizenry and address developmental challenges facing the country.

SANBI continued to engage with local, regional, and international partners in furtherance of its mandate to protect, promote and conserve South Africa's biodiversity richness for all. These engagements were targeted at enhancing the value of the extended networks.

There were significant gains in relation to human capital development and transformation in the year under review. SANBI concluded a process to address the disparities in salaries and conditions of service for a number of employees that were the outcome of the implementation of a dual pay scale system

which was in place since 2019. I am pleased to report that the process was rolled out successfully during the 4th quarter of the financial year.

I wish to express my sincere gratitude to Minister Barbara Creecy and the team in the Department led by the Director-General for the support they have given SANBI during the financial year under review. I extend my gratitude to the SANBI Board Chair and the entire Board for their unwavering support and leadership as SANBI continued to navigate the challenging and unpredictable circumstances exacerbated by the COVID-19 pandemic.

I would like to thank SANBI's staff for their dedication and hard work, as well as our network of partners and stakeholders for the support given to SANBI in the year under review.

MR SHONISANI (SHONI) MUNZHEDZI

Chief Executive Officer

South African National Biodiversity Institute Board

STATEMENT OF RESPONSIBILITY OF THE BOARD

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

The PFMA requires the Accounting Authority (The Board) to ensure that SANBI keeps full and proper records of its financial affairs. The financial statements should fairly present the state of affairs of SANBI, its financial results, its performance against predetermined objectives and its financial position as at 31 March 2022 in terms of the effective South African Standards of GRAP, including any interpretations, guidelines and directives issued by the 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 judgements and estimates, and have been prepared on the going concern basis. The Board has reviewed SANBI's cash flow forecast for the year ending 31 March 2022 and considered the potential long-term resourcing risks and challenges faced by the institute. Due consideration has also been given to the effects of the COVID-19 pandemic on the broader economy and the probable effects thereof on the operations of SANBI. In light of this review and the current financial position, the Board is satisfied that SANBI 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 ensures implemention of 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 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 advice received from 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 partially effective but efficient enough to ensure that the financial records may be relied on for preparing the financial statements, and accountability for the assets and liabilities is maintained.

In the opinion of the Board, based on the information available to date, the financial statements fairly present the financial position of SANBI as at 31 March 2022 and the results of its operations and cash flow information for the year.

The financial statements of SANBI for the year ended 31 March 2022, which have been prepared on the going concern basis, have been approved by the Board and signed on its behalf by:

Prof. Edward Nesamvuni
Board Chairperson

Mr S. Munzhedzi
Chief Executive Officer

Date: 29 July 2022

EXECUTIVE MANAGEMENT

M.S. Munzhedzi
Chief Executive Officer

C. Mbizvo
Head of Branch

E. Mashile
Chief Operations Officer: Corporate Services

L. Sithole
Chief Financial Officer

Prof. R. Sebola
Chief Director: Foundational Biodiversity Science

Dr M. Barnett
Chief Director: Adaptation Policy & Resourcing

C.K. Willis
Chief Director: National Botanical Gardens

D. Pillay
Chief Director: Biodiversity Information and Policy Advice

Dr T. Frantz
Chief Director: Biodiversity Research Assessment and Monitoring

L. Mudimeli
Chief Director: National Zoological Gardens

N. Mpulo
Director: Marketing Communication and Commercialisation

L.V. Ralepeli
Company Secretary

J. Manuel
MANCO Chairperson

M.J. Netshiombo
Chief Director: Human Resources

LEGISLATIVE AND OTHER MANDATES

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

Section 2 of NEMBA stipulates that SANBI's purpose is to assist in achieving the objectives of the Biodiversity Act.

Section 2 sets the further objectives of the Act, i.e.:

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

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

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

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

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

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

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

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

FUNCTIONS

(1) The Institute:

(a) must monitor and report regularly to the Minister on:

1. the status of the Republic's biodiversity;

2. the conservation status of all listed threatened or protected species and listed ecosystems; and

3. the status of all listed invasive species;

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

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

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

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

(f) must manage, control and maintain:

1. herbaria; and

2. collections of dead animals that may exist;

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

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

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

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

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

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

(m) must coordinate and implement programmes for:

1. the rehabilitation of ecosystems; and

2. the prevention, control or eradication of listed invasive species; must coordinate programmes to involve civil society in:

i. the conservation and sustainable use of indigenous biological resources; and

ii. the rehabilitation of ecosystems;

(n) 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;

(o) on the Minister's request, must advise him or her on any matter regulated in terms of this Act, including:

1. the implementation of this Act and any international agreements affecting biodiversity which are binding on the Republic;

2. the identification of bioregions and the contents of any bioregional plans;

3. other aspects of biodiversity planning;

4. the management and conservation of biological diversity; and

5. the sustainable use of indigenous biological resources;

(p) on the Minister's request, must advise him or her on the declaration and the management of, and development in, national protected areas;

(q) must perform any other duties:

1. assigned to it in terms of this Act; or

2. as may be prescribed.

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

48. (3) The Institute must:

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

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

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

SANBI IS ALSO RESPONSIBLE FOR THE FOLLOWING REGULATIONS IN TERMS OF NEMBA:

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

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

LEGISLATIVE AND OTHER MANDATES (CONTINUED)

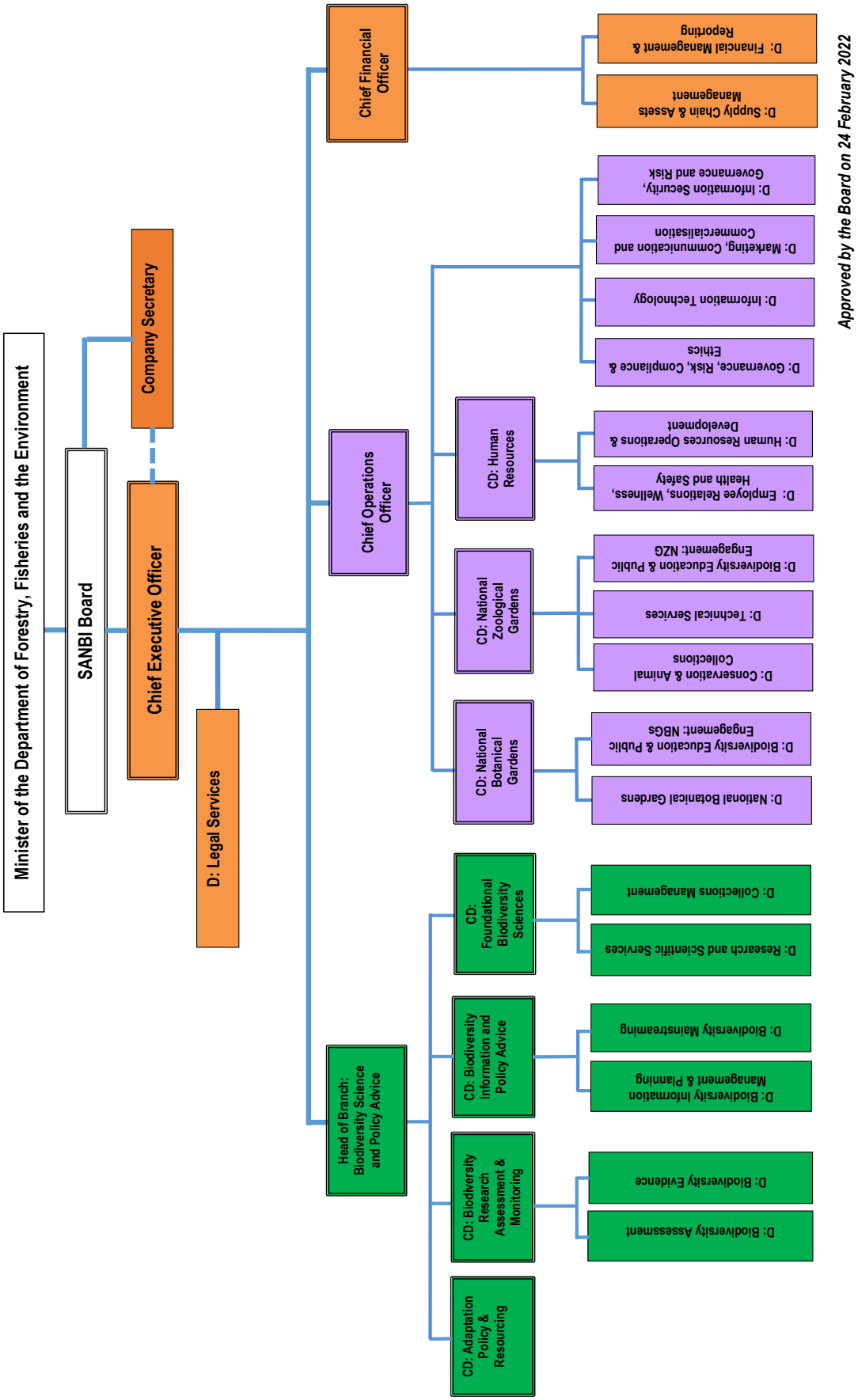
Key priorities are also derived from official sources that identify issues with a high relevance to policy, such as the National Biodiversity Strategy and Action Plan (NBSAP), the National Biodiversity Framework (NBF), government delivery agreements, and other national priorities (e.g., wildlife trade,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

SANBI manages its human resources through the following legislation:

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

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

ORGANISATIONAL STRUCTURE



Approved by the Board on 24 February 2022

SANBI'S NETWORK OF PARTNERS

COLLABORATIONS WITH NATIONAL DEPARTMENTS/ENTITIES
Department of Agriculture, Land Reform and Rural Development (DALRRD)
Department of Basic Education (DBE)
Department of Forestry, Fisheries and the Environment (DFFE)
Department of Higher Education and Training (DHET)
Department of Human Settlements (DHS)
Department of Science and Innovation (DSI)
Department of Water and Sanitation (DWS)
Development Bank of Southern Africa (DBSA)
Environmental Protection and Infrastructure Programmes (EPIP)
Expanded Public Works Programme (EPWP)
National Disaster Management Centre (NDMC)
National Department of Tourism (NDT)
National Research Foundation (NRF)
Presidential Youth Employment Intervention (PYEI)
South African Local Government Association (SALGA)
South African National Parks (SANParks)
South African National Roads Agency Limited (SANRAL)
South African Weather Service (SAWS)
Statistics South Africa (Stats SA)
COLLABORATIONS WITH PROVINCIAL DEPARTMENTS
CapeNature
Eastern Cape Department of Economic Development, Environmental Affairs and Tourism (DEDEAT)
Eastern Cape Parks and Tourism Agency (ECPTA)
Ezemvelo KwaZulu-Natal Wildlife (EKZNW)
Free State Department of Economic, Small Business Development, Tourism & Environment Affairs
Gauteng Department of Agriculture and Rural Development (GDARD)
Gauteng Department of Education
Limpopo Department of Economic Development, Environment and Tourism (LEDET)
Limpopo Department of Education
Mpumalanga Department of Agriculture, Rural Development, Land and Environmental Affairs
Mpumalanga Tourism & Parks Agency (MTPA)
North West Department of Economic Development, Environment, Conservation and Tourism (DEDECT)
Northern Cape Department of Environment and Nature Conservation (DENC)
Western Cape Department of Environmental Affairs and Development Planning (DEADP)

COLLABORATIONS WITH MUNICIPALITIES
Bojanala Platinum District Municipality
Buffalo City Metropolitan Municipality (BCMM)
Cape West Coast Biosphere Reserve
Cape Winelands District Municipality
Capricorn District Municipality
City of Cape Town
City of Johannesburg
City of Tshwane
Dr Kenneth Kaunda District Municipality
Dr Ruth Segomotsi Mompati District Municipality
Ehlanzeni District Municipality
Ekurhuleni Metropolitan Municipality
eThekwini Metropolitan Municipality
Gamtoos Irrigation Board
Midvaal Local Municipality
Mopani District Municipality
Msunduzi Local Municipality
Nelson Mandela Bay Municipality (NMBM)
Ngaka Modiri Molema District Municipality
Nketoana Local Municipality
Oudtshoorn Municipality
Overstrand Local Municipality
Polokwane Metropolitan Municipality
Sedibeng District Municipality
Setsoto Local Municipality
Stellenbosch Municipality
Thulamela Local Municipality
uMgungundlovu District Municipality
Vhembe District Municipality
West Rand District Municipality

COLLABORATIONS WITH RESEARCH CENTRES
African Centre for DNA Barcoding (ACDB)
Agricultural Research Council (ARC)
Albany Museum
Biobanks South Africa (BBSA)
Cape Peninsula University of Technology (CPUT)
Chrysalis Academy
Coaltech Research Association
Council for Geoscience
Council for Scientific and Industrial Research (CSIR)
Durban Natural Science Museum
East London Museum
Forestry and Agricultural Biotechnology Institute (FABI)
Freshwater Research Centre
Glen Agricultural College
Iziko Museums of SA National Museum, Bloemfontein
National Research Foundation (NRF)
Nelson Mandela Metropolitan University (NMMU)
North-West University
Port Elizabeth Museum
Rhodes University
Rutgers University
Sol Plaatje University
South African Agency for Science and Technology Advancement (SAASTA)
South African Association for Marine Biological Research (SAAMBR)
South African Environmental Observatory Network (SAEON)
South African Institute of Aquatic Biodiversity (SAIAB)
South African Medical Research Council
South African Research Infrastructure Roadmap (SARIR)
South African Wildlife College
Stellenbosch University (SU)
The KwaZulu-Natal Museum
Tshwane University of Technology (TUT)
University of Cape Town (UCT)
University of Georgia
University of Johannesburg (UJ)
University of KwaZulu-Natal (UKZN)

University of Limpopo
University of Mpumalanga
University of Pretoria (UP)
University of South Africa (UNISA)
University of Stellenbosch (C.I.B)
University of the Free State
University of the Western Cape (UWC)
University of the Witwatersrand (WITS)
University of Venda (UNIVEN)
Washington University
Water Research Commission (WRC)
Western Cape University

COLLABORATIONS WITH NON-GOVERNMENTAL ORGANISATIONS/BUSINESSES
Adaptation Network
Association for Water and Rural Development (AWARD)
BirdLife South Africa
Botanical Society of South Africa (BotSoc)
Brenton Blue Trust (BBT)
Cape Horticultural Society (CHS)
Conservation Outcomes
Conservation South Africa (CSA)
Duzi Umngeni Conservation Trust (DUCT)
Endangered Wildlife Trust (EWT)
Environmental Monitoring Group (EMG)
Forestry South Africa
Gondwana Alive
Greater Cederberg Fire Protection Association (GCFPA)
Greater Stutterheim Fire Protection Association
GreenMatter
GroundTruth
ICLEI - Local Governments for Sustainability
Indigo Development and Change
Institute of Natural Resources
Isimangaliso Wetland Park Authority
Kwelera Nature Reserve Proprietary Limited
Lepidopterists' Society of Africa

Living Lands
Mabula Ground Hornbill Project
Marine and Coastal Educators Network (MCEN)
National Occupational Safety Association (NOSA)
Nature Conservation Corporation (NCC)
NCT Forestry Cooperative Ltd
Networx for Career Development
Pan African Association of Zoos and Aquaria
Panthera Proteus Initiative
Sappi
Sci-Bono Science Centre
South African Association for Marine Biological Research (SAAMBR)
South African Association of Science and Technology Education Centres (SAASTEC)
South African Cities Network (SACN)
Southern African Foundation for the Conservation of Coastal Birds (SANCCOB)
Sustainable Energy Africa NPC (SEA)
Table Mountain Fund (TMF)
The Garden Route Botanical Garden
The Wildlife and Environment Society of South Africa (WESSA)
Vhembe Biosphere Reserve
Vulpro
Waterberg Biosphere Reserve
Wildlands Conservation Trust
Wildlife Ranching South Africa (WRSA)
World Wide Fund for Nature South Africa (WWF-SA)
ZZ2 farms
COLLABORATIONS WITH INTERNATIONAL ENTITIES
Biodiversity Observation Network (BON)-Development Working Group
Botanic Gardens Conservation International (BGCI)
Conabio
Convention on Biological Diversity (CBD)
Critical Ecosystems Partnership Fund (CEPF)
Flemish Association for Development Cooperation and Technical Assistance (VVOB)
French Development Agency (FDA)
Global Environment Facility (GEF)
Helmholtz-Zentrum Geesthacht

International Association of Botanic Gardens (IABG)
International Barcode of Life (iBOL)
International Union for Conservation of Nature (IUCN)
International Zoo Educators Association (IZE)
IUCN Species Survival Commission (SSC)
Joint Ethno-botanical Research Advocacy–Uganda (JERA)
JRS Biodiversity Foundation
Millennium Seed Bank Partnership (MSBP)
Missouri Botanical Garden
Norwegian Environment Agency
Ocean Conservancy
Royal Botanic Garden, Edinburgh
Royal Botanic Gardens, Kew (RBG, Kew)
Royal Horticultural Society (RHS)
Southern African Development Community (SADC)
The American Museum of Natural History
UN Statistics Division
UNEP World Conservation Monitoring Centre
United Nations Development Programme (UNDP)
United Nations Environment Programme (UNEP)

STRATEGIC OVERVIEW

SANBI
Biodiversity for Life
South African National Biodiversity Institute

SANBI was established in 2004 as a statutory organisation under the National Environmental Management: Biodiversity Act No. 10 of 2004 (NEMBA). SANBI has a broad mandate that is primarily derived from NEMBA and also from other legislation and processes.

SANBI is a public entity under the national Department of Forestry, Fisheries and the Environment (DFFE) and manages South Africa's network of national botanical gardens and zoological gardens as biodiversity centres. SANBI provides invaluable science-based support for the department to make sound policy decisions to protect and conserve the country's natural assets.

SANBI's VISION

Biodiversity richness for all South Africans.

SANBI's MISSION

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

SANBI's VALUES

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

Ubuntu – harnessing, caring, sharing and being in harmony with all of creation.

Growth – nurturing and empowering teams and individuals to grow and reach their true potential.

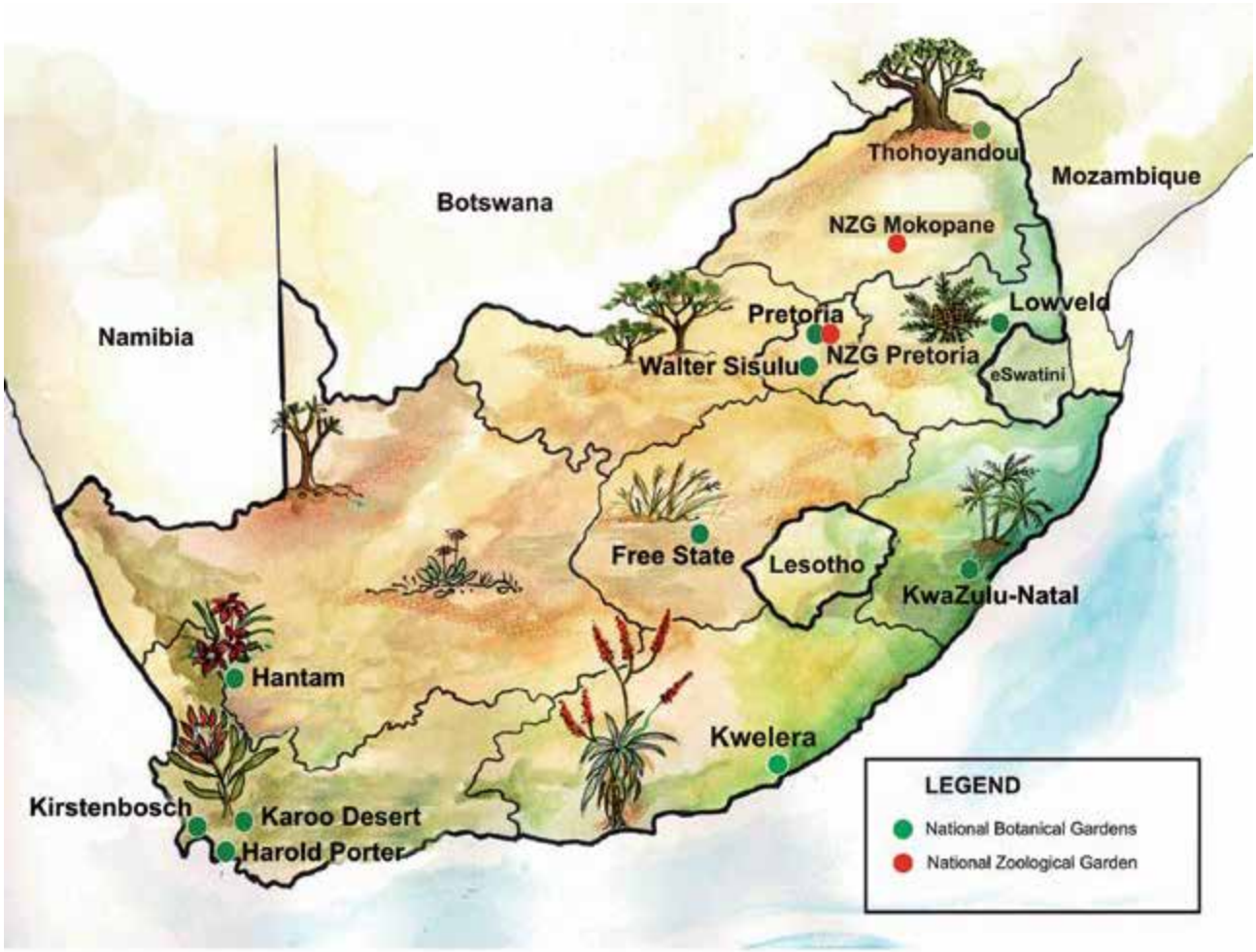
Respect and tolerance – creating open, honest relationships built on trust, mutual respect, dignity and fairness; valuing and accepting individuals and diversity.

Excellence – providing service excellence through passion and professionalism.

Accountability – taking pride and responsibility in our work and caring for our environment and communities.

Togetherness – through collaboration we change the world.

SANBI'S NATIONAL BOTANICAL & ZOOLOGICAL GARDENS



Biodiversity richness for all South Africans

SANBI
South African National Biodiversity Institute

Aloiampelos ciliaris var. *ciliaris*

PERFORMANCE
INFORMATION

PROGRAMME 1

National Botanical Gardens
and National Zoological Garden

Barleria monticola

NATIONAL BOTANICAL GARDENS AND NATIONAL ZOOLOGICAL GARDEN

PURPOSE

Promote the conservation and awareness of South Africa's biodiversity and manage the national botanical and zoological gardens as centres of social cohesion and valuable nature-based recreational facilities.

OUTCOMES

The network of national botanical and zoological gardens are managed and maintained for conservation, research, recreation, education and awareness.

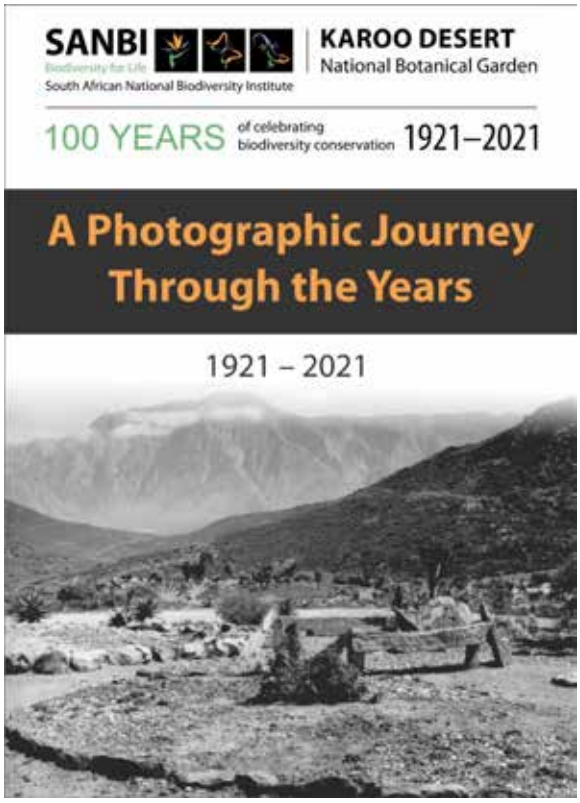
OUTPUT INDICATORS

- Number of maintenance, development and capital infrastructure projects completed.
- New and refurbishment infrastructure projects for Kwelera and Thohoyandou botanical gardens implemented.
- Number of visitors to the NBGs and NZG.
- Number of indigenous species added to the living collections of the national botanical gardens and/or Millennium Seed Bank Partnership (MSBP).
- Number of conservation programmes in the NZG.
- Number of studbooks published under regional and international associations of zoos and aquaria.
- Number of beneficiaries participating in Kids in Gardens Programme in NBGs to promote biodiversity awareness, education and recreation and science engagement programmes at the NZG.

Activities and protocols were adjusted in SANBI's national botanical and zoological gardens as lockdown levels associated with the COVID-19 pandemic and national state of disaster were adjusted by government throughout the year. Restrictions associated with the third (June to September 2021) and fourth (December 2021 to January 2022) waves of the Coronavirus pandemic in South Africa negatively impacted the gardens. It also reduced international tourism and visitors to gardens as a result of the Omicron variant of COVID-19 discovered and announced in November 2021.

SANBI sadly experienced four COVID-19 related fatalities with the passing of Mr Raymond Haynie in June 2021 who had worked at Kirstenbosch National Botanical Garden and Ms Julie Ready who was based at the National Herbarium. Mr Piet Seloana and Mr Jacob Moeng passed away in July 2021 and both of them had worked at the National Zoological Garden in Pretoria.

The Karoo Desert National Botanical Garden in Worcester, Western Cape, completed its centenary year in 2021, having been established initially at Whitehill near Matjiesfontein in 1921. Centenary celebrations were hamstrung mainly due to the organisation's funding challenges associated with the onset of the COVID-19 pandemic since March 2020. As part of the Karoo Desert NBG's centenary year celebrations, a 24-page A5 booklet was produced: *A Photographic Journey through the Years 1921–2021*. The Rowland and Leta Hill Trust committed R100 000 to the Karoo Desert NBG towards the development of a new Braille trail. An additional allocation from the Botanical Society of South Africa of R237 000 was made towards the project in November 2021.



Cover of *A Photographic Journey Through the Years 1921 – 2021*, a booklet celebrating 100 years of biodiversity conservation in SANBI's Karoo Desert National Botanical Garden.

Both national botanical and zoological gardens benefited from a R15 million allocation from the Presidential Youth Employment Intervention (PYEI) in 2021/22. As part of an overall R88 million grant awarded to SANBI from the Department of Forestry, Fisheries and the Environment (DFFE), 419 beneficiaries were appointed across 11 national botanical and two zoological gardens between October 2021 and March 2022. The funds were aimed at stimulating the economy and creating jobs in the environmental sector. Funds were used towards garden and infrastructure maintenance work at SANBI's 13 national botanical and zoological gardens to ensure that these remain popular ecotourism destinations and important centres of social cohesion for surrounding communities.

Beneficiaries of the Presidential Youth Employment Intervention (PYEI) assisting with garden maintenance in the Karoo Desert NBG.

Unemployed youth were appointed through the Presidential Youth Employment Intervention (PYEI) in all national botanical and zoological gardens between October 2021 and March 2022.

The MSBP team and its partners realised a total number of collections for the financial year of 820, of which 311 were new to the MSBP. Various seed research equipment donations were received from Royal Botanic Gardens, Kew, UK. SANBI's Seed Bank was registered as a Core Biobank under Biodiversity Biobanks South Africa (BBSA), a project under the South African Research Infrastructure Roadmap (SARIR) of the Department of Science & Innovation (DSI). Funding of R1 340 000 was approved from BBSA for upgrades and equipment for the SANBI Seed Bank. Additional funding of R151 737 was received from Royal Botanic Gardens (RBG), Kew in March 2022 which will be used to create satellite seed processing labs at the Thohoyandou and Pretoria NBGs and/or for the provision of scientific equipment. A draft Memorandum of Collaboration (MoC) with the Royal Botanic Gardens (RBG), Kew, UK, for a five-year extension of the MSBP from 2022 to 2027 is currently under review by both partners.

MSBP Cape and Eastern Cape teams collecting seeds during a field trip to the Great Fish River Nature Reserve.

The MSBP team training partners, volunteers and SANBI staff to make high quality seed collections for the MSBP.

The MSBP team working with volunteers during a seed collecting field trip in KwaZulu-Natal.

An internal Standard Operating Procedure (SOP) that provides guidelines for water abstraction from weirs in Window and Nursery Streams at Kirstenbosch National Botanical Garden was signed on 15 February 2022 in an effort to conserve the Table Mountain Ghost Frog. This SOP document advises on the timing of abstraction of water from these two streams in Kirstenbosch National Botanical Garden.

From January to December 2022 a National Botanical Gardens Malaise Trap Project was initiated in partnership with the International Barcode of Life (iBOL), University of Johannesburg – African Centre for DNA Barcoding (ACDB) and SANBI's Research and Scientific Services Division. Flying insects collected in gardens are sampled using malaise traps and identified using DNA barcoding. The project aims to provide flying insect checklists for all 11 national botanical gardens. The checklist provided will be incorporated into the Biodiversity Learning programmes in SANBI's education centres. The project expects to document the presence of several thousand arthropod species and to provide detailed information on their distributions and seasonal occurrence patterns.

Malaise traps were set up in all national botanical gardens as part of a research project to record arthropods from January to December 2022, in partnership with the International Barcode of Life and the University of Johannesburg's African Centre for DNA Barcoding.

A partnership between Mpendulo Gabayi who is the tree horticulturist at Kirstenbosch NBG, the MSBP, Thohoyandou NBG, and the Missouri Botanical Garden in the United States was formed to conduct

research on *Brackenridgea zanguebarica* a Critically Endangered tree threatened by overharvesting in the northern parts of the Limpopo Province.

The 35th annual NBG Curators Week was held virtually for the second time since the traditional annual meeting of Garden Curators was first held in 1987, over three days via MS Teams from 27–29 October 2021.

The Thohoyandou National Botanical Garden, which equates to 82.7845 ha of land and is identified as erf 451 Thohoyandou-D, was formally declared by the DFFE Minister in Government Gazette No. 45426 published on 5 November 2021. SANBI now manages 11 NBGs across eight (8) provinces. The formal launch of the Thohoyandou National Botanical Garden took place on 22 May 2022. The DFFE Minister also formally gazetted erf 3007 (1.15 ha land portion) as part of the Harold Porter NBG in Government Gazette No. 45930 on 18 February 2022. SANBI continued its engagement with a North West Provincial Task Team and North West Parks Board to establish a new national botanical garden in the North West Province.

Conservation land gazetted by the DFFE Minister as an extension to the Harold Porter National Botanical Garden, Betty's Bay, in partnership with WWF-SA.

Thohoyandou National Botanical Garden was gazetted as South Africa's 11th national botanical garden and the first for the Limpopo Province.

The vacant curator posts for the Free State and Pretoria NBGs were filled in the year under review. Ms Nondumiso Magija was appointed as curator of the Free State NBG whilst Ms Refilwe Malatji was appointed as curator of the Pretoria NBG. Unfortunately, SANBI has had to bid farewell to the curator of the Hantam NBG in Nieuwoudtville, Mr Eugene Marinus who had tendered his resignation in February 2022 after having served as the garden's first and only curator since 2008. Mr Wonga Komanisi, estate manager from the Harold Porter NBG will be serving as the acting curator until a permanent curator is appointed at the Hantam NBG. Various critical vacant posts were recommended to be filled by SANBI's Vacancy Management Committee and this has been approved by the SANBI CEO for the 2021/22 financial year.

Dual pricing for Kirstenbosch National Botanical Garden were introduced from 1 April 2021. An adjusted fee structure was implemented as from 1 August 2021 that included differential prices for locals or Southern African Development Community residents, African nationals and other international visitors as recommended by the SANBI Board.

A new Augmented Reality international contemporary art exhibition called 'Seeing the Invisible' was launched in Kirstenbosch NBG in September 2021 and will run until August 2022. A Travellers' Choice 2021 award was presented from TripAdvisor, the world's largest travel site, to the Kirstenbosch NBG.

International Augmented Reality (AR) art exhibition hosted in Kirstenbosch National Botanical Garden.

International Augmented Reality (AR) art exhibition hosted in Kirstenbosch National Botanical Garden.

International Augmented Reality (AR) art exhibition hosted in Kirstenbosch National Botanical Garden.

Only two Kirstenbosch Summer Sunset Concerts with performing artists featuring Jimmy Nevis and Jeremy Loops were able to be held in Kirstenbosch towards the end of March 2022 due to COVID-19 lockdown uncertainties and restrictions on social gatherings earlier in the summer season. The Walter Sisulu NBG hosted a spectacular display of lights at its Christmas Wonderland '21 evening event in December 2021, as well as a Valentine's Picnic under the Stars in February 2022.

Kirstenbosch Summer Sunset Concerts resumed for two shows in March 2022.

Kirstenbosch Summer Sunset Concerts resumed for two shows in March 2022.

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Biodiversity, including reptiles, continued to be recorded in SANBI's national botanical gardens.

A new virtual tour for Kirstenbosch NBG was developed and uploaded onto the SANBI website during the year. The Kirstenbosch Photography Facebook page continued to provide a valuable and engaging social media platform for photographs taken by members of the public who have been visiting the garden to share their nature-based content.

The Botanical Society of South Africa (BotSoc) supported the contribution of R1 526 760 through the BotSoc/SANBI Partnership Fund to employ 43 young unemployed individuals across nine (9) national botanical gardens for an initial period of one year. This formed part of the SANBI/BotSoc Youth National Botanical Garden Maintenance Project.

The Lepidopterists' Society of Africa continued undertaking monthly butterfly surveys in some of SANBI's national botanical gardens. Various previously unrecorded butterfly species have been added to the national botanical gardens' biodiversity checklists through this initiative.

Kids in Gardens is one of SANBI's most popular programmes contributing to the attraction of young people into the biodiversity programme. The programme involves approximately three-hour long learning programmes being facilitated in the national botanical gardens. While most of the beneficiaries are mainstream school learners, the programme also has customised learning programmes which are designed to meet the needs of beneficiaries facing physical and mental difficulties, tertiary students, community youth and adult groups. The learning programmes are closely linked to the South African curriculum and therefore, enables learners to engage with the relevant content knowledge and skills. However, the learning programmes also pivot around biodiversity conservation and sustainability issues, and all have components that represent opportunities for the beneficiaries to take positive actions for the natural environment.

Caracal in Kirstenbosch National Botanical Garden. Photograph: Lisa Jayne Kerswill.

Kids in Gardens Programme – learners viewing the Witpoortjie waterfall at the Walter Sisulu National Botanical Garden.

The Kids in Gardens Programme continued to be adversely impacted by the COVID-19 pandemic and the national lockdown regulations, mainly due to the fact that most schools were unable to proceed with outdoor educational excursions. Consequently, the annual target of 30 500 beneficiaries was amended midyear to 10 000 beneficiaries. During the first three quarters of the year, extensive marketing of the programme to private schools, non-governmental organisations and community-based organisations resulted in a substantial number of beneficiaries attending the programme. In the fourth quarter, there was a significant increase in the number of bookings from schools. As a result, SANBI's National Botanical Gardens Division finally exceeded the revised target of 10 000 beneficiaries as 16 789 beneficiaries were reached. In addition to the Kids in Gardens Programme, other environmental awareness initiatives were implemented. This included implementation of activities involving the prevention of biodiversity crimes, celebrations of environmental themed days and the facilitation of holiday programmes. Through the Prevention of Biodiversity Crimes Programme training workshops were conducted with relevant partners and resulted in engaging 211 stakeholders involving community leaders, traditional healers and police officers on important issues such as the illegal harvesting of indigenous tree bark, the illegal harvesting of cycads from poaching and other plants and marine animals facing similar threats.

Arbor Week celebration at an educare centre with Walter Sisulu National Botanical Garden.

High School Career Expo at KwaZulu-Natal National Botanical Garden.

Planting a school garden for World Environmental Day with Karoo Desert National Botanical Garden.

Thirteen (13) environmentally themed days were celebrated with a total 6 098 beneficiaries reached. The celebrated days are the International Day for Biological Diversity, Plant Conservation Day, World Environmental Day, Arbor Month, Wetlands Week, Water Week, Climate Change Week, Weedbuster Week, Marine Week, World Fisheries Day, Recycling Week, Earth Day and National Science Week. Many of the events to commemorate these environmental themed days took place within communities and involved relevant information being shared with the beneficiaries as well as contextual environmental actions being taken, such as planting trees or establishing indigenous gardens. Holiday programmes that are fun-filled days in nature reached 749 beneficiaries with the majority being in early childhood and primary schools.

White-barred charaxes recorded in the Lowveld NBG as part of a national survey of butterflies in SANBI's national botanical gardens.

Pale-yellow telchinia recorded for the first time in the Lowveld NBG and the first record for SANBI's network of national botanical gardens.

Work continued with the implementation of the business plan developed for the use of the bequest left for Kirstenbosch National Botanical Garden by the late Mrs Joan Wrench. The set of projects approved for implementation using funds from the bequest included the following:

- Internal upgrades to the existing Gold Fields Education Centre to become the Joan Wrench Learning Centre.
- Sponsored transport for individuals from designated groups (learners, senior citizens, persons with disabilities) to Kirstenbosch and the Joan Wrench Learning Centre.
- The establishment of a scholarship fund, known as the Joan Wrench Kirstenbosch Scholarship Fund, which has now been established by SANBI and used to provide funding for scholarships and internships to previously disadvantaged individuals (for garden-based students specifically).

During 2021/22, 27 interns and 26 postgraduate students were supported by the Joan Wrench Kirstenbosch Scholarship Fund. For the financial year 2021/22, a total of 4 232 beneficiaries were transported to Kirstenbosch.

Horticultural staff from the Karoo Desert, Pretoria and Kirstenbosch National Botanical Gardens continued to assist conservation and law enforcement authorities in holding thousands of confiscated succulent plants and assisting in theft investigations. The annual Horticultural Enrichment Forum (HEF) was held virtually from 3 to 5 August 2021.

A combined number of 1 361 064 visitors to NBGs and NZG was recorded for the financial year. NBGs received 1 135 939 visitors, while the NZGs received 225 125 visitors during the financial year. The migration process of transitioning to a cashless payment system at the botanical and zoological gardens continued through the year.

Succulent stapelias (starfish plant or carrion flower) in the Lowveld NBG, Mbombela.

Progress continued in the implementation of SANBI's DFFE-funded Infrastructure Programme, with significant investment allocated for improving and refurbishing the organisation's buildings and related infrastructure (such as roads, pathways, parking areas, security infrastructure and bridges), information technology infrastructure as well as research equipment. Amongst others, significant projects completed during the year included new cantilever shadeports in the Thohoyandou National Botanical Garden, replacement of the fire damaged Disa Kloof board walk in the Harold Porter NBG, a new bridge over the Crocodile River in the Walter Sisulu NBG, and a new restaurant deck in the Free State NBG.

Three (3) new deputy directors in SANBI's Regional Infrastructure Programme were appointed on three-year employee contracts from 1 October 2021 and are supporting the coordination, management and oversight of SANBI's various infrastructure projects in the following areas:

- Southern Region: Amjad Hendricks who is based at Kirstenbosch NBG.
- Northern Region: Tanaka Mupudzi who is based at Pretoria NBG.
- Eastern Region: Nkululo Zulu who is based at KwaZulu-Natal NBG.

New bridge built over the Crocodile River in the Walter Sisulu NBG.

Capybaras received from the Netherlands in September 2021.

THE NATIONAL ZOOLOGICAL GARDEN

As with all NBGs, the COVID-19 pandemic continued to have a major impact on the National Zoological Garden during the financial year under review, especially visitor attendance figures. Despite the forced closure of the NZG for five months, various marketing initiatives and the hosting of events after the reopening in September 2021 resulted in the number of visitors surpassing the adjusted expectations as 214 269 members of public visited the NZG, while 10 942 guests were received at the Mokopane Biodiversity Conservation Centre.

Two capybaras (*Hydrochoerus hydrochaeris*) were received from the Netherlands and are on display in a newly renovated enclosure at the entrance to the zoo. Capybaras are the world's largest rodents. Their natural distribution is in tropical South America where they prefer swampy habitats.

The NZG continued to collaborate closely with the Department of Forestry, Fisheries and the Environment in receiving and providing accommodation for a large number of confiscated animals. This year it received six separate confiscation shipments, which included 1 077 scorpions, 43 tortoises, one Nile monitor, 102 axolotls, 36 tarantulas, 12 armadillo girdled lizards, three giant ground geckos, one Karoo girdled lizard, five unidentified lizards, one padloper tortoise, three Bell's hinge-back tortoises, three American bobcats, four ring-tailed lemurs and 193 assorted small parrots.

The National Zoo's single African savanna elephant bull drew the attention of animal rights groups who would prefer to see the animal in a larger more natural environment. The NZG is proud to announce that this bull passed his annual health check with no major concerns. Most of his medical results were even better as compared to elephants of its age in the natural setting.

In total, the NZG reached 24 721 learners, despite the severe travel restrictions placed on schools due to the current pandemic, of which 18 822 visited the zoo and 5 899 visited the Mokopane Biodiversity Conservation Centre.

The NZG, in partnership with the South African Agency for Science and Technological Advancement (SAASTA) launched five science clubs at the Mokopane Biodiversity Conservation Centre

Members of the Limpopo Science Club tending to their vegetable garden.

during this financial year. The first activity focused on establishing a vegetable garden at every school. This was a fantastic learning experience as it combined various knowledge fields and skill sets.

NZG celebrated World Wildlife Day from 4 to 6 March 2022 in partnership with the Zes'khethu Storytelling Festival. This innovative collaborative event combined cultural storytelling with behavioural observations and the conservation of animals.

The NZG collaborated with SAASTA and the nine provincial departments of education to facilitate workshops for educators on the topic of 'Life and Living'. These workshops were conducted online and were designed to empower educators to teach natural science in an exciting and knowledgeable way.

The Life Science Competition for high school learners was conducted at the NZG on 26 February 2022. The schools were very enthusiastic and committed to participate in all activities. A total number of 25 schools participated in the competition which reached 75 learners.

Learners participating in the Life Science Competition.

The online annual conference of the 22nd Marine and Coastal Educators Network (MCEN) was hosted by the NZG from 28 to 30 March 2022. This network promotes awareness and education on the marine and coastal environment. The MCEN was initiated in 2000 and continues to stand the test of time consisting of a vibrant community who convene once a year with the purpose to network, share ideas and resources about the seas and oceans. This year's virtual gathering concentrated on bringing solutions to the impacts of climate change.

During this financial year the NZG phased out its Junior Nature Conservators course and replaced it with a brand-new course called Bio-Science. This course teaches children, not only about biodiversity, the environment and conservation, but it also delves into various further aspects of the life sciences. The Bio-Science course is a prerequisite for children to join the ZooClub.

A Bio-Science course participant receives his certificate from SANBI Chief Operations Officer, Mr Elliot Mashile.

The ZooClub programme is based on various activities and projects that enhance the learning experience of members. Collaboration with both the external and internal stakeholders is paramount for the achievement of greater learning outcomes and impact.

ZooClub members inspecting a snake skin.

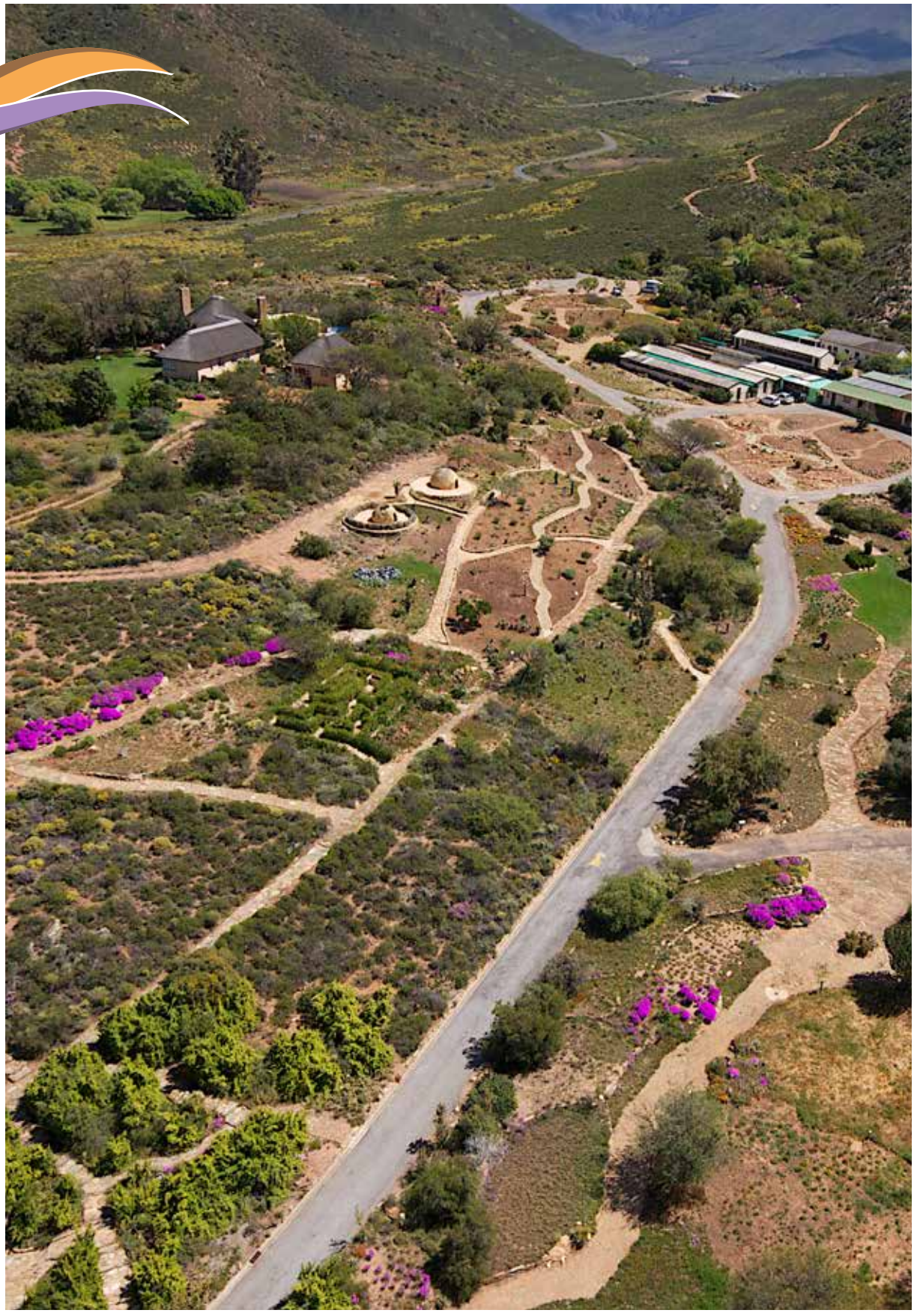
National Water Month was celebrated at two primary schools in the Mabopane township in the City of Tshwane. Among other science-related matters, learners were taught the importance of water and how to take care of water as a scarce resource.

The NZG has embarked on improving the state of its infrastructure. This consisted of nine (9) projects that have been supported through the allocation of substantial funds and contributing towards the maintenance and upgrades of the zoo's facilities. In the current financial year under review, the NZG also completed the security access control project wherein the installations of emergency water tanks, the reconstruction of the capybara enclosure, and the installation of aquarium monitoring systems were established. Renovating the paving of the visitors' parking area has also commenced.

The Karoo Desert National Botanical Garden celebrated its 100th anniversary in 2021.

PROGRAMME HIGHLIGHTS

- R15 million was awarded towards infrastructure maintenance work at SANBI's 13 national botanical and zoological gardens through the Presidential Youth Employment Intervention through DFFE's Environmental Protection and Infrastructure Programme in 2021/22. This was to ensure that the gardens remain popular ecotourism destinations and important centres of social cohesion for surrounding communities.
- 419 beneficiaries were employed across SANBI's national botanical and zoological gardens between October 2021 and March 2022.
- The Karoo Desert National Botanical Garden celebrated its centenary year in 2021, having been originally established at Whitehill near Matjiesfontein in 1921.
- The Thohoyandou National Botanical Garden (82.7845 ha land portion; erf 451 Thohoyandou-D) was formally declared by the DFFE Minister in Government Gazette No. 45426 published on 5 November 2021.
- The DFFE Minister also formally gazetted erf 3007 (1.15 ha land portion) as part of the Harold Porter NBG in Government Gazette No. 45930 on 18 February 2022.
- The Kirstenbosch NBG received a Travellers' Choice 2021 award on TripAdvisor as an attraction that consistently earned great reviews from travellers.
- The combined number of system-generated visitors to NBGs and NZG for the year totalled 1 361 064.
- 16 789 beneficiaries reached through Kids in Gardens Programme against a target of 10 000.
- 6 098 beneficiaries reached through various environmental awareness raising initiatives including Prevention of Biodiversity Crimes, holiday programmes and the celebration of Environmentally themed days.
- 749 early childhood development and primary school leaners reached through holiday programmes.
- 211 police officers, traditional leaders and traditional healers trained through Prevention of Biodiversity Crimes Programme.
- 13 environmentally themed days were celebrated.



The Karoo Desert National Botanical Garden celebrated its 100th anniversary in 2021.

PERFORMANCE INFORMATION

PROGRAMME 2

Biodiversity Science and Policy Advice

Divisions:

Foundational Biodiversity Science (FBS)
Biodiversity Research, Assessment and Monitoring (BRAM)
Biodiversity Information and Policy Advice (BIPA)
Adaptation Policy and Resourcing

FOUNDATIONAL BIODIVERSITY SCIENCE (FBS)

PURPOSE

The purpose of this programme is to ensure that foundational information on species and ecosystems is generated and collated. This involves describing and classifying species and ecosystems in South Africa.

OBJECTIVE STATEMENT

A complete inventory of South Africa's biodiversity is developed and maintained.

PROGRAMME HIGHLIGHTS

Three SANBI herbaria participated in the National Science Collection Facility (NSCF) and collectively accessioned 3 447 new specimens, incorporated 21 702 specimen occurrence records into BODATSA and imaged 42 531 specimens. The collections were used and consulted extensively for scientific research purposes despite having to work under a constrained environment due to the COVID-19 lockdown regulations. A total of 2 054 specimens were sent out on loan to other herbaria and scientific researchers. The herbaria hosted 290 national and 15 international visits and consultations. As part of current identification services 1 730 specimens were identified for external stakeholders.

The cataloguing of the Stellenbosch University cell culture collection donated to the SANBI Biobank in late 2021 has now been completed. This included the addition of 2 104 tubes containing fibroblasts or explant cultures. The process consisted of photographing each individual tube label for identification purposes, allocating a location in a box, all whilst keeping the samples submerged under liquid nitrogen. The data from the photographs were then electronically captured onto a database and Biobank catalogue numbers were assigned. The collection covers close to 200 new species added to the Biobank database, including species such as the manatee (*Trichechus manatus latirostris*), Western giant eland (*Taurotragus derbianus derbianus*), Maxwell's duiker (*Philantomba maxwellii*) and the six-banded armadillo (*Euphractus sexcinctus*). The earliest samples were collected in 1988 and include rabbit and hare species (*Lepus townsendii*, *L. americanus* and *L. californicus*, as well as *Sylvilagus audubonii* and *S. palustris*). Samples were collected from approximately 120 areas around South Africa, and from 20 countries, including the mole-like rich tenrec (*Oryzorictes hova*) endemic to Madagascar, the Syrian hyrax (*Procavia capensis syriaca*) only found in the Levant region (Jordan, Palestine and the Lebanon) and Savile's bandicoot rat (*Bandicota savilei*) found in Myanmar, Vietnam and Thailand. These donated species serve as an immense valuable addition to the Biobank collection, as they are rare and cannot be easily replaced.

The division provided tours of its facilities to dignitaries, notably Ms Barbara Pompili, the minister of Ecological Transition of the Republic of France and her delegation, as well as the chairperson of the SANBI Board, Prof. Edward Nesamvuni, and the Department of Forestry, Fisheries and the Environment's (DFFE's) director general, Ms Nomfundo Tshabalala.

SAVING ENDANGERED SPECIES

SANBI continued to provide scientific services to clients. All pangolin species are listed Vulnerable to Critically Endangered on the International Union for Conservation of Nature (IUCN) Red List of Threatened Species and on Appendix I of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) prohibiting any form of trade in live animals or their derivatives.

It is well known that all eight species of pangolins and their derivatives are trafficked in high volumes across the globe. It is the scales of the pangolins that are mostly trafficked, and despite the fact that DNA technologies can accurately identify the species, it remains difficult to estimate the number of pangolins in seizures. Expanding knowledge by applying robust conversion parameters may be criti-

cal to determine the number of pangolins being trafficked to assist in judicial proceedings in range countries and countries where seizures are made. This can contribute to threat assessments of pangolins within their natural distribution ranges.

The DFFE requested SANBI to support the project by providing specimens and data, capacity and competencies. The project contributed hugely to derive genus-specific, country/region-specific, and continent-specific conversion parameters for pangolins. To this end, the team collected data on eight Temminck's ground pangolin carcasses that were available. Data collected included scale mass, scale morphological measurements and descriptions to aid the compilation of a scale identification guide for the CITES Parties. SANBI contributed maximum input with 19 photographs, seven scale mass measurements plus three scale dimension measurements for each of 140 scales for each of 8 specimens. This was a massive effort and it is hoped that the information compiled will contribute to the global effort to assess the number of pangolins as well as the species in seizures.

SANBI initiated the National Botanical Gardens Malaise Programme (NBGMP), the South African Barcode of Life node (SABOL), jointly with the African Centre for DNA Barcoding based at the University of Johannesburg, and the internal Barcode of Life as lead collaborators will be sampling and identifying flying insects from all of SANBI's eleven national botanical gardens with the use of DNA barcoding. The data generated from this smaller project will supplement the broader GMP, as well as the South African National Report for DNA Barcoding through the SABOL. For the first time, SANBI will be in a position to report on flying insect diversity in all its botanical gardens.

NEW DISCOVERIES

SANBI scientists described new species: namely *Pelargonium pseudosetulosum* (family Geraniaceae), *Geissorhiza mellimontana* (family Iridaceae), *Massonia elandsmontana* (family Hyacinthaceae), and a new subspecies *Pavonia elegans* subsp. *stellata* in the family Malvaceae.

SANBI GRAPHICS & EDITING

SANBI's mandated activities and knowledge base depends largely on the print and electronic media provided by the publishing of SANBI's science-based and scientific biodiversity research information.

This information is published through the SANBI monograph series, two journals and other ad hoc publications:

- *Strelitzia* series (botanical science and research; peer-reviewed).
- *Suricata* series (zoological science and research; peer-reviewed).
- *SANBI Biodiversity Series* (occasional reports on workshops, technologies, projects, symposia and other SANBI activities).
- *Flowering Plants of Africa (FPA)* (peer-reviewed, a Department of Higher Education and Training-accredited biennial botanical research journal).
- *BOTHALIA African Biodiversity Conservation* (peer-reviewed, International Standard Serial Number-rated journal, open access on Online Journal System).

These publications are available as hard copies, as well as electronic versions that can be downloaded at no cost from the SANBI website.

The books and other printed media are also distributed locally and internationally through the SANBI Libraries' exchange agreements with other local and international libraries and made available for purchase to local and international book distributors via the SANBI Bookshop that is situated in the National Herbarium building in Pretoria.

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SANBI LIBRARIES

As a key contributor to the South African National Union Catalogue, SANBI Libraries were able to catalogue and add 322 new titles and 262 new journal issues to their collections. A total of 605 titles were re-catalogued from Universal Decimal Catalogue to the Dewey Decimal System. Retrospective cataloguing of 93 records of the archival collection of Mary Gunn Library was completed. Although there was limited interaction with library users to assess their information needs due to COVID-19 lockdown regulations, 2 661 enquiries were responded to and completed. It was noted that 6 738 relevant online resource searches was undertaken to locate and supply needed information. SANBI staff requested 401 articles that were sourced and supplied through global Biodiversity Heritage Library (BHL) partners as well as 132 national interlibrary loans. SANBI staff members received 361 articles of interest.

SANBI participated at the review of the Biodiversity Human Capital Development Strategy and shared 42 articles of interest to members of the syndicate groups. In addition, SANBI was presented at the 2021 BHL Annual Meeting of Global partners with attendance of the following webinars, symposiums and meetings:

- 'Notes from Nature: The Biodiversity Heritage Collections in Singapore' from the National Library, Singapore and the Restoration and Digitization Service, MNHN Library.
- 'Language of Flowers' on 30 April 2021 at the Chicago Botanic Garden and the Caxton Club.
- The 2021 Biodiversity Planning Forum.
- The African Continent Conference on Digitisation, presented by Universal Knowledge Software.
- Biodiversity Human Capital Development (BHCDS) Syndicate 4 Transformation Meetings.

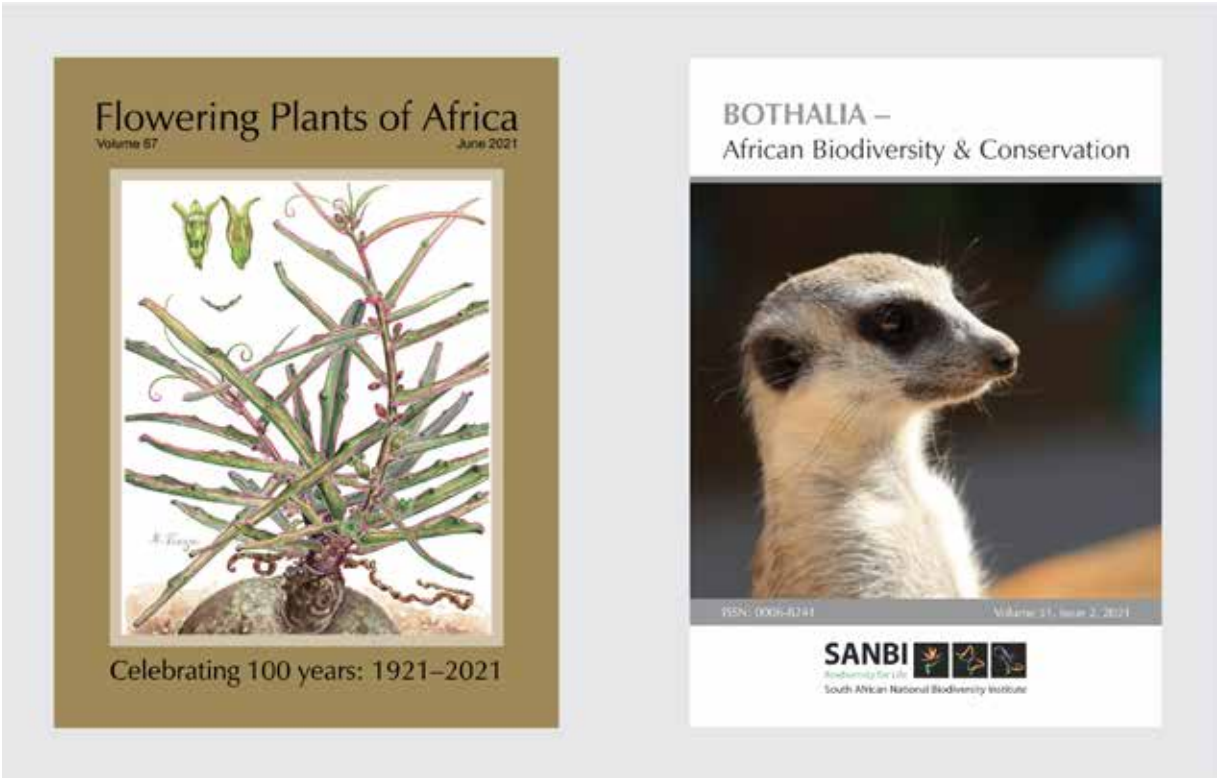
SANBI science-based and scientific research publications that were published in the *Strelitzia* and *Suricata* monograph series during the 2021–2022 reporting period.

- 'Risk and Disaster Management: The UCT Fires' by Ujala Satgoor the executive director of libraries at UCT.
- BHL Africa 2020–2023 strategic planning sessions.
- 'How to Create a Positive and Performance-Driven Culture in 2022' with Shane Green webinar presented by EBSCO Information Services.

GLOBAL GAINS

The SANBI-Global Biodiversity Information Facility (GBIF) attended the GBIF Global Nodes Meeting which took place from 28 June until 2 July 2021. This included a regional session. Following this, SANBI-GBIF was invited to participate at the Biodiversity Digitization Conference, a jointly sponsored conference by the U.S. National Museum of Natural History – Smithsonian, Integrated Digitized

The ad hoc publications of ecosystem guidelines for biomes in South Africa and a national ecosystem classification system handbook will contribute, in addition to biodiversity planning and decision-making processes, to the implementation of sustainable biodiversity stewardship programmes. Biodiversity stewardship is an approach to entering into agreements with private and communal landowners to protect and manage land in biodiversity priority areas.



The two SANBI journals: *Flowering Plants of Africa* celebrated its centenary in 2021; the *Bothalia – African Biodiversity and Conservation (Bothalia–ABC)* journal has its origin from the *Bothalia* journal that was first published in 1921 by one of the predecessor organisations of SANBI, the Botanical Research Institute.

Biocollections and GBIF. This was a virtual conference that took place on 22 and 23 September 2021 and the node was invited to present efforts related to the African Coordinating Mechanism.

SANBI-GBIF has made a submission from South Africa to the GBIF Young Researchers Award Advisory for two excellent MSc and PhD candidates to compete for a €5 000 award. In order to support human capital development efforts in biodiversity informatics, SANBI-GBIF has supported the implementation of a Postdoctoral Fellowship at the University of Sol Plaatje and MoU for cooperation between SANBI and the university has also been developed.

The GBIF Governing Board meeting was held virtually from 5 to 7 October 2021 and was supported by the South African delegation from the Department of Science and Innovation and the SANBI-GBIF team. Here a presentation of the new draft GBIF Strategic Framework 2023–2027 was introduced, including several data-related content areas and updates on funding programmes related to capacity development and data mobilisation. An interesting new development for GBIF during 2021 was a focus on the development of hosted portals supported by the technical developer capacity at GBIF Secretariate. Here SANBI-GBIF was one of approximately ten (10) participants that was awarded the opportunity to be part of the pilot project. This involved the SANBI-GBIF website being produced as an outcome of this new initiative and is available for viewing at www.sanbi-gbif.org.

In an attempt to advance efforts that will expand biodiversity informatics as a field of science, SANBI-GBIF led the publication of a paper which consolidated views from several GBIF participant countries, entitled 'Towards a Post-Graduate Level Curriculum for Biodiversity Informatics. Perspectives from the Global Biodiversity Information Facility (GBIF) Community'. This paper has been published in the international peer-reviewed *Biodiversity Data Journal*.

The South African Node of GBIF has collaborated with GBIF Spain in the establishment of an eLearning Platform for the training and capacity development activities of the node. This platform will support further dissemination of new knowledge, with reference to the training curriculum and content for the node events and is available via the SANBI-GBIF website.

SANBI-GBIF was invited to partner on a Norwegian led initiative known as the 'BioDATA Advanced - Accelerating biodiversity research through DNA barcodes, collection and observation data'. An inception meeting was held on 18 and 19 November 2021 in the form of a hybrid event involving both physical and online participation. The project will offer young researchers from South Africa, Norway and Russia the opportunity to participate in academic mobility and professional training in the study of biodiversity, using modern skills in the field of methods of obtaining, processing, publishing and using open data.

The SANBI-GBIF data management and cleaning for science, policy and sustainable development meeting was held from 22 to 24 February 2022 and attracted approximately 20 delegates from several universities, government agencies and national parks. Training experts from the Centre for Statistics in Ecology, Environment and Conservation from UCT, SANBI and the NSCF supported the event.

PROGRAMME PERFORMANCE

SANBI's Foundational Biodiversity Science Division achieved all its targets set out in the pre-determined objectives and these include:

- Compiling 20 771 plant species descriptions towards the e-flora of South Africa against an annual target of 20 600; and a further compilation of 1 000 animal species descriptions.
- 56 702 biodiversity records were digitised and added to databases, thus exceeding the target by 702. These consist of 21 702 records for plant specimens in SANBI's herbaria and 35 000 animal specimens in museums or based on observations.
- Two versions of biodiversity checklists were completed namely: National Animal Checklist, and the South African National Plant Checklist. Together these constitute the taxonomic foundation for animals and plants in South Africa.
- The work on preserving biodiversity and botanical art realised 6 000 botanical artwork and collection slides being digitised and a further 6 000 wildlife biomaterials was added to the SANBI Biobank.

SANBI CEO, SANBI Board Chair and members hosted French Minister of the Ecological Transition, Barbara Pompili, on a tour at the National Herbarium at the Pretoria National Botanical Garden.

BIODIVERSITY RESEARCH, ASSESSMENT AND MONITORING

PURPOSE

To facilitate the conservation, restoration and sustainable management of biodiversity assets and ecological infrastructure, unlock nature's contribution to people through providing appropriate knowledge, evidence and policy support, and piloting innovative nature-based solutions towards achieving National Development Goals.

OUTCOME

The state of biodiversity is assessed, relevant knowledge and evidence is generated, and this informs implementation and the provision of policy support and advice.

OUTPUT

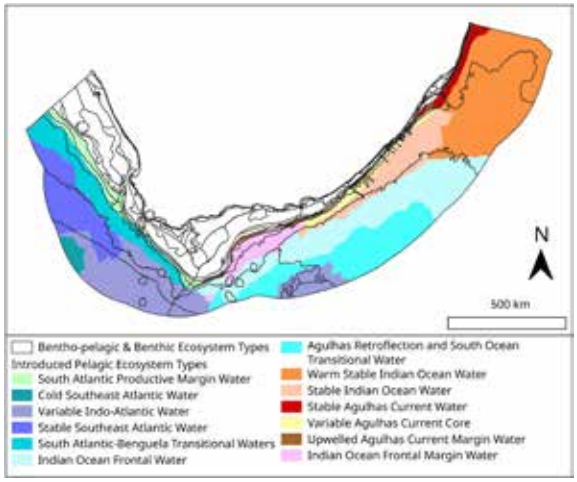
Research undertaken and coordinated to provide applied knowledge to conserve and unlock the benefits of biodiversity.

ECOSYSTEM CLASSIFICATIONS AND MAPS

The classification and mapping of ecosystem types, like the foundational work of taxonomy and descriptions for species, is a core part of SANBI's foundational science. Maps of ecosystem types are used in a variety of applications – including assessment of the status of those ecosystem types, ecosystem and natural capital accounting, and for land-use and natural resources planning. Ecosystem and classification mapping work is conducted in collaboration with a range of institutions and individuals under the oversight of classification committees at national and realm levels, including their subcommittees and working groups.

The annual performance plan target for the 2021/22 financial year was to produce a one version release of the marine ecosystem classification and map.

The marine ecosystem map captures the knowledge on spatial distribution of marine biodiversity in South Africa. The previous version of this classification and map was produced in 2018. Key improvements in the 2022 version of the national marine ecosystem map included a shore polygon edit in the Delagoa Ecoregion, addition of 13 pelagic ecosystem types off the shelf, updates to ecosystem descriptions, introduction of Functional Ecosystem Type (replaces broad ecosystem type and enables global alignment for ecosystem Red Listing) and minor edits to improve nesting and alignment with the International Union for Conservation of Nature (IUCN) global ecosystem typology, as far as is practical for South Africa.



Map highlighting the 13 newly introduced pelagic ecosystem types in colour, together with the outlines of the bentho-pelagic and benthic ecosystem types that remain largely unchanged from the 2018 Marine Ecosystem Map.

A crucial development was the creation of .qml files for users who do not have access to proprietary geographic information system (GIS) software. The new .qml files allow users of QGIS, an open-source GIS platform, to view the ecosystem types in their assigned colours. The division is exploring the development of a version of the marine ecosystem map for use in a mobile app and on Google Earth.

CREATION OF NEW SCIENTIFIC KNOWLEDGE

In the main, SANBI uses three indicators to measure progress on the creation of new knowledge. These are: the number of research papers published in journals accredited by the Department of Higher Education and Training (DHET), the number of cooperative research networks convened and number of risk analyses for alien and invasive species developed and approved by the Alien Species Risk Analysis Review Panel. Journals accredited by DHET are those with an International Science Index, or similar international rating, as well as selected South African journals. This is to ensure that SANBI as an internationally recognised research organisation, is benchmarked appropriately.

Regarding cooperative research networks, SANBI alone cannot generate and maintain all the knowledge required to meet its mandate. Therefore, SANBI cooperates with partners who may have shared goals and can potentially contribute to the generation of intellectual property and/or resources. This allows SANBI to leverage areas of synergy and take advantage of economies of scale in the production of knowledge and in the provision of evidence for decision-makers.

The 2021–2022 annual performance plan target for the number of publications produced was 120, and this target was exceeded by 26 publications. The publications addressed SANBI's research strategy strategic objectives and covered a range of biodiversity related subjects such as taxonomy, classification, genomics, threatened species, invasive species, marine ecosystems, illegal wildlife trade, and climate change adaptation.

SANBI's 2021–2022 annual performance plan target for research networks stated that three cooperative research networks are to be convened, namely the marine, biodiversity economy and freshwater communities of practice. Below are summary reports of the three networks convened:

- The Marine Ecosystem Committee (MEC) is a network of marine ecosystem classification scientists coordinated by SANBI to provide a platform for research and collaboration needed to improve South Africa's marine ecosystem classification, the map, descriptions and assessment. The improvements in the current ecosystem classification system and map such as inclusion of the benthic (ocean floor) and pelagic (water column) ecosystem components and alignment with the IUCN global ecosystem typology are all a result of decisions and support of the MEC. The MEC has been convened annually since 2015.
- National Freshwater Fishes Specialist Group (NFFSG) consists of a network of freshwater fish experts who plan research and gather data on freshwater fishes to enable assessment of their conservation status in South Africa. The group also works with SANBI's Freshwater Biodiversity and Threatened Species Programmes, whilst SANBI also serves as its secretariat. This network was particularly necessitated due to the scientific finding of the National Biodiversity Assessment (NBA) that indigenous freshwater fish are the most threatened vertebrate group, yet is one of the least protected. The network also provides critical oversight to SANBI's Red Listing of freshwater fishes, the National Freshwater Ecosystem Priority (NFEPA) project and input into the National Biodiversity Assessment.
- The network has since identified strategic priority actions for implementation and made significant contributions to the Department of Forestry, Fisheries and the Environment's (DFFE's) National Environmental Impact Assessment screening tool. One of the urgent strategic actions identified was updating existing data and addressing data gaps. In response to this strategic action, and with the support and participation of NFFSG members, SANBI in partnership with SAIAB has initiated a project called 'REFRESH: Renewing data and filling knowledge gaps for freshwater species of South Africa to inform species and ecosystem conservation.'
- Additional decisions of the NFFSG include a data collection focus on Strategic Water

Source Areas, the use of eDNA to improve understanding of taxa in strategic water source areas, generating information on habitat condition to feed into Red Listing and NFEPA, offering training, providing mentorship and expanding the network. Initiatives to grow the network into the Eastern Cape Province have been started through the 2021 BioBlitz, with efforts to solicit their participation in the REFRESH Project. The first meeting of the NFFSG was held in the 2021/22 financial year.

- The network on monitoring data for key species of wildlife in trade are composed of wildlife trade experts facilitating the collection of wildlife trade data, which are known to be limited. This enables SANBI to perform its role of providing technical support to the Scientific Authority of South Africa. To address this wildlife trade data gap, SANBI is implementing one component of a Global Environmental Facility-funded project titled, 'Strengthening institutions, information management and monitoring to reduce the rate of illegal wildlife trade in South Africa'. The project aims to develop a centralised monitoring system that will involve collating valuable population-level data and information on national level priority species such as rhino, lion, leopard and elephant which are currently only captured at the provincial or landowner level. These data are used to inform national and international regulatory processes, listing or reporting process e.g., Threatened or Protected Species and Convention on International Trade in Endangered Species of Wild Fauna and Flora species listings. The current network consists of wildlife trade experts from DFFE and SANBI, and their primary job in 2021/22 was to guide the work of a business analysis consultant designing the national system for population-level monitoring of traded wildlife. The needs analysis and design will be completed in the 2022/23 financial year, and the network will likely be expanded to guide and inform the build and implementation phase of the national information system.

The third indicator focuses on the development of risk analyses for alien and invasive species. A risk analysis provides details on (1) the likelihood and consequences of an alien taxon causing negative impacts, (2) options to reduce the risk, including due consideration of potential benefits, and (3) how the information is made accessible. Risk analyses go beyond the legislated risk assessment process by taking into account risk management and communication. Overall, risk analyses need to be transparent and repeatable and align with national and international agreements, policies and best practice. The priority is to develop risk analyses for species that are already listed in the National Environmental Management: Biodiversity Act No. 10 of 2004 (NEMBA) Alien and Invasive Species Regulations.

SANBI, in collaboration with the Centre for Invasion Biology, has developed a globally recognised risk analysis framework. This framework was specifically designed for the purpose of listing alien species under the regulatory framework of the Alien and Invasive Species Regulations, and is being used by officials to justify applications to revise the listing of species under their mandate. SANBI intended to develop 45 additional risk analyses in the 2021/22 financial year, but managed to achieve 80% of this target.

Despite efforts made to meet the target, there were substantial structural issues that prevented the target from being met. These included a lack of dedicated staff to coordinate the risk analysis process and challenges with the timely delivery of sufficient numbers of high-quality risk analyses by the contracted service providers. To ensure that targets are met in future, SANBI intends employing dedicated staff for risk analyses.

NATIONAL-LEVEL ASSESSMENTS ON THE STATUS OF BIODIVERSITY

SANBI is mandated in NEMBA to, amongst other things, monitor and report on:

a) the status of South Africa's biodiversity, including listed threatened or protected species;
b) the status of listed invasive species; and
c) the impacts of genetically modified organisms (GMOs) released into the environment.

These are large bodies of work that take several years per reporting cycle and require ongoing work in between the launch of each report. Following the publication of the National Biodiversity Assessment 2018, work on the third report that is due in 2024 has started. The preparatory work planned for 2021/22 is all on track and included a strategic retreat for the NBA and realm leads. This was followed by a SANBI-wide indaba to review the NBA process, its form, approach and impact, and an intensive two-day integrated planning workshop for all staff contributing to NBA modules. The next NBA is planned to be web-based and in line with the current digital information age.

The second report on biological invasions titled, *The status of biological invasions and their management in South Africa* was completed and submitted to the DFFE Minister in 2020. The Minister publicly launched the report on 28 May 2021. The NEMBA requires that the report be presented to the Minister every three years, thus the next one is due in 2023. The work on the third report began in 2021/22 and included the development of the project plan, appointment of the Reference and Advisory Committee, development of standardised workflows for obtaining and analysing the data and creating a defensible list of alien species in South Africa.

The third national-level assessment is the report on the impacts of GMOs released into the environment. This first report finalised in 2021/22 is considered an important first step toward a more comprehensive and robust evidence-based assessment. The SANBI Board approved the report on 24 February 2022. The next stage is submission to the Minister and preparation for the public release which is anticipated in the 2022/23 financial year. There is no prescribed time set for the due date of the second report, however, SANBI would like to commence with the process for the next assessment without delay.

PROGRAMME HIGHLIGHTS

RESPONSE TO THE SUCCULENT PLANT POACHING CRISIS

South Africa is experiencing unprecedented levels of illegal poaching of its succulent plant species. As of 30 March 2022, a total of 605 314 confiscated succulent plants have been received by SANBI's national botanical gardens. However, since only a small fraction of poached plant material is likely intercepted by law enforcement it is estimated that over two million plants have been illegally removed from the wild since March 2019.

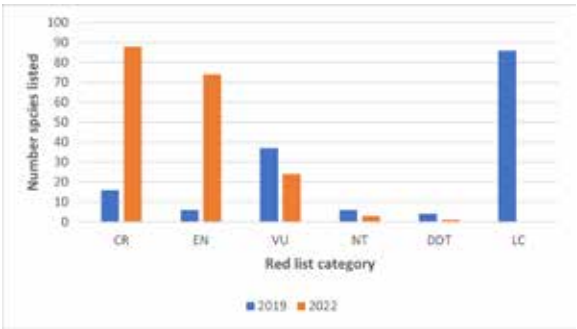
Succulents poaching: A. Confiscated plants being processed by SANBI staff; B. Confiscated plants of *Conophytum regale*, quite possibly representing the last remaining plants being removed from the wild; C. 2.5 tons of confiscated material of succulent plants; D. Confiscated caudiform succulents.

SANBI has responded to the succulent plant poaching crisis by establishing an internal working group. This group has coordinated the much needed capacity from all sections of SANBI to respond to the crisis. New capacity in the form of thirteen Groen Sebenza interns has been recruited and are working across SANBI's National Botanical

Gardens and the Biodiversity Research Assessment and Monitoring Division.

During 2021, SANBI staff worked with DFFE colleagues to develop a National Response Strategy and Action Plan to address the illegal trade in South African succulent flora. SANBI co-hosted a two-day workshop with the DFFE in June 2021 where 103 participants from 22 different organisations identified 16 key priority actions. This strategy was presented to Working Group I (DFFE intergovernmental structure for Biodiversity and Conservation) and IV (DFFE intergovernmental structure for Compliance and Enforcement). Final approval for implementation of this strategy was received from MINMEC on 7 March 2022.

SANBI is working with the World Wide Fund for Nature-South Africa, the Botanical Society of South Africa, Wilderness Foundation Africa and Conservation South Africa to raise funds to implement the actions in this strategy. SANBI's Threatened Species Programme has focused on conducting Red List assessments for priority succulents being impacted by the trade, and 208 species have been assessed and submitted to the IUCN Red List for publication. Red List assessments indicate worrying trends in species extinction risk. For example, the genus *Conophytum* (198 species) has risen from 38% of the species in the genus listed as threatened in 2019 to 97% in 2022. The majority of the species are now listed as Critically Endangered or Endangered (see results of the Red List).

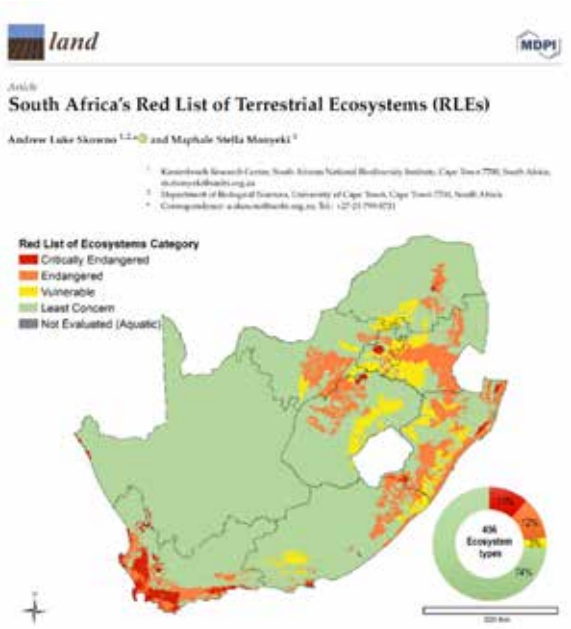


The results of the Red List reassessment of all species in the genus *Conophytum*, the most popular genus in the ornamental succulent trade. The graph shows that between 2019 and 2022 there has been a marked increase in the number of species listed in the categories Critically Endangered (CR) and Endangered (EN) as a result of the illegal trade in this species.

THE NATIONAL BIODIVERSITY ASSESSMENT

Agence Française de Développement (AFD) and the Fonds Française pour L'environnement Mondial has awarded SANBI, as the lead implementing agency and three country implementing agencies in Namibia, Mozambique and Malawi funding to the value of €4 million, approximately R65 million, for the five-year project titled 'Building biodiversity knowledge for action in Southern Africa: Spatial Biodiversity Assessment, Prioritisation and Planning in South Africa, Namibia, Mozambique and Malawi'. The purpose of this project is to develop and/or enhance spatial biodiversity assessments of key species and ecosystem types for four countries: South Africa, Namibia, Mozambique and Malawi; and assist with their application in biodiversity prioritisation and planning in those countries. This project supports SANBI's Research Strategy Implementation Plan and the Corporate Strategic Plan by improving knowledge on the state of biodiversity. This improved knowledge will strengthen SANBI's NBA, land-use decision making and planning, as well as enhance SANBI's ability to contribute to reporting linked to international conventions. In addition, the project will build capacity within SANBI and in partnering countries, thus enhancing regional engagement which is a core objective in SANBI's Regional Engagement Strategy for Africa. The project will also provide much needed financial resources to fill funding gaps on posts crucial to the SANBI mandate.

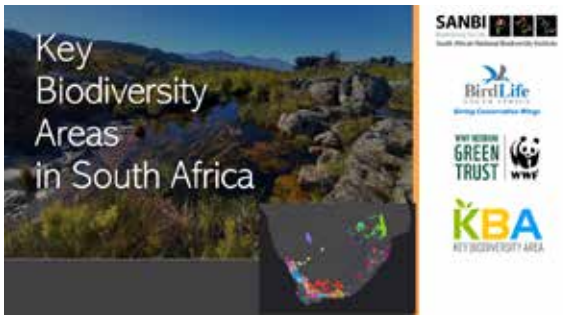
Following publication of the NBA 2018, the National Biodiversity Programme has led the revision of the national list of threatened ecosystems, a key piece of legislation in the biodiversity sector, which was first published in 2011. The revised Red List of ecosystems, as it is known, has passed through the required stakeholder engagement and public comment period and is to be presented to MINTECH and MINMEC in 2022 for final approval for implementation. This Red List of Terrestrial Ecosystems work has been published in the journal, *LAND* (see Map of the Red List of Ecosystems).



Map of the Red List of Ecosystems which is in the final stages of the gazetting process and published in the journal *LAND*.

Another process that started in the creation of the NBA 2018 is the development and publication of the Species Protection Level Index to track performance on the Environment Sectors Medium Term Strategic Framework (see process flow for computation).

The National Biodiversity Assessment Programme has also finalised the Key Biodiversity Areas network for South Africa and is currently working on the supporting database in preparation for submission to the World Database on Key Biodiversity Areas (see Key Biodiversity Areas).

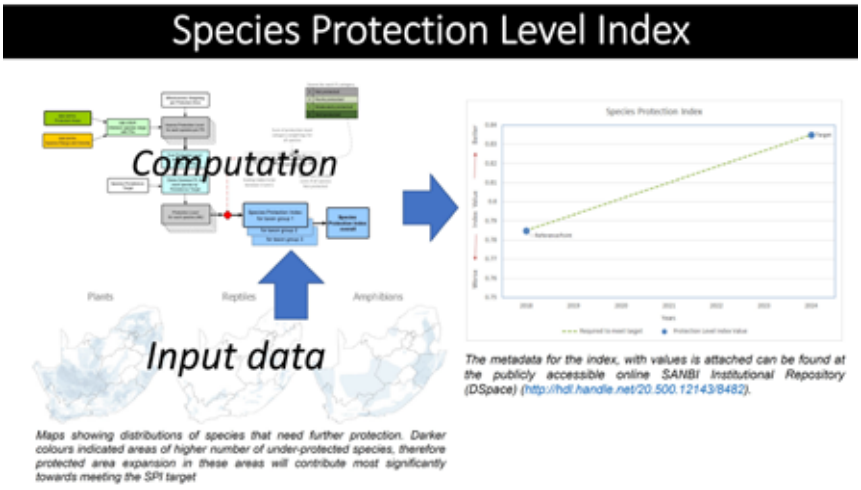


Key Biodiversity Areas in South Africa publication.

THE FRESHWATER BIODIVERSITY PROGRAMME

SANBI's Freshwater Biodiversity Programme's Biodiversity data pipeline for wetlands and waterbirds (BIRDIE) Project recently passed the halfway point and hosted a successful visit for the funder of this project, the JRS Biodiversity Foundation, and its executive director Matthew Cassetta in March 2022.

One of the sites visited with the JRS Director on his visit to South Africa was False Bay Nature Reserve, managed by the City of Cape Town, and one of several local sites the BIRDIE Project would like to partner with going forward. The reserve is home to more than 200 bird species, representing over 60% of bird species in the southwestern Cape. It was proclaimed a Ramsar Wetland of International Importance in 2015.



Process flow for computation of the Species Area Index.

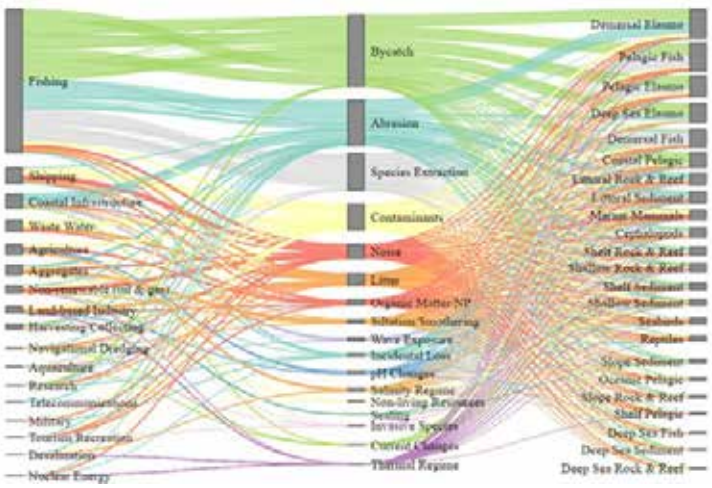
The project aims to improve and leverage two citizen science-based freshwater bird monitoring datasets (Cordinated Waterbird counts and Southern African Bird Atlas Project 2) so that they may be more effectively applied in species and wetland ecosystem conservation and management. For this project, the SANBI Freshwater Biodiversity Programme heads a consortium which includes the University of Cape Town's Centre for Statistics in Ecology, Environment and Conservation; the Fitzpatrick Institute for African Ornithology; Sol Plaatje University; the Royal Belgium Institute of Natural Sciences and SeaScape Belgium, in addition to critical partnerships with BirdLife South Africa and the DFFE (African-Eurasian Waterbird Agreement (AEWA) and Ramsar focal points).

The project has made significant progress in the development of a consolidated set of indicators supported by statistical query functions which will directly support AEWA, Ramsar, as well as other Sustainable Development Goals and the Convention on Biological Diversity related reporting requirements. Statistical methods are in place to model bird abundance and population trends using state-space models and bird distribution using occupancy models. A dashboard prototype has been built to display selected reporting metrics, and through which the citizen science data may be hosted and queried.

THE MARINE PROGRAMME

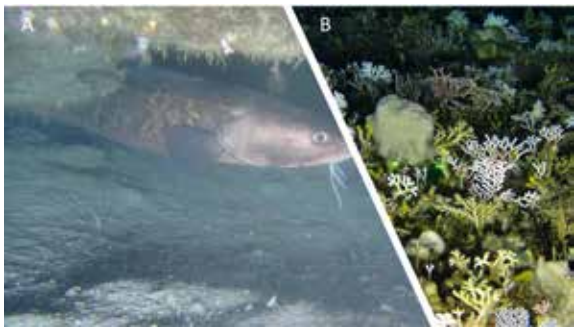
SANBI's Marine Programme conducted a scoping phase of an integrated ecosystem assessment to better account for interactive pressures among sectors and to better assess cumulative pressures on marine ecosystems. A linkage framework was developed in collaboration with others as part of the Mission Atlantic Project to establish linkage chains (interactions) among sectors, pressures and affected ecological components (see South African marine ecosystem).

The Marine Programme's National Research Foundation African Coelacanth Ecosystem Programme (ACEP) funded Deep Forests Project was completed with the team developing new capacity in deep-sea research and working at the maximum depth of the ACEP Remotely Operated Vehicle (300 m). The team collected sponges, lace corals, seapens, seafans and stony corals for taxonomy and bio-discovery. The mapping and management of Vulnerable Marine Ecosystems (also known as Marine Animal Forests) has been improved. A PhD student described a new genus and new species of deep water coral in a publication that also reported 28 new coral species records. The new genus *Ednapsammia* is named after the late Minister Edna Molewa in honour of her work to protect deep-sea corals and offshore ecosystems.



South African marine ecosystem risk assessment – sankey diagram illustrating links among sectors (left), their associated pressures (middle) and the ecological components (right) that are impacted by these pressures. The width of the lines represent the Impact Risk (describing the exposure and severity of an interaction). Sectors, pressures and ecological components appear in descending order based on summed Impact Risk scores. As found in the National Biodiversity Assessment 2018, fishing is the most significant sector impacting marine ecosystems.

The Table Mountain Ghost Frog.



Deep-sea surveys: A. The fish is a kingklip from Gxulu canyon (300 m); B. The Amathole Lace Coral is a species that is fragile and sensitive to habitat damage (150 m).

The Marine Programme Completed an Ocean Literacy project titled MzanSea that was funded by the United Kingdom Research and Innovation One Ocean Hub. A children's activity book, fact sheets and a website to support learning about the fourteen types of marine ecosystems were some of the communication products developed from this project.

Prof. Kerry Sink delivered a keynote address at the Deep-Sea Biology Symposium entitled 'Deep Insights: developing country lessons for deep ocean protection.' Prof. Sink also contributed to a policy brief calling for the inclusion of traditional and indigenous knowledge in the management of Deep-Seabed Mining.

MOLECULAR ECOLOGY AND EVOLUTION PROGRAMME

The programme finalised the research and monitoring component of the project 'Ensuring the survival of iconic Table Mountain species' which was funded by the Table Mountain Fund, and developed an Action Plan for the Table Mountain Ghost Frog. Final reports were submitted to Table Mountain Fund during October 2021 that addressed the Long-term Monitoring Protocol: Habitats and Species; Table Mountain Freshwater Ecosystems: Perennial Stream Health Report and Table Mountain. The accompanying standard operating procedure, which provides protocol to ensure stream flow is balanced with water abstraction, was signed off by Kirstenbosch National Botanical Garden during the reporting period.

The Red List assessment for 210 endemic reptile species was submitted to the IUCN for publication in 2022.

PROGRAMME HIGHLIGHTS

The rediscovery of Chapman's Pygmy Chameleon (*Rhampholeon chapmanorum*) was published in the international journal *Oryx*, received coverage in 158 news articles and reached an Altmetric Attention score of 377. The article was promoted by the University of Witwatersrand and generated news and coverage across social media platforms amounting to an incredible Advertising Value Equivalency (AVE) of R8.73 million.

The publication of descriptions for three new species of dwarf chameleons from the Cape Fold Mountains of South Africa appeared in the *African Journal of Herpetology*.

BIODIVERSITY INFORMATION AND POLICY ADVICE

PURPOSE

Facilitate the conservation, restoration and sustainable management of biodiversity assets and the ecological infrastructure, and unlock nature's contribution to people through providing appropriate knowledge, evidence, and policy support, and piloting innovative nature-based solutions towards achieving National Development Goals.

OUTCOME

The state of biodiversity is assessed, relevant knowledge and evidence is generated, and this informs implementation and the provision of policy support and advice.

OUTPUT

- Foundational biodiversity information produced, compiled, maintained and disseminated.
- Biodiversity policy support and advice provided for national and international obligations.

ANNUAL TARGETS

- Number of biodiversity records published.
- Percentage availability of biodiversity information systems for users.
- Number of policy advice products developed to support mainstreaming of biodiversity assets and ecological infrastructure.
- Percentage of relevant written requests from DFFE and other organs of state responded to within the timeframe stipulated.
- Number of platforms convened to share lessons and strengthen collaboration among relevant partners.

SANBI's Biodiversity Information and Policy Advice Division facilitates the translation of biodiversity science into policy and action. Knowledge generated by SANBI, and its partners, is interpreted into decision-support tools, providing policy advice and mainstreaming biodiversity assets and ecological infrastructure into other sectors. The division works within the context of South Africa's development goals, using biodiversity science to understand how healthy ecological infrastructure can deliver services to people and improve human wellbeing.

Through spatial biodiversity planning, geographic biodiversity priority areas are identified which are then used to inform protected area expansion, restoration of ecological infrastructure, and mainstreaming biodiversity into land-use planning and environmental management in a range of sectors. Pilot projects, implemented in collaboration with partners, demonstrate improved approaches to managing biodiversity assets and ecological infrastructure, as well as the value of conserving biodiversity and its contribution to socio-economic development in South Africa.

Information management is vital to ensure that biodiversity data and knowledge are collated, coordinated and made accessible to a range of users across different sectors. The SANBI Biodiversity Advisor web portal is a comprehensive online resource that provides free access to biodiversity information, knowledge products and value-added tools that support the integration of biodiversity considerations into planning and decision-making.

The division achieved all of its annual targets for the 2021/22 financial year. The annual target of 59 400 biodiversity records published was exceeded by 150 biodiversity records and all biodiversity information systems were consistently available to users. The five policy advice products to support mainstreaming of biodiversity assets and ecological infrastructure were developed and all relevant policy requests were responded to timeously. The division exceeded its annual target of convening five platforms to share lessons and strengthen collaboration among partners with one additional platform convened.

PRESIDENTIAL YOUTH EMPLOYMENT INTERVENTION

The division was awarded R73 million from the Presidential Youth Employment Intervention (PYEI) to implement projects that secured environmental services, created jobs and improved livelihoods for South Africa's youth in areas experiencing high rates of biodiversity loss, poverty and unemployment. These job opportunities focused on maintaining ecological infrastructure in critical catchments where SANBI has an existing footprint, developing skills in biodiversity monitoring and management, and raising awareness about environmental issues whilst securing the ecological infrastructure in rural communities. The projects aimed to empower beneficiaries through skills transfer and open career path opportunities for them in the biodiversity sector. The following was achieved through the division's PYEI projects:

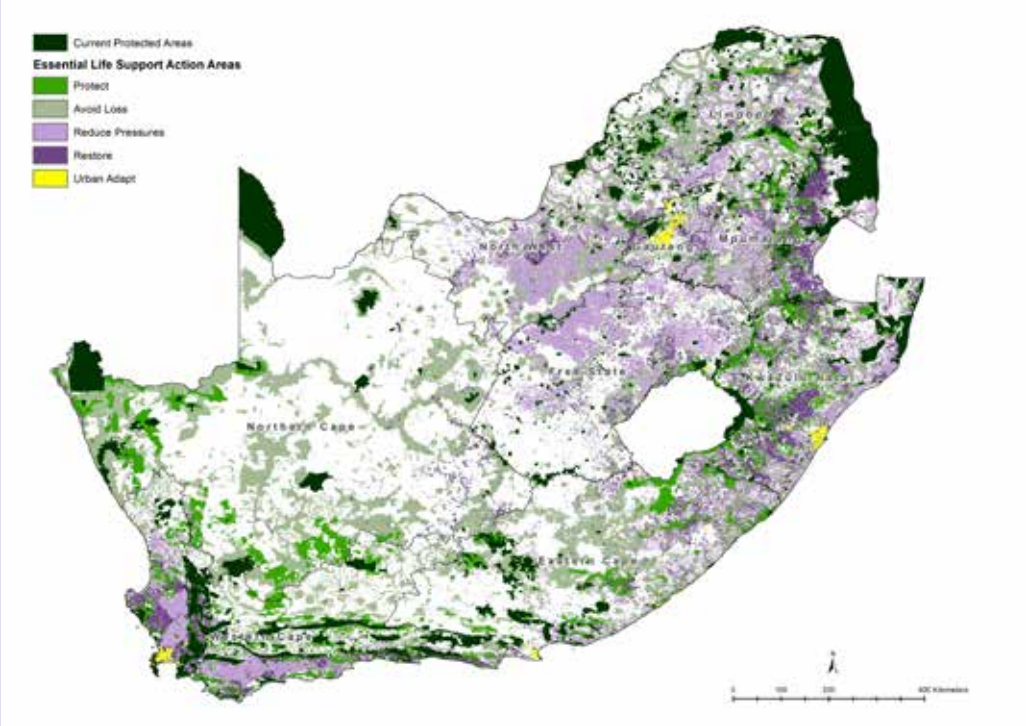
- 865 job opportunities were created to maintain ecological infrastructure in critical catchments and protected areas in the Western Cape and Mpumalanga provinces. These jobs, created through collaboration agreements with water user associations and provincial agencies, resulted in beneficiaries clearing invasive alien vegetation and supporting rehabilitation activities to improve the state of ecological infrastructure.
- 399 unemployed youth were appointed as eco-champs and eco-monitors in rural communities in collaboration with provincial authorities in KwaZulu-Natal and the Eastern Cape. These eco-champs and eco-monitors gained skills in management of livestock, fire and invasive alien plants, as well as data collection and mapping. They established food gardens and eco-clubs at schools, and participated in restoration activities and community awareness programmes. The Sustainable Wildlife Economies Project appointed 62 unemployed youth to create an evidence database for the wildlife economy in Limpopo Province by conducting field surveys on sustainable land management.
- 752 job opportunities were created through a partnership with Conservation South Africa, for intensive clearing of alien wattle trees in Mvenyane in the Eastern Cape. Opportunities were identified to sustain the social and environmental gains made by the project. This has resulted in the community selling wood and making charcoal from the biomass, starting small businesses and buying livestock. Livelihoods have improved and families have been able to pay for essential items such as school uniforms, furniture and household goods. The clearing of wattle in the area has improved the safety of the communities, opened up areas for grazing, resulted in increased water flow from natural springs and improved water security in the area.

ESSENTIAL LIFE SUPPORT ACTION AREAS

SANBI worked in partnership with the United Nations Development Programme (UNDP) on the Mapping Nature for People and Planet Project. South Africa was one of ten pilot countries selected to build on the success of the UN Biodiversity Lab and create a tool to prioritise nature-based actions for conservation and sustainable development. The aim of the tool is to support countries to use spatial data to identify Essential Life Support Areas (ELSAs) to support achieving relevant sustainable development goals. Decision-makers can then use the ELSAs to prioritise actions to protect, restore and sustainably manage key ecosystems necessary to conserve critical biodiversity and provide ecosystem services to people.

As South Africa already has formal processes in place to identify biodiversity priority areas spatially, SANBI worked with the UNDP and the existing community of practice for biodiversity planning to rather identify Essential Life Support Action Areas (ELSAAs). The primary purpose of these ELSAAs is to mobilise resources for nature-based actions. The areas identified in the ELSAAs map (see map below) show where nature-based actions are required to achieve South Africa's top ten policy commitments at the nexus of biodiversity conservation, climate resilience and human wellbeing. The process followed in South Africa is unique as it combined policy commitments across governmental mandates using a real-time decision-support tool that was developed in close collaboration with stakeholders. This resulted in five clearly defined and mappable action categories for (1) protecting, (2) reducing pressures, (3) restoring, and (4) avoiding loss of biodiversity and ecological infrastructure, as well as (5) meeting urban adaptation targets to limit the loss of life, livelihoods, infrastructure and property.

The ELSAAs map is intended to support improved decision-making by all entities that invest resources into nature-based actions, so that the use of these resources can be optimised.



The map of Essential Life Support Action Areas (ELSAAs) identifies areas where nature-based actions are required to achieve South Africa's top ten policy commitments at the nexus of biodiversity conservation, climate resilience and human wellbeing.

NATURAL CAPITAL ACCOUNTING

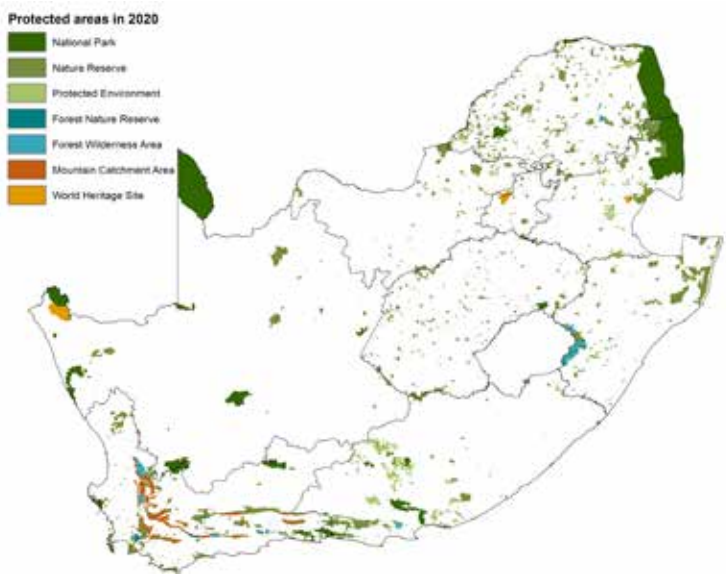
Natural Capital Accounting (NCA) is a practical tool to measure how nature supports people and the economy. SANBI, in collaboration with Statistics South Africa (Stats SA), has worked to place the country at the forefront of the global effort to promote NCA. Over the last five years, South Africa has been a pilot in the European Union funded global Natural Capital Accounting and Valuation of Ecosystem Services (NCAVES) Project, through which products, people, processes and platforms to advance NCA in South Africa were significantly strengthened.

Highlights from the 2021–2022 period included:

- The release of South Africa's first National Natural Capital Accounting Strategy by Stats SA. SANBI co-led the development of the Strategy with Stats SA through the NCAVES Project. The National NCA Strategy provides a ten-year strategy for advancing NCA in South Africa, and is an important milestone towards biodiversity and ecosystems being recognised as national assets that need to be invested in, maintained, managed and measured.

- The release of South Africa's first set of Accounts for Protected Areas, 1900 to 2020 in the second publication in Stats SA's new *Natural Capital Series*. The accounts were also compiled as part of the NCAVES project, and were co-led by SANBI and Stats SA, in partnership with the Department of Forestry, Fisheries and the Environment (DFFE). The accounts track the size and composition of the protected area estate at regular time intervals over 120 years, from 1900 to 2020 (see map below). Based on data from the South African Protected Areas Database maintained by the DFFE, the accounts present the change in protected area estate reported at national, provincial and biome level.

SANBI, in partnership with Stats SA, has played an important role in developing and formalising NCA, especially in relation to ecosystem accounting. This was achieved not only through the publication of the National NCA Strategy and ecosystem accounts, but also through SANBI's long-standing involvement on technical committees and working groups involved in the development of the international System of Environmental-Economic Assessment (SEEA) Ecosystem Accounting. South Africa is a megadiverse country with rich data for ecosystems and biodiversity, coupled with a strong development agenda to address the challenges of poverty, unemployment and inequality. As a result, there has continued to be high levels of interest in South Africa's NCA work in global platforms.



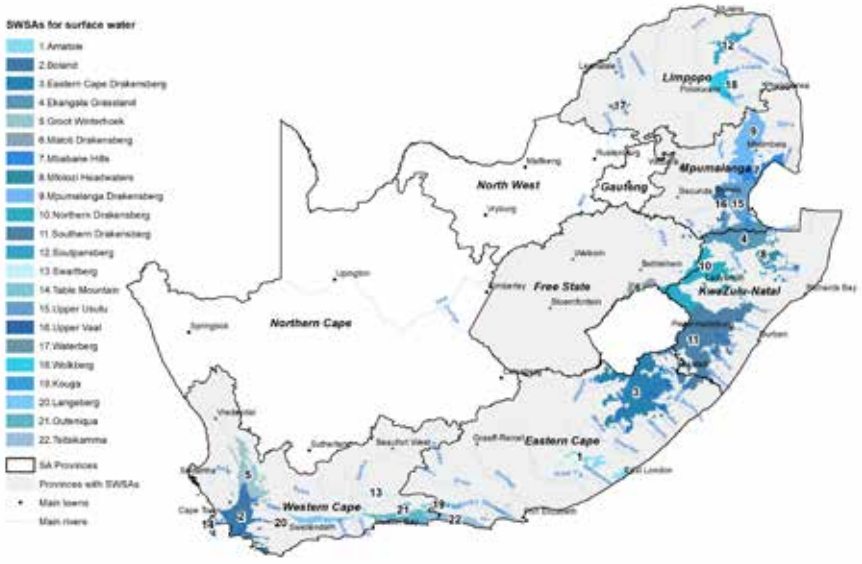
Land-based protected areas in 2020, as per the *Accounts for Protected Areas*, with seven different types of protected areas collectively making up 9.2% (more than 11 million ha) of the terrestrial mainland. Future iterations will also include Marine Protected Areas.

SECURING ECOLOGICAL INFRASTRUCTURE

SANBI coordinates and implements a number of projects aimed at securing naturally functioning ecosystems that deliver valuable services to people, referred to as ecological infrastructure. The Ecological Infrastructure for Water Security (EI4WS) Project, implemented in collaboration with the Development Bank of South Africa, DFFE and the Department of Water and Sanitation (DWS), contributes to enhancing organisational capacity and investment in ecological infrastructure to improve water security in two demonstration catchments, the Berg-Breede and the Greater uMngeni Catchments. To strengthen the enabling environment work is underway to explore financial tools, approaches and mechanisms for effective resource mobilisation for the rehabilitation and maintenance of water-related ecological infrastructure at both a catchment and national scale.

South Africa's flagship ecological infrastructure are its Strategic Water Source Areas (SWSAs) which refer to the 10% of South Africa's land area that provides a disproportionate 50% of the country's water runoff. SWSAs are national ecological infrastructure assets that are essential for water security. In a water scarce country like South Africa, making sure that the main sources of water are secure will help to maintain a continued supply of water that is vital for people and the economy. SANBI convened the SWSA Spatial Task Team which oversaw the development of a fine-scale map of SWSAs for surface water to guide policy, decision-making and management of the SWSAs (see map below). SANBI led the process to prioritise the top 11 of the 22 SWSAs to be secured in the 2019 to 2024 period under government's Medium Term Strategic Framework (MTSF).

An information sharing session on SWSAs was held between DFFE, DWS and SANBI to explore strategic links across departments towards securing SWSAs. SANBI provided support to DFFE in conceptualising and developing a policy-advice report that identifies implementation measures for securing SWSAs, including legal mechanisms, as well as other priority actions such as restoration. The document draws on stakeholder discussions over the course of the last year and forms part of DFFE's deliverables for the MTSF target for securing SWSAs. It also draws on work undertaken as part of the Global Environmental Facility (GEF) funded Biodiversity and Land Use Project to determine which legal mechanisms are most appropriate for securing SWSAs.



SANBI convenes the Spatial Task Team for Strategic Water Source Areas (SWSAs), which oversaw the development of a fine-scale map of SWSAs for surface water to guide policy, decision-making and management of these critical national ecological infrastructure assets. SWSAs are the 10% of South Africa's land area that provides 50% of the country's water.

Under the umbrella of the uMngeni Ecological Infrastructure Partnership, SANBI supported the Amanzi Ethu Nobuntu Programme, established in 2020 by the Department of Science and Innovation (DSI) through funding from the PYEI. Amanzi Ethu Nobuntu prioritises youth employment through its Enviro-Champs Programme which aims to build the capacity of young people through training and skills development. One of the focus areas of Amanzi Ethu Nobuntu is ecological infrastructure management within the greater uMngeni Catchment. SANBI collaborated with the Duzi-Umngeni Conservation Trust to employ 23 enviro-champs for a period of six months to undertake activities related to managing ecological infrastructure within the communities of KwaNovuka and Mpophomeni. Activities included river and wetland monitoring using citizen science tools, education and awareness within communities, and reporting solid waste dumping, surcharging sewage manholes and water leaks.

Through the Living Catchments Project, funded by the Water Research Commission and DSI, SANBI and its partners are committed to developing youth in the biodiversity sector and growing them as leaders to secure and manage biodiversity for water security. SANBI hosted several training opportunities through the project including a youth learning exchange and training sessions for eco-champs where they were introduced to citizen science tools for river and wetland monitoring. SANBI hosted the 2nd Catchment-based Indaba on Ecological Infrastructure where partners engaged on the priorities for water security under the theme 'where there's water, there's life' in the uThukela Catchment. The Indaba brought together policy practitioners and researchers, policy advisers, implementers, government officials and community members to share lessons and experiences on opportunities to strengthen water and food security while protecting ecological infrastructure.

BIODIVERSITY AND LAND USE PROJECT

The $8.2 million Biodiversity and Land Use (BLU) Project, funded by GEF and implemented by SANBI, was completed and received a highly satisfactory rating in the independent terminal evaluation of the project. This is the highest rating level that can be achieved by a GEF-funded project. The project was implemented over the past six years and achieved 20 out of 22 targets, with 50% of its targets being exceeded. The project, which brought together 119 different partners, was implemented in Ehlanzeni, uMgungundlovu, Cape Winelands and Amathole District municipalities. It focused on streamlining environmental decision-making and land use regulation, as well as supporting private and communal landowners to protect critical biodiversity areas. The achievements of the project were celebrated at the close-out event in December 2021. Some of these achievements included:

- The incorporation of biodiversity aspects into the new National Environmental Screening Tool, its protocols and guidelines.
- Twelve municipal Spatial Development Frameworks revised to include biodiversity information, and ongoing engagement led to the inclusion of biodiversity and ecological infrastructure in the first National Spatial Development Framework.
- Certification schemes for the sugar, fruit and forestry sectors, which incorporate biodiversity and have shown strong uptake by the produces.
- Tax law amendments creating a new tax incentive for biodiversity stewardship that was accessed by 13 landowners, generating a tax return of R200 million to biodiversity conservation.
- 36 004 ha in new biodiversity stewardship sites declared, with a further 50 000 ha in progress.
- R6 million invested, across seven innovative municipal projects, to maintain ecological infrastructure.

BIODIVERSITY ECONOMY AND PROTECTED AREAS

SANBI is contributing to the recently initiated, five-year GEF project to catalyse financing and capacity for the biodiversity economy around protected areas. The DFFE will lead the implementation of the project with contributions from SANBI, the South African National Parks and iSimangaliso Wetland Park. The aim is to address high unemployment, inequality and limited livelihood options in and around protected areas by unlocking the potential of South Africa's biodiversity economy to provide opportunities in wildlife conservation. The project will focus on three biodiversity economy nodes including the Greater Addo to Amathole node in the Eastern Cape Province, the Greater Kruger-Limpopo node in the Limpopo Province and the Greater-iSimangaliso node in the KwaZulu-Natal Province.

SANBI will implement a component of the project focusing on sharing lessons across all three of the biodiversity economy nodes, nationally and internationally, to allow for replication and upscaling. SANBI will also oversee the component of work on community stewardship and livelihoods, in partnership with the Eastern Cape Parks and Tourism Agency, in the Greater Addo-Amathole node. This work will use a biodiversity stewardship approach to conserve and manage land in biodiversity priority areas through voluntary agreements with communities.

Eco-champs, appointed through the SANBI Presidential Youth Employment Intervention Project, learning how to use citizen science tools at a learning exchange for the Upper uThukela and Lower uMzimvubu eco-champs at Baleni in the Eastern Cape Province.

Eco-champs, appointed through the SANBI Presidential Youth Employment Intervention Project, at a learning exchange for the Upper uThukela and Lower uMzimvubu eco-champs at Baleni in the Eastern Cape Province

ADAPTATION POLICY AND RESOURCING

PURPOSE

To facilitate the conservation, restoration and sustainable management of biodiversity assets and ecological infrastructure, and unlock nature's contribution to people through providing appropriate knowledge, evidence and policy support, and piloting innovative nature-based solutions towards achieving South Africa's National Development Goals.

OUTCOME

The state of biodiversity is assessed, relevant knowledge and evidence is generated, and this informs implementation and the provision of policy support and advice.

OUTPUTS

Support for the implementation of nature-based responses towards the just transition to a low carbon economy and a climate resilient society.

ADAPTATION POLICY AND RESOURCING

The Direct Access modality is an exciting finance mechanism of the Adaptation Fund (AF) and Green Climate Fund (GCF) whereby national and regional institutions are afforded the opportunity to become accredited with the Funds, and to lead project development and subsequent oversight processes in their countries.

The South African National Biodiversity Institute (SANBI) was accredited as the National Implementing Entity for the AF in South Africa in 2011 and a Direct Access Entity of the GCF, which is the largest operating entity of the United Nations Framework Convention on Climate Change, in 2016. It has since pioneered and championed the Direct Access modality for climate finance.

ADAPTATION FUND PROJECT IMPLEMENTATION

In its capacity as South Africa's National Implementing Entity of the AF, SANBI has continued to implement two AF projects:

- The USD 2.5 million project, 'Taking Adaptation to the Ground: A Small Grants Facility for Enabling Local Level Responses to Climate Change', was implemented in the Namakwa and Mopani district municipalities. The overall goal of the Small Grants Facility project was to ensure that vulnerable, rural communities in the project target areas have reduced vulnerability and increased resilience to the anticipated impacts of climate variability and change through the incorporation of climate adaptation response strategies into local practises. In addition, the project piloted and developed an understanding of small grant mechanism development and implementation in the context of climate finance, with a view to scaling up and replicating this model.

Through the Executing Entity, the project contracted 12 Small Grant Recipients to implement small grant projects that built the climate resilience of vulnerable community members against the impacts of climate change. The projects directly benefitted close to 2 000 community members who live in areas vulnerable to the effects of climate change, which greatly exceeds the targeted number of direct beneficiaries (the original target was 600 direct beneficiaries). The Facilitating Agencies for each target district (Conservation South Africa in the Namakwa district and CHoiCe Trust in the Mopani District) supported the small grant recipients in the implementation of their approved projects. This included capacity building based on needs identified through the project.

In its final year, ending December 2021, SANBI consolidated the lessons learned through the project through the development of a set of communication products that included the finalisation of a set of eight cases studies, a policy brief and the development of a blueprint for scaling up locally led adaptation in South Africa and beyond.

The USD 7.5 million 'Building Resilience in the Greater uMngeni Catchment' Project is being implemented by the uMgungundlovu District Municipality in collaboration with the University of KwaZulu-Natal. The overall objective of the uMngeni Resilience Project is to reduce the vulnerability of communities and small-scale farmers in the uMgungundlovu District Municipality to the impacts of climate change. This is to be achieved through implementing a suite of complementary gender-sensitive project interventions, focusing on: i) early warning systems; ii) ecological and community infrastructure strengthening; iii) small scale climate-resilient agriculture; and iv) knowledge management.

The project is entering its final year of implementation and substantial progress has been made across all four components noted above. Under the early warning system component, the individual flood, fire, agrometeorological and lightening systems have been developed, and now need to be integrated into a Multi-Hazard Early Warning System as per national and international best practice standards. Under the community infrastructure component, specifications for the strengthening of community houses and other infrastructure have been developed with a view to undertaking the work in the final year of the project. Many of the Ecological Infrastructure targets have already been met, including those related to grassland and wetland restoration. Similarly, the climate-resilient agriculture component has achieved many of its targets, with close to 1 000 small scale farmers (76% of whom are female) being supported to grow climate-resilient crops and sell these through formal market agreements.

Through the knowledge management component, community champions have been trained through NQF-level courses, and learning exchanges and reflection workshops have been held. These will be expanded into a series of policy conferences on the thematic areas of the project in the final year of implementation.

GREEN CLIMATE FUND PROJECT PROPOSAL DEVELOPMENT

SANBI has been working with stakeholders to develop a national pipeline of project proposals for submission to the GCF. To date, it has developed and submitted three first stage proposals (Concept Notes) to the GCF as follows (several additional projects are under discussion with national and provincial partners):

The first Concept Note for the project entitled 'Scaling up ecosystem-based approaches to managing climate-intensified disaster risks in vulnerable regions of South Africa', with a grant value of USD 20 million, was submitted to and approved by the GCF Secretariat in November 2019. The proposed project will scale-up ecosystem-based approaches to buffer the impacts of climate-intensified extreme events and enhance the adaptive capacity of vulnerable communities. This will be achieved by:

- Rehabilitating vulnerable catchments.
- Integrating ecosystem-based approaches into settlement planning and disaster risk reduction.
- Upscaling ecosystem-based disaster risk reduction (Eco-DRR) approaches across South Africa.

The project will be executed by the Department of Forestry, Fisheries and the Environment and the National Disaster Management Centre of the Department of Cooperative Governance and Traditional Affairs. An application for Project Preparation Facility support to develop this into a full Funding Proposal has been approved and consultants are currently undertaking scoping studies in support of the Full Funding Proposal.

Mr Magezi Wilfred from the Mninginisi Village in the Mopani District showcasing how his organisation has built resilience to climate impacts following the implementation of 'Climate Smart Agriculture' techniques introduced by the Community Adaptation Small Grants Facility Project.

Project beneficiaries from the Drought Resilient Agriculture Project in the Mninginisi Village showcasing how rainwater is harvested and stored in an underground reservoir for irrigation in their established communal garden.

School children from the Vulindlela project area of the uMngeni Resilience Project participating in activities to raise awareness on the benefits of activities that build resilience to the impacts of climate change.

The second Concept Note is for a project entitled 'Ecosystem-based Adaptation solutions for transforming smallholder farming systems that are vulnerable to the impacts of climate change in South Africa (EbA-Farm)' with a proposed grant value of USD 10 million. The proposed project will adopt a participatory, action-learning approach using nature-based solutions to enhance the resilience of smallholder farmers in vulnerable catchments in the provinces of KwaZulu-Natal, Eastern Cape, Mpumalanga and possibly Limpopo in South Africa. A Concept Note for the project has been endorsed by the GCF Secretariat and it is anticipated that full Funding Proposal development will commence in 2022/2023.

A site visit to one of the refurbished earth dams in the Ga-Ntata village with members of the local water community. The dam provides drinking water to livestock farmers in the Ga-Ntata village.

The third Concept Note, for a project entitled 'Ecosystem Based Adaptation for Water Security in South Africa', aims to secure and safeguard the resource base and strengthen water security in South Africa's Strategic Water Source Areas. The project will seek USD 30 million in grant finance from the GCF and is being led by the Department of Forestry, Fisheries and the Environment and the Department of Water and Sanitation. A revised Concept Note proposal has recently been submitted to the GCF and SANBI is awaiting feedback from the Secretariat.

GREEN CLIMATE FUND READINESS SUPPORT

SANBI has closed out its USD 380 000 Readiness Grant from the GCF. The grant was used to develop a set of processes and tools to facilitate improved management of SANBI's anticipated GCF portfolio of projects, to develop initial concept note proposals for submission to the GCF and to engage the private sector towards developing a programme of work for private sector involvement adaptation projects in South Africa.

UNLOCKING CLIMATE FINANCE FOR CLIMATE CHANGE ADAPTATION - SUPPORT FROM THE GOVERNMENT OF FLANDERS

SANBI has received core support from the Government of Flanders to assist it to develop a funded portfolio of GCF projects. The 2 646 832 EUR, approximately R48 million project, approved in 2020, runs until November 2024. This project aims to deliver:

- At least four full Funding Proposals (with values of at least USD 10 million in GCF investments each) being submitted to, and being supported by the GCF.
- Residual capacity to lead this work being built within SANBI and other South African institutions.
- The mobilisation of a science-based technical support network.
- A series of knowledge products that track this investment and contribute to a narrative that makes the case for sustained institutional investments in developing country Direct Access Entities. SANBI will also demonstrate how investments in climate change adaptation are supporting the Just Transition to a climate-resilient society.

The Government of Flanders support is proving to be critical in improving South Africa's ability to strengthen the institutional and policy environment for climate change adaptation and will in time also contribute to reducing the vulnerability of target communities to the adverse impacts of climate change. Progress with the GCF project pipeline, which has resulted in one project under full proposal development, a second project's Concept Note endorsed by the GCF and thereby unlocking full proposal development, and a third project concept note submitted to the GCF, would not have been possible without support from the Government of Flanders.

Members of one of the farming cooperatives established through the uMngeni Resilience Project in the Nhlazuka project area. The project supported the establishment of cooperatives with a view of increasing productivity in smallholder farms. This has increased food security in the area and built resilience of vulnerable community members against the impacts of climate change.

The funding also supports 18 Groen Sebenza placements into provincial government and sectoral departments that have climate change programmes and report into the Department's Working Group 9. This placement provides young black professionals with the opportunity to build their capacity and awareness about climate change adaptation and associated gender mainstreaming; whilst providing much needed capacity to the climate change programmes of work in the provinces and sectors.

ADAPTION POLICY AND RESOURCING EVENTS AND INFORMATION SHARING

SANBI's work was shared on several international platforms, including the following virtual conferences and webinars:

- International Conference on Community-based Adaptation to Climate Change (CBA15): Challenges of Scaling Up and Financing Ecosystem-Based Adaptation in Africa – The Role of Innovation (15–18 June 2021).
- Adaptation Futures: panel presentations on 'EbA governance from a governmental perspective' and the 'Missing middle in Adaptation Finance' (5 and 7 October 2021).
- United Nations Climate Change Conference of the Parties (COP26): South Africa Pavilion presentations on 'Building partnerships for adaptation action in South Africa – Direct Access mobilisation of climate finance from the Green Climate Fund' and 'Financing the Just Transition in South African cities to net-zero by 2050 with the Alliance for Climate Action South Africa – potential funding opportunities through SANBI's role as a Direct Access Entity of the Green Climate Fund' (11 November 2021); presentation at the UNFCCC Resilience Hub: Pathways to finance – challenges and opportunities for accessing finance for locally led adaptation (3 November 2021).
- Green Climate Fund regional workshop for Direct Access Entities in Africa: presentations on 'Green Climate Fund Proposal Preparation support tools: GCF support tools that SANBI has accessed' and 'Private Sector in Adaptation: SANBI's experience in engaging the private sector in adaptation projects in South Africa' (23 and 24 November 2021).
- Gobeshona Global Conference: Locally led adaptation Actions: Experiences and perspective from Adaptation Fund projects – Taking adaptation to the ground: A small Grants Facility for enabling local-level responses to climate change (28 March 2022).

APR staff provided information to researchers through several interviews, including with the International Centre for Climate Change and Development, International Institute for Environment and Development, University of Oxford: Saïd Business School, and the Adaptation Fund.

SANBI sits on the United Nations Framework Convention on Climate Change Nairobi Work Programme Biodiversity and Climate Change Adaptation Expert Group and has provided support for the Presidential Climate Commission.

SANBI is represented on the Adaptive Capacity Facility Steering Committee, the Adaptation Network Steering Committee, the Advisory Board of the African Research Universities Alliance, the Southern African Climate Finance Partnership Technical Reference Group, the Ecosystem-based Adaptation Coordination Steering Committee and the Project Coordinating Committee of the uMngeni Resilience Project.

The SANBI APR Division is the Secretariat of the external National Adaptation Funds Advisory Body and the Government of Flanders–funded 'Unlocking Climate Finance for Climate Change Adaptation Project' Steering Committee.

Livestock grazing in rangelands restored through the uMngeni Resilience Project in the Vulindlela project area. Activities in this area have focussed on grassland and wetland restoration, as well as the establishment of a grazing management plan that has been co-developed with local livestock farmers.

Traditional houses in the Nhlazuka project area of the uMngeni Resilience Project. Activities in this area include climate strengthening of houses such as those shown in the photograph, clearing of invasive alien vegetation to prevent bush encroachment, setting up of a wildfire early warning system, and the establishment of community gardens to improve food security.

PERFORMANCE
INFORMATION

PROGRAMME 3

Human Capital Development and Transformation

HUMAN RESOURCES
Building the talent pipeline –
Feedback from interns and students hosted in 2021/22

PURPOSE

- Contribute towards the development of the next generation of black biodiversity professionals.

OUTCOME

- A transformed and suitably skilled workforce and active citizenry is developed to strengthen the biodiversity sector.

OUTPUT

- Black biodiversity professionals are supported with work-integrated learning, intern placement ad postgraduate studies.

The year under review welcomed the third intake of interns and postgraduate students funded by the Joan Wrench Kirstenbosch Scholarship, an endowment established in 2018 that recognises the academic achievement of young professionals and provides financial support for them to pursue practical training or postgraduate studies in relevant biodiversity fields. SANBI hosted 19 new interns in a variety of fields, namely plant taxonomy, biodiversity informatics, biodiversity monitoring, citizen science, freshwater ecology, environmental education, *ex situ* conservation, horticulture, genetically modified organisms, geographic information systems, biodiversity planning, herpetology, nature conservation, plant and animal data, restoration ecology and plant physiology. Postgraduate bursaries were awarded to eleven students.

SANBI is grateful for several partnerships in the past year, enabling us to mentor hordes of enthusiastic young professionals. These partnerships include the World Wide Fund for Nature – South Africa (WWF-SA), South African Agency for Science and Technology Advancement, DFFE and the HSRC.

Congratulations to all the postgraduate students who completed the attainment of their degrees in the past year, despite the challenges brought on by the pandemic. They have made SANBI proud!

Professional development tally 2021/22:

- Work-integrated learning students: 10
- Interns and Groen Sebenza pioneers: 165
- Postgraduate student degrees completed: 17
- Postgraduate student bursaries awarded: 16

Benjamin Moswane, WWF-SA intern with Ms Kim Labuschagne

I was an intern based at the SANBI Biobank. My time at the Biobank was fulfilling both on a personal level and also at a professional level. I previously did not see myself as an animal lover, however, all of that changed when I started my internship. I started to love animals and I loved the work I was doing at the Biobank. During my time at the Biobank I learned that the conservation of our wildlife is particularly important, as this will promote biodiversity and protect our wildlife for future generations. We are now facing the sixth mass extinction and being part conservation efforts through the Biobank was also very fulfilling.

I acquired a lot of skills at the Biobank. For instance, laboratory skills, report writing skills, biomaterial sampling, quality control of the received samples and proper storage of samples. I also went on a number of field trips while at the Biobank, yet it is one field trip in particular that stood out for me. We went to Mystic Monkeys and Feathers Zoo where we were sampling live penguins. The task involved having to work quickly to avoid stressing the animals. Working at the Biobank sparked my interest in animal research, and more specifically zoonotic and tropical diseases, which is what I want to venture in and focus on in attainment of my Master's degree.

Lauren James, Joan Wrench Kirstenbosch Scholarship intern with Dr Nicola Bergh

I recall my excitement I experienced when I started my internship at the beginning of April 2021 as I walked up to the Kirstenbosch Research Centre and took in its stunning setting against the mountain. I was a Joan Wrench Plant Taxonomy intern in the Compton Herbarium, based in Cape Town and received mentoring by Dr Nicola Bergh.

My internship has been a very enriching experience. I have learnt a great deal through training in the herbarium, skills development programmes and about processes in a workplace. The highlights were the weekly taxonomy course offered by Dr John Manning and field trips associated with my research project.

South Africa was placed under national lockdown due to the COVID-19 pandemic for a large portion of my internship. Unfortunately this was quite an

isolating experience as most skills development sessions were held virtually and there were few people working in the herbarium.

Before my internship, I knew that I wanted to pursue my MSc in botanical research, but I did not know which direction I wanted to go in or where I wanted to study. My internship gave me the opportunity to explore plant taxonomy and systematics, which I find exciting and stimulating. I was delighted to be awarded a SANBI Joan Wrench Kirstenbosch Scholarship, enabling me to do my MSc at the University of Cape Town. I will be studying the systematics and evolutionary ecology of members of the daisy genus *Osteospermum* L. (Asteraceae).

I would like to thank all who were involved in making my internship such a positive experience.

Shanice Mohanlal, Freshwater Programme–funded Master's student with Ms Nancy Job

I recently completed an MSc in Environmental and Water Science at the University of the Western Cape. I was a SANBI bursary recipient under the Freshwater Programme. My master's research project is centred around the environmental modelling of wetland distribution in the Western Cape Province of South Africa, from a climate change perspective. My experience of having SANBI as a bursar extended the provision of financial assistance. There were opportunities offered for knowledge sharing and the acquisition of critical academic and technical skills development.

My time at SANBI inspires me to advocate for the environment and future sustainable development. My wetland modelling research and the work of the Freshwater Programme is important as it contributes to increasing the accuracy and builds on the foundation of wetland-related decisions. My interest and passion for wetlands and climate change, in particular, was sparked, and now I remain a fledgling 'wetlander' hopeful to learn and explore more of these beautiful ecosystems as well as investigate how I can contribute towards the mitigation and adaptation of climate change. Lastly, working with SANBI was an enlightening experience and motivates me to continually be learning as much as possible from different perspectives and scientific disciplines. I am grateful for my experiences with SANBI and hope to collaborate with the Institute in the future.

Ofentse Mmako, WWF-SA intern with Dr Marianne le Roux

In 2020, I enrolled in an MSc program at the North-West University's Mafikeng campus and obtained my MSc in biology degree with a distinction (77%) in February 2022.

I formed part of a cohort of World Wide Fund for Nature South Africa (WWF-SA) interns placed at the South African National Biodiversity Institute (SANBI) as a taxonomist intern at the Compton Herbarium. As I had not yet completed my MSc studies, merging my internship and postgraduate studies was very challenging. However, it rewarded me with a multitude of personal development skills such as discipline and good planning.

I managed to complete the biggest projects of my internship (publications). I gained valuable skills such as scientific writing and popular science article writing. I also learnt about mentally stimulating software and application tools such as QGIS and Microsoft Publisher.

Being an intern under the WWF-SA has been very rewarding. I also gained experience in traveling and had my first time flying on a plane to Cape Town. The various workshops I attended taught me professional and life lessons. Being an intern placed at a SANBI herbarium has also been quite a journey of ups-and-downs yet rewarding with great achievements. My internship was very mentally stimulating, as I was taught about curation, specimen filing, specimen verification, specimen identification and specimen collection during field trips.

Working with different people also taught me to take responsibility for my own actions and showed me that in the workplace, I'm not really there to make friends but more to make 'contacts' who I can form a stream of current or future professional network with.

Xichavo Mathebula, Joan Wrench Kirstenbosch Scholarship Honours student with Dr Anthony Magee

My journey as a Joan Wrench postgraduate student started after I gained exposure to the field of work as an intern with SANBI at Kirstenbosch in Cape Town during the year 2019. Through this experience I became very keen on furthering my studies, and the Wrench Postgraduate Scholarship Programme granted me the opportunity to do so. At the time I had a BSc undergraduate degree. I enrolled for a BSc Honours in Biodiversity and Conservation Biology at the University of the Western Cape. As a participant in the Joan Wrench programme, I was granted an opportunity and received a bursary award from the South African Association of Botanists. This allowed me to network and gain more exposure.

During the course of my studies, I acquired plentiful laboratory skills as my project, titled 'Phylogenetic relationships among the bell bushes (*Freylinia* Pangella ex Colla; Scrophulariaceae: Teedieae)' was focused on phylogeny. I improved my research and writing skills from lessons offered in the course module Research Methods. I acquired software programme skills, including Biostatistics R studio and geographic information system.

I experienced a very good and healthy supervisor–student relationship. The Wrench Postgraduate Scholarship Programme efficiently supported my studies. I completed my honours degree project within due time and am working on getting the research paper about it published. Such experiences and exposure has sparked my interest in furthering my studies to the next NQF level. I am delighted that the Joan Wrench Scholarship Programme has granted me with another opportunity and will be funding my MSc project. I hope to have even greater experiences.

Liaam Davids, Joan Wrench Kirstenbosch Scholarship Master's student with Dr Colleen Seymour

I was lucky enough to be one of the first recipients of the Joan Wrench Scholarship Fund in 2019 that would assist me in completing my MSc in Conservation Ecology at Stellenbosch University. My project examined the importance of *heuweltjies* for arthropod biodiversity in the Succulent Karoo. For the unacquainted, *heuweltjies* (pronounced *here-ville-keys*) are unique earthen mounds that consist of different soil, plant and animal communities compared to their surroundings. Since most of my Karoo experience consisted of driving on the N1 between Cape Town and Johannesburg before I started my MSc, I had no idea that the Karoo was filled with heterogenous landscapes and is home to such a wide variety of arthropod species. It opened my eyes to the importance of semi-arid and arid regions of the world and made me fall in love with dryland ecology (and SPF 50).

Although I didn't receive the full SANBI experience at Kirstenbosch National Botanical Garden due to being based in Stellenbosch, being one of SANBI's postgraduates gave me opportunities that forced me out of my comfort zone, facilitated my growth, and helped me find direction I needed to become a better scientist.

Sonja Stock, Joan Wrench Kirstenbosch Scholarship Honours student with Dr Nicola Bergh

I want to take this opportunity to thank SANBI for funding of my Honours degree in 2021. The funding arrived at a time where I would have needed to take out a student loan in order to attain my Honours degree. This took immense financial stress off my shoulders. This scholarship allowed me to focus on my project and my honours courses without worrying about the financial pressure it

would inflict on my parents who are both reaching retirement age.

While I am grateful for the reduced financial pressure, I also really appreciate the connections the Joan Wrench funding unlocked for me in SANBI and allowing me to be able to gain access to the herbarium. My favourite part, however, was the opportunity to go on several fieldtrips. These fieldtrips were eye-opening and really helped rekindle my passion for botany, serving as a reminder as to why I had decided to venture into this field in the first place. The fieldtrips were an opportunity to meet friends and explore; a welcome relief as I had missed out on several university-organised fieldtrips due to restrictions put in place related to the pandemic. Thank you again for this incredible opportunity.

Siphesihle Sibiya, Joan Wrench Kirstenbosch Scholarship intern with Mr Mpendulo Gabayi

During the period under review, I have been a Joan Wrench horticulture intern. For my Internship I was based at the Kirstenbosch National Botanical Garden, and I worked in the Arboretum with Mr Mpendulo Gabayi and his team.

My internship experience went above and beyond my expectations in just a single year. I have been exposed to countless amazing opportunities and learning curves whilst working in the Arboretum that helped me enhance my communication, leadership and teamwork skills. I managed to complete all the tasks my supervisor and myself had laid out for my internship in April 2021.

I have worked in collaboration with the Annual team during annual planting and seed collection periods. I also took time to collaborate with the Millennium Seed Bank Partnership to assist in their seed collection trips, which are vital for the conservation of our indigenous flora. My plant knowledge for Fynbos flora has since blossomed and levelled up from the days of me being responsible to curate the kiosk and specimen displays on Fridays.

The exposure that SANBI grants us as their interns is amazing. As I exit the Joan Wrench Internship, I am happy with the experience I have garnered during this period. I am stepping into my postgraduate studies with funding from the Joan Wrench Scholarship Fund with a determination to excel. I have found a home at the Kirstenbosch National Botanical Garden, and I will be keeping an eye out for any opportunity to work with the garden again.

Thabang Makola, Kirstenbosch Scholar with Mr Ricardo Riddles

After completing my Postgraduate Diploma in Ornamental and Landscape Horticulture in 2021, I would like to extend gratitude and appreciation to the Institute of Environment and Recreation Management (IERM) and SANBI-Kirstenbosch National Botanical Garden for providing research resources and financial sponsorship throughout my studies. This includes much appreciation and a special thanks to Mr Ricardo Riddles and Karoo Desert National Botanical Garden team for pushing me to do my best throughout my scholarship programme.

It has been a great experience to work within the Succulent Karoo region, arguably the region with the most special and unique vegetation attributes. While being responsible for the research project: Investigating the vegetative cultivation of *Aloidendron dichotomum* (Masson) Klopper & Gideon F.Sm, I was fortunate to gain an exciting experience on doing key horticultural activities and other research and landscape projects as well. Even with the pandemic working against us, all the determination and hard work has been invested into the workload to achieve all that was expected from me.

Indeed, I must say that the scholarship programme has helped me gain an improved understanding about the world of science and to refine my research work. Not only that, it has also helped me to become a better horticulturist and not only by qualifications, specifically the practice thereof. I am humbled to say that I have achieved much with the scholarship programme. I encourage the upcoming students and interns to look into such opportunities and to use it effectively.

Zafar Monier, Joan Wrench Kirstenbosch Scholarship Honours student with Dr Nicola Bergh

Working with SANBI under the Joan Wrench Kirstenbosch Scholarship Programme has been a great experience overall. My supervisors were superb and helped me every step of the way. Funding, equipment and administration was handled with great effectiveness, which served as a huge relief on my part.

My experience was enriched by the people I've met. Through the programme I've been able to do and see things I would have not done otherwise. The experience has created many opportunities for me. My Honours' degree experience has benefitted greatly from working with SANBI. I hope to have a continued relationship with the organisation into the future.

Kumreshni Pillay, Joan Wrench Kirstenbosch Scholarship Honours student with Dr Nicola Bergh

My Honours degree thesis was attained with support from SANBI, and its project investigated the environmental drivers of dispersal traits in a species complex of Namaqualand daises, *Dimorphotheca pluvialis-sinuata*.

SANBI's support whilst I was doing my Honours project was crucial in assisting me to be able to complete my degree. When the HW Pearson building at UCT had caught fire, it resulted in many people not being able to have a lab to work in. I was also very thankful for not only being granted with the opportunity to visit the Compton Herbarium, but to also use its facilities.

Working with SANBI opened up for me the chances of meeting other researchers and to explore the different careers that SANBI has to offer.

I am grateful for the opportunity that SANBI gave me, and for everything I got to learn through this opportunity.

GROWING SKILLS IN FOUNDATIONAL BIODIVERSITY SCIENCE

Human capital development is integral to the work of the division and is reflected in the number of short courses, non-accredited and national qualifications framework level accredited courses that SANBI employees, interns and postgraduate students attended. Six staff members (Robetta Kandawire, Given Leballo, Sanelisiwe Miya, Alpheus Mothapo, Shaun Pieterse and Michelle Smith) representing the three SANBI herbaria registered and successfully completed the Collections Management Course developed and coordinated through the NSCF to professionalise collection management and curation in South Africa, and to ensure that collections are managed and cared for according to accepted standards and procedures. Mashiane Sonnyboy Mothogoane completed and was awarded a certificate for attending an online course in 'Science Communication: an introduction to theory, best practice and practical skills' offered by the University of Stellenbosch. Ms Sanelisiwe Miya successfully completed a Data Management Course from the University of Pretoria that was facilitated by the NSCF. Ms Sanelisiwe Miya attended the 2021 Biodiversity Information Standards TDWG virtual annual conference that was held from 18 to 22 October 2021 and her registration was covered by an overseas organisation through the NSCF.

Three BSc Honours students who studied plant taxonomy and who were supervised between the Compton Herbarium and University of the Western Cape completed their degrees. Two of the graduates were funded through the Joan Wrench Scholarship Programme, namely Nopinky Velani, Xichavo Mathebula and Lindokuhle Sibisi. Two of these students are continuing with MSc degrees in plant taxonomy in 2022.

Postdoctoral researchers funded through the Smuts Fellowship between the University of Cape Town (UCT) and Kirstenbosch Scholarship Fund, Dr Kamil Francowicz, started a Postdoctoral Fellowship at Compton Herbarium. He will be working on structural determinants of the Cape hyper-diversity: habit shifts in Heliophila and Lobostemon to assess how anatomy affects climatic niches of different habits, which anatomical traits shape fire-survival strategies and how stem architecture and reproductive strategy affect wood anatomy. In addition he will develop expertise in this field of work through training workshops for students and interns.

Rangani Nemando was awarded an MSc for his dissertation 'Systematics of subtribe Anthosperminae and the generic affinities of Anthospermum L. and Nenax Gaertn. (Rubiaceae: Anthospermeae)'. He was supervised between the Compton Herbarium and University of the Western Cape.

Dr Oluwayemisi Olaniyan was awarded an PhD for her thesis 'Systematics and Diversification of the Subfamily Thymelaeoideae (Thymelaeaceae) in Southern Africa'. She was supervised between the Compton Herbarium, University of Johannesburg and University of the Western Cape. SANBI interns and students delivered outstanding performances at the South African Association of Botanists conference held virtually in January 2022, where Aarifah Jakoet won the award for best oral presentation by a PhD student and Lauren James won the best student award.

BIODIVERSITY EDUCATION AND PUBLIC ENGAGEMENT

Careers in the biodiversity sector

PURPOSE

Contribute to the development of the next generation of black biodiversity professionals.

OUTCOMES

- A transformed and suitably skilled workforce wherein active citizenry is developed to strengthen the biodiversity sector.

OUTPUT INDICATORS

- Number of black biodiversity professionals supported through human capital development (HCD) interventions in SANBI.
- Number of teachers and teacher educators participating in foundational building activities.
- Number of higher education institutions participating in the Biodiversity Careers Programme.
- Number of citizen science platforms implemented and percentage increase in involvement of youth and rural communities.

PROGRAMME PERFORMANCE

Historically disadvantaged communities are generally unaware of the career opportunities that exist in the biodiversity sector. SANBI offers three career programmes, which aim to raise awareness about career opportunities that exist in the biodiversity sector. The Primary School Career Dress-up Programme allows Grade 5 to 7 learners to engage with information about biodiversity careers through the medium of drama and art. Within each selected primary school, the learners are provided with biodiversity careers information packs, which they use to research selected careers. In addition, some of the learners receive the opportunity to engage with professionals already in biodiversity careers through a mini expo arranged by the environmental education centres. Working in small groups, the learners develop short, dramatic plays, presentations, posters or poems that represent the selected careers, and these are performed or presented to their peers on the day of the dress-up event. In most cases, their costumes and props enhance the performance or presentation thus making the experience much more memorable. This year, 650 beneficiaries participated in this programme.

Arbor Week celebration at an Environmental Education Centre with Walter Sisulu National Botanical Garden.

Each Environmental Education Centre hosted a High School Career Expo, and this year the total number of beneficiaries reached was 874. Once again, the groups of invited learners were hosted in a very structured manner: groups of 10 to 15 learners were escorted to various exhibition stands where they could learn about a biodiversity career directly from biodiversity professionals occupying those work roles. Information shared about what and where to study as well as possible career paths to and from each career being presented has proven to be very valuable to the learners.

Due to the COVID-19 lockdown restrictions, most higher education institutions did not host career fairs for students again this year. To overcome this obstacle, the SANBI once again participated in the virtual career fair arranged and managed by the South African Graduates Employment Association. A total of 554 students from 27 higher education institutions visited the SANBI virtual stand. In addition, four higher education institutions independently hosted virtual career fairs for their students, and four Environmental Education Centres participated in these and connected with a total of 330 students about biodiversity careers.

Globally, in the Education for Sustainable Development Roadmap 2030, teacher education is being spotlighted as a key area to address foundational knowledge around matters of concern in areas of biodiversity, climate change and the green economy.

The Fundisa for Change Programme is an important collaborative partnership programme in teacher education to address Education for Sustainable Development and environmental learning. Through the Keep it Cool: Climate Change Project, 203 teachers attended training sessions with five universities (University of KwaZulu-Natal, University of Venda, University of Fort Hare, University of Zululand and Rhodes University) on topics of climate change and the schools have been encouraged to engage in curriculum activated change projects at their schools to address a local climate change related matter of concern. In addition, 136 teachers were supported on the topic of Green Economy and Entrepreneurship in subjects of Economic and Management Sciences and Business Studies by three universities (Rhodes University, North-West University and the Real Centre at Wits University). The rich learnings through the programme have been captured in a publication titled *Teaching and Learning for Change: Education and Sustainability in South Africa*.

The Department of Forestry, Fisheries and the Environment (DFFE) once again funded SANBI's Groen Sebenza Programme to the value of R15m over a three-year period from 2021 to 2023. The funding enabled SANBI to place a total of 90 interns across various divisions of the institute. Training offered to the Groen Sebenza interns focused on building capacity in areas such as writing, presentation, fieldwork, the development of resource materials and learning programmes, and courses such as Introduction to Basic Horticulture, Elephant Management Field Survey, SWP2 HIARA (Hazard Research in living plant collections), Identification & Risk Assessment, Introduction to Solitary Bees, SAMC Conference Skills Programme, Introduction to GIS & GEO BDIS, Training Skills Programme, Vegetation Classification Mapping, Introduction to Wetlands, SANBI NRM Strategic Planning, CV Writing & Interview Preparation Skills, Programme on Invasive Species, Data Collection Field Trips, and Basics of Budgeting. Due to lockdown restrictions, the Groen Sebenza Programme was unable to conduct other training such as national induction and other face-to-face training.

In October 2021 SANBI was approached by DFFE-Natural Resource Management to coordinate its Groen Sebenza component of its Environmental Programmes. SANBI submitted a proposal, which was approved by DFFE in December 2021, paving the way for DFFE to grant SANBI R100 m over a three-year period, 2022/23–2024/25. Through this funding, 1 050 beneficiaries will be recruited and placed nationally across various organisations including all three tiers of government departments, non-governmental organisations and the private sector. Interns will be provided with training,

mentoring, computing equipment, personal protective equipment, data, and some operational funding will also be extended to host organisations.

PROGRAMME HIGHLIGHTS

- Careers Programme conducted with 27 Higher Education Institutions.
- 554 students reached through Careers Programme for Higher Education Institutions.
- 650 learners reached through Primary School Dress-Up Careers Programme.
- 874 high school learners reached through High School Careers Programme.
- 203 teachers trained through Fundisa for Change Keep It Cool (Climate Change) Programme with five universities.
- SANBI contributed to the editing of the now published book, *Teaching and Learning for Change: Education and Sustainability in South Africa*.
- 93 interns recruited through the Groen Sebenza III Project funded by DFFE.
- SANBI received R300m from DFFE to implement a three-year national Groen Sebenza Phase II Programme wherein 1 050 interns will be hosted in SANBI and across other government departments and non-governmental organisations including the private sector.

City of Tshwane ECD teachers planted *spekboom* (*Portulacaria afra*) plants for Weedbuster Week.

Earth Day presentation at Curro Academy, Mamelodi.

High School Career Expo at KwaZulu-Natal National Botanical Garden.

High School Career Expo Free State National Botanical Garden.

High School Career Expo Free State National Botanical Garden.

Kids in Gardens Programme – learners viewing the waterfall at Walter Sisulu National Botanical Garden.

KwaZulu-Natal National Botanical Garden celebrating Arbor Day at Imbubu Primary School.

Planting a school garden for World Environmental Day with Karoo Desert National Botanical Garden.

South African Police Service Endangered Wildlife members attending a Combatting Biodiversity Crimes Programme in Pretoria National Botanical Garden.

Wetlands Day celebration with Soulbent Community Group in Saulsville 2.

World Environmental Day with Mamelodi community members.

BIODIVERSITY RESEARCH ASSESSMENT AND MONITORING

PURPOSE

- To contribute towards the development of the next generation of black biodiversity professionals.

OUTCOME

- A transformed and suitably skilled workforce and active citizenry is developed to strengthen the biodiversity sector.

OUTPUT

- Citizen science platforms are implemented and the involvement of the youth and rural communities is strengthened.

CITIZEN SCIENCE WORK

The practice of public participation and collaboration in scientific research to increase scientific knowledge about biodiversity continues to grow from strength to strength, as SANBI continues to focus its efforts on the use of the iNaturalist platform. The number of observations on iNaturalist have increased from 437 337 for 21 153 species to 656 622 observations for 24 160 species in the 2021/22 financial year. Similarly the number of observers have increased from 7 449 in 2020/21 to 8 449 during 2021/22. Five cities (Cape Town, eThekwini, Garden Route, Nelson Mandela Bay and Tshwane) participated in the global iNaturalist City Nature Challenge event held on the last weekend of April. The event is held annually, and from this competition Cape Town ranked as the most biodiverse city globally out of the almost 450 participating cities. The same South African cities, with the exception of Nelson Mandela Bay, participated in the Great Southern Bioblitz held in October 2021 in which South Africa achieved three out of the top five places in the event, making the country a global leader in citizen science work.

SANBI's Custodians of Rare and Endangered Wildflowers (CREW) Programme, a citizen science initiative to monitor rare and threatened plant species, has over the past year contributed four (4) new plant taxa to science, and rediscovered two (2) plant taxa not recorded for over 100 years. A total of 359 fieldtrips were undertaken by volunteers in the CREW network during the 2021/22 field season. These fieldtrips yielded records of 1 650 taxa of conservation concern.

CREW field surveys: A, the new *Geissorhiza* discovered by CREW volunteer, Brian Du Preez in the Langeberg mountains; B, *Indigofera limosa*, which was last recorded in 1911 and rediscovered in the Leliefontein area on a CREW monitoring trip.

SANBI Threatened Species Programme, on request from the South African National Parks, organised a weeklong Bioblitz in February 2022 of sites earmarked for the new Grassland National Park being planned in the strategic water source area of the southern Drakensberg. SANBI brought together 50 species experts ranging from entomologists at international museums, to non-governmental organisation and government employed scientists working on terrestrial vertebrates, freshwater invertebrates and plants. The survey provided the required biodiversity data for this data scarce region and assisted with understanding which of the sites have high biodiversity value. All participants uploaded their findings onto the Grassveld National Park Project on the iNaturalist platform, to create a photographic taxa list for the much anticipated new national park. There are currently 11 817 observations of 1 300 taxa.

A wide range of expert species scientists participated in a week long Bioblitz for sites earmarked for inclusion in SANParks' new Grassland National Park in the southern Drakensberg strategic water source area.

PERFORMANCE INFORMATION

PROGRAMME 4

Administration

Directorates:

Business Innovation and Technology (BIT)
Governance, Risk and Compliance
Marketing, Communication and Commercialisation (MCC)
Human Resources (HR)

BUSINESS INNOVATION AND TECHNOLOGY

PURPOSE

- To promote and provide critical business innovation technology services.
- To provide Information and Communications Technology (ICT) governance principles and guidelines to successfully ensure ICT corporate governance.

OUTCOME

- An Information Technology platform that is reliable, supportive, secure and innovative to enable the achievement of SANBI's mandate and strategic goals.

OUTPUT

- System availability to support corporate business processes.

PROGRAMME PERFORMANCE

The Business Innovation and Technology Directorate's primary focus continues to adapt to the changing nature of the information and technology environment whilst implementing strategic solutions to ensure the continuous improvement of working towards an integrated business innovation and technology system that caters for all the strategic business needs of the institute. The 2021/2022 financial year has focused on cultivating partnerships with the Business Process Owners process. This was to provide system accessibility and availability to achieve divisional strategic objectives and thereby assisting SANBI to realise its mandate. ICT Governance has been a strategic focus through the implementation of additional ICT system controls including new and updated policies.

Key challenges addressed during the financial year under review were the improvement of business continuity capability, disaster recovery capability, business communication services and cybersecurity.

PROGRAMME HIGHLIGHTS

During this financial year the following business improvement projects and innovations have successfully been completed:

- Implementation of Uninterruptable Power Supply (UPS) devices to the main centres to ensure service continuity as a result of power outages and electricity blackouts.
- The conclusion of an effective business tender process, which resulted in the appointment of IT service providers to support ICT hardware and peripherals to SANBI.

GOVERNANCE, RISK AND COMPLIANCE

PURPOSE

- Promote sustainability through effective resource utilisation, income generation and good governance.

OUTCOME

- Provision of information and communication.
- Improve financial sustainability and provide effective corporate services to achieve the mandate of SANBI.

OUTPUT

- Effective Risk, Supply Chain and Financial Management System developed and implemented.

SANBI continued to implement risk management processes as per the approved Risk Management Policy to ensure that the strategic objectives were achieved, despite the risks associated with the COVID -19 pandemic. A comprehensive risk assessment was conducted with executive management that focused on risks at strategic and operational levels. This formed the basis for the internal audit plans. The risk assessment was aligned to SANBI's annual performance plans to ensure that the efficient management of risks contributes to improved organisational performance.

The results of the risk assessment were reviewed by the Audit and Risk Committee, and was subsequently approved by the SANBI Board. Continuous risk management monitoring resulted in the identification of emerging risks for which mitigating strategies were implemented. This translated into an improvement in the institute's performance.

An Enterprise Risk Management system, known as BarnOwl, has been implemented and is being used to monitor progress on the risk action plans.

The Business Continuity Management Plan is being implemented within SANBI. The Business Continuity Management Plans were updated and critical business processes were implemented during the COVID-19 national lockdown. Business impact analysis were conducted with SANBI divisions and aimed to identify the institute's business continuity requirements, prioritise the activities that enabled the process employed to deliver critical services, and to determine the resources required for the critical activities identified. The results of the business impact analysis have been utilised to update the Disaster Recovery Plan.

SANBI adopts a zero tolerance approach on issues related to fraudulent activities, corruption in the workplace and unethical actions. The Risk Management and Fraud Prevention Committee was established in 2017 to monitor the implementation of activities relating to risk management, fraud prevention, ethics, business continuity management, security, safety as well as occupational health and safety. The functions of this subcommittee are guided by an approved Terms of Reference. A Fraud Prevention Policy and Plan is in place that provides mechanisms for the implementation of fraud prevention. A whistle-blowing hotline is fully operational and is administered and managed by Advanced Call. In the year under review, four cases were reported to the hotline, these matters have been investigated and concluded.

The SANBI Ethics Management Policy has been developed and approved by the Board. An online awareness programme has been implemented to raise awareness on fraud prevention and ethical behaviour in the workplace.

One hundred and three (103) pieces of legislation were identified as applicable to SANBI and are being monitored to ensure compliance. SANBI aims to comply with all the relevant legal requirements in all areas of its operations as non-compliance with the applicable legislation is a risk that has the potential to negatively impact the daily operations of the institute. SANBI has implemented EXCLAIM! Compliance Software to assist with monitoring of legislative compliance. In addition to SANBI resources, a panel of legal firms has been appointed to assist with legal services. These legal firms are: Mathew Francis Inc and Rooth and Wessels Inc.

Cases of loss and/or damages to assets are recorded into a loss control register and are dealt with by the Loss Control Subcommittee. Sanctions are administered in cases of proven negligent losses and damages that are ascribed to recklessness and carelessness.

SANBI has appointed a panel of legal firms to assist with legal matters within the institute.

MARKETING, COMMUNICATION AND COMMERCIALISATION

PURPOSE

- Promote sustainability through effective resource utilisation, income generation and good governance.

OUTCOME

- Provision of information and communication. Improve financial sustainability and provide effective corporate services to achieve the mandate of SANBI.

OUTPUT

- A compelling brand built to position SANBI as a leading biodiversity institute and premiere outdoor attraction to experience the fullness of nature.

The primary objective of the Directorate for Marketing, Communication and Commercialisation is to position SANBI as an authority on South African biodiversity. Along with this mandate the directorate is also responsible for generating revenue for the institute. It has a strong commercialisation focus aimed at maximising revenue to contribute to the financial sustainability of the organisation. Underpinning the activities of the Directorate: Marketing, Communication and Commercialisation is a comprehensive strategy that employs a through-the-line marketing approach.

MARKETING IN A COVID-19 REGULATED ENVIRONMENT

During the 2020/2021 financial year, a post-COVID-19 marketing plan was implemented. This plan focused on implementing marketing activities in the flagship gardens where most of the institute's revenue is generated. Following on this foundation built during the previous financial year, SANBI continued to implement tactical marketing interventions within the parameters of the COVID-19 regulations ensuring that the SANBI brand remained top-of-mind within the consumer market.

INITIATIVES IMPLEMENTED

Technological interventions were imperative to bridge the gap created by COVID-19 regulations. This ensured that despite the restrictions visitor could still experience the wonders of nature. *Seeing the Invisible* is an augmented reality (AR) art exhibition that was launched during September 2021 in Kirstenbosch National Botanical Garden. It explores the concept of Phygital – bridging the physical and digital world. Visitors to the Kirstenbosch National Botanical Garden were able to interact with 13 contemporary artworks from internationally acclaimed artists by means of a technology-mediated experience. The *Seeing the Invisible* app uses physical locations in the Kirstenbosch National Botanical Garden and augment the real world with virtual artworks. The exhibition was featured simultaneously in 12 other biomes all around the world.

The AR technology was the first of its kind to be used in an exhibition at a SANBI botanical garden. Visitors to the Kirstenbosch National Botanical Garden were able to engage with global artists' masterpieces sonically and through movement around the piece. This innovative technology provided the visitors with a unique experience. In addition to this, SANBI launched its first ever *Virtual Reality Tour,* which featured in the Kirstenbosch National Botanical Garden. The rationale behind the virtual tour was to showcase the garden to both national and international visitors.

The Department of Forestry, Fisheries and the Environment (DFFE) and the United Nations Development Programme (UNDP) celebrated World Environment Day in June 2021 at the Pretoria National Botanical Garden. The Minister of

DFFE, Ms Barbara Creecy, and the UNDP Resident Representative in South Africa, Dr Ayodele Odusola, marked the occasion by reflecting on 25 years of DFFE/UNDP cooperation. This was the first hybrid event that SANBI hosted. It proved to be highly successful and presented the option for hybrid events to be executed across the garden portfolio.

The Rooibos Council of SA and SANBI also celebrated World Environmental Day through an impressive art display of 2 000 teacups at the Walter Sisulu National Botanical Garden. The event received national news coverage on the SABC 2 breakfast show Morning Live.

The National Zoological Garden (NZG), the only zoo within the SANBI garden portfolio, in partnership with Empire, participated in a social media campaign based on the movie *Around the World in 80 Days*. Another highlight for the NZG was the introduction of the world's largest rodent, the capybara, which hails from South America. The media day was held to mark the occasion received an overwhelmingly positive response. The Pretoria News, The Beeld and Rekord newspapers are a few other publications that covered the story. The NZG was also used as the location to film scenes for *Dinge van 'n kind* a movie produced by Nagvlug Films. Non-traditional placements such as film shoots provides excellent mechanisms for showcasing the gardens, thereby encouraging visitors to frequent the attraction.

The installation of the Acrobranch Adventure park at the KwaZulu Natal National Botanical Park in 2019 began to yield significant interest and increased revenue with the reopening of the gardens and in the period under review.

The Hollywood Tuskers, KwaZulu-Natal's inland cricket team, visited the KwaZulu-Natal National Botanical Garden to experience the adrenaline rush of the Acrobranch Tree-Top Adventure course in February 2022.

Let's Festive and Chill was a holiday campaign implemented during December 2021 until the start of the New Year. All the SANBI gardens participated in the campaign by hosting and organising festive season events. This included the Christmas Wonderland light installation at the Pretoria National Botanical Garden and a Festive Picnic Event held at the Free State National Botanical Garden.

To end the period under review on a high note, various cultural and lifestyle events were hosted across the gardens, several of which contained an environmental educational dimension. The Lowveld National Botanical Garden hosted the Mbombela Social Market and a National Water Week activity. A stargazing event was also hosted at the Karoo Desert National Botanical Garden.

The Buddhist Temple, Nanhua Temple held its annual Temple Meditation in February 2022 at the Pretoria National Botanical Garden. Yoga in the garden, trail runs and meditation sessions were some of the activities that allowed visitors to experience the fullness of nature that the SANBI portfolio of gardens have to offer. The Kirstenbosch National Botanical Garden is famous for the Summer Concert Series, and it hosted two successful concerts featuring prominent South African music artists Jimmy Nevis and Jeremy Loops.

Jeremy Loops performing at Kirstenbosch National Botanical Garden.

Jimmy Nevis performing at Kirstenbosch National Botanical Garden.

SANBI hosted the Sisulu Family at the African Pride venue at the Pretoria National Botanical Garden at an occasion where the French Ambassador bestowed the award of 'Chevalier de l'ordre des Arts et des Lettres' upon Ms Elinor Sisulu during March 2022.

Sisulu family at Pretoria National Botanical Garden.

French ambassador honours Eleanor Sisulu.

SANBI Director: Conservation Gardens and Tourism, Mr Thompson Mutshinyalo with Eleanor Sisulu and the French ambassador.

SANBI hosts Eleanor Sisulu and French ambassador at African Pride Café in the Pretoria National Botanical Garden.

SCIENCE COMMUNICATION

To enhance and promote science communication across SANBI, the SANBI Gazette continues to engage staff and boost morale internally. The quarterly publication serves as a vibrant circular for staff and all parts of SANBI to showcase their work to the rest of the organisation. The SANBI Gazette also contains a social feature as it attempts to create a sense of community, connection and cohesion in the organisation in line with SANBIs uGREAT Values. In addition, the Marketing, Communication and Commercialisation directorate has been involved in and supported the following science communication activities:

- Chairing and coordinating the quarterly SANBI Science Communication Forum that is growing into an interactive platform for various programmes of SANBI to connect and support science communication across the institute.
- Coordinating and regularly contributing SANBI science content towards the Department's *Environment Quarterly* publication, as well as for the Biodiversity Ecosystem Services Network newsletter to showcase SANBI's science and policy achievements.
- Producing media releases for various hosted events and SANBI science-related research resulting in media coverage for SANBI and its scientists.
- Involvement at various internal biodiversity science and police advice platforms that enhances science communications initiatives throughout the organisation with the overall purpose to improve the support for internal and external media and communication related activities.

SOCIAL MEDIA

Social media continued to be a valuable component of the institute's marketing strategy. SANBI has seen a steady organic growth in the number of users engaging with its official social media accounts. The institute's Twitter account has seen a similar growth with the organisation having 11 900 followers. The link-through rate has met our expectations. In addition to this social media accounts, the following platforms also support the marketing plan:

- Instagram
- LinkedIn
- YouTube
- Flickr

SANBI's Marketing, Communication and Commercialisation directorate continues to pivot in an ever-changing landscape to ensure that the institute remains relevant to the public and continues to add value within the biodiversity sector.

HUMAN RESOURCES:

Percentage Compliance to Employment Equity Targets

PURPOSE

- Promote sustainability through effective resource utilisation, income generation and good governance.

OUTCOME

- Provision of information and communication.
- Improve financial sustainability and provide effective corporate services to achieve the mandate of SANBI.

OUTPUT

- SANBI positioned as employer of choice in the biodiversity sector.

A kidney webinar held on 23 March 2022 at the Walter Sisulu National Botanical Garden.

PERCENTAGE COMPLIANCE TO EMPLOYMENT EQUITY TARGETS

Consolidated employee profile as at 31 March 2022

Race/Gender	AM	AF	CM	CF	IM	IF	WM	WF	Total
Number	396	298	72	67	3	15	35	62	948
Percent	41.8%	31.4%	7.6%	7.1%	0.3%	1.6%	3.7%	6.5%	100%

Consolidated appointments as at 31 March 2022

Race/Gender	AM	AF	CM	CF	IM	IF	WM	WF	Total
Number	12	16	3	2	0	1	2	0	36
Percent	33.3%	44.4%	8.3%	5.6%	0%	2.8%	5.6%	0%	100%

AM – African Male · AF – African Female · CM – Coloured Male · CF – Coloured Female · IM – Indian Male · IF – Indian Female · WM – White Male · WF – White Female

PROGRAMME HIGHLIGHTS

The year under review welcomed the third intake of interns and postgraduate students funded by the Joan Wrench Kirstenbosch Scholarship. SANBI hosted 19 new interns in a variety of fields such as plant taxonomy, biodiversity informatics, biodiversity monitoring, citizen science, fresh-water ecology, environmental education, *ex situ* conservation, horticulture, genetically modified organisms, geographic information systems, biodiversity planning, herpetology, nature conservation, plant and animal data, restoration ecology and plant physiology. Eleven students were awarded postgraduate bursaries.

SANBI is grateful for several partnerships in the past year, placing the institute in a position to mentor hordes of enthusiastic young professionals. These partnerships include World Wide Fund for Nature – South Africa, South African Agency for Science and Technology Advancement, Department of Forestry, Fisheries and the Environment and the Human Sciences Research Council.

Congratulations to all the postgraduate students who attained their degrees in the past year, despite the challenges brought on by the pandemic. They have made SANBI proud.

PROFESSIONAL DEVELOPMENT TALLY 2021/22:

- Work-integrated learning students: 10
- Interns and Groen Sebenza pioneers: 165
- Postgraduate student degrees completed: 17
- Postgraduate student bursaries awarded: 16

HARMONISATION OF SALARIES AND CONDITIONS OF SERVICE IN SANBI

SANBI management as directed by the Board has resolved to introduce the harmonisation of salaries and conditions of service throughout the institute. All SANBI staff members are paid on the Department of Public Service and Administration adopted salaries with effect from March 2022, and are being subjected to the same conditions of service, except where operational requirements necessitate otherwise. This has equipped SANBI management to pursue a medium- to long-term strategy that addresses the disparities in salaries and conditions of service in a sustainable manner.

LABOUR RELATIONS TRAINING

During this year of reporting, the following labour relations training was offered:

- Investigation and prosecution training.
- Initiating and chairing disciplinary hearings training.
- Training on recognition agreements with the National Education, Health and Allied Workers' Union for the local management.

In addition, quarterly meetings were held with union representatives and this resulted in the successful resolution of the matter of the disparities caused by the ministerial pay scales and harmonising the conditions of service.

A kidney webinar held on 23 March 2022 at the Walter Sisulu National Botanical Garden.

At the quarterly Employment Equity meetings significant contributions and successes were accomplished in submitting the necessary information in the Employment Equity Report for the Department of Employment and Labour.

EMPLOYEE HEALTH AND WELLNESS

SANBI continued to prioritise the health and wellness of its employees by focusing our efforts on creating an environment that supported employee wellbeing. The Employee Assistance Programme (EAP) played an important role in these endeavours and was implemented as follows:

- Contact details including the range of services to access from the EAP service provider was shared monthly. This resulted in an increased utilisation of the assistance offered to SANBI employees.
- Employee wellness related topics and articles were published in the SANBI Employees Wellness newsletters.
- Employees were continuously informed and provided with trustworthy knowledge resources about the COVID-19 pandemic and the importance of receiving the COVID-19 vaccination.
- Bereavement support to affected employees and their families were provided trauma counselling, facilitation of virtual and walk-in memorial services for the deceased employees.
- Quarterly Wellness Champions meetings were held.
- Webinars, workshops and talks were conducted on issues affecting employees. i.e., gender-based violence, stress management etc.

A kidney webinar held on 23 March 2022 at the Walter Sisulu National Botanical Garden.

AMENDMENTS TO THE ANNUAL PERFORMANCE PLAN

2021/22

AMENDMENTS TO THE ANNUAL PERFORMANCE PLAN FOR 2021/22 FINANCIAL YEAR

Outcome	Output	Output indicator	Audited Actual Performance 2019/20	Audited Actual Performance 2020/21	Planned Annual Target 2021/22	**Actual Achievement 2021/22 until date of re-tabling	Deviation from planned target to Actual Achievement 2021/22	Reasons for deviations	Reasons for revisions to the Outputs / Output indicators / Annual Targets
PROGRAMME 1: NATIONAL ZOOLOGICAL AND BOTANICAL GARDENS									
NBGs and NZG managed and maintained as centres of social cohesion.	NBGs and NZG managed and maintained as centres of social cohesion.	Number of maintenance, development and capital infrastructure projects completed.	Partially achieved: 44 maintenance/ development projects (98%) and 2 capital infrastructure projects completed.	Achieved 45 maintenance/ development projects and two SANBI capital infrastructure projects completed.	45 priority maintenance infrastructure projects completed in the established NBGs or NZGs. 5 new infrastructure projects completed in the established NBGs or NZGs.	Quarter 1. On track with quarter target. Needs analyses conducted for 45 maintenance and 2 capital infrastructure projects across SANBI. 1 capital infrastructure project and three (3) maintenance/ development projects completed. Quarter 2. On track with quarter target. Implementation and monitoring of maintenance and infrastructure projects and budgets allocated across SANBI. 10 maintenance/ development projects completed.	Q1 and Q2 achievements from the original targets were achieved. The targets were revised during the mid-year APP adjustment using more appropriate terminology as advised by DFFE. The revised targets separated maintenance and new infrastructure projects and removed the words 'development' and 'capital' infrastructure from the target descriptions.	Targets achieved.	Clarify and separate target into maintenance projects and new infrastructure projects, consistent with the performance findings by the AGSA and as advised by DFFE.

Outcome	Output	Output indicator	Audited Actual Performance 2019/20	Audited Actual Performance 2020/21	Planned Annual Target 2021/22	**Actual Achievement 2021/22 until date of re-tabling	Deviation from planned target to Actual Achievement 2021/22	Reasons for deviations	Reasons for revisions to the Outputs / Output indicators / Annual Targets
NBGs and NZG managed and maintained as centres of social cohesion.	NBGs and NZG managed and maintained as centres of social cohesion.	New and refurbishment infrastructure projects for Kwelera and Thohoyandou botanical gardens implemented.	Not achieved.	Achieved. One infrastructural development project (new boundary fence) for the Kwelera National Botanical Garden completed.	Upgrade of existing access gravel road at the Kwelera National Botanical Garden completed (650 x 6 m section).	Quarter 1. On track with quarter target Investigation, design, procurement and construction monitoring for the upgrade of a section of the main existing access gravel road at the Kwelera National Botanical Garden.	The original 2021/22 APP target was very broad, unspecific and not considered a SMART target. The target was revised during the mid-year APP adjustment to become a SMART target as advised by DFFE.	Target achieved.	Clarification of the current 2021/22 APP target and to ensure that the revised annual target is consistent with the SMART principle. The current 2021/22 annual target does not comply with the SMART principle and does not specify the deliverable that should be completed at financial year end.
						Quarter 2. Off target. Professional service provider appointed to develop the bid specifications for contractor appointment.		Challenges: Professional service provider has not been appointed to develop the bid specifications for the appointment of the contractor. Corrective Measures: Bid to be submitted to SCM advertise. Contractor to be appointed in Q3. Anticipate annual target will be completed by March 2022.	

Outcome	Output	Output indicator	Audited Actual Performance 2019/20	Audited Actual Performance 2020/21	Planned Annual Target 2021/22	**Actual Achievement 2021/22 until date of re-tabling	Deviation from planned target to Actual Achievement 2021/22	Reasons for deviations	Reasons for revisions to the Outputs / Output indicators / Annual Targets
NBGs and NZG managed and maintained as centres of social cohesion.	New and refurbishment infrastructure projects for Kwelera and Thohoyandou botanical gardens implemented.	One infrastructural development project for the Thohoyandou Botanical Garden completed	EMPr replaced the BAR as the annual target during the midyear APP review and was approved by the Minister in November 2019.	Achieved. Plant collections nursery shade structure established.	One infrastructural development project for Thohoyandou Botanical Garden completed (8 roof carports structures & paving).	Quarter 1. On track with quarter target. Design and construction of eight cantilever barrel roof carports structures for shade parking and the reconstruction of paving to the parking area.	The original 2021/22 APP target was very broad, unspecific and not considered a SMART target. The target was revised during the mid-year APP adjustment to indicate the specific infrastructure project to be completed.	Target achieved.	Clarification of the current 2021/22 APP target and to ensure that the revised annual target is consistent with the SMART principle. The current 2021/22 annual target does not comply with the SMART principle and does not specify the deliverable that should be completed at financial year end.
						Quarter 2. Off target. Bid advertised but suitable contractor could not be found.		Challenges: Inability to proceed with implementation due to non-responsive bids received during the procurement process. Corrective measures: RfQ was re-advertised in Q2 and bid closes on 14 October 2021. Anticipate annual target will be achieved by March 2022.	

Outcome	Output	Output indicator	Audited Actual Performance 2019/20	Audited Actual Performance 2020/21	Planned Annual Target 2021/22	**Actual Achievement 2021/22 until date of re-tabling	Deviation from planned target to Actual Achievement 2021/22	Reasons for deviations	Reasons for revisions to the Outputs / Output indicators / Annual Targets
NBGs and NZG managed and maintained as centres of social cohesion.	Visitors to the NBGs and NZG.	Number of visitors to the NBGs and NZG.	Partially achieved: 3% annual increase in visitor numbers. Combined visitor number for the 12-month period 1 April 2019 to 31 March 2020 was 1 461 107 (compared with 1 413 974 for 2018/19).	Achieved. Exceeded target. 939 256 visitors to NBGs and NZG combined for 2020/21 FY.	950 000 visitors to NBGs and NZGs combined: NBGs: 798 000. NZGs: 152 000.	Quarter 1. On track with quarter target. Q1 visitors of 255 322 NZG: Q1 visitors of 47 356 (total visitors 302 678). Quarter 2. Exceeded target. Q2 visitors of 240 235 NBG Q2 visitors of 41 925 NZG (total visitors 282 160).	The original 2021/22 APP target for combined visitor numbers to the NBGs and NZG did not differentiate the number of visitors planned for the NBGs and NZGs as separate Divisions within SANBI. The target was adjusted during the mid-year APP to indicate the planned number of visitors expected for the NBGs and NZG as separate Divisions.	Target achieved.	Clarification of the relative contribution of NBGs and NZGs towards the annual and adjusted quarterly targets. Revised annual target is consistent with the SMART principle.
NBGs and NZG managed and maintained as centres of social cohesion.	Conservation programmes in NBGs and NZG implemented.	Number of conservation programmes in the NZG.	New indicator.	Partially achieved. Two MOUs signed by SANBI with the Mabula Ground Hornbill Project & Pan African Association of Zoos and Aquariums.	2 annual faunal conservation priorities implemented under existing NZG/Partner MoUs (Ground Hornbill conservation & PAZA-Studbooks) 2 new agreements on faunal conservation programmes signed (temporary animal holding facilities-DFFE and small population management-City of Tshwane Nature Conservation Operations (CoT).	Quarter 1. No milestone. Quarter 2. No milestone.	The original 2021/22 APP target was not clearly defined for further implementation on the new and existing MoU's signed the previous year. The annual target was adjusted for clarity.	No milestones set for Q1 and 2 but the annual target was achieved.	Adjustment and clarification of the target based on inputs from the AGSA during the 2020/21 audit

Outcome	Output	Output indicator	Audited Actual Performance 2019/20	Audited Actual Performance 2020/21	Planned Annual Target 2021/22	**Actual Achievement 2021/22 until date of re-tabling	Deviation from planned target to Actual Achievement 2021/22	Reasons for deviations	Reasons for revisions to the Outputs / Output indicators / Annual Targets
NBGs and NZG managed and maintained as centres of social cohesion.	Biodiversity awareness and education promoted.	Number of beneficiaries participating in 'Kids in Gardens' Programme in NBGs to promote biodiversity awareness, education and recreation and science engagement programmes at the NZG.	Exceeded target: The annual target of 56 000 was exceeded by 7 554 as 63 554 beneficiaries were reached.	Not achieved. 1 951 beneficiaries participated in the 'Kids in Gardens' Programme in NBGs.	10 000 beneficiaries participating in NBG facilitated 'Kids in Gardens' Programme.	Quarter 1. No milestone set but 3 435 beneficiaries participated in "Kids in gardens" programme in NBGs. Quarter 2. No milestone except 2 280 beneficiaries participated in the 'Kids in Gardens' Programme in NBGs.	The original 2021/22 APP annual target of 30 500 beneficiaries participating in the 'Kids in Gardens' programme was considered unachievable due to external factors, predominantly the COVID-19 pandemic and associated restrictions on learners and schools not being able to attend SANBI's 'Kids in Gardens' Programme due to health-related risks and scheduling pressures in schools to complete the annual curriculum.	Target achieved.	The target has been revised given lessons learnt from the previous financial year during the national lockdown and its impact on schools. Revision of the target also considered the restrictions imposed on social gatherings, travel, excursions, and curriculum/syllabus catch up required following extended schools' closures.

Outcome	Output	Output indicator	Audited Actual Performance 2019/20	Audited Actual Performance 2020/21	Planned Annual Target 2021/22	**Actual Achievement 2021/22 until date of re-tabling	Deviation from planned target to Actual Achievement 2021/22	Reasons for deviations	Reasons for revisions to the Outputs / Output indicators / Annual Targets
			Partially achieved. 159 498 learners were reached.	Not achieved 2 978 learners visiting the NZG and/or participating in science engagement opportunities.	10 000 learners visiting the NZGs and participating in off-site science engagement opportunities.	Quarter 1. Off target. 5 805 learners either visited the NZG or participated in science engagement opportunities. Quarter 2. Off target. 4 657 learners visited the NZG and/or participated in science engagement opportunities.	The original 2021/22 APP annual target of learners visiting the NZG and/or participating in science engagement opportunities was considered unachievable due to various factors, mostly the COVID-19 pandemic and associated restrictions on learners and schools not being able to travel from their school grounds.	Challenges: The reason for not achieving this target is that it was based on the premise that schools would be operating normally. Of the 5 805 learners reached, only 2 380 physically visited the NZG campuses. This may be compared to no visitors in the previous financial year due to the NZG being closed to comply with lockdown restrictions and 40 900 learners in 2019/2020 before the lockdown. Corrective measures: This target will be reviewed and adjusted for the remaining quarters. NZG will consider virtual tours to the NZG including museums and gardens. Challenges: Very low number of schools visiting the garden due to COVID-19 pandemic. Schools not releasing learners for excursions due to the pandemic. Corrective measures: Request for mid-year adjustment to the annual target (revised annual target 10 000) has been submitted to DFFE.	The first quarter figures have indicated a low number of learners reached. The proposed annual target of 10,000 considers the fact that the current COVID-19 pandemic shows no signs of subsiding. This means that schools are unlikely to visit the NZG campuses in large numbers, nor are they willing to allow visits to schools by NZG staff. Schools are trying desperately to attend to their annual plans, and thus extramural activities have been reduced to the bare minimum. Science festivals and similar activities have also largely been cut or are conducted digitally. The latter reaches low numbers only, not only due to the reasons stated above, but also due to the costs involved.

Outcome	Output	Output indicator	Audited Actual Performance 2019/20	Audited Actual Performance 2020/21	Planned Annual Target 2021/22	**Actual Achievement 2021/22 until date of re-tabling	Deviation from planned target to Actual Achievement 2021/22	Reasons for deviations	Reasons for revisions to the Outputs / Output indicators / Annual Targets
PROGRAMME 2: BIODIVERSITY SCIENCE AND POLICY ADVICE									
The state of biodiversity is assessed, relevant knowledge and evidence is generated, and this informs implementation and the provision of policy support and advice.	Foundational biodiversity information produced, compiled, maintained and disseminated.	Number of plant and animal species for which descriptive information has been compiled.	Achieved. 3 304 South African species descriptions/ pages were compiled.	Achieved. Descriptive information for 1 405 South African animal and plant species was compiled.	e-Flora constituting 20 600 plant species descriptions and classification information completed; and 1 000 animal species pages compiled.	Quarter 1. On track with quarter target. Descriptive information on 151 animal species compiled; Nil for plant species. Quarter 2. On target. 200 Animal species compiled.	The original 2021/22 APP target was not easily measurable in line with the SMART principle. The target was revised during the mid-year APP adjustment to make measurable by inserting "…consisting of 20 600" to make it measurable.	Target was exceeded due to collaborating partners contributing more data than planned.	To make the e-Flora component of the target measurable.
	Implementation of nature-based solutions supported towards the just transition to a low carbon economy and climate resilient society.	Number and value of Green Climate Fund project proposals submitted to the Green Climate Fund Board for consideration.	Partially achieved. One first stage proposal with a value of USD 20 million submitted to the GCF for consideration.	Achieved. 1 first stage proposal with a value of at least USD 10 million was submitted to the Green Climate Fund for consideration.	2 first stage proposals with a total value of at least ZAR 300 million refined and resubmitted for Green Climate Fund (GCF) consideration.	Quarter 1. On track with quarter target. 2 Project development engagement sessions. Quarter 2. On track with quarter target 2 project development engagement sessions held.	There is no deviation from the approved revised planned target. The original target of the submission two fully developed proposals to the GCF was considered unachievable as full proposal development may only commence once first stage funding proposals are cleared by the Green Climate Fund (GCF). The complexity of the GCF system has increased substantially and was not anticipated when the original target was set.	There is no deviation from the approved revised planned target. The new approved target of "2 first stage proposals with a total value of at least ZAR 300 million refined and resubmitted for Green Climate Fund (GCF) consideration" was achieved	The complexity of the GCF proposal development processes have increased substantially over recent year and clearance of first proposals to the full proposal stage is beyond SANBI's control. The previous target Annual Target was dependant on GCF processes and SANBI was not able to move to final stage GCF proposal development, as was anticipated when the original target for the CSP and 2021/2022 APP was drawn up. Noting these challenges that were beyond SANBI's control, the revised target was approved. The revised target has been met.

Outcome	Output	Output indicator	Audited Actual Performance 2019/20	Audited Actual Performance 2020/21	Planned Annual Target 2021/22	**Actual Achievement 2021/22 until date of re-tabling	Deviation from planned target to Actual Achievement 2021/22	Reasons for deviations	Reasons for revisions to the Outputs / Output indicators / Annual Targets
PROGRAMME 3: HUMAN CAPITAL DEVELOPMENT AND TRANSFORMATION									
A transformed and suitably skilled workforce and active citizenry is developed to strengthen the biodiversity sector. Programmes aimed at building foundational knowledge of teachers and teacher educators implemented.	Black biodiversity professionals are supported with Work-Integrated Learning (WIL), intern placement and postgraduate studies.	Number of black of biodiversity professionals supported through HCD interventions in SANBI.	Exceeded target. A total of 148 HCD interventions implemented.	Achieved. 130 WIL placements, 89 interns and GS placements, 5 postgraduate degrees completed, 13 postgraduate bursaries awarded.	10 postgraduate degrees completed.	Quarter 1. Off target. 1 postgraduate degree completed. Quarter 2. Off target. 1 postgraduate degree completed.	The original 2021/22 APP target of 18 postgraduate degrees completed was considered unachievable due to the negative impact of COVID-19 on student progress, and subsequent requests for extensions of student agreements. The target was therefore reduced mid-term to 10.	Challenges: COVID-19 has had a major psychological impact on students, especially during hard lock down. In addition, restrictions on travel and lack of access to resources resulted in delays with data gathering and field work, which in turn affected progress of the studies, with several postgraduate students requesting extensions.	COVID-19 resulted in restrictions on travel and lack of access to resources. As a consequence there were delays with data gathering and field work, which in turn affected progress of the studies, with several postgraduate students requesting extensions
	Programmes aimed at building foundational knowledge of teachers and teacher educators implemented.	Number of teachers and teacher educators participating in foundational building activities.	New indicator	Achieved. 56 teachers/ educators participated.	100 teachers/teacher educators	Quarter 1. No milestone although 61 teachers were trained. This is due to the fact that the project took a decision to do as much as possible to minimise interruptions such as lockdown regulation on the project. Quarter 2. On track with quarter target. Exceeded target. 70 teachers trained.	The original 2021/22 APP target was changed as it was considered unachievable due to the negative impact of COVID-19. The target was exceeded as online platforms provided an opportunity to train 136 teachers in Q1 and 2.	Due to COVID-19 regulations training sessions were changed from face-face to online.	Training constrained at targeted universities due internal challenges within academic institutions

Outcome	Output	Output indicator	Audited Actual Performance 2019/20	Audited Actual Performance 2020/21	Planned Annual Target 2021/22	**Actual Achievement 2021/22 until date of re-tabling	Deviation from planned target to Actual Achievement 2021/22	Reasons for deviations	Reasons for revisions to the Outputs / Output indicators / Annual Targets
PROGRAMME 4: ADMINISTRATION									
Improve financial sustainability and provide effective corporate services to achieve the mandate of SANBI.	SANBI positioned as employer of choice in the biodiversity sector.	Percentage of payroll spent on staff development.	Achieved. Actual for the quarter was R809 531.09. Annual target was R3 604 215, and annual achievement was R4 111 545.35.	Achieved. 0.31% of (actual) payroll spent on staff development.	0.25% of payroll spent on staff development.	Quarter 1. On track with quarter target. 0,63% spent on staff development (R633 190/ R99 471 433x100) Quarter 2. Off target. 0.19% (R191 188/ R98 969 881x100)	The original 2021/22 APP target of 0.5% of payroll spent on staff development was not achievable due negative impact of COVID-19 on financial resources. The target was therefore reduced mid-term to 0.25%.	Challenges: COVID-19 resulted in a significant decrease in revenue, with severe cuts to operating budgets. SANBI is therefore unable to allocate sufficient resources towards staff development, including the staff bursary programme.	COVID-19 has resulted in a significant decrease in revenue, with severe cuts to operating budgets. SANBI is therefore unable to allocate sufficient resources towards staff development, including the staff bursary programme. COVID-19 has resulted in a significant decrease in revenue, with severe cuts to operating budgets. SANBI is therefore unable to allocate sufficient resources towards staff development, including the staff bursary programme.

NB. Targets were amended in November 2021

PERFORMANCE AGAINST PREDETERMINED OBJECTIVES 2021/22

Predetermined objectives is an annual audit of reported actual performance against the approved Annual Performance Plan (APP) of public institutions. Its purpose is to provide assurance to Parliament, legislators, members of the public and other relevant parties that the actual performance reported is useful and reliable.

Outcome	Output	Output indicator	Audited Actual Performance 2019/20	Audited Actual Performance 2020/21	Planned Annual Target 2021/22	**Actual Achievement 2021/22	Deviation from planned target to Actual Achievement 2021/22	Reasons for deviations
PROGRAMME 1: NATIONAL ZOOLOGICAL AND BOTANICAL GARDENS								
The network of National Botanical and Zoological Gardens are managed and maintained for conservation, research, recreation, education and awareness.	NBGs and NZG managed and maintained as centres of social cohesion.	Number of maintenance, development and capital infrastructure projects completed.	Partially achieved: 44 maintenance/ development projects (98%) and 2 capital infrastructure projects completed.	Achieved 45 maintenance/ development projects and two SANBI capital infrastructure projects completed.	45 priority maintenance infrastructure projects completed in the established NBGs or NZGs. 5 new infrastructure projects completed in the established NBGs or NZGs.	Achieved. 45 priority maintenance infrastructure projects completed in the established NBGs or NZGs. Exceeded target. 8 new infrastructure projects completed in the established NBGs or NZGs.	Overachieved by 3 on new infrastructure projects completed in the established NBGs or NZGs.	Some projects moved into the new infrastructure project category following the mid-year adjustment to the target for the 2021/22 APP.
		New and refurbishment infrastructure projects for Kwelera and Thohoyandou botanical gardens implemented.	Not achieved.	Achieved. One infrastructural development project (new boundary fence) for the Kwelera National Botanical Garden completed.	Upgrade of existing access gravel road at the Kwelera National Botanical Garden completed (650m x 6m section).	Achieved. Upgrade of existing access gravel road at the Kwelera National Botanical Garden completed (650m x 6m section).	Achieved.	Achieved.
		New and refurbishment infrastructure projects for Kwelera and Thohoyandou botanical gardens implemented.	EMPr replaced the BAR as the annual target during the mid-year APP review and was approved by the Minister in November 2019.	Achieved. Plant collections nursery shade structure established.	One infrastructural development project for Thohoyandou Botanical Garden completed (8 roof carports structures & paving).	Achieved. One infrastructural development project for Thohoyandou Botanical Garden completed (8 roof carports structures & paving).	Achieved	Achieved

Outcome	Output	Output indicator	Audited Actual Performance 2019/20	Audited Actual Performance 2020/21	Planned Annual Target 2021/22	**Actual Achievement 2021/22	Deviation from planned target to Actual Achievement 2021/22	Reasons for deviations
The network of National Botanical and Zoological Gardens are managed and maintained for conservation, research, recreation, education and awareness.	Number of visitors in the NBGs and NZG	Number of visitors to NBGs and NZG.	Partially achieved: 3% annual increase in visitor numbers. Combined visitor number for the 12-month period 1 April 2019 to 31 March 2020 was 1 461 107 (compared with 1 413 974 for 2018/19).	Achieved (Exceeded target). 939 256 visitors to NBGs and NZG combined for 2020/21 FY.	950 000 visitors to NBGs and NZG combined.	Exceeded target NBGs: Annual target: 798 000 Annual achievement: 1 135 939 NZG: Annual target: 152 000 Annual achievement: 225 125 NBGs and NZG combined: Annual target: 950 000 Annual achievement: 1 361 064 visitors to NBGs and NZGs combined.	Overachieved by 411 064.	Various marketing interventions were put in place to attract local visitors and promoting the use of NBGs and NZG as outdoor open spaces. Two Summer Sunset concerts held in Kirstenbosch NBG in March 2022. The NZG hosted 4 special events which drew large numbers of visitors. A calendar of events was implemented in February 2022. Media releases as well as relaxed Covid-19 regulations also had a positive effect on visitor numbers.
The network of National Botanical and Zoological Gardens are managed and maintained for conservation, research, recreation, education and awareness.	Conservation programmes in NBGs and NZG implemented.	Number of indigenous species added to the living collections of the NBGs and/or Millennium Seed Bank Partnership (MSBP).	Exceeded target: 216 indigenous plant species added to the living collections of the MSBP.	Achieved (Exceeded target) NBGs: 164 indigenous plants species added to the living collections of the MSBP.	At least 100 indigenous plant species added to the living collections of the combined network of NBGs and/or the MSBP.	Exceeded target 311 indigenous species added to the living collections of the combined network of NBGs and/or the MSBP.	Overachieved by 211.	Target exceeded due to successful targeted field trips undertaken by seed collectors resulting in additional species collected for the MSBP. Seed collectors more efficient as they become more experienced. Working in new areas. Working with more partners such as CREW, volunteers, reserve managers. The team is now at full capacity and is additionally capacitated by a Wrench Bequest intern. Seed collecting teams are doing longer joint trips.
		Number of conservation programmes in the NZG.	New Indicator.	Partially achieved. Two MOUs signed by SANBI with the Mabula Ground Hornbill Project & Pan African Association of Zoos and Aquariums.	At least 4 MoUs signed with partners and the NZG to collaborate on faunal conservation issues.	Achieved. Two annual faunal conservation priorities as per existing MOU`s were implemented on Mabula Ground Hornbill conservation partnership & PAZA-partnership through the agreed implementations plans. The MoA with DFFE on temporary holding facilities was concluded and signed. The MoU with CoT was finalised by SANBI and handed over to City of Tshwane management. Interim measures agreed on the continuation of the current MOU while current processes ensue.	Achieved.	Achieved.

Outcome	Output	Output indicator	Audited Actual Performance 2019/20	Audited Actual Performance 2020/21	Planned Annual Target 2021/22	**Actual Achievement 2021/22	Deviation from planned target to Actual Achievement 2021/22	Reasons for deviations
The network of National Botanical and Zoological Gardens are managed and maintained for conservation, research, recreation, education and awareness.		Number of studbooks published under regional and international associations of zoos and aquaria.	Achieved. 5 studbooks published.	Partially achieved. One international studbook completed. Five regional studbooks completed.	International studbook: 1 5 regional studbooks published	Achieved. 1 international and 5 regional studbooks published	Achieved.	Achieved.
	Biodiversity awareness and education promoted.	Number of beneficiaries participating in 'Kids in Gardens' Programme to promote biodiversity awareness, education and recreation and science engagement programmes at the NBG.	Exceeded target: The annual target of 56 000 was exceeded by 7 554 as 63 554 beneficiaries were reached.	Off-target. 951 beneficiaries participated in the 'Kids in Gardens' Programme in NBGs.	10 000 beneficiaries participating in NBG facilitated "Kids in Gardens' Programme.	Exceeded target NBGs: 16 789 beneficiaries participating in NBG facilitated 'Kids in Gardens' Programme.	Overachieved by 6 789.	School group bookings increased as COVID-19 infections decreased, and lockdown restrictions were relaxed.
		Number of beneficiaries participating in 'Kids in Gardens' Programme to promote biodiversity awareness, education and recreation and science engagement programmes at the NZG.	Partially achieved. 159 498 learners were reached.	Off-target. 2 978 learners visiting the NZG and/or participating in science engagement opportunities.	10 000 learners visiting the NZGs and participating in off-site science engagement opportunities.	Exceeded target NZG: 24 721 learners visiting the NZG and participating in off-site science engagement opportunities.	Overachieved by 14 721.	More schools booked for visits than what was originally anticipated. A number of outreach programmes were implemented i.e., the NZG visiting schools. 5 Science Clubs were established in Limpopo Province.

Outcome	Output	Output indicator	Audited Actual Performance 2019/20	Audited Actual Performance 2020/21	Planned Annual Target 2021/22	**Actual Achievement 2021/22	Deviation from planned target to Actual Achievement 2021/22	Reasons for deviations
PROGRAMME 2: BIODIVERSITY SCIENCE AND POLICY ADVICE								
The state of biodiversity is assessed, relevant knowledge and evidence is generated, and this informs implementation and the provision of policy support and advice.	Foundational biodiversity information produced, compiled, maintained and disseminated.	Number of plant and animal species for which descriptive information has been compiled.	Achieved: 3 304 south African species descriptions/ pages were compiled.	Achieved. Descriptive information for 1 405 South African animal and plant species was compiled.	e-Flora constituting 20 600 plant species descriptions and classification information completed; and 1 000 animal species pages compiled.	Exceeded target 21 100 plant species descriptive information completed. 1 000 animal species pages compiled.	Overachieved by 500.	Collaborating partners contributed more data than planned, thus leading to the target being exceeded.
		Number of biodiversity collection records digitised and added to databases.	Exceeded target: 56 468 biodiversity records were added to the database. Annual Targe Exceeded by 468 records due to partner institutions providing more records than anticipated.	Achieved. Overall achievement of 56 256 (35 000 animal and 21 256 plant) biodiversity records were digitised and added to databases.	56 000 biodiversity records digitised and added to database.	Exceeded target 56 808 records were digitised and added to database.	Overachieved by 808.	Due to several vacancies that severely impacted on capacity to deliver on this target, mass imaging and data capture was instituted, using onterns and staff from other herbaria and projects (i.e., NSCF digitizing team).

Outcome	Output	Output indicator	Audited Actual Performance 2019/20	Audited Actual Performance 2020/21	Planned Annual Target 2021/22	**Actual Achievement 2021/22	Deviation from planned target to Actual Achievement 2021/22	Reasons for deviations
The state of biodiversity is assessed, relevant knowledge and evidence is generated, and this informs implementation and the provision of policy support and advice.		Number of biodiversity records published.	Exceeded target: 72 732 biodiversity data records published.	Achieved. Annual target of 59 400 biodiversity records published.	59 400 biodiversity records published.	Exceeded target. 59 550 biodiversity records published.	Overachieved by 150.	Datasets received from partners in Q1 were larger than originally projected due to the nature of the work. The quarterly target is based on projections with actual records only known once the datasets are processed and validated. Variation is therefore anticipated in terms of the number of biodiversity records published each quarter.
		Number of version releases of biodiversity checklists.	New Indicator.	Achieved. 2 versions of biodiversity checklists released.	2 versions releases of biodiversity checklists.	Achieved. 2 versions releases of biodiversity checklists.	Achieved.	Achieved.

Outcome	Output	Output indicator	Audited Actual Performance 2019/20	Audited Actual Performance 2020/21	Planned Annual Target 2021/22	**Actual Achievement 2021/22	Deviation from planned target to Actual Achievement 2021/22	Reasons for deviations
		Number of botanical artwork and collection slides digitised.	New Indicator.	Achieved. 6 000 botanical artwork and collection slides were digitised.	6 000 botanical artwork and collection slides digitised.	Achieved. 6 000 botanical artwork and collection slides digitised.	Achieved.	Achieved.
		Number of wildlife biomaterials added/ accessioned.	New Indicator.	Achieved. A total of 2 015 wildlife biomaterials were added to the biobank for the year, thus exceeding the annual target.	6 000 wildlife biomaterials added to biobank.	Achieved. 6 000 wildlife biomaterials added to biobank.	Achieved.	Achieved.
		Number of version releases of ecosystem classifications and maps.	Achieved. The version release for terrestrial ecosystems were finalised.	Achieved. Final version releases for wetland and terrestrial classifications and maps were achieved.	1 versions release for an ecosystem classification and map (marine).	Achieved. 1 versions release for an ecosystem classification and map (marine).	Achieved.	Achieved.
The state of biodiversity is assessed, relevant knowledge and evidence is generated, and this informs implementation and the provision of policy support and advice.	Foundational biodiversity information produced, compiled, maintained and disseminated.	Percentage availability of biodiversity information systems for users.	New Indicator.	New Indicator.	95% availability of biodiversity information systems for users.	Exceeded target. Biodiversity information systems available to users for 99% of the year.	Overachieved by 4.	All biodiversity information systems have been fully operational, apart from one hour per week when they are shutdown for backups. This accounts for 0.6% of the period, therefore the biodiversity systems are represented as available for 99% of the period.

Outcome	Output	Output indicator	Audited Actual Performance 2019/20	Audited Actual Performance 2020/21	Planned Annual Target 2021/22	**Actual Achievement 2021/22	Deviation from planned target to Actual Achievement 2021/22	Reasons for deviations
The state of biodiversity is assessed, relevant knowledge and evidence is generated, and this informs implementation and the provision of policy support and advice.	Research undertaken and co-ordinated to provide applied knowledge to conserve and unlock the benefits of biodiversity.	Number of research papers published in journals accredited by DHET.	Exceeded target: 86 papers published in DHET accredited journals.	Achieved. 148 papers published.	120 research papers published in journals accredited by DHET.	Exceeded target. 146 research papers published in journals accredited by DHET.	Overachieved by 26.	Restriction implemented through the pandemic and working from home has provided the time to analyse datasets and publish more papers. The SANBI Journal *Flowering Plants of Africa* is published once every second year. July 2021 was the next issue was published, with 9 publications from SANBI authors. It is proposed that for next financial year a cumulative target be used for number of papers published to overcome some of the challenges with quarterly reporting thereof.
		Number of cooperative research networks established or convened to generate knowledge.	Achieved: 2 cooperative research networks (marine, biodiversity economy).	Achieved. 3 cooperative research networks convened (marine, biodiversity economy, freshwater). Annual reports on progress with research networks completed.	3 cooperative research networks convened (marine, biodiversity economy, freshwater).	Achieved. 3 cooperative research networks convened (marine, biodiversity economy, freshwater).	Achieved.	Achieved.

Outcome	Output	Output indicator	Audited Actual Performance 2019/20	Audited Actual Performance 2020/21	Planned Annual Target 2021/22	**Actual Achievement 2021/22	Deviation from planned target to Actual Achievement 2021/22	Reasons for deviations
		Number of risk analyses developed for alien &invasive species.	Partially achieved: 13 risk analyses for invasive species.	Partially Achieved. 26 additional risk analyses developed for alien & invasive species.	45 additional risk analyses developed for alien & invasive species	Partially achieved. 36 additional risk analyses developed for alien & invasive species.	Underachieved by 9. Lack of staff to provide ASRARP with an adequate supply of risk analyses to be reviewed.	Challenges: A lack of dedicated staff to provide ASRARP with an adequate supply of risk analyses to be reviewed. A service provider was appointed in the third quarter to assist in delivering risk analyses and resulted in a limited number of good quality risk analyses for review. External review process not incentivised. Corrective Measures: The risk analysis coordinator position has been advertised with a closing date of 4 April 2022. Two project officer positions have been budgeted for in the 2022-23 financial year. This will address the lack of capacity. Senior staff workplans to be amended to include risk analysis as a Key Performance Area. The current ASRARP model has been reviewed and an incentivised reviewer process to address the slow turnaround of the review and approval processes has been developed.

Outcome	Output	Output indicator	Audited Actual Performance 2019/20	Audited Actual Performance 2020/21	Planned Annual Target 2021/22	**Actual Achievement 2021/22	Deviation from planned target to Actual Achievement 2021/22	Reasons for deviations
	National biodiversity assessments and syntheses undertaken.	Number of assessments completed and dashboard of national indicators developed and maintained.	Not achieved.	Achieved. The Board approved report was submitted in January 2021 to the Minister Forestry, Fisheries and the Environment (DFFE) and key departments.	1 annual update of protection level indicators from the NBA compatible with online dashboard.	Achieved. 1 annual update of protection level indicators from the NBA compatible with online dashboard.	Achieved.	Achieved.
The state of biodiversity is assessed, relevant knowledge and evidence is generated, and this informs implementation and the provision of policy support and advice.		Number of annual updates for Non- Detriment Findings (NDFs) for the Scientific Authority produced.	Achieved. 1 update for NDFs for the Scientific Authority.	Achieved. Final update on NDFs approved by Scientific Authority.	1 update for NDFs for the Scientific Authority.	Achieved. 1 update for NDFs for the Scientific Authority.	Achieved.	Achieved.
	Biodiversity policy support and advice provided for national and international obligations.	Number of tools and knowledge resources developed to support mainstreaming of biodiversity assets and ecological infrastructure.	Partially achieved. 1 of 2 decision support tools developed.	Achieved. Two decision support tools: Terrestrial Animal and Plant Species Protocols (Q2) and Ecosystem Guideline for the Albany Thicket Biome (Q4).	5 policy advice products developed.	Achieved. Annual target of 5 policy advice products achieved: Biodiversity and Land Use Project: Lessons learnt and sustainability report for Component 1: Environmental management; Ecosystem Guidelines for the Savanna Biome; the South African National Ecosystem Classification System Handbook Series of 10 case studies from the Biodiversity and Land Use project; and Mainstreaming Biodiversity Priorities.	Achieved.	Achieved.

Outcome	Output	Output indicator	Audited Actual Performance 2019/20	Audited Actual Performance 2020/21	Planned Annual Target 2021/22	**Actual Achievement 2021/22	Deviation from planned target to Actual Achievement 2021/22	Reasons for deviations
		Percentage of relevant written requests from DFFE and other organs of state responded to within the timeframe stipulated in the request.	Achieved. 100% (6 of 6) relevant written requests responded to: draft National Climate Change Adaptation Strategy; draft Western Cape Biodiversity Bill; Eastern Cape Environmental Management Bill; Eastern Cape Provincial Spatial Development Framework; draft amendments to the Mineral and Petroleum Resources Development Regulations (MPRDR). draft National Spatial Development Framework (NSDF).	Achieved. (100%) relevant written requests responded to: Draft amendments to the National Estuarine Management Protocol. Proposed amendments to the Environmental Impact Assessment (EIA) Regulations 2014, and listing notices published under NEMA, 1998; and the Interim Report of the Intergovernmental Working Group on effective policy and implementation for addressing drought under the United Nations Convention to Combat Desertification (UNCCD).	100% of relevant written requests from DFFE and other organs of state responded to within timeframe stipulated.	Achieved. 100% (7 of 7) policy requests responded to: Western Cape Biodiversity Bill; Draft National Biodiversity Framework; Draft policy position on the conservation and ecologically sustainable use of elephant, lion, leopard and rhinoceros; Report of the Ad-Hoc Technical Expert Group on digital sequence information on genetic resources and on the access and benefit sharing-related goal, targets and indicators in the draft Post-2020 Global Biodiversity Framework under the Convention on Biological Diversity and the Nagoya Protocol on Access and Benefit Sharing; Regulations for the use of water for exploration and production of onshore naturally occurring hydrocarbons that require stimulation including hydraulic fracturing and underground coal gasification to extract and any activity incidental thereto that may impact detrimentally on the water resource, 2021; Draft Policy Position on the Conservation and Ecologically Sustainable Use of Elephants, Lion, Leopard and Rhinoceros and draft White Paper/ Policy on Conservation and Sustainable Use of South Africa's Biodiversity; and Draft Framework for a Just Transition in South Africa.	Achieved.	Achieved.

Outcome	Output	Output indicator	Audited Actual Performance 2019/20	Audited Actual Performance 2020/21	Planned Annual Target 2021/22	**Actual Achievement 2021/22	Deviation from planned target to Actual Achievement 2021/22	Reasons for deviations
The state of biodiversity is assessed, relevant knowledge and evidence is generated, and this informs implementation and the provision of policy support and advice.	Biodiversity policy support and advice provided for national and international obligations.	Number of co-ordination or learning mechanisms convened to share lessons and strengthen collaboration among relevant partners.	Achieved. 4 learning or coordination events convened: Biodiversity Planning Forum; Joint Biodiversity Information Management. Foundational Biodiversity Information Programme Forum (BIM-FBIP Forum). El Indaba; and Provincial and Metro Biodiversity Planning Working Group.	Achieved. Four learning events held: Provincial and Metro Biodiversity Planning Working Group, National NCA Strategy Stakeholder Workshop, Partnerships for Sustainable Landscapes Dialogue, and 2nd National Indaba on Ecological Infrastructure (Q4).	Target dropped in 2021/22 financial year.	N/A	N/A	N/A

Outcome	Output	Output indicator	Audited Actual Performance 2019/20	Audited Actual Performance 2020/21	Planned Annual Target 2021/22	**Actual Achievement 2021/22	Deviation from planned target to Actual Achievement 2021/22	Reasons for deviations
The state of biodiversity is assessed, relevant knowledge and evidence is generated, and this informs implementation and the provision of policy support and advice.	Biodiversity policy support and advice provided for national and international obligations.	Number of platforms convened to share lessons and strengthen collaboration among relevant partners.	New Indicator.	New Indicator.	5 platforms convened	Exceeded target. Annual target exceeded by one platform. 6 platforms convened: Biodiversity Stewardship Online Training and Capacity Building (Module 3, 4 & 5); Biodiversity Planning Forum; Webinar on the Ecosystem Environmental Assessment Guideline and Biodiversity Stewardship Train the Trainer Workshop; Biodiversity Planning Technical Working Group; and the Catchment-based EI Indaba.	Overachieved by 1.	The opportunity arose in Q2 to host an additional platform, the Biodiversity Stewardship Train the Trainer Workshop, as part of the Land Reform and Biodiversity Stewardship Initiative. The Catchment EI Indaba scheduled for Q4 was hosted in Q3 in order for the outcomes to contribute to a Q4 project deliverable. The decision was welcomed by the catchment partners.
The state of biodiversity is assessed, relevant knowledge and evidence is generated, and this informs implementation and the provision of policy support and advice.	Biodiversity policy support and advice provided for national and international obligations.	Number of training events convened to build capacity among relevant partners.	Achieved. 4 training sessions convened: Mapping Biodiversity Priorities Learning Exchange; Fitness for Use Data Training; Biodiversity Offsets in South Africa; and Implementing Biodiversity Stewardship on Communal Land.	Achieved. 3 training events convened: Malawi National Red List Working Group training (Q3); SANBI BLU EIA Training Course: Biodiversity for Sustainable Development; Biodiversity Stewardship Online Training and Capacity Building.	Target dropped in 2021/22 financial year.	N/A	N/A	N/A

Outcome	Output	Output indicator	Audited Actual Performance 2019/20	Audited Actual Performance 2020/21	Planned Annual Target 2021/22	**Actual Achievement 2021/22	Deviation from planned target to Actual Achievement 2021/22	Reasons for deviations
The state of biodiversity is assessed, relevant knowledge and evidence is generated, and this informs implementation and the provision of policy support and advice.	Implementation of nature-based solutions supported towards the just transition to a low carbon economy and climate resilient society.	Number and value of Adaptation Fund and Green Climate Fund (GCF0 projects approved for implementation.	Partially achieved. 1 First stage proposal with a value of USD 20 million submitted to the GCF for consideration	Achieved. 1 first stage proposal with a value of at least USD 10 million was submitted to the GCF for consideration.	2 first stage proposals with a total value of at least ZAR 300 million refined and resubmitted for GCF consideration.	Achieved. 2 first stage proposals with a total value of at least ZAR 300 million refined and resubmitted for GCF consideration: Nature-based Solutions for transforming smallholder farming systems that are vulnerable to the impacts of climate change in South Africa (NBS-Farm); Ecosystem-Based Adaptation for Water Security in South Africa (EbA-Water).	Achieved.	Achieved.

Outcome	Output	Output indicator	Audited Actual Performance 2019/20	Audited Actual Performance 2020/21	Planned Annual Target 2021/22	**Actual Achievement 2021/22	Deviation from planned target to Actual Achievement 2021/22	Reasons for deviations
PROGRAMME 3: HUMAN CAPITAL DEVELOPMENT AND TRANSFORMATION								
A transformed and suitably skilled workforce and active citizenry is developed to strengthen the biodiversity sector.	Black biodiversity professionals are supported with Work Integrated Learning (WIL), intern placement and postgraduate studies.	Number of black biodiversity professionals supported through Human Capital Development (HCD) interventions in SANBI.	Exceeded target. A total of 148 HCD interventions implemented.	Achieved. 130 WIL placements, 89 interns and Groen Sebenza (GS) Placements; 5 postgraduate degrees completed; 13 postgraduate bursaries awarded.	• 75 WIL student placements. • 113 interns and GS pioneer placements. • 10 postgraduate degrees (Honours, Masters and Doctoral) completed. • 22 postgraduate student bursaries awarded. Total HCD annual target 220.	Partially achieved. A total of 197 HCD interventions implemented.	Underachieved by 23. Fewer student bursaries advertised due to funding challenges. Plans are underway to maximise funding opportunities in 2022/23.	Challenges: Adjustments with the DFFE/SANBI funding arrangements. Corrective Measures: Funding arrangements and placement protocol addressed between SANBI and DFFE.
	Programmes aimed at building foundational knowledge of teachers and teacher educators implemented.	Number of seminars conducted to address Climate Change Education Policy challenges.	New Indicator.	Achieved. One online seminar conducted with 253 participants reached through the seminar held in Q3.	Climate Change Education Project 1seminars/symposium (national and provincial) conducted to address Climate Change Education policy challenges.	Achieved. 1 seminar conducted to address Climate Change Education policy challenges.	Achieved.	Achieved.
A transformed and suitably skilled workforce and active citizenry is developed to strengthen the biodiversity sector.	Biodiversity careers are promoted at higher education institutions (HEIs).	Number of teachers and teacher educators participating in foundational building activities.	New Indicator.	Achieved. 56 teachers/educators participated.	100 teachers/teacher educators.	Exceeded target. 152 teachers/teacher educators.	Overachieved by 52.	The programme was offered online. Considering the cost of online participation is minimal, more teachers were able to participate
				New Indicator.	60 teachers trained on green economy & entrepreneurship.	Exceeded target. 136 teachers trained on green economy & entrepreneurship.	Overachieved by 76.	Target exceeded as the programme was offered online. Given that the cost of online participation is minimal, more HEIs were able to participate.
	Biodiversity Careers are promoted at higher education institutions (HEIs).	Number of higher education institutions participating in Biodiversity Careers Programme.	Exceeded target. The annual target of 15 universities was exceeded by 2 as 17 universities were reached.	Achieved. 32 HEIs reached through an online programme.	20 HEIs participating in Biodiversity Careers Programme.	Exceeded target. 27 HEIs participated in Biodiversity Careers Programme.	Overachieved by 7.	Reasons for exceeding target was due to the fact that the course was held online, and higher educational institutions participated in the programme.

Outcome	Output	Output indicator	Audited Actual Performance 2019/20	Audited Actual Performance 2020/21	Planned Annual Target 2021/22	**Actual Achievement 2021/22	Deviation from planned target to Actual Achievement 2021/22	Reasons for deviations
A transformed and suitably skilled workforce and active citizenry is developed to strengthen the biodiversity sector.	Citizen science platforms are implemented, and the involvement of youth and rural communities is strengthened.	Number of citizen science platforms implemented and percentage increase in involvement of youth and rural communities.	Achieved. Citizen science platforms implemented for CREW, iNaturalist and SABAP2.	Achieved. Two citizen science platforms implemented (CREW, iNaturalist) and benchmark for involvement of youth and rural communities. Annual reports for CREW and iNaturalist.	2 citizen science platforms implemented (CREW, iNaturalist) with 5% increase from 2020-2021 baseline in involvement of youth and rural communities in the CREW platform.	Achieved. 2 citizen science platforms implemented (CREW, iNaturalist) with 5% increase from 2020-2021 baseline in involvement of youth and rural communities in the CREW platform	Achieved.	Achieved.
PROGRAMME 4: ADMINISTRATION								
Improve financial sustainability and provide effective corporate services to achieve the mandate of SANBI.	Available systems to support corporate business processes.	Percentage availability/ uptime of ICT systems for internal and external customers.	Achieved 90% of ICT uptime for internal and external customers.	Achieved. 90% of ICT uptime for internal and external customers was achieved.	90% of ICT uptime for internal and external customers.	Exceeded Target. 98.865% of ICT uptime for internal and external customers	Overachieved by 8.865%.	The installation of new UPS devices on the network led to the increase.
	Effective risk supply chain and financial management system developed and implemented	Percentage of planned risk mitigation plans implemented.	Achieved 100% of risk mitigation plans implemented.	Achieved. 100% of risk mitigation plans implemented (44 out of 44 planned actions achieved).	4 of strategic risk reviews conducted in line with ISO 31000 and risk reports compiled.	Achieved. 4 of strategic risk reviews conducted in line with ISO 31 000 and risk reports compiled.	Achieved.	Achieved.
		Percentage compliance with the SANBI compliance schedule.	Achieved. 100% compliance as per the compliance schedule.	Achieved. 100% compliance as per the SANBI compliance schedule 3 out of 3 reports will be submitted on 31 April 2021 as per the compliance schedule.	Target was dropped in 2021/22 Financial year.	N/A	N/A	N/A

Outcome	Output	Output indicator	Audited Actual Performance 2019/20	Audited Actual Performance 2020/21	Planned Annual Target 2021/22	**Actual Achievement 2021/22	Deviation from planned target to Actual Achievement 2021/22	Reasons for deviations
Improve financial sustainability and provide effective corporate services to achieve the mandate of SANBI.	A compelling brand built to position SANBI as a leading biodiversity Institute and premier outdoor attraction to experience the fullness of nature.	Marketing and brand communication platforms and initiatives identified and utilised.	Exceeded target. 257 marketing platforms	Achieved. 30 marketing platforms were achieved.	20 marketing platforms (exhibitions to market SANBI).	Exceeded target. 43 marketing platforms created	Overachieved by 23.	The relaxation of COVID-19 regulations allowed for the hosting of more events in the gardens which led to the creation of the 43 marketing platforms out of the 20 that were planned for the 2021/22 financial year.
	Increase of own income generated.	Percentage increase of own income generated.	Not achieved	Achieved. Year-on-year income generated is 60% reduction (R98 million). Year-to-date income of R57 974 521 was generated compared to R150 435 322 in the previous financial year.	10% year-on-year increase on own income generated.	Exceeded. 32% year-on-year increase on own income generated. Annual own income of R87 036 424 was generated compared to R65 957 375 in the previous financial year.	Overachieved by 22%.	In the previous financial year there were no concerts held at the gardens due to the COVID-19 regulations. In the current financial year there were some concerts held during quarter 4 and more visitors to the gardens.
Improve financial sustainability and provide effective corporate services to achieve the mandate of SANBI.	Effective and efficient management of financial resources.	GRAP and PFMA compliant annual financial statements.	SANBI was issued with an unqualified audit report by the Auditor-General of South Africa (AGSA)	Achieved. 90% of the 2019/20 external audit findings were addressed; 45 of the 49 findings have been addressed; 91% of the internal audit findings from the 2020/21 cycle were addressed; 67 of the 74 findings have been addressed.	Unqualified external audit opinion without finding.	Partially Achieved Unqualified audit opinion received.	Unqualified audit opinion received received with material adjustments to the financial statements and performance report emanating from the audit process.	Challenges: There were material adjustments to the financial statements and performance report emanating from the audit process. Corrective Measures: Internal review processes will be reviewed and strengthened to ensure material errors are corrected prior to finalising the reports.

Outcome	Output	Output indicator	Audited Actual Performance 2019/20	Audited Actual Performance 2020/21	Planned Annual Target 2021/22	**Actual Achievement 2021/22	Deviation from planned target to Actual Achievement 2021/22	Reasons for deviations
		Increased percentage of procurement to BBBEE (Black ownership).	New Indicator.	Achieved. 90% procurement to BBBEE suppliers. From the total procurement spend of R80 969 556, expenditure on BBBEE Supplier amounted to R72 686 660.	80% procurement to BBBEE suppliers.	Exceeded target. 93% of procurement to BBBEE suppliers. From the total procurement spend of R22 7243 612, there was R 211 900 244 spent from BBBEE suppliers.	Overachieved 13%.	Procurement from BBBEE suppliers was prioritised.
Improve financial sustainability and provide effective corporate services to achieve the mandate of SANBI.		Increased percentage of procurement to BBBEE (Black ownership).	New Indicator.	Achieved. 81% of procurement to BBBEE suppliers with over 50% Black ownership. From the total procurement spend of R80 969 556, there was R65 564 420 on BBBEE suppliers with over 50% Black ownership.	65% procurement to BBBEE suppliers with over 50% Black ownership.	Exceeded target. 79% of procurement to BBBEE suppliers. From the total procurement spend of R22 243 612, there was R180 023 551 spent from BBBEE suppliers with over 50% Black ownership.	Overachieved by 14%.	Procurement from BBBEE suppliers was prioritised.
	SANBI positioned as employer of choice in the biodiversity sector.	Percentage of payroll spent on staff development.	Achieved actual for the quarter was R809 531 09. Annual target was R3 604 215. Annual achievement was R4 111 545 35.	Achieved. 0.31% of (actual) payroll spent on staff development.	0.25% of payroll spent on staff development.	Exceeded target. 0.45% of annual payroll spent on staff development (R1 581 685/R352 767 128 x 100)	Overachieved by 2%.	Some expenses incurred in Q3 processed in Q4.

Outcome	Output	Output indicator	Audited Actual Performance 2019/20	Audited Actual Performance 2020/21	Planned Annual Target 2021/22	**Actual Achievement 2021/22	Deviation from planned target to Actual Achievement 2021/22	Reasons for deviations
		Percentage compliance to the Employment Equity targets.	Partially achieved (46.4%).	Achieved. 46.4% (451/972x100) of staff in full-time employment are female.	43% of staff in full-time employment are female.	Exceeded target. 46.6% of staff in ful- time employment are female (442/948 x 100).	Overachieved by 3.6%.	Labour turnover rate was lower than projected.
			Partially achieved (46.4%)	Achieved. 48.5% (16/33x100) of staff in top and senior management are female.	43% of staff in top and senior management are female.	Exceeded target. 45.7% of staff in top and senior management are female (16/35 x 100).	Overachieved by 2.7%.	Labour turnover rate was lower than projected.
			Partially achieved (87.9%)	Achieved. 89% (865/972x100) of staff in full time employment are Black.	86% of staff in full-time employment are Black.	Exceeded target. 89.8% of staff in full-time employment are Black (851/948 x 100)	Overachieved by 3.8%.	Labour turnover rate was lower than projected.
			Exceeded target: People with disabilities (3.9 %).	Achieved. 3% (29/972x100) people with disabilities in fulltime employment.	2% People with disabilities in full-time employment.	Exceeded target. 3.1% people with disabilities in full-time employment (29/948 x 100).	Overachieved by 1.1.%.	Labour turnover rate was lower than projected.

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GOVERNANCE STATEMENT

CORPORATE GOVERNANCE STATEMENT: 2021/22

SANBI's corporate governance consists of processes, customs, policies and laws affecting the way the institute is directed, administered and controlled. This approach prioritises the nature and extent of accountability in the institute and the mechanisms that try to reduce or eliminate corporate governance deficiencies. SANBI's corporate governance also includes the relationships among its many stakeholders and the goals for which the institute is governed. SANBI's main external stakeholder groups are government, shareholders, non-governmental organisations, debt holders, trade creditors, suppliers, customers and communities affected by SANBI's activities. Internal stakeholders are the Board of directors, executives and the rest of employee workforce.

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, King IV Report principles and recommendations on Corporate Governance.

SANBI's Board, it's committees and the Executive Management Committee (EXCO) ensure that the institute upholds and complies with principles of good ethical practices.

APPOINTMENT AND COMPOSITION OF THE SANBI BOARD

According to Section 15 of the National Environmental Management: Biodiversity Act (NEMBA) No. 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 Institute. Executive members eligible for attendance of the Board include:

- The Chief Executive Officer and/or acting person in the position is an *ex officio* Board member.
- The Chief Financial Officer, Chief Operations Officer and Head of Branch: Biodiversity Research and Policy Advice attend Board meetings as permanent invitees.
- Other members of EXCO attend Board meetings by invitation, to present on specific subject matter, as determined by the chief executive officer.

The Board meets quarterly, and when required for specific extra-ordinary meetings. The business of the Board and its functions are conducted in line with the approved Board Manual/Charter and in accordance with provisions of NEMBA *(i.e., Part 3: Operating procedures of Board)*. The Board induction is conducted on appointment of the new Board members covering inter alia the following:

- Introduction of SANBI.
- Legal mandate of the institute.
- Financial position.
- Enterprise risks management (strategic risks).
- Information communication technology governance framework implementation.
- Human resources programme.
- Marketing, communication and commercialisation initiatives and activities.
- Five-year Corporate Strategic Plan.
- Annual Performance Plan.
- Capex, Opex and Projects.

The SANBI Board consists of not fewer than seven (7) and not more than nine (9) members who are appointed by the Minister of Forestry, Fisheries and the Environment (DFFE). The Board further includes the Director-General, or an official of the DFFE designated by the Director-General, and the Chief Executive Officer of the SANBI, as an *ex officio* member.

The SANBI Board is appointed and reconstituted every three (3) years in accordance to a process outlined in Section 17 of NEMBA. The current SANBI Board was appointed by the Minister of Forestry, Fisheries and the Environment with effect from 01 October 2021 to 30 September 2024.

SANBI BOARD MEMBERS FOR THE PERIOD 1 APRIL 2021 – 31 MARCH 2022

Mrs B. Ferguson (Board Chairperson until 30/09/2021) 01/04/2021–31/03/2022
Prof. B. van Wilgen 01/04/2021–30/09/2021
Mrs T. Godongwana 01/04/2021–30/09/2021
Dr Y. Seleti 01/04/2021–30/09/2021
Ms N. Mngomezulu 01/04/2021–30/09/2021
Dr L. Luthuli 01/04/2021–31/03/2022
Ms P. Motsielwa 01/04/2021–30/09/2021
Prof. K. Yessoufou 01/04/2021–30/09/2021
Ms P. Yako 01/04/2021–30/09/2021
Ms Carmel Mbizvo (Acting Chief Executive Officer) (*ex officio*) 01/04/2021–31/05/2021
Mr Shonisani Munzhedzi (Chief Executive Officer) (*ex officio*) (appointed on 01/06/2021) 01/06/2021–31/03/2022
Prof. E Nesamvuni (Board Chairperson from 30/11/2021) 01/10/2021–31/03/2022
Dr P. Molokwane 01/10/2021–31/03/2022
Dr M. Tau 01/10/2021–31/03/2022
Dr R. Legoabe 01/10/2021–31/03/2022
Mr P. Daphne 01/10/2021–31/03/2022
Mr L. Matooane 01/10/2021–31/03/2022
Ms J. Beaumont 01/10/2021–31/12/2021
Ms S. Ntshanga 01/01/2022–31/03/2022

FIDUCIARY DUTIES

With regard to fiduciary duties, the SANBI Accounting Authority exercises the duty of skill and care in the quest to ensure reasonable protection of the assets of the institute. The roles of the chairperson and Chief Executive Officer do not vest in the same person. The Board chairperson is a non-executive member of the institute and is responsible for leading the Board of Directors and ensuring its effectiveness. The Chief Executive Officer is responsible for the execution of SANBI's strategy and the day-to-day operations. The Chief Executive Officer is supported by the executives and chairs the executive committee.

Implementation of the mandate is evaluated by DFFE progress reports are tabled at the Portfolio Committee on Forestry, Fisheries and the Environment (PCFFE) on a quarterly basis.

BOARD ASSESSMENT

It is expected that the performance evaluation of the Board should be performed on an annual basis. The four (4) public entities under DFFE, including SANBI Board annual performance assessment has been centralised and was last conducted by Department for the 2018/19 financial year, and was concluded at the end of 2019/20. A sample of members of the Board was selected by the DFFE for interview by the service provider tasked with the process.

BOARD COMMITTEES

For operational effectiveness, the Board has appointed committees for key functional areas of the institute in line with their qualifications, expertise and skills. These committees comprise members of the Board and advisors or experts who are well versed in their lines of business. The advisor or expert appointments are determined and approved by the Board. All committees of the Board are chaired by members of the Board. A framework for committees' responsibilities was developed to ensure focused oversight of each committee and to avoid duplication of reporting lines and conflicting decisions being made. Each committee's mandate or activities are guided by the Terms of Reference or Charters approved by the Board and is reviewed on an annual basis.

THE ROLE OF THE COMMITTEES IS MAINLY TO ADVISE THE BOARD ON:

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

Each Committee of the following Committees operates within the approved Terms of Reference, which are reviewed annually and/or when a need arises.

(1) AUDIT AND RISK COMMITTEE (ARC)

The Committee is established is constituted as a statutory committee of SANBI in respect of its statutory duties in terms of the Section 51 (1) (a) of the PFMA and Treasury Regulations 27.1.7 and 27.1.10.

- Assists the Board in discharging its duties relating to the safeguarding of assets, the operation of adequate systems, internal controls and control processes, and the preparation of accurate financial reporting and statements in compliance with all applicable legal requirements, corporate governance and accounting standards.

- Provides support to the Board on the risk appetite and risk management of SANBI.

The Committee ensures that the assurance coverage provided by management, risk management, as well as the internal and external audit functions is optimised, and adequately focuses on priority risk areas. The committee plays an integral role in the risk management of the institute and oversees the annual risk-based internal audit. The committee engages with an external audit initiated by the Auditor-General of South Africa in line with the PFMA. The committee also evaluates the Institute's reporting with specific focus on:

- Financial reporting.
- Risk management.
- Internal controls.
- Fraud risk as it relates to financial reporting.
- IT governance.

*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 are 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 and other year-end reports.

(2) HUMAN RESOURCES AND REMUNERATION COMMITTEE (HR AND REMCO)

The HR and REMCO advise and provide guidance to the Board on all matters relating to human resources and remuneration, transformation, succession planning and development, and ethics.

Through the Committee, the Board within the terms of the agreed policy, determines the scope of the remuneration packages of the executive and general staff, including, where appropriate, bonuses. The Committee also sets the CEO's performance contract and oversees the general organisational climate, its ethical conduct and any other matters formally delegated by the Board to the Committee from time to time.

(3) RESEARCH, DEVELOPMENT AND INNOVATION COMMITTEE (RD&I)

The RD&I Committee facilitates the effective exercise of the SANBI Boards' responsibility for governance oversight of the core mandate of the Institute. This Committee advises the Board on matters relating to research, policy advice, conservation, gardens (botanical and zoological) and tourism. The Committee further assists the Board to discharge its transformation and sustainability responsibility with regard to the implementation of practises that are consistent with good corporate citizenship.

(4) ATTENDANCE RECORD OF MEETINGS

The attendance record of Board and Committees' meetings are reflected below:

BOARD MEETINGS										
NUMBER OF MEETINGS EACH MEMBER ATTENDED										
Names	27 May 2021	30 July 2021	19 Aug. 2021	03 Nov. 2021	15 Nov. 2021	25 Nov. 2021	10 Feb. 2022	11 Feb. 2022	24 Feb. 2022	Total (9)
1. Mrs B. Ferguson Board Chairperson **(01/04/2021–30/09/2021)** Acting Board Chairperson **(01/11/2021–29/11/2021)** Deputy-Chairperson **(01/12/2021–31/03/2022)**	√	√	√	√	√	√	√	√	√	**9**
2. Prof. B. Van Wilgen **(01/04/2021–30/09/2021)**	√	√	√							**3**
3. Mrs T. Godongwana **(01/04/2021–30/09/2021)**	√	√	√							**3**
4. Ms N. Mngomezulu **(01/04/2021–30/09/2021)**	√	√	√							**3**
5. Dr L. Luthuli	√	√	√	√	√	√	√	√	√	**9**
6. Dr Y. Seleti **(01/04/2021–30/09/2021)**	√	-	√							**2**
7. Ms P. Motsielwa **(01/04/2021–30/09/2021)**	√	√	√							**3**
8. Prof. K. Yessoufou **(01/04/2021–30/09/2021)**	√	√	√							**3**
9. Ms P. Yako **(01/04/2021–30/09/2021)**	-	-	√							**1**
10. Ms C. Mbizvo (Acting CEO and *ex officio)* **(01/04/2021–31/05/2021)**	√									**1**
11. Mr S Munzhedzi (CEO and *ex officio*) **(01/06/2021–31/03/2022)** appointed on 01 June 2021		√	√	√	√	√	√	√	√	**8**
12. Prof. E. Nesamvuni **(01/10/2021–29/11/2021)** Board Chairperson **(30/11/2021–31/03/2022)**				√	√	√	√	√	√	**6**
13. Dr P. Molokwane **(01/10/2021–31/03/2022)**				√	√	√	√	√	√	**6**
14. Dr M. Tau **(01/10/2021–31/03/2022)**				√	√	√	√	-	√	**5**
15. Dr R. Legoabe **(01/10/2021–31/03/2022)**				√	√	√	√	√	√	**6**
16. Mr P. Daphne **(01/10/2021–31/03/2022)**				√	√	√	√	√	√	**6**
17. Mr L. Matooane **(01/10/2021–31/03/2022)**				-	√	√	√	√	√	**5**
18. Ms J. Beaumont **(01/10/2021–31/12/2021)**				√	√	√				**3**
19. Ms S. Ntshanga **(01/01/2022–31/03/2022)**							√	√	√	**3**

AUDIT AND RISK COMMITTEE MEETINGS						
NUMBER OF MEETINGS EACH MEMBER ATTENDED						
Names	**25 April 2021**	**25 May 2021**	**29 July 2021**	**09 November 2021**	**27 January 2022**	**Total (5)**
1. Dr L. Luthuli	√	√	√	√	√	**5**
2. Ms T. Godongwana **(01/04/2021–30/09/2021)**	√	√	√			**3**
3. Ms P. Motsielwa **(01/04/2021–30/09/2021)**	√	√	√			**3**
4. Mr T. Zororo *(Expert advisor)* **(01/04/2021–30/09/2021)**	√	√	√			**3**
5. Mr S. Gounden *(Expert advisor)* **(01/04/2021–30/09/2021)**	√	√	√			**3**
6. Ms C. Mbizvo (Acting CEO and *ex officio*) **(01/04/2021–31/05/2021)**	√	√				**2**
7. Mr S Munzhedzi (CEO and *ex officio*) **(01/06/2021–31/03/2022)**			√	√	√	**3**
8. Dr P. Molokwane **(01/10/2021–31/03/2022)**				√	√	**2**
9. Dr R. Legoabe **(01/10/2021–31/03/2022)**				√	√	**2**
10. Dr M. Tau **(01/10/2021–31/03/2022)**				√	√	**2**

HUMAN RESOURCES AND REMUNERATION COMMITTEE MEETINGS						
NUMBER OF MEETINGS EACH MEMBER ATTENDED						
Names	**21 April 2021**	**22 July 2021**	**02 November 2021**	**11 November 2021**	**25 January 2022**	**Total (5)**
1. Ms N. Mngomezulu **(01/04/2021–30/09/2021)**	√	√				**2**
2. Dr Y. Seleti **(01/04/2021–30/09/2021)**	√	-				**1**
3. Mrs T. Godongwana **(01/04/2021–30/09/2021)**	√	√				**2**
4. Ms P. Yako **(01/04/2021–30/09/2021)**	-	√				**1**
5. Ms C. Mbizvo (Acting CEO – *ex officio*) **(01/04/2021–1/05/2021)**	√					**1**
6. Mr S. Munzhedzi (CEO and *ex officio*) **(01/06/2021–31/03/2022)**		√	√	√	√	**4**
7. Dr P. Molokwane **(01/10/2021–31/03/2022)**			√	√	√	**3**
8. Dr R. Legoabe **(01/10/2021–31/03/2022)**			√	√	√	**3**
9. Prof. E. Nesamvuni **(01/10/2021–30/11/2022)**			√	√		**2**
10. Ms J. Beaumont **(01/10/2021–31/12/2021)**			√	-		**1**
11. Mrs B. Ferguson **(01/12/2021–31/03/2022)**					√	**1**

RESEARCH, DEVELOPMENT AND INNOVATION COMMITTEE MEETINGS NUMBER OF MEETINGS EACH MEMBER ATTENDED						
Names	15 April 2021	15 July 2021	27 October 2021	20 January 2022	18 March 2022	Total (5)
1. Prof. B. van Wilgen **(01/04/2021–30/09/2021)**	√	√				**2**
2. Dr L. Luthuli	√	√	√	√	√	**5**
3. Ms N. Mngomezulu **(01/04/2021–30/09/2021)**	√	√				**2**
4. Prof. K. Yessoufou **(01/04/2021–30/09/2021)**	√	√				**2**
5. Dr Y. Seleti **(01/04/2021–30/09/2021)**	√	-				**1**
6. Prof. M. Muasya *(Expert-Advisor)* **(01/04/2021–30/09/2021**	√	√				**2**
7. Ms C. Mbizvo (Acting CEO and *ex officio*) **(01/04/2021–31/05/2021)**	√					**1**
8. Mr S. Munzhedzi (CEO and ex officio) **(01/06/2021–31/03/2022)**		√	√	√	-	**3**
9. Prof. E. Nesamvuni **(01/10/2021–30/11/2022)**			√			**1**
10. Mr P. Daphne **(01/10/2021–31/03/2022)**			√	√	√	**3**
11. Dr M. Tau **(01/10/2021–31/03/2022)**			√	-	√	**2**
12. Mrs B. Ferguson **(01/12/2021–31/03/2022)**				√	√	**2**
13. Mr L. Matooane **(01/10/2021–31/03/2022)**				√	√	**2**
14. Ms J. Beaumont **(01/10/2021–31/12/2021)**			√			**1**
15. Ms S. Ntshanga **(01/01/2022–31/03/2022)**				-	-	**0**

COMPANY SECRETARY

The Company Secretary function is mandatory and plays a pivotal role in the governance of the institute. The Company Secretary guides and advises the Board and Management on governance principles and legislative compliance, and supports the Board and its subcommittees. The Company Secretary is also the formal point of contact for the Institute, its Board, the Ministry and Parliamentary Committees.

MANAGEMENT STRUCTURE

The Executive Management Committee (EXCO) comprises of the following:

- Chief Executive Officer (as Chairperson).
- Head of Biodiversity Science and Policy Advice.
- Chief Financial Officer.
- Chief Operations Officer.
- Chief Directors.
- Chair of the Management Committee (MANCO) *(in attendance)*.
- Company Secretary *(in attendance)*.
- Director: Marketing, Communication and Commercialisation *(in attendance)*.
- Directors and subject specialists are invited as when required to present on specific subject.

This Committee meets monthly and also meets on an *ad-hoc* basis as deemed necessary by the Chairperson. The role of the Committee is to ensure the coordinated and efficient execution of all functions delegated to it by the Board. EXCO operations are guided by its approved Terms of Reference.

The management and administration structure of the institute is decentralised due to the wide geographical spread and activities of its various units. The Head of each Unit is called a 'Head of Division'. The Management Committee (MANCO) is comprised predominantly of directors and plays a role of advising EXCO on specific operational matters, development of new policies/procedures/guidelines and review of organisational policies.

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 various heads of divisions. These officers are actively involved in the budget development and take responsibility for the management of their cost centre budgets within clearly defined policies, procedures and Delegations of Authority (DOA) approved by the Board.

EXTERNAL AND INTERNAL AUDIT

The Auditor-General of South Africa (AGSA) is the external auditor of the SANBI in terms of the Public Audit Act, No.25 of 2004.

The internal audit function of SANBI is outsourced through the private audit firm Mazars and BDO. The Board, through the Audit and Risk Committee, exercises oversight on financial reporting and internal control systems. The Internal Auditors (IA) reports directly to the Audit and Risk Committee (ARC) 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).

The Audit and Risk Committee tasks the Internal Audit function with compiling a three-year rolling annual audit plan that is approved annually.

The external and internal auditors are encouraged to cooperate and ensure that there is an optimal overlap between them as crucial assurance providers.

ENTERPRISE RISK MANAGEMENT (ERM)

SANBI continues to implement risk management processes as per the approved Risk Management Policy and Framework. A comprehensive risk assessment was conducted with the Executive Management. The assessment focused on risks at strategic and operational levels, which forms the basis for the Internal Audit plans. Strategic Risks

were categorised as per the integrated reporting framework as follows:

- Human Capital.
- Financial Capital.
- Infrastructure Capital.
- Intellectual Property Capital.
- Social and Relationship Capital.
- Natural Environmental Capital.

These strategic risks were aligned to the annual performance plans to ensure that efficient management of risks contributes to improved performance. The results of the assessment were reviewed by the Audit and Risk Committee and subsequently approved by the SANBI Board. The continuous identification of emerging risks was done as part of risk management monitoring.

An Enterprise Risk Management (ERM) system, BarnOwl, has been implemented and is being used to monitor progress on the risk action plans. The Business Continuity Plan (BCP) and the Disaster Recovery Plan (DRP) have been implemented during COVID-19 national lockdown and progress in this regard is regularly reported to the Audit and Risk Committee.

Business Impact analysis was conducted with Divisions to identify the institute's business continuity requirements, prioritise the activities that enable the process employed to deliver critical services and to determine the resources required to the critical activities identified. The results have been utilised to update the Disaster Recovery Plan.

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.

FRAUD AND CORRUPTION

SANBI's Fraud Prevention Policy and Plan provides mechanisms for the implementation of fraud prevention.

The Risk Management and Fraud Prevention Committee (RMFPCom) has been established to drive the implementation of Risk Management Policy, including the Fraud Prevention Policy and Plan. The RMFPCom also adjudicate on alleged fraud cases reported through the whistle blowing system or other approved means. This committee functions in line with its approved Terms of Reference and it is chaired by the chief operations officer. The fraud risk assessment was conducted as part of risk assessment process. The Online Awareness Programme was implemented to encourage whistle-blowing as well as to promote ethical behaviour in the institute.

A Whistle-Blowing Hotline is fully functional and is administered and managed by Advanced Call. Advanced Call reports any cases of fraud or misconduct to management for investigation if warranted. SANBI also receives and administers formal, informal and anonymous matters from various communication mediums.

Cases of loss and/or damages to assets are recorded into a Loss Control Register and dealt with by the Loss Control Sub-Committee. Sanctions are always administered in cases of proven negligent losses and damages that are ascribed to recklessness and carelessness.

All allegations of fraud and corruption are reported for consideration to the SANBI Board through its Audit and Risk Committee on a quarterly basis.

DELEGATION OF AUTHORITY (DOA)

The Board approved the financial and supply chain Delegation of Authority 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.

INTERNAL CONTROL SYSTEMS

Internal control is a process, effected by SANBI'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, safe-guarding of assets.
- Reporting – reliability, timeliness, accurate, integrity.
- Compliance – within regulatory environment, contracts, policies and procedures.

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 controls. 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.

MANAGEMENT OF INFORMATION COMMUNICATION TECHNOLOGY

The Board is responsible for Information Communication Technology (ICT) governance. The Board delegated aspects of oversight of ICT governance to the Audit and Risk Committee. SANBI has an approved Information Technology Policy Framework (Principles and Guidelines) based on the premise 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 risks are managed appropriately and verify that resources are being used responsibility and strategically. There is an ICT Governance Framework supported by an implementation plan that is monitored by the Audit and Risk Committee on a quarterly basis.

An ICT Steering Committee has been established at a management level to deal with ICT governance and advises EXCO on ICT strategic matters. Risk management forms an integral part of the institutional strategy with a key objective being to control and mitigate significant risks that ICT is or may be exposed to while simultaneously facilitating the realisation of operational and strategic objectives. Audit processes are conducted for ICT to continuously evaluate internal controls and take measures to improve these controls where necessary.

ICT's risk management is the responsibility of the Board and forms an integral part of the institute's corporate strategy. The primary objective is to control and mitigate the most significant risks that ICT is or may be exposed to, while at the same time facilitating the realisation of operational and financial objectives. ICT continuously evaluates its internal controls and takes measures to improve these controls where necessary. SANBI's IT risk is thus incorporated into the corporate risk management framework and discussed at the Audit and ICT Steering Committee. The Business Information Technology (BIT) Directorate is taking steps to strengthen the risk and internal control framework. The position of Chief Information Security Officer has been created as part of the revised and approved strategy to reflect the increasing importance of cyber security within the organisation. Risks related to cyber security have also been added to the risk framework. ICT considers risk management to be a continuous process, an essential part of which is to embed policy in control systems and procedures at every level of the organisation.

Digital transformation remain a core strategic focus area within BIT and remains a compelling case to enable the organisation to operate remotely and seamlessly. To this end, the use of cloud capacity, infrastructure and data centre modernisation are part of the implementation initiatives.

Cyber security is critical as SANBI's virtual presence increases and more organisational content is available online. The exponential and accelerated growth in the use of technologies like cloud infrastructure and information stored, processed and transmitted over the SANBI network compels SANBI to strengthen its defences on all fronts. The BIT Directorate is adopting a holistic approach to not only respond to cyber security threats but to also implement controls that deals with information security at an enterprise level by monitoring of security events to prevent, detect and respond to security incidents using a combination of technologies and well-defined processes to ensure a safe and secure operating environment.

EMPLOYMENT EQUITY PLAN

SANBI's Employment Equity (EE) Plan 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 No. 55 of 1998.
- Promotion of equal opportunity and fair treatment in employment through the elimination of unfair discrimination.
- Implementation of affirmative action measures to redress the barriers 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 the critical success factors for effective Employment Equity transformation.
- Provision of all necessary personnel and financial resources.
- Utilisation of SANBI structures to consult and communicate with all employees, either directly or indirectly.
- Implementation of the enabling systems and working environment geared towards the maximisation of advancement of persons from designated groups.
- Encouragement of employee participation 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, and task teams are all instrumental in facilitating participation.

HEALTH SAFETY AND ENVIRONMENTAL ISSUES

The Occupational Health and Safety (OHS) Act No. 85 of 1993 prescribes specific compliance requirements for specific environments. Given the diverse nature of the SANBI operations, health and safety requirements vary and require specific interventions. The Employee Relations, Wellness, Health and Safety Directorate ensures that specific needs are met by customising compliance interventions across the SANBI.

SOCIAL AND ETHICS RESPONSIBILITY

SANBI has conducted, and will continue to conduct its business in a manner that meets existing needs without compromising the achievement of the mandate. SANBI takes cognisance of the impact that the business has on its stakeholder community.

CODE OF CONDUCT

A Code of Conduct that applies to all staff members is implemented as part of a number of consolidated human resource policies and procedures. The Code of Conduct facilitates sound business ethics in the Institute and plays an important role in defining the organisational culture and in governing effective discipline within the institute. It is a standard annexure to all letters of staff appointment to ensure that new staff members are well informed. A breach of the code of conduct by staff members is be dealt with in terms of the SANBI's disciplinary policy and procedure.

Board members are subjected to the Code of Conduct for the Board as prescribed by the Minister of Forestry, Fisheries and the Environment, which is part of the Shareholder Agreement. A breach of the code of conduct by Board members will be dealt with in terms of the as part of relevant sections of the Shareholder Agreement, by the Minister.

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'. These declarations are annually renewed for all senior staff members. A 'Declaration of Conflict of Interest' register is maintained for all Board, Management, and Bid Committee meetings.

All members of the Supply Chain Management Unit declare their interests annually. All members of staff involved in drafting the specifications to the award of the bids and in contracts, sign a disclosure statement on conflict of interest. Non-disclosure of interest is taken very seriously and punitive action is instituted in line with the SANBI disciplinary policy. All the organisation's processes and operating processes are open to audit, evaluation and review.

SUPPLY CHAIN MANAGEMENT (SCM)

In accordance with Regulation 16A of the PFMA, SANBI has implemented an effective and efficient SCM system to acquire goods and services, and dispose of goods and assets. The organisation ensures that SCM processes adhere to legislation and internal controls in demand management, disposal management, SCM risk management and assessment of SCM performance. This is achieved by designing and implementing appropriate policies, processes, systems including workflow, and providing support through training, templates, advisories, advice, directives and contributing to the bid adjudication processes. Transversal agreements are used where feasible. SANBI have implemented the mandatory bid committees with approved the formal terms of reference and members serving on three year terms.

COMPLIANCE WITH LAWS AND REGULATIONS

The institute uses the Exclaim software, which identifies applicable pieces of priority legislation, regulations and codes of best practice. This list is continuously monitored and updated. King IV urges the organisation's leadership to not only drive compliance with laws, but to focus on non-binding rules, codes and standards.

LEGISLATIVE FRAMEWORK

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

1. National Environmental Management: Biodiversity Act 10 of 2004.
2. National Environment Management Act 107 of 1998.
3. Labour Relations Act 66 of 1995.
4. Basic Conditions of Employment Act No. 75 of 1997.
5. Employment Equity Act 55 of 1998.
6. Skills Development Act 97 of 1998.
7. Skills Development Levies Act 9 of 1999.
8. Public Finance Management Act 1 of 1999 (PMFA).
9. Occupational Health and Safety Act 85 of 1993.
10. National Environmental Management: Waste Act 59 of 2008.
11. Generally Recognised Accounting Practice (GRAP).
12. Compensation for Occupational Injuries and Diseases Act No. 130 of 1993.
13. Promotion of Access to Information Act 2 of 2000.
14. Government Immovable Asset Management Act 19 of 2007.
15. Protection of Personal Information Act. 4 of 2013.
16. Animals Protection Act 71 of 1962.
17. Animal Health Act 7 of 2002.
18. Broad-Based Black Economic Empowerment Act 53 of 2003.
19. National Environment Management: Integrated Coastal Management Act 24 of 2008.
20. National Environmental Management: Protected Areas Act 57 of 2003.
21. Societies for the Prevention of Cruelty to Animals Act 169 of 1993.
22. Conservation of Agricultural Resources Act 1983.
23. National Heritage Resource Act 25 of 1999.
24. Control of access to public premises and vehicles Act 53 of 1985.

25. Water Management Act of 2000.
26. National Veld and Forest Fire Act 101 of 1998.
27. World Heritage Convention Act of 1999.
28. Environmental Conservation Act 2003.
29. Limpopo Environmental Management Act 7 of 2003.
30. SANS 10379:2005 (Ed1): Zoo and Aquarium Practise: Compliant.
31. SANS 10386:2008: The care and use of animals for scientific purposes.
32. SANS 1884-1:2003: South African National Standard: Holding pens for temporary housing of animals. (Part 1: Holding pens for Wild Herbivores at auctions and in quarantine facilities).

SANBI continues to review its governance structures to ensure that they support effective decision-making processes, establish a corporate culture aligned with the institute's goal and values, and align with evolving best governance practices.

MR SHONISANI MUNZHEDZI
Chief Executive Officer

Report of the Auditor-General

to Parliament on the
South African National Biodiversity Institute

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 pages 169 to 265, which comprise the statement of financial position as at 31 March 2022, the statement of financial performance, statement of changes in net assets and cash flow statement and statement of comparison of budget information and actual amounts for the year then ended, as well as 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 2022 and its financial performance and cash flows for the year then ended in accordance with the Standards of Generally Recognised Accounting Practice (GRAP) and the requirements of the Public Finance Management Act 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' *International code of ethics for professional accountants (including International Independence Standards)* (IESBA code) as well as other 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.

Emphasis of matters

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

Restatement of corresponding figures

7. As disclosed in note 43 to the financial statements, the corresponding figures for 31 March 2021 were restated as a result of an error in the financial statements of the entity at, and for the year ended, 31 March 2022.

Other matters

8. I draw attention to the matters below. My opinion is not modified in respect of these matters.

Unaudited supplementary schedules

9. The supplementary information set out on page 265 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 on them.

Responsibilities of the accounting authority for the financial statements

10. The accounting authority is responsible for the preparation and fair presentation of the financial statements in accordance with the 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.

11. 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 the appropriate governance structure either intends to liquidate the public entity or to cease operations, or has no realistic alternative but to do so.

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

12. 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.

13. A further description of my responsibilities for the audit of the financial statements is included in the annexure to this auditor's report.

Report on the audit of the annual performance report

Introduction and scope

14. In accordance with the Public Audit Act 25 of 2004 (PAA) and the general notice issued in terms thereof, I have a responsibility to report on the usefulness and reliability of the reported performance information against predetermined objectives for selected programmes presented in the annual performance report. I performed procedures to identify material findings but not to gather evidence to express assurance.

15. My procedures address the usefulness and reliability of the reported performance information, which must be based on the public entity's approved performance planning documents. I have not evaluated the completeness and appropriateness of the performance indicators included in the planning documents. My procedures do not examine whether the actions taken by the public entity enabled service delivery. My procedures do not extend to any disclosures or assertions relating to the extent

of achievements in the current year or 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.

16. 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 programme presented in the public entity's annual performance report for the year ended 31 March 2022:

Programme	Pages in the annual performance report
Programme 1 – national botanical gardens and national zoological garden	29 – 46

17. 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.

18. The material findings on the usefulness and reliability of the performance information of the selected programmes are as follows:

Programme 1 – National Botanical Gardens and National Zoological Garden

Number of indigenous species added to the living collections of the national botanical gardens and/or MSBP

19. The planned target of at least 100 indigenous plant species added to the living collections of the combined network of national botanical gardens and/or the millennium seed bank partnership for this indicator was not specific in clearly identifying the nature and required level of performance.

Number of maintenance, development and capital infrastructure projects completed

20. The planned target of five new infrastructure projects completed in established national botanical gardens or national zoological gardens was not specific in clearly identifying the nature and required level of performance.

Other matter

21. I draw attention to the matter below.

Achievement of planned targets

22. Refer to the annual performance report on pages 105 to 134 for information on the achievement of planned targets for the year and management explanations provided for the overachievement of targets. This information should be considered in the context of the qualified opinions expressed on the usefulness of the reported performance information in paragraphs 19 to 20 of this report.

Report on the audit of compliance with legislation

Introduction and scope

23. In accordance with the PAA and the general notice issued in terms thereof, I have a responsibility to report material findings on the public entity's compliance with specific matters in key legislation. I performed procedures to identify findings but not to gather evidence to express assurance.

24. The material findings on compliance with specific matters in key legislation are as follows:

Financial statements, performance and annual report

25. The financial statements submitted for auditing were not prepared in accordance with the prescribed financial reporting framework, as required by section 55(1) (b) of the PFMA.

26. Material misstatements of disclosure items identified by the auditors in the submitted financial statement were corrected, resulting in the financial statements receiving an unqualified audit opinion.

Other information

27. The accounting authority is responsible for the other information. The other information comprises the information included in the annual report, which includes the audit 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 in this auditor's report.

28. 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 on it.

29. 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 programme presented in the annual performance report, or my knowledge obtained during the audit or otherwise appears to be materially misstated.

30. I did not receive the other information prior to the date of this auditor's report. When I do receive and read this information, if I conclude that there is a material misstatement therein, I am required to communicate the matter to those charged with governance and request that the other information be corrected. If the other information is not corrected, I may have to retract this auditor's report and re-issue an amended report as appropriate. However, if it is corrected this will not be necessary.

Internal control deficiencies

31. 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 on it. The matters reported below are limited to the significant internal control deficiencies that resulted in the findings on the annual performance report and compliance with legislation included in this report.

32. The technical indicator descriptions and relevant planning documentation for some performance indicators were not compiled in a manner that clarified the ambiguity enclosed in their targets at the start of the financial year, resulting in the indicator being not well defined.

33. The review process of the financial statements was inadequate to ensure compliance with the reporting framework, which resulted in material adjustments to the financial statements through the audit process.

Auditor-General

AUDITOR-GENERAL
SOUTH AFRICA

Auditing to build public confidence

Annexure: Auditor-General's Responsibility for the Audit

34. As part of an audit in accordance with the ISAs, I exercise professional judgement 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

35. In addition to my responsibility for the audit of the financial statements as described in this 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 in order 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 accounting authority
- conclude on the appropriateness of the accounting authority's use of the going concern basis of accounting in the preparation of the financial statements. I also conclude, based on the audit evidence obtained, whether a material uncertainty exists relating to events or conditions that may cast significant doubt on the ability of the South African National Biodiversity Institute 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 my opinion on the financial statements. My conclusions are based on the information available to me at the date of this auditor's report. However, future events or conditions may cause a public entity to cease operating as a going concern
- evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and determine whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation
- obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the group to express an opinion on the consolidated financial statements. I am responsible for the direction, supervision and performance of the group audit. I remain solely responsible for my audit opinion.

Annexure: Auditor-General's Responsibility for the Audit

Communication with those charged with governance

35. 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.

36. I also provide the accounting authority with a statement that I have complied with relevant ethical requirements regarding independence, and communicate all relationships and other matters that may reasonably be thought to bear on my independence and, where applicable, actions taken to eliminate threats or safeguards applied.

Report of the Accounting Authority

Report of the Accounting Authority

The Accounting Authority of SANBI hereby presents its report for the year ended 31 March 2022 to the Executive Authority and the Parliament of the Republic of South Africa.

Services rendered by SANBI

The narrative section of this Annual Report provides a more in-depth discussion of key performance indicators and 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 laid out on pages 29 to 104.

Corporate governance arrangements

Information pertaining to corporate governance is explained in the Corporate Review section of this Annual Report on pages 135 to 148.

Performance information

In line with the requirements of National Treasury, performance targets are set on an annual basis and performance against these targets is reported to National Treasury through the Department of Forestry, Fisheries and the Environment (DFFE) on a quarterly basis after approval by the Board. The DFFE assessed the quarterly performance reports and gave SANBI feedback 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 Statements of Generally Recognised Accounting Practices (GRAP).

Financial highlights

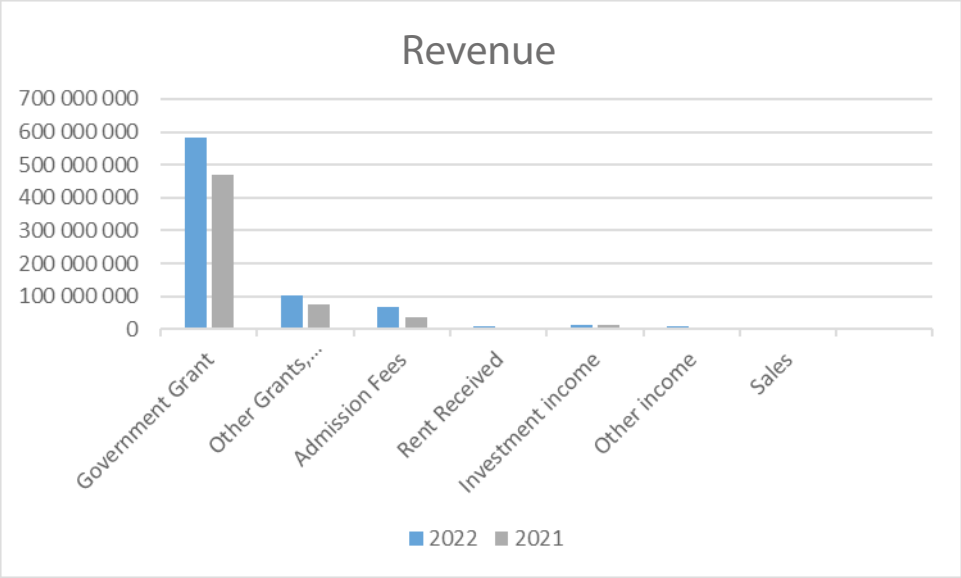
The financial position, performance of the operations, and programme activities of SANBI are disclosed with applicable notes in the financial statements which form an integral part of this Annual Report. Material facts and circumstances that occurred between the accounting date and date of this report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

Financial performance

A surplus of R32 million is reported on the statement of financial performance which has improved from a restated deficit of R64 million in the previous financial year. The surplus mainly resulted from special grants received and costs not being incurred as operations were still curtailed due to the COVID-19 pandemic, although the easing of restrictions enabled a higher level of operations.

Total revenue as disclosed in the statement of financial performance increased by 27% year-on-year from R632 million to R804 million. Admission fees increased by a healthy R29 million (76%) as less strict COVID-19 regulations allowed more visits to the facilities during the financial year. The increased number of visitors to the facilities also raised other revenue streams such as guided tours, events, venue hiring, seminars, workshops hosted, book and plant sales.

Revenue from non-exchange transactions has increased by R133 million (23%) due to increases in the operational government grant as well as an increase in project funds. Donors and funders of grants and sponsorships are acknowledged as detailed on Annexure A to the financial statements.

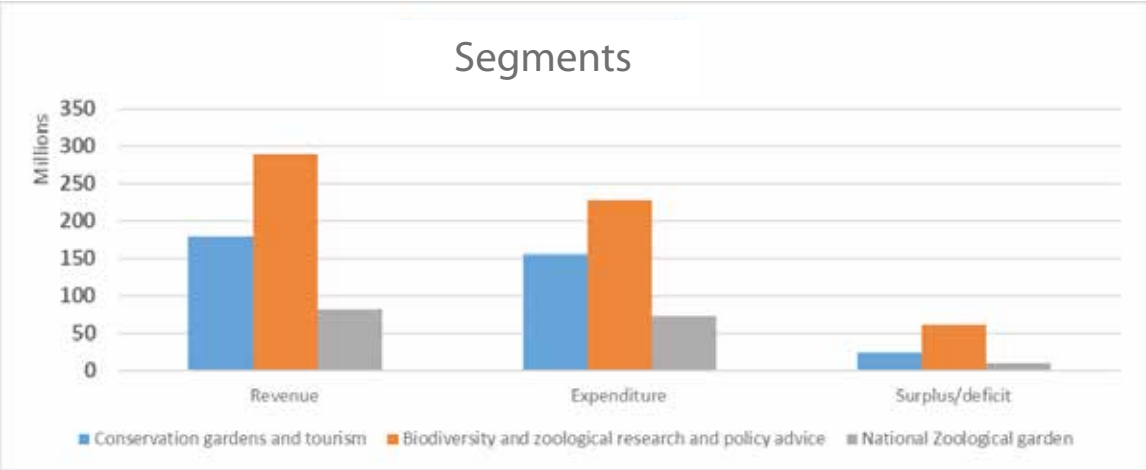


Total expenditure of R772 million has increased by 11% from the spending in the previous financial year of R696 million. Employee costs of R454 million have increased by R13 million (3%) from the previous financial year as a result of labour intensive projects that were implemented thus exceeding the target for job creation opportunities by 303. As the main cost driver in the organisation, the line item accounts for 59% of the total costs.

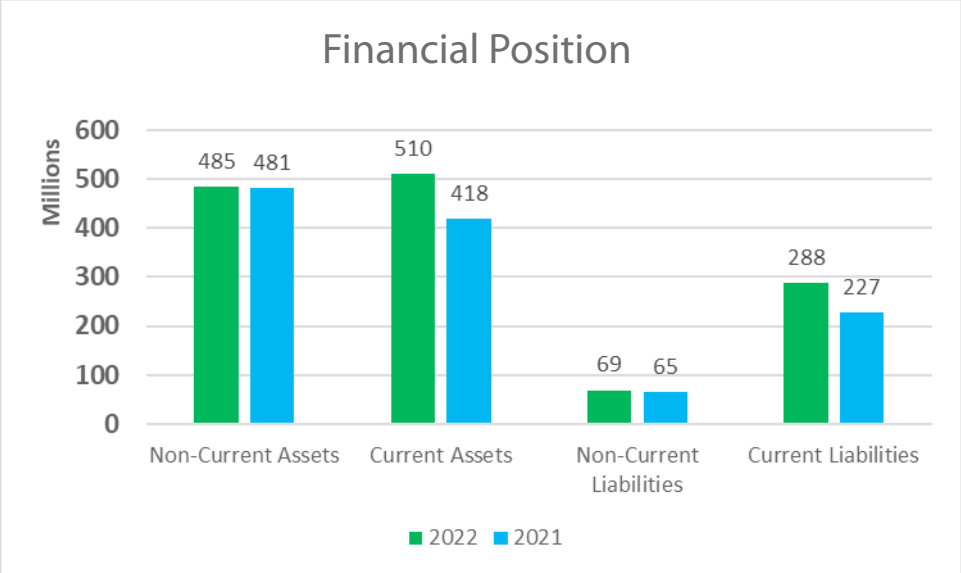
Operating expenses have increased by R63 million (25%) from R254 million in the previous year to R317 million and is indicative of the increased level of operations that the Institute was able to achieve during the year. The main operating cost drivers have been information technology, project implementer costs, consulting and professional fees, security, municipal charges, repairs, maintenance, and travel costs.

Segmental financial performance

SANBI is structured on the basis of mandated areas as such the segments are organised around the type of service delivered and the target market. The overall performance per segment is depicted graphically. The detailed segmental report is in note 37.



Financial position



Overall, the Institute's financial position is solvent with total assets exceeding total liabilities by R638 million and liquid with the current assets of R510 million exceeding the current liabilities of R287 million by a margin of R223 million. The material movements noted during the financial year are as follows:

Current assets have increased by R92 million (22%) from the previous financial year mainly due to a R83 million increase in cash balances. The main driver for the increase was an inflow of project funding.

Current liabilities have increased by R60 million (26%) from the previous financial year due to an increase in unspent conditional grants. These relate to project obligations.

Non-current liabilities have increased by R4 million (9%) from the previous financial year emanating from the actuarial valuation of an employee benefit obligation.

Cash flow

For the year, SANBI received a total of R849 million from the various sources as detailed in the statement. This is an increase of R216 million (34%) over the previous financial year with the main drivers of this being the operational grant allocation and sale of goods and services.

From this amount and other cash on hand R725 million was paid to suppliers, employees and others. The net cash inflow resulting from the operational activities is thus R123 million. This is a significant increase of R105 million (583%) over the previous financial year. R40 million was paid out for investing activities compared to R68 million in the previous financial year.

In total the net cash inflow for the financial year is R83 million compared to an outflow of R64 million in the previous financial year. The total cash amount of R479 million has been fully committed against ring-fenced, externally funded projects and obligations of the Institute as detailed in the annual financial statements.

Irregular expenditure

During the financial year, irregular expenditure amounting to R8 million incurred was recurring from the previous financial years as it was not possible for SANBI to terminate services whilst there is no replacement of service providers arranged. Consequence management was implemented on 99% of the irregular expenditure followed by condonations from National Treasury. The remainder of R313 000 is being addressed through relevant line management. The details are provided in note 38.

Adoption of a new accounting policy

A new accounting standard which deals with the living resources was adopted during the financial year. Notes 10 and 42 to the financial statements detail the challenges which were faced during the first year of its adoption. Transitional provisions as per GRAP directive 2 have been applied. These provisions exempt the Institute from recognition and measurement of living resources for a period not exceeding three years.

Restatement of previously reported 2021 results

Note 41 to the financial statements details the corrections of errors, and the impact thereof, emanating from the review of useful life of various asset items and adjustments to unspent conditional grants and receipts.

Report of the Accounting Authority

Address

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

Private Bag X101
Pretoria
0002

Auditors

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

Annual Financial Statements

Index

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

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General Information

Country of incorporation and domicile	South Africa
Nature of business and principal activities	SANBI plays a leadership role in: • generating, coordinating 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 and the National Zoological Garden as windows to South Africa's biodiversity for recreation, education and research purposes.
Members	Prof E Nesamvuni (Board Chairperson) Mr S Munzhedzi (Chief Executive Officer) (ex officio) Mrs B Ferguson Dr P Molokwane Dr L Luthuli Mr P Daphne* Dr M Tau* Dr R Legoabe Ms S Ntshanga* Mr L Matooane* * State employee
Registered office	2 Cussonia Avenue Brummeria Pretoria 0002
Postal address	Private Bag X101 Pretoria 0001
Controlling entity	Department of Forestry, Fisheries and the Environment
Bankers	South African Reserve Bank Nedbank Limited ABSA Limited
Auditors	Auditor-General South Africa

Accounting Authority's Responsibilities and Approval

The members are required by the National Environmental Management Biodiversity (NEMBA) Act No. 10 of 2004 Public Finance Management Act (Act 1 of 1999), to maintain adequate accounting records and are responsible for the content and integrity of the financial statements and related financial information included in this report. It is the responsibility of the members to ensure that the financial statements fairly present the state of affairs of the entity as at the end of the financial year and the results of its operations and cash flows for the period then ended. The external auditors are engaged to express an independent opinion on the financial statements and was given unrestricted access to all financial records and related data.

The financial statements have been prepared in accordance with Standards of Generally Recognised Accounting Practice (GRAP) including any interpretations, guidelines and directives issued by the Accounting Standards Board.

The financial statements are based upon appropriate accounting policies consistently applied and supported by reasonable and prudent judgements and estimates.

The members acknowledge that they are ultimately responsible for the system of internal financial control established by the entity and place considerable importance on maintaining a strong control environment. To enable the members to meet these responsibilities, the accounting authority sets standards for internal control aimed at reducing the risk of error or deficit in a cost effective manner. The standards include the proper delegation of responsibilities within a clearly defined framework, effective accounting procedures and adequate segregation of duties to ensure an acceptable level of risk. These controls are monitored throughout the entity and all employees are required to maintain the highest ethical standards in ensuring the entity's business is conducted in a manner that in all reasonable circumstances is above reproach. The focus of risk management in the entity is on identifying, assessing, managing and monitoring all known forms of risk across the entity. While operating risk cannot be fully eliminated, the entity endeavours to minimise it by ensuring that appropriate infrastructure, controls, systems and ethical behaviour are applied and managed within predetermined procedures and constraints.

The members are of the opinion, based on the information and explanations given by management, that the system of internal control provides reasonable assurance that the financial records may be relied on for the preparation of the financial statements. However, any system of internal financial control can provide only reasonable, and not absolute, assurance against material misstatement or deficit.

The members have reviewed the entity's cash flow forecast for the year to 31 March 2023 and, in the light of this review and the current financial position, they are satisfied that the entity has or has access to adequate resources to continue in operational existence for the foreseeable future.

The entity is wholly dependent on the entity for continued funding of operations. The financial statements are prepared on the basis that the entity is a going concern and that the entity has neither the intention nor the need to liquidate or curtail materially the scale of the entity.

Accounting Authority's Responsibilities and Approval

Although the accounting authority are primarily responsible for the financial affairs of the entity, they are supported by the entity's external auditors.

The external auditors are responsible for independently reviewing and reporting on the entity's financial statements. The financial statements have been examined by the entity's external auditors and their report is presented on page 7.

The financial statements set out on page 7, which have been prepared on the going concern basis, were approved by the accounting authority on 29 July 2022 and were signed on its behalf by:

Prof E Nesamvuni
(Board Chairperson)
29 July 2022

Mr S Munzhedzi
(Chief Executive Officer) (ex officio)
29 July 2022

Audit and Risk Committee Report

We are pleased to present our report for the financial year ended 31 March 2022.

Audit and Risk committee members and attendance

The Audit and Risk Committee composition is as tabled below and held meetings for the financial year under review:

Name of member	Number of meetings invited	Meetings attended
Dr L Luthuli (Board Member and Chairperson)	5	5
Ms P Motsielwa (Board Member) (01/04/2021 – 30/09/2021)	3	3
Ms T Godongwana (Board Member) (01/04/2021 – 30/09/2021)	3	3
Mr S Gounden (Expert – Advisor) (01/04/2021 – 30/09/2021	3	3
Mr T Zororo (Expert – Advisor) (01/04/2021 – 30/09/2021)	3	3
Dr P Molokwane (01/10/2021 – 31/03/2022)	2	2
Dr R Legoabe (01/10/2021 – 31/03/2022)	2	2
Dr M Tau (01/10/2021 – 31/03/2022	2	2
Ms C Mbizvo (Acting CEO and ex officio) * (01/04/2021 – 31/05/2021)	2	2
Mr S Munzhedzi (CEO and ex officio) * (01/06/2021 – 31/03/2022)	3	3
Ms L Sithole (Ex Officio : 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 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

Audit and Risk Committee Report

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 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 2021/2022 financial year:

- Supply Chain Management
- Financial Control Review
- Gardens Revenue Review
- Human Resources and Payroll Management
- Information Technology General Controls Review
- Information Technology Disaster Recovery and Business Continuity Follow Up Review
- Performance information against objectives
- Follow Up on previously reported internal audit findings

The Committee has considered the entity's action plans to remedy the internal control weaknesses and irregular expenditure as reported.

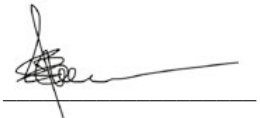
Evaluation of financial statements

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 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 Chief Executive Officer;
b) Reviewed the Auditor-General's management letter and management's response thereto;
c) Reviewed accounting policies; and
d) Reviewed significant adjustments resulting from the audit.

The Audit and Risk Committee considered 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 L Luthuli
Chairperson: Audit and Risk Committee
Date: XX

Statement of Financial Position as at 31 March 2022

Figures in Rand	Note(s)	2022	2021 Restated*
Assets			
Current Assets			
Cash and cash equivalents	3	479 273 032	396 241 441
Receivables from exchange transactions	4	11 801 048	6 330 891
Inventories	5	17 880 116	13 088 375
Operating lease asset	6	682 668	853 904
Receivables from non-exchange transactions	7	711 213	1 372 871
		510 348 077	**417 887 482**
Non-Current Assets			
Property, plant and equipment	8	387 582 619	380 839 938
Investment property	9	64 846 081	67 567 625
Intangible assets	10	10 505 059	10 427 577
Heritage assets	11	21 646 463	21 646 324
Living resources	12	34 835	77 370
		484 615 057	**480 558 834**
Total Assets		**994 963 134**	**898 446 316**
Liabilities			
Current Liabilities			
Unspent conditional grants and receipts	14	161 763 403	93 925 906
Payables from exchange transactions	15	88 814 966	91 915 065
Provisions	16	382 359	393 964
Transfers payable (non-exchange)	17	36 567 126	41 144 355
		287 527 854	**227 379 290**
Non-Current Liabilities			
Employee benefit obligation	18	64 349 674	60 939 000
Provisions	16	4 912 862	4 433 891
		69 262 536	**65 372 891**
Total Liabilities		**356 790 390**	**292 752 181**
Net Assets		**638 172 744**	**605 694 135**
Accumulated surplus		638 172 744	605 694 135
Total Net Assets		**638 172 744**	**605 694 135**

Statement of Financial Performance

Figures in Rand	Note(s)	2022	2021 Restated*
Revenue			
Revenue from exchange transactions			
Admission fees		67 765 845	38 263 278
Rental of facilities		9 884 925	6 236 032
Interest received		11 813 015	13 450 839
Other income	19	10 156 839	4 981 581
Sale of goods		3 506 753	2 473 112
Fair value adjustment		1 438 990	552 533
Total revenue from exchange transactions		**104 566 367**	**65 957 375**
Revenue from non-exchange transactions			
Transfer revenue			
Government operational grant	20	581 359 000	468 584 833
Other grants, bequests, sponsorships and donations	21	101 003 078	76 710 283
Services in kind		17 466 272	20 852 447
Total revenue from non-exchange transactions		**699 828 350**	**566 147 563**
Total revenue		**804 394 717**	**632 104 938**
Expenditure			
Employee related costs	22	(454 125 940)	(441 850 409)
Operating expenses	23	(263 913 598)	(189 892 781)
Depreciation and amortisation	24	(35 536 807)	(37 860 618)
Lease rentals on operating lease	25	(17 350 379)	(21 292 736)
Loss on disposal of assets		(341 128)	(2 167 022)
Debt impairment	26	37 247	(531 193)
Reversal of impairments		(761 158)	(2 478 308)
Finance costs	27	408 402	(416 680)
Loss on foreign exchange		(332 750)	(25 166)
Total expenditure		**(771 916 111)**	**(696 514 913)**
Surplus (deficit) before taxation		**32 478 606**	**(64 409 975)**
Transfer of surplus funds to National Treasury		-	13 800 000
Surplus (deficit) for the year		**32 478 606**	**(78 209 975)**

Statement of Changes in Net Assets

Figures in Rand	Accumulated surplus / deficit	Total net assets
Opening balance as previously reported	649 325 984	649 325 984
Adjustments		
Prior year adjustments	34 578 126	34 578 126
Balance at 01 April 2020 as restated*	**683 904 110**	**683 904 110**
Changes in net assets		
Deficit for the year	(78 209 975)	(78 209 975)
Total changes	(78 209 975)	(78 209 975)
Restated* Balance at 01 April 2021	**605 694 138**	**605 694 138**
Changes in net assets	32 478 606	32 478 606
Surplus for the year		
Total changes	32 478 606	32 478 606
Balance at 31 March 2022	**638 172 744**	**638 172 744**

Cash Flow Statement

Figures in Rand	Note(s)	2022	2021 Restated*
Cash flows from operating activities			
Receipts			
Sale of goods and services		169 502 233	97 948 857
Grants		581 359 000	468 584 833
Other receipts		98 708 049	66 874 896
		849 569 282	633 408 586
Payments			
Employee costs		(450 152 778)	(435 989 350)
Suppliers		(276 097 728)	(178 594 292)
Finance costs		408 402	(416 680)
		(725 842 104)	(615 000 322)
Net cash flows from operating activities	**29**	**123 727 178**	**18 408 264**
Cash flows from investing activities			
Purchase of property, plant and equipment	8	(37 966 931)	(60 896 026)
Purchase of other intangible assets	10	(2 728 656)	(7 881 869)
Net cash flows from investing activities		**(40 695 587)**	**(68 777 895)**
Cash flows from financing activities			
Transfer of surplus funds to National Treasury		-	(13 800 000)
Net increase/(decrease) in cash and cash equivalents		**83 031 591**	**(64 169 631)**
Cash and cash equivalents at the beginning of the year		396 241 441	460 411 072
Cash and cash equivalents at the end of the year	**3**	**479 273 032**	**396 241 441**

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
Statement of financial performance					
Revenue					
Revenue from exchange transactions					
Admission fees	110 634 690	-	**110 634 690**	67 765 845	**(42 868 845)**
Rental of facilities and equipment	10 224 403	-	**10 224 403**	14 422 687	**4 198 284**
Interest received	14 886 339	-	**14 886 339**	11 813 015	**(3 073 324)**
Other income	3 764 217	-	**3 764 217**	10 156 839	**6 392 622**
Sale of goods	3 764 217	-	**3 764 217**	4 945 743	**1 181 526**
Total revenue from exchange transactions	**143 273 866**	**-**	**143 273 866**	**109 104 129**	**(34 169 737)**
Revenue from non- exchange transactions					
Transfer revenue					
Government grants & subsidies	538 111 000	127 902 000	**666 013 000**	581 359 000	**(84 654 000)**
Public contributions and donations	87 931 194	-	**87 931 194**	159 106 153	**71 174 959**
Utilisation of unspent grants	-	176 466 428	**176 466 428**	-	**(176 466 428)**
Total revenue from non-exchange transactions	**626 042 194**	**304 368 428**	**930 410 622**	**740 465 153**	**(189 945 469)**
Total revenue	**769 316 060**	**304 368 428**	**1 073 684 488**	**849 569 282**	**(224 115 206)**
Expenditure					
Personnel	(420 024 619)	(110 504 112)	**(530 528 731)**	(450 152 778)	**80 375 953**
General expenses	(349 291 441)	(193 864 316)	**(543 155 757)**	(316 384 913)	**226 770 844**
Total expenditure	**(769 316 060)**	**(304 368 428)**	**(1 073 684 488)**	**(766 537 691)**	**307 146 797**
Surplus before taxation	-	**-**	**-**	**83 031 591**	**83 031 591**
Actual amount on comparable basis as presented in the budget and actual comparative statement	-	-	**-**	**83 031 591**	**83 031 591**
Reconciliation					
Basis difference					
Depreciation and amortisation				(35 536 807)	
Loss on sale of assets				(341 128)	
				(3 666 947)	
Non-cash items					
Timing difference					
Capital expenditure				40 695 587	
Unspent project committed funds				(67 837 497)	
Adjustments for accrual basis accounting entries				16 133 807	
Actual amount in the statement of financial performance				**32 478 606**	

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 Materiality

Material omissions or misstatements of items are material if they could, individually or collectively, influence the decisions or assessments of users made on the basis of the financial statements. Materiality depends on the nature or size of the omission or misstatement judged in the surrounding circumstances. The nature or size of the information item, or a combination of both, could be the determining factor.

Assessing whether an omission or misstatement could influence decisions of users, and so be material, requires consideration of the characteristics of those users. The Framework for the Preparation and Presentation of Financial Statements states that users are assumed to have a reasonable knowledge of government, its activities, accounting and a willingness to study the information with reasonable diligence. Therefore, the assessment takes into account how users with such attributes could reasonably be expected to be influenced in making and evaluating decisions.

1.4 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:

Accounting Policies

1.4 Significant judgements and sources of estimation uncertainty (continued)

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 provincial entity 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 16 - Provisions.

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 entity determines the appropriate discount rate at the end of each year. This is the interest rate that should be used to determine the present value of estimated future cash outflows expected to be required to settle the pension obligations. In determining the appropriate discount rate, the entity considers the interest rates of high-quality corporate bonds that are denominated in the currency in which the benefits will be paid, and that have terms to maturity approximating the terms of the related pension liability.

Other key assumptions for pension obligations are based on current market conditions. Additional information is disclosed in Note 18.

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.

1.5 Biological assets that form part of an agricultural activity

The entity recognises 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.

Accounting Policies

1.5 Biological assets that form part of an agricultural activity (continued)

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

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 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.

1.6 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, or
- for 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.

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

Accounting Policies

1.6 Investment property (continued)

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 8).

The entity discloses relevant information relating to assets under construction or development, in the notes to the financial statements (see note 8).

1.7 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.

Accounting Policies

1.7 Property, plant and equipment (continued)

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.

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
Motor vehicles	Straight-line	5 - 10 years
Operational equipment	Straight-line	3 - 10 years
Infrastructure	Straight-line	40 - 50 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.

Accounting Policies

1.7 Property, plant and equipment (continued)

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 8).

The entity discloses relevant information relating to assets under construction or development, in the notes to the financial statements (see note 8).

1.8 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.

Accounting Policies

1.8 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.
Internally generated brands, mastheads, publishing titles, customer lists and items similar in substance are not recognised as intangible assets.

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

The entity discloses relevant information relating to assets under construction or development, in the notes to the financial statements (see note 10).

1.9 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.

Accounting Policies

1.9 Heritage assets (continued)

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 assesses 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.

Derecognition
The entity derecognises heritage asset 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).

1.10 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.

Accounting Policies

1.10 Financial instruments (continued)

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.

Accounting Policies

1.10 Financial instruments (continued)

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.

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 amortised cost are non-derivative financial assets or non-derivative financial liabilities that have fixed or determinable payments, excluding those instruments that:

- the entity designates at fair value at initial recognition; or
- are held for trading.

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.

1.11 Tax

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).

1.12 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.

Accounting Policies

1.12 Leases (continued)

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 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.

1.13 Inventories

Inventories are initially measured at cost except where inventories are acquired through a non-exchange transaction, then their costs are their fair value as at the date of acquisition.

Subsequently inventories are measured at the lower of cost and net realisable value.

Inventories are measured at the lower of cost and current replacement cost where they are held for:

- distribution at no charge or for a nominal charge; or
- consumption in the production process of goods to be distributed at no charge or for a nominal charge.

Net realisable value is the estimated selling price in the ordinary course of operations less the estimated costs of completion and the estimated costs necessary to make the sale, exchange or distribution.

Current replacement cost is the cost the entity incurs to acquire the asset on the reporting date.

The cost of inventories comprises of all costs of purchase, costs of conversion and other costs incurred in bringing the inventories to their present location and condition.

The cost of inventories of items that are not ordinarily interchangeable and goods or services produced and segregated for specific projects is assigned using specific identification of the individual costs.

The cost of inventories is assigned using the formula. The same cost formula is used for all inventories having a similar nature and use to the entity.

Accounting Policies

1.13 Inventories (continued)

When inventories are sold, the carrying amounts of those inventories are recognised as an expense in the period in which the related revenue is recognised. If there is no related revenue, the expenses are recognised when the goods are distributed, or related services are rendered. The amount of any write-down of inventories to net realisable value or current replacement cost and all losses 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 or current replacement cost, are recognised as a reduction in the amount of inventories recognised as an expense in the period in which the reversal occurs.

1.14 Impairment of cash-generating assets

Cash-generating assets are assets used with the objective of generating a commercial return. Commercial return means that positive cash flows are expected to be significantly higher than the cost of the asset.

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 used 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 amount of an asset or a cash-generating unit is the higher 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.

Accounting Policies

1.14 Impairment of cash-generating assets (continued)

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:

- base 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.

Accounting Policies

1.14 Impairment of cash-generating assets (continued)

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.

Reversal of impairment loss

The entity assesses 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.

1.15 Impairment of non-cash-generating assets

Cash-generating assets are assets used with the objective of generating a commercial return. Commercial return means that positive cash flows are expected to be significantly higher than the cost of the asset.

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

Accounting Policies

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

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.

Accounting Policies

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

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 current 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.

The replacement cost and reproduction cost of an asset is determined on an "optimised" basis. The rationale is that the entity would not replace or reproduce the asset with a like asset if the asset to be replaced or reproduced is an overdesigned or overcapacity asset. Overdesigned assets contain features which are unnecessary for the goods or services the asset provides. Overcapacity assets are assets that have a greater capacity than is necessary to meet the demand for goods or services the asset provides. The determination of the replacement cost or reproduction cost of an asset on an optimised basis thus reflects the service potential required of the asset.

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.

When the amount estimated for an impairment loss is greater than the carrying amount of the non-cash-generating asset to which it relates, the entity recognises a liability only to the extent that is a requirement in the Standards of GRAP.

After the recognition of an impairment loss, the depreciation (amortisation) charge for the non-cash-generating asset is adjusted in future periods to allocate the non-cash-generating asset's revised carrying amount, less its residual value (if any), on a systematic basis over its remaining useful life.

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.

Accounting Policies

1.16 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 employees render 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.

When an employee has rendered service to the entity during a reporting period, the entity recognises 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 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 benefits in the cost of an asset.

Accounting Policies

1.16 Employee benefits (continued)

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 measures 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.

Accounting Policies

1.16 Employee benefits (continued)
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 recognises actuarial gains and losses in surplus or deficit in the reporting period in which they occur.

Assets held by a long-term employee benefit fund are assets (other than non-transferable financial instruments issued by the reporting entity) that are held by an entity (a fund) that is legally separate from the reporting entity and exists solely to pay or fund employee benefits and are available to be used only to pay or fund employee benefits, are not available to the reporting entity's own creditors (even in liquidation), and cannot be returned to the reporting entity, unless either:

- the remaining assets of the fund are sufficient to meet all the related employee benefit obligations of the plan or the reporting entity; or
- the assets are returned to the reporting entity to reimburse it for employee benefits already paid.

Current service cost is the increase in the present value of the defined benefit obligation resulting from employee service in the current period.

Interest cost is the increase during a period in the present value of a defined benefit obligation which arises because the benefits are one period closer to settlement.

Past service cost is the change in the present value of the defined benefit obligation for employee service in prior periods, resulting in the current period from the introduction of, or changes to, post-employment benefits or other long-term employee benefits. Past service cost may be either positive (when benefits are introduced or changed so that the present value of the defined benefit obligation increases) or negative (when existing benefits are changed so that the present value of the defined benefit obligation decreases). In measuring its defined benefit liability the entity recognises past service cost as an expense in the reporting period in which the plan is amended.

Plan assets comprise assets held by a long-term employee benefit fund and qualifying insurance policies.

The present value of a defined benefit obligation is the present value, without deducting any plan assets, of expected future payments required to settle the obligation resulting from employee service in the current and prior periods.

Accounting Policies

1.16 Employee benefits (continued)

The return on plan assets is interest, dividends or similar distributions and other revenue derived from the plan assets, together with realised and unrealised gains or losses on the plan assets, less any costs of administering the plan (other than those included in the actuarial assumptions used to measure the defined benefit obligation) and less any tax payable by the plan itself.

The entity account not only for its legal obligation under the formal terms of a defined benefit plan, but also for any constructive obligation that arises from the entity's informal practices. Informal practices give rise to a constructive obligation where the entity has no realistic alternative but to pay employee benefits. An example of a constructive obligation is where a change in the entity's informal practices would cause unacceptable damage to its relationship with employees.

The amount recognised as a defined benefit liability is the net total of the following amounts:

- the present value of the defined benefit obligation at the reporting date;
- minus the fair value at the reporting date of plan assets (if any) out of which the obligations are to be settled directly;
- plus any liability that may arise as a result of a minimum funding requirement

The amount determined as a defined benefit liability may be negative (an asset). The entity measures the resulting asset at the lower of:

- the amount determined above; and
- the present value of any economic benefits available in the form of refunds from the plan or reductions in future contributions to the plan. The present value of these economic benefits is determined using a discount rate which reflects the time value of money.

Any adjustments arising from the limit above is recognised in surplus or deficit.

The entity determines the present value of defined benefit obligations and the fair value of any plan assets with sufficient regularity such that the amounts recognised in the financial statements do not differ materially from the amounts that would be determined at the reporting date.

The entity recognises the net total of the following amounts in surplus or deficit, except to the extent that another Standard requires or permits their inclusion in the cost of an asset:

- current service cost;
- interest cost;
- the expected return on any plan assets and on any reimbursement rights;
- actuarial gains and losses;
- past service cost;
- the effect of any curtailments or settlements; and
- the effect of applying the limit on a defined benefit asset (negative defined benefit liability).

Accounting Policies

1.16 Employee benefits (continued)

Actuarial valuations are conducted on an annual basis by independent actuaries separately for each plan. The results of the valuation are updated for any material transactions and other material changes in circumstances (including changes in market prices and interest rates) up to the reporting date.

The entity recognises gains or losses on the curtailment or settlement of a defined benefit plan when the curtailment or settlement occurs. The gain or loss on a curtailment or settlement comprises:

- any resulting change in the present value of the defined benefit obligation; and
- any resulting change in the fair value of the plan assets.

Before determining the effect of a curtailment or settlement, the entity re-measure the obligation (and the related plan assets, if any) using current actuarial assumptions (including current market interest rates and other current market prices).

When it is virtually certain that another party will reimburse some or all of the expenditure required to settle a defined benefit obligation, the right to reimbursement is recognised as a separate asset. The asset is measured at fair value. In all other respects, the asset is treated in the same way as plan assets. In surplus or deficit, the expense relating to a defined benefit plan is [OR is not] presented as the net of the amount recognised for a reimbursement.

The entity offsets an asset relating to one plan against a liability relating to another plan when the entity has a legally enforceable right to use a surplus in one plan to settle obligations under the other plan and intends either to settle the obligations on a net basis, or to realise the surplus in one plan and settle its obligation under the other plan simultaneously.

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.

Accounting Policies

1.16 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.

1.17 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 reviewed at each reporting date and adjusted to reflect the current best estimate. Provisions are reversed if it is no longer probable that an outflow of resources embodying economic benefits or service potential will be required, to settle the obligation.

Where discounting is used, the carrying amount of a provision increases in each period to reflect the passage of time. This increase is recognised as an interest expense.

A provision is used only for expenditures for which the provision was originally recognised. Provisions are not recognised for future operating surplus (deficit).
Contingent assets and contingent liabilities are not recognised. Contingencies are disclosed in note 31.

Accounting Policies

1.18 Commitments

Items are classified as commitments when an entity has committed itself to future transactions that will normally result in the outflow of cash.

Disclosures are required in respect of unrecognised contractual commitments.

Commitments for which disclosure is necessary to achieve a fair presentation should be disclosed in a note to the financial statements, if both the following criteria are met:

- Contracts should be non-cancellable or only cancellable at significant cost (for example, contracts for computer or building maintenance services); and
- Contracts should relate to something other than the routine, steady, state business of the entity – therefore salary commitments relating to employment contracts or social security benefit commitments are excluded.

1.19 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.

An exchange transaction is one in which the entity receives assets or services, or has liabilities extinguished, and directly gives approximately equal value (primarily in the form of goods, services or use of assets) to the other party in exchange.

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.

Measurement

Revenue is measured at the fair value of the consideration received or receivable, net of trade discounts and volume rebates.

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.

Accounting Policies

1.19 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 using the effective interest rate method for financial instruments, and using the nominal interest rate method for statutory receivables. Interest levied on transactions arising from exchange or non-exchange transactions is classified based on the nature of the underlying transaction.

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

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

Accounting Policies

1.20 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.

As the entity satisfies a present obligation recognised as a liability in respect of an inflow of resources from a non-exchange transaction recognised as an asset, it reduces the carrying amount of the liability recognised and recognises an amount of revenue equal to that reduction.

Measurement

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

When, as a result of a non-exchange transaction, the entity recognises an asset, it also recognises revenue equivalent to the amount of the asset measured at its fair value as at the date of acquisition, unless it is also required to recognise a liability. Where a liability is required to be recognised it will be measured as the best estimate of the amount required to settle the obligation at the reporting date, and the amount of the increase in net assets, if any, recognised as revenue. When a liability is subsequently reduced, because the taxable event occurs or a condition is satisfied, the amount of the reduction in the liability is recognised as revenue.

Receivables that arise from statutory (non-contractual) arrangements are initially measured in accordance with this accounting policy, as well as the accounting policy on Statutory Receivables. The entity applies the accounting policy on Statutory Receivables for the subsequent measurement, derecognition, presentation and disclosure of statutory receivables.

Interest is recognised using the effective interest rate method for financial instruments, and using the nominal interest rate method for statutory receivables. Interest levied on transactions arising from exchange or non-exchange transactions is classified based on the nature of the underlying transaction.

Bequests

Bequests that satisfy the definition of an asset 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.

Accounting Policies

1.20 Revenue from non-exchange transactions (continued)

Gifts and donations, including goods-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.

Services in-kind
Except for financial guarantee contracts, the entity recognise services in-kind that are significant to its operations and/or service delivery objectives as assets and recognise the related 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.

Where services in-kind are not significant to the entity's operations and/or service delivery objectives and/or do not satisfy the criteria for recognition, the entity disclose the nature and type of services in-kind received during the reporting period.

1.21 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 surplus (deficit) 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.

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

1.23 Accounting by principals and agents Identification
An agent is an entity that has been directed by another entity (a principal), through a binding arrangement, to undertake transactions with third parties on behalf of the principal and for the benefit of the principal.

A principal is an entity that directs another entity (an agent), through a binding arrangement, to undertake transactions with third parties on its behalf and for its own benefit.

Accounting Policies

1.23 Accounting by principals and agents (continued)

A principal-agent arrangement results from a binding arrangement in which one entity (an agent), undertakes transactions with third parties on behalf, and for the benefit of, another entity (the principal).

Identifying whether an entity is a principal or an agent

When the entity is party to a principal-agent arrangement, it assesses whether it is the principal or the agent in accounting for revenue, expenses, assets and/or liabilities that result from transactions with third parties undertaken in terms of the arrangement.

The assessment of whether an entity is a principal or an agent requires the entity to assess whether the transactions it undertakes with third parties are for the benefit of another entity or for its own benefit.

Binding arrangement

The entity assesses whether it is an agent or a principal by assessing the rights and obligations of the various parties established in the binding arrangement.

Where the terms of a binding arrangement are modified, the parties to the arrangement re-assess whether they act as a principal or an agent.

Assessing which entity benefits from the transactions with third parties

When the entity in a principal-agent arrangement concludes that it undertakes transactions with third parties for the benefit of another entity, then it is the agent. If the entity concludes that it is not the agent, then it is the principal in the transactions.

The entity is an agent when, in relation to transactions with third parties, all three of the following criteria are present:

- It does not have the power to determine the significant terms and conditions of the transaction.
- It does not have the ability to use all, or substantially all, of the resources that result from the transaction for its own benefit.
- It is not exposed to variability in the results of the transaction.

Where the entity has been granted specific powers in terms of legislation to direct the terms and conditions of particular transactions, it is not required to consider the criteria of whether it does not have the power to determine the significant terms and conditions of the transaction, to conclude that is an agent. The entity applies judgement in determining whether such powers exist and whether they are relevant in assessing whether the entity is an agent.

Accounting Policies

1.23 Accounting by principals and agents (continued)

Recognition

The entity, as a principal, recognises revenue and expenses that arise from transactions with third parties in a principal- agent arrangement in accordance with the requirements of the relevant Standards of GRAP.

The entity, as an agent, recognises only that portion of the revenue and expenses it receives or incurs in executing the transactions on behalf of the principal in accordance with the requirements of the relevant Standards of GRAP.

The entity recognises assets and liabilities arising from principal-agent arrangements in accordance with the requirements of the relevant Standards of GRAP.

1.24 Translation of foreign currencies

Foreign currency transactions

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

1.25 Comparative figures

Where necessary, comparative figures have been reclassified to conform to changes in presentation in the current year.

Accounting Policies

1.26 Fruitless and wasteful expenditure

Fruitless and wasteful expenditure is incurred when the resulting expenditure is made in vain and no value for money was derived from the expenditure or the use of other resources.

Fruitless and wasteful expenditure must fulfill the following conditions in the definition –

(a) expenditure must be made in vain; and
(b) such expenditure would have been avoided had reasonable care been exercised.

Upon detection of alleged fruitless and wasteful expenditure an assessment must be conducted to confirm whether expenditure incurred meets the definition of fruitless and wasteful expenditure. If it has been confirmed that expenditure is fruitless and wasteful, the delegated authority must recover such amounts of fruitless and wasteful expenditure from the responsible employee(s) where they are deemed liable in law.

The amount of debt recoverable from the responsible employee(s) may equate to –

(a) the value of the debt incurred as a consequence of his/her/their action(s) that led to incurrence of the fruitless and wasteful expenditure;
(b) a lesser amount, determined by the delegated authority in accordance with the debt management policy of the SANBI A debt must be identified, reported and recorded in the books of SANBI where such a debt arose as a result of incurring fruitless and wasteful expenditure. If a debt from a responsible employee is irrecoverable, the delegated authority may write off the debt in terms of the debt write off policy of the SANBI.

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.

Accounting Policies

1.27 Irregular expenditure

Irregular expenditure is defined as the incurrence of a financial transaction in contravention to any of the following:

(a) Public Finance Management Act (PFMA);
(b) Treasury Regulations;
(c) National Treasury Instructions issued in terms of section 76 of the PFMA;
(d) Any applicable legislation.

Irregular expenditure is incurred when the resulting transaction is recognized in the financial records of SANBI in accordance with GRAP. For irregular expenditure to be incurred the non-compliance must be linked to a financial transaction. Although a transaction may trigger irregular expenditure, the irregular expenditure is only recorded when a transaction is recognised as expenditure in the statement of financial performance in accordance with GRAP. For a transaction to constitute irregular expenditure, it must meet the following conditions –

(a) it must be incurred in contravention of, or not in accordance with legislation; and
(b) it must be incurred upon recognition of a financial transaction as a liability in accordance with GRAP.

Where irregular expenditure results in a loss the delegated authority must institute a claim against the responsible employee for recovery of the loss. A debt must be identified, reported and recorded in the books of SANBI where such a debt arose from losses incurred as a result of irregular expenditure.

The amount of debt recoverable from the responsible employee(s) may equate to –

(a) the value of the debt incurred as a consequence of his or her action(s) that led to incurrence of the irregular expenditure; or
(b) a lesser amount, determined by the delegated authority in accordance with the debt management policy of the SANBI.

If the amount of a debt is irrecoverable from a responsible employee, the delegated authority may write off the debt in accordance with the debt write off policy of the SANBI.

All expenditure relating to irregular 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.

Accounting Policies

1.28 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.

1.29 Budget information

Entity are 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 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 01-04-2021 to 31-03-2022.

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

Comparative information is not required.

1.30 Related parties

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.

Control is the power to govern the financial and operating policies of an entity so as to obtain benefits from its activities.

Joint control is the agreed sharing of control over an activity by a binding arrangement, and exists only when the strategic financial and operating decisions relating to the activity require the unanimous consent of the parties sharing control (the venturers).

Accounting Policies

1.30 Related parties (continued)

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.

Significant influence is the power to participate in the financial and operating policy decisions of an entity, but is not control over those policies.

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 those family members who may be expected to influence, or be influenced by that person in their dealings with the entity.

The entity is exempt from disclosure requirements in relation to related party transactions if that transaction occurs within normal supplier and/or client/recipient relationships on terms and conditions no more or less favourable than those which it is reasonable to expect the entity to have adopted if dealing with that individual entity or person in the same circumstances and terms and conditions are within the normal operating parameters established by that reporting entity's legal mandate.

Where the entity is exempt from the disclosures in accordance with the above, the entity discloses narrative information about the nature of the transactions and the related outstanding balances, to enable users of the entity's financial statements to understand the effect of related party transactions on its financial statements.

1.31 Events after reporting date

Events after 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.

Accounting Policies

1.32 Living and non-living resources

Living resources are those resources that undergo biological transformation.

Non-living resources are those resources, other than living resources, that occur naturally and have not been extracted. Agricultural activity is the management by an entity of the biological transformation and harvest of biological assets for:

(a) sale;
(b) distribution at no charge or for a nominal charge; or
(c) conversion into agriculture produce or into additional biological assets for sale or distribution at no charge or for a nominal charge.

A bearer plant is a living plant that:

(a) is used in the production or supply of agricultural produce;
(b) is expected to bear produce for more than one period; and
(c) has a remote likelihood of being sold as agricultural produce, except for incidental scrap sales.

Biological transformation (for purposes of this Standard) comprises the processes of growth, degeneration, production, and procreation that cause qualitative or quantitative changes in a living resource.

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

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 development and, where applicable, the amount attributed to the asset when initially recognised in accordance with the specific requirements of other Standards of GRAP.

Depreciation is the systematic allocation of the depreciable amount of an asset over its useful life. Depreciable amount is the cost of an asset, or other amount substituted for cost, less its residual value.
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.

Group of resources means a grouping of living or non-living resources 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.

Accounting Policies

1.32 Living and non-living resources (continued)

The residual value of an asset is the estimated amount that an entity would currently obtain from disposal of the asset, after deducting the estimated costs of disposal, if the asset was already of the age and in the condition expected at the end of its useful life.

Useful life is the period over which an asset is expected to be available for use by an entity, or the number of production or similar units expected to be obtained from the asset by an entity.

Recognition

Non-living resources, other than land, are not recognised as assets. Required information are disclosed in the notes to the financial statements.

A living resource is recognised 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.

Where the entity is required in terms of legislation or similar means to manage a living resource, but it does not meet the definition of an asset because control of the resource cannot be demonstrated, relevant information are disclosed in the notes to the financial statements.

Where the entity holds a living resource that meets the definition of an asset, but which does not meet the recognition criteria, relevant information are disclosed in the notes to the financial statements. When the information about the cost or fair value of the living resource becomes available, the entity recognise, from that date, the living resource and apply the measurement principles.

Measurement at recognition

A living resource that qualifies for recognition as an asset is measured at its cost.

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

The cost of a living resource comprises its purchase price, including import duties and non-refundable purchase taxes, and any costs directly attributable to bringing the living resource to the location and condition necessary for it to be capable of operating in the manner intended by management.

Measurement after recognition

Cost model

After recognition as an asset, a group of living resources are carried at its cost less any accumulated depreciation and any accumulated impairment losses.

Accounting Policies

1.32 Living and non-living resources (continued)

Depreciation

Living resources are depreciated and the depreciation charge for each period is recognised in surplus or deficit unless it is included in the carrying amount of another asset, where appropriate.

The depreciable amount of a living resource is allocated on a systematic basis over its useful life.

The entity assesses at each reporting date whether there is any indication that the entity's expectations about the residual value and the useful life of a living resource 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(s) are accounted for as a change in an accounting estimate.

In assessing whether there is any indication that the expected useful life of the living resource has changed, the entity considers the following indications:

(a) The use of the living resource has changed, because of the following:
- The entity has changed the manner in which the living resource is used.
- The entity has made a decision to dispose of the living resource in a future reporting period(s) such that this decision changes the expected period over which the living resource will be used.
- Legislation, government policy or similar means have been amended or implemented during the reporting period that have, or will, change the use of the living resource.
- The living resource was idle or retired from use during the reporting period.

(b) The living resource is approaching the end of its previously expected useful life.

(c) There is evidence that the condition of the living resource improved or declined based on assessments undertaken during the reporting period.

(d) The living resource is assessed as being impaired.

In assessing whether there is any indication that the expected residual value of the living resource has changed, the entity considers whether there has been any change in the expected timing of disposal of the living resource, as well as any relevant indicators as noted above.

The depreciation method used reflects the pattern in which the future economic benefits or service potential of the living resource is expected to be consumed by the entity.

Accounting Policies

1.32 Living and non-living resources (continued)

The depreciation method applied to a living resource 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 living resource, the method is changed to reflect the changed pattern. Such a change is accounted for as a change in an accounting estimate.

The depreciation methods and useful lives of items of living resources have been assessed as follows:

Item	Depreciation method	Average useful life
Amphibians	Straight-line	10 - 30 years
Birds	Straight-line	3 - 100 years
Fish	Straight-line	3 - 70 years
Invertebrates	Straight-line	1 - 80 years
Mammals	Straight-line	8 - 65 years
Reptiles	Straight-line	3 - 152 years

Organisms held for research purposes are not depreciated and are preserved for an undeterminable period until utilised as intended by management.

Impairment

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

Compensation from third parties for living resources that have been impaired, lost or given up, is included in surplus or deficit when the compensation becomes receivable.

Transfers

Transfers from living resources are made when the particular asset no longer meets the definition of a living resource and/or is no longer within the scope of this accounting policy.

Transfers to living resources are made when the asset meets the definition of a living resource.

Derecognition

The carrying amount of a living resource is derecognised 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 living resource is included in surplus or deficit when the item is derecognised.

Notes to the Financial Statements

2. New standards and interpretations

2.1 Standards and interpretations issued, but not yet effective

The entity has not applied the following standards and interpretations, which have been published and are mandatory for the entity's accounting periods beginning on or after 01 April 2022 or later periods:

Guideline: Guideline on Accounting for Landfill Sites

The objective of this guideline: The Constitution of South Africa, 1996 (Act No. 108 of 1996) (the constitution), gives local government the executive authority over the functions of cleaning, refuse removal, refuse dumps and solid waste disposal. Even though waste disposal activities are mainly undertaken by municipalities, other public sector entities may also be involved in these activities from time to time. Concerns were raised about the inconsistent accounting practices for landfill sites and the related rehabilitation provision where entities undertake waste disposal activities. The objective of the Guideline is therefore to provide guidance to entities that manage and operate landfill sites. The guidance will improve comparability and provide the necessary information to the users of the financial statements to hold entities accountable and for decision making. The principles from the relevant Standards of GRAP are applied in accounting for the landfill site and the related rehabilitation provision. Where appropriate, the Guideline also illustrates the accounting for the land in a landfill, the landfill site asset and the related rehabilitation provision.

It covers: Overview of the legislative requirements that govern landfill sites, Accounting for land, Accounting for the landfill site asset, Accounting for the provision for rehabilitation, Closure, End-use and monitoring, Other considerations, and Annexures with Terminology & References to pronouncements used in the Guideline.

The effective date of these revisions have not yet been set.

No impact on SANBI.

GRAP 25 (as revised): Employee Benefits

Background
The Board issued the Standard of GRAP on Employee Benefits (GRAP 25) in November 2009. GRAP 25 was based on the International Public Sector Accounting Standard on Employee Benefits (IPSAS 25) effective at that time. However, GRAP 25 was modified in some respects where the Board decided the requirements of the International Accounting Standard on Employee Benefits (IAS® 19) were more appropriate. Specifically, the Board:

- Eliminated the corridor method and required recognition of actuarial gains and losses in full in the year that they arise.
- Required the recognition of past service costs in the year that a plan is amended, rather than on the basis of whether they are vested or unvested.

Notes to the Financial Statements

Since 2009, the International Accounting Standards Board® has made several changes to IAS 19, including changes to the recognition of certain benefits, and where these changes are recognised. The IPSASB made similar changes to its standard and as a result of the extent of changes, issued IPSAS 39 on Employee Benefits to replace IPSAS 25 in 2016.

When the Board consulted locally on the proposed amendments to IPSAS 25 in 2016, stakeholders welcomed the amendments to align IPSAS 25 to IAS 19 and supported the changes that resulted in IPSAS 39.

In developing GRAP 25, the Board agreed to include the guidance from the IFRS Interpretation on IAS 19 – The Limit on a Defined Benefit Asset, Minimum Funding Requirements and their Interaction (IFRIC 14®) partly in GRAP 25 and partly in the Interpretation of the Standards of GRAP on The Limit on a Defined Benefit Asset, Minimum Funding Requirements and their Interaction (IGRAP 7).

Key amendments to GRAP 25

The Board agreed to align GRAP 25 with IPSAS 39, but that local issues and the local environment need to be considered. As a result of this decision, there are areas where GRAP 25 departs from the requirements of IPSAS 39. The Board's decisions to depart are explained in the basis for conclusions.

The amendments to GRAP 25 are extensive and mostly affect the accounting for defined benefit plans. A new renumbered Standard of GRAP (e.g. GRAP 39) will not be issued, but rather a new version of the current GRAP 25.

The effective date of these revisions have not yet been set.

The impact is still to be assessed.

iGRAP 7 (as revised): Limit on defined benefit asset, minimum funding requirements and their interaction

Background

The Board issued the Standard of GRAP on Employee Benefits (GRAP 25) in November 2009. GRAP 25 was based on the International Public Sector Accounting Standard on Employee Benefits (IPSAS 25) effective at that time. However, GRAP 25 was modified in some respects where the Board decided the requirements of the International Accounting Standard on Employee Benefits (IAS® 19) were more appropriate. Specifically, the Board:

- Eliminated the corridor method and required recognition of actuarial gains and losses in full in the year that they arise.
- Required the recognition of past service costs in the year that a plan is amended, rather than on the basis of whether they are vested or unvested.

Since 2009, the International Accounting Standards Board® has made several changes to IAS 19, including changes to the recognition of certain benefits, and where these changes are recognised. The IPSASB made similar changes to its standard and as a result of the extent of changes, issued IPSAS 39 on Employee Benefits to replace IPSAS 25 in 2016.

Notes to the Financial Statements

2. New standards and interpretations (continued)

When the Board consulted locally on the proposed amendments to IPSAS 25 in 2016, stakeholders welcomed the amendments to align IPSAS 25 to IAS 19 and supported the changes that resulted in IPSAS 39.

In developing GRAP 25, the Board agreed to include the guidance from the IFRS Interpretation on IAS 19 – The Limit on a Defined Benefit Asset, Minimum Funding Requirements and their Interaction (IFRIC 14®) partly in GRAP 25 and partly in the Interpretation of the Standards of GRAP on The Limit on a Defined Benefit Asset, Minimum Funding Requirements and their Interaction (IGRAP 7).

The effective date of these revisions have not yet been set.

The impact is still not yet assessed.

Guideline: Guideline on the Application of Materiality to Financial Statements

The objective of this guideline: The objective of this Guideline is to provide guidance that will assist entities to apply the concept of materiality when preparing financial statements in accordance with Standards of GRAP. The Guideline aims to assist entities in achieving the overall financial reporting objective. The Guideline outlines a process that may be considered by entities when applying materiality to the preparation of financial statements. The process was developed based on concepts outlined in Discussion Paper 9 on Materiality – Reducing Complexity and Improving Reporting, while also clarifying existing principles from the Conceptual Framework for General Purpose Financial Reporting and other relevant Standards of GRAP. The Guideline includes examples and case studies to illustrate how an entity may apply the principles in the Guideline, based on specific facts presented.

It covers: Definition and characteristics of materiality, Role of materiality in the financial statements, Identifying the users of financial statements and their information needs, Assessing whether information is material, Applying materiality in preparing the financial statements, and Appendixes with References to the Conceptual Framework for General Purpose Financial Reporting and the Standards of GRAP & References to pronouncements used in the Guideline.

The guideline is encouraged to be used by entities.

The impact is not yet assessed.

GRAP 104 (as revised): Financial Instruments
Following the global financial crisis, a number of concerns were raised about the accounting for financial instruments. This included that (a) information on credit losses and defaults on financial assets was received too late to enable proper decision-making, (b) using fair value in certain instances was inappropriate, and (c) some of the existing accounting requirements were seen as too rules based. As a result, the International Accounting Standards Board® amended its existing Standards to deal with these issues. The IASB issued IFRS® Standard on Financial Instruments (IFRS 9) in 2009 to address many of the concerns raised. Revisions were also made to IAS® on Financial Instruments: Presentation and the IFRS Standard® on Financial Instruments: Disclosures. The IPSASB issued revised International Public Sector Accounting Standards in June 2018 so as to align them with the equivalent IFRS Standards.

Notes to the Financial Statements

2. New standards and interpretations (continued)

The revisions better align the Standards of GRAP with recent international developments. The amendments result in better information available to make decisions about financial assets and their recoverability, and more transparent information on financial liabilities.

The most significant changes to the Standard affect:

- Financial guarantee contracts issued
- Loan commitments issued
- Classification of financial assets
- Amortised cost of financial assets
- Impairment of financial assets
- Disclosures

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

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

The impact is not yet assessed.

iGRAP 21: The Effect of Past Decisions on Materiality Background

The Standard of GRAP on Accounting Policies, Changes in Accounting Estimates and Errors (GRAP 3) applies to the selection of accounting policies. Entities apply the accounting policies set out in the Standards of GRAP, except when the effect of applying them is immaterial. This means that entities could apply alternative accounting treatments to immaterial items, transactions or events (hereafter called "items").

The Board received questions from entities asking whether past decisions to not apply the Standards of GRAP to immaterial items effect future reporting periods. Entities observed that when they applied alternative accounting treatments to items in previous reporting periods, they kept historical records on an ongoing basis of the affected items. This was done so that they could assess whether applying these alternative treatments meant that the financial statements became materially "misstated" over time. If the effect was considered material, retrospective adjustments were often made.

This interpretation explains the nature of past materiality decisions and their potential effect on current and subsequent reporting periods.

iGRAP 21 addresses the following two issues:

- Do past decisions about materiality affect subsequent reporting periods?
- Is applying an alternative accounting treatment a departure from the Standards of GRAP or an error?

The effective date of these have not yet been set.

The entity expects to adopt the interpretation for the first time in the 2023/2024 . The impact of this interpretation is currently being assessed.

Notes to the Financial Statements

2. New standards and interpretations (continued)

GRAP 2020: Improvements to the standards of GRAP 2020

Every three years, the Accounting Standards Board undertakes periodic revisions of the Standards of GRAP, in line with best practice internationally among standard setters.

Improvements to Standards of GRAP are aimed at aligning the Standards of GRAP with international best practice, to maintain the quality and to improve the relevance of the Standards of GRAP.

Amendments include,

GRAP 5 – Borrowing Costs

- For general borrowings, borrowing costs eligible for capitalisation determined by applying a capitalisation rate
  - Clarify that borrowings made specifically for purposes of obtaining a qualifying asset are excluded until substantially all the activities necessary to prepare asset for intended use or sale are complete

GRAP 13 – Leases

- Operating leases & sale and leaseback transactions are currently assessed for impairment in accordance with GRAP 26
- Clarify that these arrangements may also be assessed in accordance with GRAP 21

GRAP 16 – Investment Property

- Clarify that GRAP 21 may be applied to assess investment property for impairment
- Include heading "Classification of property as investment property" (par 6 and 7) & delete existing headings
- Investment property under construction (within scope of GRAP 16)
  - Added heading "Guidance on initially measuring self-constructed investment property at fair value"
  - Added clarification that investment property is measured at fair value at earliest of:
    - completion of construction or development; or
    - when fair value becomes reliably measurable

  Clarify requirements on transfers to and from Investment property
  - Change in use involves an assessment on whether:
    - property meets, or ceases to meet definition of investment property and
    - evidence exists that a change in use has occurred
  - List of examples of a change in use is regarded as non-exhaustive

Notes to the Financial Statements

2. New standards and interpretations (continued)

GRAP 17 – Property, Plant and Equipment

- Delete example indicating that quarries and land used for landfill may be depreciated in certain instances
  - Land has an unlimited useful life and cannot be consumed through its use

GRAP 20 – Related Party Disclosures

- Clarify that entity, or any member of a group of which it is part, providing management services to reporting entity (or controlling entity of reporting entity) is a related party
  - Disclose amounts incurred by the entity for the provision of management services that are provided by a separate management entity
  - If an entity obtains management services from another entity ("the management entity") the entity is not required to apply the requirements in paragraph .35 to the remuneration paid or payable by the management entity to the management entity's employees or those charged with governance of the entity in accordance with legislation, in instances where they are required to perform such functions
  - Management services are services where employees of management entity perform functions as "management" as defined

GRAP 24 – Presentation of Budget Information in Financial Statements

- Terminology amended
  - Primary financial statements amended to "financial statements" or "face of the financial statements"

GRAP 31 – Intangible Assets

- Extend requirement to consider whether reassessing useful life of intangible asset as finite rather as indefinite indicates that asset may be impaired
  - Both under cost model or revaluation model

GRAP 32 – Service Concession Arrangements: Grantor

- Clarify disclosure requirement for service concession assets
  - Disclose carrying amount of each material service concession asset recognised at the reporting date

Notes to the Financial Statements

2. New standards and interpretations (continued)

GRAP 37 – Joint Arrangements

- Application guidance clarified
  - When party obtains joint control in a joint operation where activity of joint operation constitutes a function (GRAP 105 or GRAP 106), previous held interest in joint operation is not remeasured

GRAP 106 – Transfer of Functions Between Entities Not Under Common Control

- When party obtains control of joint operation and entity had rights to assets, or obligations to liabilities before acquisition date, it comprises an acquisition received in stages
  - Apply the requirements for an acquisition achieved in stages, including remeasuring previously held interest in joint operation

Directive 7 – The Application of Deemed Cost

- Clarify that bearer plants within scope of Directive

The effective date of these improvements is 01 April 2023.

The entity expects to adopt the improvements for the first time in the 2023/2024 financial statements.

The impact of this improvements is currently being assessed.

GRAP 1 (amended): Presentation of Financial Statements

Amendments to this Standard of GRAP, are primarily drawn from the IASB's Amendments to IAS 1.

Summary of amendments are:

Materiality and aggregation

The amendments clarify that:

- information should not be obscured by aggregating or by providing immaterial information;
- materiality considerations apply to all parts of the financial statements; and
- even when a Standard of GRAP requires a specific disclosure, materiality considerations apply.

Statement of financial position and statement of financial performance

The amendments clarify that the list of line items to be presented in these statements can be disaggregated and aggregated as relevant and additional guidance on subtotals in these statements.

Notes to the Financial Statements

Notes structure

The amendments add examples of possible ways of ordering the notes to clarify that understandability and comparability should be considered when determining the order of the notes and to demonstrate that the notes need not be presented in the order listed in GRAP 1.

Disclosure of accounting policies

Remove guidance and examples with regards to the identification of significant accounting policies that were perceived as being potentially unhelpful.

An entity applies judgement based on past experience and current facts and circumstances.

The effective date of this amendment is for years beginning on or after 01 April 2025.

The entity expects to adopt the amendment for the first time in the 2025/2026 financial statements.

The impact of this amendment is currently being assessed.

Notes to the Financial Statements

Figures in Rand	2022	2021

3. Cash and cash equivalents

Cash and cash equivalents consist of:		
Cash on hand	83 963	586 132
Bank balances	129 075 275	15 043 056
Short-term deposits	350 113 794	380 612 253
	479 273 032	**396 241 441**

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		
South African Reserve Bank (Moody's)	67 628 915	98 562 662
Nedbank Limited (Standards and Poors)	282 484 879	282 049 591
Nedbank Limited (Standards and Poors)	129 075 275	15 043 056
	479 189 069	**395 655 309**

4. Receivables from exchange transactions

Trade debtors	2 290 143	1 765 498
Accrued income	5 050 746	1 064 876
Sundry receivables	640 285	1 051 060
Prepaid expenses	2 477 257	2 449 457
VAT receivable	1 342 617	-
	11 801 048	**6 330 891**

Fair value of trade and other receivables

Trade and other receivables	11 801 048	6 330 891

Amounts neither past due nor impaired are considered fully recoverable. No credit quality issues are noted.

Notes to the Financial Statements

Figures in Rand	2022	2021

4. Receivables from exchange transactions (continued)

Trade and other receivables past due but not impaired

Trade and other receivables which are less than 3 months past due are not considered to be impaired. At 31 March 2022, R 321 708 (2021: R 437 462) were past due but not impaired.

The ageing of amounts past due but not impaired is as follows:

2 months past due	-	188 893
3 months past due	321 708	248 570

Trade and other receivables impaired

As of 31 March 2022, trade and other receivables of R 869 363 (2021: R 1 156 610) were impaired and provided for.

The amount of the provision was R (869 363) as of 31 March 2022 (2021: R (1 156 610)). The ageing of these loans is as follows:

Over 3 months	869 363	1 156 610

Reconciliation of provision for impairment of trade and other receivables		
Opening balance	1 156 610	727 987
Provision for impairment	-	428 623
Unused amounts reversed	(287 247)	-
	869 363	**1 156 610**

Due to unfavourable trading conditions at certain restaurants run on SANBI property, the collection for rental due became difficult and resulted in their debtors ageing being over 6 months. Some of these restaurants have since ceased trading.

Notes to the Financial Statements

Figures in Rand	2022	2021

5. Inventories

Books	5 436 845	4 825 696
Chemicals	1 074 853	448 699
Consumable stores	2 390 091	1 843 188
Fuel (diesel, petrol)	225 849	270 908
Marketing materials	425 891	29 450
Small tools and consumables	1 546 594	577 599
Stationery	721 152	800 677
Food and Beverage	641 646	557 298
Animal food	846 895	600 737
Animal and staff medical supplies	197 074	204 481
Maintenance materials	998 353	919 515
Plants	3 245 796	1 806 805
Uniform stock	129 077	203 322
	17 880 116	**13 088 375**

Plants are for sale in SANBI's nurseries and are therefore consumable inventories.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 inventory and actual sale is too short to result in changes in value either of a physical or market-related nature.

6. Operating lease asset

Current assets	682 668	853 904

The entity has entered into commercial property leases for the maximum duration of 5 years period. These leases are negotiated for a term of between 1 year and 5 years and rentals are turnover based between 5% and 10% with a minimum rental amount payable.

The operating lease asset relates to the straight lining of the lessor leases.

7. Receivables from non-exchange transactions

Receivables from project donors	11 218	-
Accrued income - receivables from non-exchange revenue	699 995	1 372 871
	711 213	**1 372 871**

Receivables from non-exchange transactions relate to amounts due from funders for projects at year end.

Notes to the Financial Statements

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8. Property, plant and equipment

	2022			2021		
	Cost / Valuation	Accumulated depreciation and accumulated impairment	Carrying value	Cost / Valuation	Accumulated depreciation and accumulated impairment	Carrying value
Buildings	231 638 604	(63 873 593)	167 765 011	223 808 786	(58 328 811)	165 479 975
Motor vehicles	61 995 126	(27 264 407)	34 730 719	60 745 592	(23 206 312)	37 539 280
Operational equipment	153 948 059	(73 334 887)	80 613 172	145 035 727	(55 871 604)	89 164 123
Infrastructure	123 451 397	(18 977 680)	104 473 717	103 858 729	(15 202 169)	88 656 560
Total	**571 033 186**	**(183 450 567)**	**387 582 619**	**533 448 834**	**(152 608 896)**	**380 839 938**

Reconciliation of property, plant and equipment - 2022

	Opening balance	Additions	Disposals	Transfers	Depreciation	Impairment loss	Total
Buildings	165 479 975	7 484 095	-	196 233	(5 395 292)	-	167 765 011
Motor vehicles	37 539 280	1 616 873	(164 339)	-	(4 261 095)	-	34 730 719
Operational equipment	89 164 123	9 273 295	(139 917)	-	(16 923 171)	(761 158)	80 613 172
Infrastructure	88 656 560	19 592 668	-	-	(3 775 511)	-	104 473 717
	380 839 938	**37 966 931**	**(304 256)**	**196 233**	**(30 355 069)**	**(761 158)**	**387 582 619**

Reconciliation of property, plant and equipment - 2021

	Opening balance	Additions	Disposals	Depreciation	Impairment loss	Total
Buildings	171 371 043	1 339 322	(6 651)	(5 379 423)	(1 844 316)	165 479 975
Motor vehicles	30 394 157	12 226 957	(226 599)	(4 326 826)	(528 409)	37 539 280
Operational equipment	70 777 027	37 423 252	(1 934 438)	(17 101 718)	-	89 164 123
Infrastructure	81 890 113	9 932 452	-	(3 060 422)	(105 583)	88 656 560
	354 432 340	**60 921 983**	**(2 167 688)**	**(29 868 389)**	**(2 478 308)**	**380 839 938**

Notes to the Financial Statements

Figures in Rand	2022	2021

8. Property, plant and equipment (continued)

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	10 122 743	9 693 256
Infrastructure	14 440 940	15 519 878
	24 563 683	**25 213 134**

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 and the National Zoological Garden. The majority of the land that is currently utilised as National Botanical Gardens and the National Zoological Garden in the Republic belongs to the different tiers of government, and the control of the land is vested in SANBI in accordance with its mandate. There are no restrictions, as no title / property, plant and equipment is pledged as security for any liabilities.

The construction of a new office building at the KwaZulu Natal Herbarium has been halted due to a dispute with the service provider. The value of the construction to date is R 3 259 436 with an impairment value of R 2 788 029.Procurement for a new service provider to complete the outstanding scope of work without prejudice is in progress.

The construction of a hall at the KwaZulu-Natal National Botanical Garden has also been delayed due to non-performance of the contractor. The value of the construction to date is R4 989 200. The value of the remedial work required will be established after a new professional service provider is appointed. Thus, there is no impairment recognised against the construction to date. The process to appoint the rescue contractor is in progress.

Expenditure incurred to repair and maintain property, plant and equipment
Expenditure incurred to repair and maintain property, plant and equipment included in Statement of Financial Performance

Repairs and maintenance	6 674 773	3 475 715

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

Notes to the Financial Statements

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9. Investment property

	2022			2021		
	Cost / Valuation	Accumulated depreciation and accumulated impairment	Carrying value	Cost / Valuation	Accumulated depreciation and accumulated impairment	Carrying value
Investment property	101 012 389	(36 166 308)	64 846 081	101 358 112	(33 790 487)	67 567 625

Reconciliation of investment property - 2022

	Opening balance	Transfers	Depreciation	Total
Investment property	67 567 625	(196 233)	(2 525 311)	64 846 081

Reconciliation of investment property - 2021

	Opening balance	Depreciation	Total
Investment property	70 101 579	(2 533 954)	67 567 625

Investment property mainly consist of SANBI buildings operated by third parties as restaurants at the varies gardens.

A register containing the information required by the Public Finance Management Act 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 liablities.

Notes to the Financial Statements

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10. Intangible assets

	2022			2021		
	Cost / Valuation	Accumulated amortisation and accumulated impairment	Carrying value	Cost / Valuation	Accumulated amortisation and accumulated impairment	Carrying value
Computer software	10 665 225	(9 019 367)	1 645 858	9 201 569	(6 368 193)	2 833 376
Intangible assets under development	8 859 201	-	8 859 201	7 594 201	-	7 594 201
Total	**19 524 426**	**(9 019 367)**	**10 505 059**	**16 795 770**	**(6 368 193)**	**10 427 577**

Reconciliation of intangible assets - 2022

	Opening balance	Additions	Amortisation	Total
Computer software, other	2 833 376	1 463 656	(2 651 174)	1 645 858
Intangible assets under development	7 594 201	1 265 000	-	8 859 201
	10 427 577	**2 728 656**	**(2 651 174)**	**10 505 059**

Reconciliation of intangible assets - 2022

	Opening balance	Additions	Disposals	Amortisation	Total
Computer software, other	3 542 182	4 741 799	(30)	(5 450 575)	2 833 376
Intangible assets under development	4 454 132	3 140 069	-	-	7 594 201
	7 996 314	**7 881 868**	**(30)**	**(5 450 575)**	**10 427 577**

Intangible assets in the process of being constructed or developed

Cumulative expenditure recognised in the carrying value of Intangible assets

Intangible assets under development	8 374 201	7 594 201

The intangible assets under development includes the development of NBIS system and the Virtual Reality Tour of Kirstenbosch National Botanical Gardens.

Notes to the Financial Statements

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11. Heritage assets

	2022			2021		
	Cost / Valuation	Accumulated impairment losses	Carrying value	Cost / Valuation	Accumulated impairment losses	Carrying value
Historical monuments	224 062	-	224 062	224 062	-	224 062
Conservation areas	21 422 401	-	21 422 401	21 422 262	-	21 422 262
Total	**21 646 463**	**-**	**21 646 463**	**21 646 324**	**-**	**21 646 324**

Reconciliation of heritage assets - 2022

	Opening balance	Additions	Total
Historical monuments	224 062	-	224 062
Conservation areas	21 422 262	139	21 422 401
	21 646 324	**139**	**21 646 463**

Reconciliation of heritage assets - 2021

	Opening balance	Total
Historical monuments	224 062	224 062
Conservation areas	21 422 262	21 422 262
	21 646 324	**21 646 324**

Notes to the Financial Statements

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11. Heritage assets (continued)

Heritage assets which fair values cannot be reliably measured

The following heritage assets were not recognised due to a reliable measurement not being possible on initial recognition as follows:

The institute manages 11 proclaimed National Botanical Gardens and the National Zoological Garden which are protected as conservation areas in terms of its mandate. A significant portion of the land is owned by state institutions. Due to the nature of the Institute's activities, the Institute could not establish either a fair value/ deemed cost nor a replacement cost for these heritage assets. The entity is not the legal owner of most of the land and only the management authority. The total size of the land is 9571 hectares, spread in 11 proclaimed national botanical gardens across the country and the national zoological garden in Gauteng and a centre in Limpopo, is being 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:

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.

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 2.1 million specimens of which 1.5 million are computerized. 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 E.E. 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 W.J. Burchell (1781-1863) on the Cape Flats near Salt River in January 1811. Other historically significant specimens in the collection includes: 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 J.C. Smuts near the Pienaars River, 50 miles west of Bela-bela, in October 1932.

Notes to the Financial Statements

Figures in Rand

11. Heritage assets (continued)

There are approximately 14,000 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.

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 resources 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.

SANBI Biobank collection curates about 180 000 biomaterials from various taxa including mammals, birds, reptiles and amphibian representing over 70 000 individual animals from 24 countries. These individuals represent approximately 200 families, including more than 580 genera and 880 species. This collection is made available to both national and international researchers, collaborators and stakeholders for use in research and conservation related investigations. The full holdings are databased on SPECIFY.

The Biobank consists of dedicated laboratories (freeze drying, reception, tissue culture), storerooms, and multiple banks for storing biomaterials from room temperature, down to minus 196 degrees Celsius (liquid nitrogen). These materials include semen, fibroblasts, blood derivatives, extracted DNA, hair and feathers, skin biopsies, freeze-dried materials, tissue, post mortem samples (Formalin-fixed paraffin embedded wax blocks, formalin, histopathology slides, frozen organs), microbiome swabs, and parasites.

The Biobank collection is the custodian of a number of important collections including:

a) A cell culture collection curated at cryo-temperatures ever, and represents species such as the Extinct Diceros bircornis longipes (Western black rhinoceros), the Critically Endangered Ceratotherium simum cottoni (Northern white rhinoceros), a black rhinoceros hybrid (Diceros bicornis michaeli x minor) and various other Southern African wildlife species.

Notes to the Financial Statements

Figures in Rand

11. Heritage assets (continued)

b) A wildlife Formalin-fixed paraffin embedded (FFPE) wax block collection for histopathology studies.

c) A collection of blood smears collected from affected marine and coastal bird species of the various oil spills off South African coastlines dating back to the 1980's.

d) The Southern African Foundation for the Conservation of Coastal Birds (SANCCOB) blood collection from various in situ marine and coastal bird species, including various islands off the South and Southern African coast. Species include African, King, Macaroni and Rockhopper penguins, Dark-mantled and light-mantled sooty albatrosses, Wandering albatross, Southern and Northern giant petrels, and Cape, Bank and White-breasted cormorants.

e) A mammalian cell culture collection of approximately 2000 vials donated by the University of Stellenbosch including species such as the Manatee (Trichechus manatus latirostris), ten different mole species including Juliana's golden mole (Neamblysomus julianae), Aardvark (Orycteropus afer), various species of rabbits and hares, including the suspected extinct volcano rabbit (Romerolagus diazi), and many other shrew and mouse species.

12. Living resources

	2022			2021		
	Cost / Valuation	Accumulated depreciation and accumulated impairment	Carrying value	Cost / Valuation	Accumulated depreciation and accumulated impairment	Carrying value
Living resources	46 207	(11 372)	34 835	92 414	(15 044)	77 370

Reconciliation of living resources - 2022

	Opening balance	Disposals	Depreciation	Total
Living resources	77 370	(37 282)	(5 253)	34 835

Reconciliation of living resources- 2021

	Opening balance	Depreciation	Total
Living resources	85 072	(7 702)	77 370

Notes to the Financial Statements

Figures in Rand	2022	2021

12. Living resources (continued)

Entity as custodian

SANBI is mandated by NEMBA to manage and maintain the living and non-resources within its control. The resources are used for its provision of services, recreation, conservation, education and training, research, re-habilitation and breeding purposes.

Living resources borrowed from other entities

In terms of the loan agreements, these living resources and their offspring belong to the original entity. The transfer to the receiving entity is for non-commercial purposes like conservation, breeding and education. Despite these conditions, the transferring entity loses control over the living resource for the period of transfer. The receiving entity for the period of transfer uses the living resource for its mandate, is responsible for the care of the living resource and uses it to derive economic benefit and/or service potential. Consequentially living resources on loan from other entities are controlled by SANBI and living resources on loan to other entities are not controlled by SANBI.

Invertebrates	2	2
Fish	6	20
Reptiles	27	21
Birds	139	123
Mammals	26	28
	200	**194**

Living resources on loan to other entities

In terms of the loan agreements, these living resources and their offspring belong to the original entity. The transfer to the receiving entity is for non-commercial purposes like conservation, breeding and education. Despite these conditions, the transferring entity loses control over the living resource for the period of transfer. The receiving entity for the period of transfer uses the living resource for its mandate, is responsible for the care of the living resource and uses it to derive economic benefit and/or service potential. Consequentially living resources on loan from other entities are controlled by SANBI and living resources on loan to other entities are not controlled by SANBI.

Fish	70	70
Reptiles	7	7
Birds	11	11
Mammals	20	23
	108	**111**

Notes to the Financial Statements

Figures in Rand	2022	2021

12. Living resources (continued)

Restrictions on use or capacity to sell

There are restrictions on the movement of animals which must adhere to the requirements of the export regulations, and transportation permits, the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) requirements, animal conditions and government regulations.

Pledged as security

No living resources have been pledged as security.

Living resources for which fair values cannot be reliably measured

The living resources acquired through the transfer of function on 1 April 2018 did not have acquisition prices, due to the fact that they were obtained through donations and through birth in captivity. Fair values could not be obtained in the first year of adoption of the transitional provisions of the Standard due to the sophisticated nature of the larger part of the collection held by the entity and general market prices not being readily available on an animal specific basis, making it difficult to find suitable market prices and suitable valuers. The process was further hampered by the COVID-19 restrictions. The entity will endeavour to obtain fair values, where appropriate, in the remaining period offered by the transitional provisions.

Living resources - Category 1 - Alien invasive species

In terms of NEMBA, animals included in this category may not be moved at all as these animals are prohibited from entering the country. The National Zoological Gardens however is in possession of these animals due to obtaining a group of such animals prior to the publication of the NEMBA listing in 2014.

Included in this category is 6 (2021: 6) species representing 110 (2021: 105) individual animals.

Living resources - Category 2 - International Union for Conservation of Nature (IUCN) Red list species

The first five classes of the red list have been included in this category as these items are deemed to have some form of trade restrictions or limitations in place due to their threatened statuses.

Included in this category is 61 (2021: 70) species representing 488 (2021: 470) individual animals.

Living resources - Category 3 - Species not typically traded

The category mostly consists of birds, fish, primates, and reptiles which are generally not actively traded on the open market. Included in this category is 297 (2021: 361) species representing 2,561 (2021: 2,884) individual animals.

Notes to the Financial Statements

Figures in Rand	2022	2021

12. Living resources (continued)

Disposal Living resources - Category 4 - Species typically traded

The category represents the South African animals which are typically traded at game auctions in active markets. Included in this category is 17 (2021: 28) species representing 168 (2021: 770) individual animals.

Living resource - Category 5 - Organisms held for research and conservation

The category includes a collection of organisms such as plants, seeds, fibroblasts, sperm, and ova held for research and conservation purposes which are not necessarily actively traded on the open market.

Living resources not recognised

The entity did not recognise the following living resources, due to the definition and/or recognition criteria not being met:

Living resource - Animals and plants in botanical gardens

Natural areas of the gardens are generally regarded as in situ conservation areas comprising naturally occurring plants and animals and their associated interactions that require less maintenance than the landscaped areas. These areas may be subject to management actions such as controlled burns and invasive alien species removal, where resources allow. These natural areas are also used by the public for walking trails/runs mostly on dedicated pathways and routes that have been laid out since the garden was established. The natural areas differ in size, complexity, accessibility and exposure to natural and/or man-made disturbance (such as fires, floods, invasive alien species), from one garden to another.

SANBI has no control over or ability to restrict the movement of living resources into and from the gardens under its management. Plants, for example, may be dispersed by wind, water, or animals, either into or from the gardens. SANBI is also not able to control self-seeding plants. Animals may move over, through, or burrow under fences and fly over fences (birds, insects, bats). A range of living resources may burrow and spend all, or part of, their lives underground and are not visible, thereby not being able to be documented or recorded (e.g., moles, earthworms, mongooses, porcupines, aardvark, foxes, rain frogs, various arthropods (insects, millipedes, centipedes, mites, spiders, scorpions and seeds)). A range of animals also spend part of their life cycles on land and part in water (e.g., dragonflies, frogs, mosquitoes, turtles).

SANBI does not have the ability to direct the use, including directing the disposal of living resources and restricting the access of others to the resource (e.g., through predation, decomposition of one organism by other organisms).

Notes to the Financial Statements

Figures in Rand	2022	2021

12. Living resources (continued)

While SANBI manages and conserves the environments in the landscaped and natural areas as a whole, it does not manage the physical condition of each individual animal and/or plant within the gardens, and therefore does not control these living resources, in both the landscaped and natural areas. Therefore, the recognition criteria is not met.

13. Non-living resources

Entity as custodian

SANBI is mandated by the National Environmental Management Biodiversity Act (NEMBA) to manage and maintain the living and non-living resources within its control. The resources are used for its provision of services, recreation, conservation, education and training, research, rehabilitation and breeding purposes.

Nature and types of non-living resources for which the entity is responsible

Bodies of water within the boundaries of the gardens, including waterfalls, streams, rivers and boreholes.

Land on which the gardens are situated, is recognised in accordance with GRAP 103.

Liabilities and/or contingent liabilities that arise from the non-living resources

There are no liabilities or contingent liabilities that arise from the non-living resources.

14. Unspent conditional grants and receipts

Unspent conditional grants and receipts comprises of:		
Unspent conditional grants and receipts		
Unspent conditional grants and receipts	156 852 185	88 825 906
Debit balances transferred to receivables from non-exchange transactions	11 218	-
Unspent conditional grant deposits	4 900 000	5 100 000
	161 763 403	**93 925 906**

Notes to the Financial Statements

Figures in Rand	2022	2021

14. Unspent conditional grants and receipts (continued)

Movement during the year

Balance at the beginning of the year	93 925 906	80 073 925
Additions during the year	140 233 734	56 936 642
Income recognition during the year	(72 407 455)	(43 084 661)
Debit balances transfered to receivables from non-exchange	11 218	-
	161 763 403	**93 925 906**

15. Payables from exchange transactions

Trade payables	42 109 829	15 102 038
Other payables	3 319 912	1 912 331
Income received in advance	119 759	285 522
Accrued expense	9 396 009	40 840 839
Accrued leave pay	25 032 163	25 559 317
Accrued service bonus	8 837 294	8 215 018
	88 814 966	**91 915 065**

Notes to the Financial Statements

Figures in Rand

16. Provisions

Reconciliation of provisions - 2022

	Opening Balance	Additions	Utilised during the year	Total
Capped leave provision	2 246 357	-	(247 431)	1 998 926
Long service awards	2 581 498	1 108 761	(393 964)	3 296 295
	4 827 855	**1 108 761**	**(641 395)**	**5 295 221**

Reconciliation of provisions - 2021

	Opening Balance	Additions	Utilised during the year	Reversed during the year	Total
Performance and related incentives	5 738 731	-	-	(5 738 731)	-
Capped leave provision	3 234 394	-	(988 037)	-	2 246 357
Long service awards	2 374 043	714 847	(507 392)	-	2 581 498
	11 347 168	**714 847**	**(1 495 429)**	**(5 738 731)**	**4 827 855**

Non-current liabilities	4 912 862	4 433 891
Current liabilities	382 359	393 964
	5 295 221	**4 827 855**

Capped leave provision represents the value of leave credits accumulated prior to 01 July 2000. There is uncertainty as to the timing vesting of the leave.

The long service bonus awards are payable to employees who have completed uninterrupted milestone service with SANBI. The value of the awards is determined by SANBI policy as reviewed from time to time. The timing of the payout is known but there is uncertainty if the employee will still be in service on these dates. The values have been calculated by independent Actuaries, One Pangaea.

Notes to the Financial Statements

Figures in Rand	2022	2021

17. Transfers payable (non-exchange)

Principal funds	36 567 126	41 144 355

Funds held for onward transfers to third parties on attainment of agreed objectives.

SANBI is classified as an agent in respect of its relationship with:

1. Adaptation Fund.
   SANBI acts as the National Implementing Entity. Funds are disbursed as per contractual arrangements in the form of:
   - The Small Grants Facility which seeks to enable vulnerable communities to increase resilience to climate change ;
   - Building resilience in the greater uMngeni catchment which aims to increase resilience of vulnerable communities through interventions such as early warning systems, climate smart agriculture and climate proofing settlements.

2. Global Environment Facility
   - Biodiversity Land Use Project – to mainstream biodiversity into land use planning at the local government scale;
   - Mainstream biodiversity and ecosystems values to unlock development finance and secure ecological infrastructure for water security in two critical water catchments, the Berg-Breede and the Greater uMngeni catchments.

Notes to the Financial Statements

Figures in Rand	2022	2021

17. Transfers payable (non-exchange) (continued)

Revenue received for agency activities		
Administration fee	18 870 313	17 493 594
Management fee	1 193 273	2 339 916
Interest earned	1 546 145	1 154 634

Reconciliation of carrying amount of transfers payable 2021/2022	Opening balance	Transfers from principal	Disbursement	Total
The Adaptation Fund	34 784 815	11 573 657	(13 338 332)	33 020 140
Global Environmental Facility	6 359 540	6 097 033	(8 909 587)	3 546 986
	41 144 355	**17 670 690**	**(22 247 919)**	**36 567 126**

Reconciliation of carrying amount of transfers payable 2020/2021	Opening balance	Transfers from principal	Disbursement	Total
The Adaptation Fund	21 249 314	26 991 122	(13 455 621)	34 784 815
Global Environmental Facility	2 017 194	15 416 431	(11 074 085)	6 359 540
	23 266 508	**42 407 553**	**(24 529 706)**	**41 144 355**

Notes to the Financial Statements

Figures in Rand	2022	2021

18. 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, Old Mutual.

Membership of the funds are a prerequisite for all permanently employed staff employed as from the 1st of 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. 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 statements amounts are included in personnel costs.

Total employer's contribution	19 770 268	21 655 359
Fair value of the Defined Benefit Obligation:		
Opening balance	(285 463 674)	(285 684 627)
Interest cost	(29 126 992)	(28 442 662)
Current service cost	(19 322 396)	18 696 206
Benefits paid	16 881 128	30 511 435
Actuarial gain/(loss) on plan assets	17 805 010	(20 544 026)
Present value of obligation as at 31 March 2022	**(299 226 924)**	**(285 463 674)**
Fair value of Plan Assets		
Opening balance	331 891 427	311 040 206
Expected return on plan assets	33 621 687	30 897 349
Contributions	14 827 701	16 241 520
Benefits paid	(16 881 128)	(30 511 435)
Actuarial gains/(loss) on plan assets	5 229 692	4 223 787
Fair value of plan assets as at 31 March 2022	**368 689 379**	**331 891 427**
Amounts recognised in the Statement of Financial Position		
Present value of funded obligation	(299 226 924)	(285 463 674)
Fair value of plan assets	368 689 380	331 891 427
Surplus (Deficit) in plan	69 462 456	46 427 753
Unrecognised actuarial (gains)/losses	(69 462 456)	(46 427 753)
	-	-

Notes to the Financial Statements

Figures in Rand	2022	2021

18. Employee benefit obligations (continued)

Post-retirement benefits

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 cost	19 322 396	18 696 206
Interest on obligation	29 126 992	28 442 662
Expected return on plan assets	(33 621 687)	(30 897 349)
Net actuarial (gains)/losses recognised in the current year	-	(21 072 175)
	14 827 701	**(4 830 656)**

Key actuarial assumptions in determining the above positions

Discount rate annualised yield on R213 (2021:R213)	10,07 %	10,16 %
Inflation rate	6,32 %	5,34 %
Expected rate of salary increases (Inflation +1%)	7,32 %	6,34 %
Expected rate of return on plan assets (Actuarial valuation)	10,07 %	10,16 %

Defined benefit pension plan

	2018	2019	2020	2021	2022
Defined benefit obligation	(324 887 419)	(321 832 810)	(285 684 628)	(285 463 674)	(299 226 924)
Plan assets	325 907 335	323 595 844	311 040 206	331 891 427	368 689 380
Surplus (deficit)	1 019 917	1 763 034	25 355 578	46 427 753	69 462 456
	-	-	-	-	-
Experience adjustments on plan liabilities	14 054 157	(12 716 531)	(57 128 620)	20 544 026	(17 805 010)
Experience adjustments on plan assets	(5 511 655)	(11 973 415)	33 536 075	(4 223 787)	(5 229 692)

Post- retirement medical aid benefits

Notes to the Financial Statements

Figures in Rand	2022	2021
18. Employee benefit obligations (continued)		
Amounts recognised in the statement of financial performance		
Service cost	2 260 000	2 072 000
Interest cost	6 584 000	6 565 000
Acturial (gain)/loss recognised	(3 151 326)	1 138 000
Total included in employee benefits [(gain)/expense]	**5 692 674**	**9 775 000**
Amounts recognised in the statement of financial position		
Post-employment medical obligation		
Present value of funded obligation		
- Members	41 015 213	40 228 000
- Non-members	23 334 461	20 711 000
	64 349 674	**60 939 000**
Movements in the net liability in the statement of financial position		
Post-employment medical obligation		
Net liability at start of year	60 939 000	53 118 000
Interest cost	6 584 000	6 565 000
Current service cost	2 260 000	2 072 000
Benefit payment	(3 151 326)	(1 954 000)
Projected accrued services liability at end of the year	66 631 674	59 801 000
Actuarial (gain) loss	(2 282 000)	1 138 000
	64 349 674	**60 939 000**
Principal actuarial assumptions at statement of reporting date		
Discount rate 31 March (%)	11,01 %	11,01 %
General increases to medical aid subsidy (%)	6,40 %	7,90 %
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

Notes to the Financial Statements

Figures in Rand	2022	2021

18. Employee benefit obligations (continued)

Projection of liability to 31 March 2023

The projection of the results from 01 April 2022 to 31 March 2023, assuming that the experience follows the assumptions exactly, is as follows:

Post-employment medical obligation:	
Net liability at start of year 1 April 2022	64 349 674
Interest cost	6 878 158
Current service cost	2 262 268
Benefit payments	(2 378 731)
Projected accrued service liability as at 31 March 2023	**71 111 369**

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.

Medical Aid and maximum cap inflation	**-1% Medical Aid and maximum cap inflation (Rand)**	**Valuation Assumption (Rand)**	**+1% Medical Aid and maximum cap inflation (Rand)**
Total accrued liability	57 879 822	64 349 674	72 023 083
Service cost	1 989 989	2 262 268	2 592 626
Interest cost	6 174 201	6 878 158	7 713 185

Mortality	**Valuation basis PA (90) (Rand)**	**PA (90) - 2 (Rand)**
Employer's accrued liability	64 349 674	67 343 997
Employer's service cost	2 262 268	2 337 773
Employer's interest cost	6 878 158	7 203 860

Notes to the Financial Statements

Figures in Rand	2022	2021
19. Other income		
Sundry income	1 671 728	2 990 780
Guided tours	227 971	36 432
Insurance refund	224 464	332 139
Staff transport	122 814	119 708
Use of garden facilities	241 491	109 316
Professional services	3 756 660	969 624
Public functions	19 180	800
Golf cart rentals	2 689 645	422 782
Bad debts recovered	9 612	-
Management fees received	1 193 274	-
	10 156 839	**4 981 581**
20. Government operational grant		
Operating grants		
Government operating grant	493 359 000	397 584 833
Presidential Employment Intervention	88 000 000	71 000 000
	581 359 000	**468 584 833**
21. Other grants, bequests, sponsorships and donations		
Sponsorships	57 501 350	51 920 228
Capital grant	80 536 000	-
Bequests	30 000	560 154
Donations	983 730	1 335 566
Other grants	27 577 274	31 800 706
Unspent conditional grants and receipts	(65 625 276)	(8 906 371)
	101 003 078	**76 710 283**

Notes to the Financial Statements

Figures in Rand	2022	2021
22. Employee related costs		
Basic	257 870 686	252 179 149
Acting allowances	582 981	1 052 966
Cell phone allowances	760 737	696 585
Housing benefits and allowances	8 478 549	9 727 880
Leave pay	348 839	1 829 260
Long-service awards	526 773	770 295
Medical aid - company contributions	21 608 937	22 092 444
Merit awards	-	11 509
Overtime payments	11 488 202	12 484 393
Pensioners annuities	-	7 238
Performance bonus	-	(7 462)
Senior management services allowances	30 597 701	17 307 280
Service bonus	16 632 615	17 665 116
Standby allowance	510 631	487 079
Workmen's compensation	707 281	1 890 571
Risk benefit contributions	6 968 173	7 153 263
Research assistants	4 924 539	9 394 472
Student stipends	5 869 898	1 883 400
Assistant education officers	183 444	1 459 683
Other short term costs	1 335 640	1 887 746
Contract employee remuneration	59 853 744	57 282 686
Retirement fund contributions	21 226 565	21 311 355
Unemployment Insurance Fund	2 711 289	1 958 233
	453 187 224	**440 525 141**
Remuneration of accounting authority and sub committee members		
Meeting fees	938 716	1 325 268

Notes to the Financial Statements

Figures in Rand	2022	2021
23. Operating expenses		
Advertising	207 725	487 789
Animal Costs	8 467 235	7 128 225
Auditors remuneration	9 065 708	9 177 933
Bank charges	2 535 893	1 518 546
Biological asset cost	102 909	1 017 847
Bursaries	7 510 679	6 257 146
Cleaning	8 864 479	7 427 369
Concert - costs	14 563	90 268
Conferences and seminars	2 655 723	742 552
Consulting and professional fees	35 934 149	28 561 082
Consumables	2 654 475	4 472 308
Entertainment	9 913	7 727
Field trips	60 071	51 306
Hire of equipment	424 602	226 746
Cost of sales	2 303 869	785 576
Insurance	4 409 128	3 732 297
IT expenses	20 613 154	17 658 505
Marketing	661 629	509 471
Motor vehicle expenses	5 627 270	4 660 600
Municipal charges	24 108 470	18 842 309
Postage and courier	355 705	446 874
Printing and stationery	3 558 300	1 783 751
Project implementer costs	59 839 585	23 204 300
Protective clothing	1 656 757	1 993 732
Recruitment costs	1 467 493	385 370
Refuse	979 043	175 436
Repairs and maintenance	6 674 773	3 475 715
Royalties	769 868	557 457
Security	20 123 675	19 382 215
Staff welfare	1 144 419	811 119
Subscriptions and membership fees	1 425 890	1 075 433
Sundry expenses	4 671 556	3 993 392
Garden operating expenses	9 642 183	9 967 820
Telephone and fax	2 271 470	2 616 552
Training	810 901	1 853 073
Travel expenses	11 760 206	4 487 432
Uniforms	(416 971)	1 644
Venue expenses	947 101	325 864
	263 913 598	**189 892 781**

Notes to the Financial Statements

Figures in Rand	2022	2021
24. Depreciation and amortisation		
Property, plant and equipment	30 355 069	29 868 389
Investment property	2 525 311	2 533 954
Intangible assets	2 651 174	5 450 574
Living resources	5 253	7 701
	35 536 807	**37 860 618**
25. Lease rentals on operating lease		
Premises		
Contractual amounts	17 350 379	21 292 736

The NZG uses buildings and facilities situated at Boom Street, Pretoria and Mokopane which belong to the Department of Public Works. These buildings and facilities are used in a variety of ways including offices, animal holding facilities, research, restaurants and entertainment. The value of the services is derived from their use is estimated at R 16 623 926 (2021: R 20 538 050).

26. Debt impairment		
Provision for impairment movement	(287 247)	428 623
Bad debts written off	250 000	102 570
	(37 247)	**531 193**
27. Finance costs		
Trade and other payables	(12 747)	21 025
Late payment of UIF	(395 655)	395 655
	(408 402)	**416 680**
28. Auditors' remuneration		
External audit fees	8 176 147	6 891 877
Internal audit fees	889 561	2 286 056
	9 065 708	**9 177 933**

Notes to the Financial Statements

Figures in Rand	2022	2021
29. Cash generated from operations		
Surplus (deficit)	32 478 606	(64 409 975)
Adjustments for:		
Depreciation and amortisation	35 536 807	37 860 618
Loss on sale of assets	341 128	2 167 022
Fair value adjustments	(1 438 990)	(552 533)
Impairment deficit	761 158	2 478 308
Debt impairment	(37 247)	531 193
Movements in operating lease assets	171 236	82 312
Movements in retirement benefit assets and liabilities	3 410 674	7 821 000
Movements in provisions	467 366	(6 519 313)
Fair value of donated assets	-	(25 875)
Plants for resale cost	-	963 570
Foreign exchange loss/(gain)	332 750	25 166
Changes in working capital:		
Inventories	(3 352 751)	(1 961 746)
Receivables from exchange transactions	(5 432 909)	3 349 488
Other receivables from non-exchange transactions	661 658	7 412 469
Payables from exchange transactions	(3 432 576)	(2 543 267)
Transfers payable (non-exchange)	(4 577 229)	17 877 847
Unspent conditional grants and receipts	67 837 497	13 851 980
	123 727 178	**18 408 264**

Notes to the Financial Statements

Figures in Rand	2022	2021

30. Commitments

Authorised capital expenditure

Already contracted for but not provided for

• Property, plant and equipment	156 950 986	78 806 964
• Intangible assets	19 787 666	3 511 039
	176 738 652	**82 318 003**

Total capital commitments

Already contracted for but not provided for	176 738 652	82 318 003

The above commitments will be financed by retained surpluses, existing cash resources and government grants.

Operating leases - as lessee (expense)

Minimum lease payments due

- within one year	823 510	338 657
- in second to fifth year inclusive	750 502	133 011
	1 574 012	**471 668**

Operating lease payments represent rentals payable by the entity for certain of its office properties. 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.

Operating leases - as lessor (income)

Minimum lease payments due

- within one year	4 668 520	4 677 491
- in second to fifth year inclusive	5 468 723	4 451 249
	10 137 243	**9 128 740**

The entity has entered into commercial property leases for the maximum duration of 5 years period. These leases are negotiated for a term of between 1 year and 5 years and rentals are turnover based between 5% and 10% with a minimum rental amount payable. There are no contingent rents receivable.

Notes to the Financial Statements

Figures in Rand	2022	2021

31. Contingencies

Guarantees

Staff housing guarantees, estimated maximum	29 030	29 030
Recoverable from retirement funds	(29 030)	(29 030)
	-	-

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 2 loans in the current year (2021: 2). The guarantees are fully recoverable from the employees' cash portion of their retirement fund.

Contingent assets and liabilities

An appointment of a contractor for the construction of new office building, repairs, renovations and upgrades at the KZN Herbarium. The contractor lodged a dispute to which SANBI has submitted a counter claim. The matter has been referred to arbitration. In the event that SANBI is successful, it is estimated that the contractor will pay SANBI an amount of R1 829 616, plus costs of R2 075 264 plus interest at the rate of 10.4% per annum, compounded monthly, calculated from 24 February 2018 to date of final payment.

In the event that SANBI is unsuccessful, SANBI will pay the contractor an amount of R3 502 179 plus interest at the prescribed rate of interest from date of judgment until date of final payment.

The timing of the flow of funds is uncertain as it is dependent on the outcome of legal processes which are underway.

Notes to the Financial Statements

Figures in Rand

32. Budget differences

Material differences between budget and actual amounts

The variances of 10% or more between the approved budget and actual results are due to the following:

Admission fees - Visitor numbers in the gardens have not returned to pre-Covid levels.

Rental of facilities - Performance is below expectations due to constrained trading conditions coupled with difficult economic conditions.

Other income - Insourcing of golf rentals resulted in higher income and more services were rendered.

Sale of goods - Sales of refreshments and books was affected by difficult economic conditions.

Interest received - Funding constraints contribute to lower amounts of cash being available for investment.

Government grants & subsidies - Funds relating to specific projects was not realised.

Other grants, bequests, sponsorships and donations - Project funds were received earlier than expected and the realisation of in-kind services resulted in higher revenue than budgeted for.

Utilisation of unspent grants - Previously unspent grant was already received in previous years.

Employee related costs - Savings are due to vacancies which are still in the process of being filled.

Operating expenditure - Due to exchange revenue not being realised, the associated operating expenses could not be spent as planned.

33. Related parties

Relationships	
Controlling entity	Department of Forestry, Fisheries and the Environment
Entities under common control	South African National Parks South African Weather Services iSimangaliso Wetland Parks
Members of key management	Refer to note 35

Notes to the Financial Statements

Figures in Rand	2022	2021

34. Risk management

Financial risk management

The entity's activities expose it to a variety of financial risks: market risk (including currency risk, fair value interest rate risk, cash flow interest rate risk and price risk), credit risk and liquidity risk.

In the course of entity's operations it is exposed to credit, liquidity and market risk. The entity 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.

The entity's overall risk management programme focuses on the unpredictability of financial markets and seeks to minimise potential adverse effects on the entity's financial performance. The entity does not use derivative financial instruments to hedge risk exposures. Risk management is performed by management under policies approved by the executive committee. Management identifies, evaluates and manages financial risks in close co-operation with the entity's operating units.

Liquidity risk

The entity's risk to liquidity is 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 Forestry, Fisheries and the Environment, 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.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.

At 31 March 2022	Less than 1 year	Between 1 and 2 years	Between 2 and 5 years	Over 5 years
Trade and other payables	54 825 751	-	-	-

At 31 March 2021	Less than 1 year	Between 1 and 2 years	Between 2 and 5 years	Over 5 years
Trade and other payables	57 855 208	-	-	-

Notes to the Financial Statements

Figures in Rand	2022	2021

34. Risk management (continued)

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 counter parties, consist mainly of cash and cash equivalents and accounts receivable. SANBI limits its treasury counter-party 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 Regulation. SANBI's exposure is continuously monitored by the Accounting Authority. SANBI does not have any material exposure to any individual or counter-party. 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 has not been adequately provided for. SANBI no longer assists qualifying employees to obtain 100% housing loans from financial institutions without a cash deposit, as the financial institution concentrate more on the affordability other 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.

Financial assets exposed to credit risk at year end were as follows:

Financial instrument	2022	2021
Trade receivables	7 981 174	3 881 434
Cash and cash equivalents	479 189 069	395 665 309

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, hence 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.

Notes to the Financial Statements

Figures in Rand	2022	2021

34. Risk management (continued)

At 31 March 2022, if interest rates on Rand-denominated investments had been 1% higher/lower with all other variables held constant, surplus for the year would have been R 4 791 890 (2021: R 3 956 665) lower/higher, mainly as a result of higher/lower interest received on floating rate investments.

Foreign exchange risk

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. Foreign currency exposure at financial year- end relates to trade payables and is disclosed in the note to the annual report.

The entity does not hedge foreign exchange fluctuations.

At 31 March 2022, if the currency had weakened/strengthened by 11% against the US dollar with all other variables held constant, surplus for the year would have been R 987 (2021: R 92 333) lower, mainly as a result of foreign exchange gains or losses on translation of US dollar denominated trade payables.

Foreign currency exposure at statement of financial position date		
Liabilities		
USD 620 (2021: 56 575)	8 972	839 395
Exchange rates used for conversion of foreign items were:		
USD	14.4705	14.8369

Notes to the Financial Statements

Figures in Rand	2022	2021

35. Board and executive management emoluments

Board and committee members

2022

	Members' fees	Total
Prof E Nesamvuni (Board Chairperson)	112 324	112 324
Mr S Munzhedzi (Chief Executive Officer) (ex officio)	-	-
Mrs B Ferguson	185 581	185 581
Dr P Molokwane	75 496	75 496
Dr L Luthuli	160 370	160 370
Mr P Daphne*	-	-
Dr M Tau*	-	-
Dr R Legoabe	62 838	62 838
Ms S Ntshanga*	-	-
Mr L Matooane*	-	-
Ms T Godongwana	49 077	49 077
Prof B van Wilgen	51 983	51 983
Ms N Mngomezulu	76 391	76 391
Mr T Zororo**	36 690	36 690
Prof M Muthama	16 053	16 053
Ms PC Motsielwa	39 903	39 903
Ms P Yako	16 053	16 053
Dr K Yessoufou	33 942	33 942
Mr S Gounden**	22 014	22 014
	938 715	**938 715**

2021

	Members' fees	Total
Ms B Ferguson (Board Chairperson)	202 699	202 699
Ms C Mbizvo (Acting Chief Executive Officer) (ex officio)	-	-
Prof B van Wilgen	129 817	129 817
Ms T Godongwana	141 726	141 726
Ms N Mngomezulu	201 122	201 122
Dr L Luthuli	202 244	202 244
Ms V Klein	7 338	7 338
Mr S Gounden**	49 533	49 533
Mr T Zororo**	88 068	88 068
Prof M Muthama**	29 352	29 352
Dr Y Seleti*	-	-
Ms L Mokotoko*	-	-
Ms PC Motsielwa	103 200	103 200
Ms P Yako	83 481	83 481
Dr K Yessoufou	86 688	86 688
	1 325 268	**1 325 268**

* No honororia were paid - state employee
** Board sub-committee member

Notes to the Financial Statements

Figures in Rand	2022	2021

35. Board and executive management emoluments (continued)

Executive management

2022

	Basic	Non pensionable allowances	Pension and medical benefits	Total
Mr S Munzhedzi - (Chief Executive Officer) (ex officio)	1 316 657	382 909	104 943	1 804 509
CH Mbizvo - Head of Branch: Biodiversity Research, Policy and Knowledge Management	1 130 860	520 172	277 820	1 928 852
L Sithole - Chief Financial Officer	1 319 336	359 658	96 110	1 775 104
MJ Netshiombo - Chief Director: Human Resources	1 150 141	273 724	195 091	1 618 956
CK Willis - Chief Director: National Botanical Gardens	986 957	453 937	281 443	1 722 337
RJ Sebola - Chief Director: Foundational Biodiversity Science	991 041	261 345	128 439	1 380 825
D Pillay - Chief Director: Biodiversity Planning and Policy Advice	961 951	216 791	184 514	1 363 256
M Barnett - Chief Director: Adaptation Policy and Resourcing	836 904	377 003	131 735	1 345 642
EM Mashile - Chief Operating Officer	1 203 636	139 805	114 804	1 458 245
L Mudimeli - Managing Director NZG	816 337	420 878	100 265	1 337 480
TR Frantz - Chief Director: Biodiversity Research, Information and Monitoring	1 132 575	286 265	133 349	1 552 189
	11 846 395	**3 692 487**	**1 748 513**	**17 287 395**

2021

	Basic	Non pensionable allowances	Pension and medical benefits	Total
CH Mbizvo - Head of Branch: Biodiversity Research, Policy and Knowledge Management (Acting Chief Executive Officer)	1 107 015	731 696	116 035	1 954 746
L Sithole - Chief Financial Officer	1 291 680	332 459	98 661	1 722 800
MJ Netshiombo - Chief Director: Human Resources	1 126 886	246 089	132 677	1 505 652
CK Willis - Chief Director: National Botanical Gardens	966 150	423 838	111 794	1 501 782
RJ Sebola - Chief Director: Foundational Biodiversity Science	971 001	350 231	89 023	1 410 255
JS Donaldson - Chief Director: Biodiversity Research, Information and Monitoring	463 437	459 982	51 410	974 829
D Pillay - Chief Director: Biodiversity Planning and Policy Advice	942 501	301 709	103 733	1 347 943
M Barnett - Chief Director: Adaptation Policy and Resourcing	819 980	430 740	109 615	1 360 335
EM Mashile - Chief Operating Officer	1 168 308	285 643	89 408	1 543 359
L Mudimeli - Managing Director NZG	732 057	405 748	95 167	1 232 972
TR Frantz - Chief Director: Biodiversity Research, Information and Monitoring	177 508	46 096	16 663	240 267
	9 766 523	**4 014 231**	**1 014 186**	**14 794 940**

Notes to the Financial Statements

Figures in Rand	2022	2021

36. Financial instruments disclosure

Categories of financial instruments

2022

Financial assets

	At amortised cost	Total
Trade and other receivables from exchange transactions	7 981 174	7 981 174
Other receivables from non-exchange transactions	711 213	711 213
Cash and cash equivalents	479 189 069	479 189 069
	487 881 456	**487 881 456**

Financial liabilities

	At amortised cost	Total
Trade and other payables from exchange transactions	54 825 751	54 825 751

2021

Financial assets

	At amortised cost	Total
Trade and other receivables from exchange transactions	3 881 434	3 881 434
Other receivables from non-exchange transactions	1 372 871	1 372 871
Cash and cash equivalents	395 665 309	395 665 309
	400 919 614	**400 919 614**

Financial liabilities

	At amortised cost	Total
Trade and other payables from exchange transactions	57 855 208	57 855 208

Notes to the Financial Statements

Figures in Rand

37. Segment information

General information

Identification of segments

The entity is organised and reports to management on the basis of three major functional areas: primary, secondary and tertiary educational services. The segments were organised around the type of service delivered and the target market. Management uses these same segments for determining strategic objectives. Segments were aggregated for reporting purposes.

The segmental information 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).

The segment information 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.

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	Goods and/or services
National Botanical Gardens	National Botanical Gardens and related materials
Science policy and research	Biodiversity research and policy advice
Zoological garden and tourism	National Zoological Gardens and related materials
Zoological research	Zoological research and related materials

Notes to the Financial Statements

Figures in Rand

37. Segment information (continued)

Segment surplus or deficit, assets and liabilities

2022

	National Botanical Gardens	Biodiversity and zoological research and policy advice	National Zoological Gardens and related materials	Total
Revenue				
Revenue from non-exchange transactions	224 192 175	310 995 018	83 710 325	618 897 518
Revenue from exchange transactions	55 956 566	5 351 459	27 038 341	88 346 366
Interest revenue	3 807 876	1 652 929	-	5 460 805
Total segment revenue	**283 956 617**	**317 999 406**	**110 748 666**	**712 704 689**
Head office revenue				91 690 006
Entity's revenue				**804 394 695**
Expenditure				
Salaries and wages	125 312 080	163 051 793	63 992 679	352 356 552
Other expenses	103 595 209	126 267 989	13 368 316	243 231 514
Total segment expenditure	**228 907 289**	**289 319 782**	**77 360 995**	**595 588 066**
Total segmental surplus/(deficit)				**117 116 623**
Head office expenditure				(176 328 023)
Total segmental surplus				117 116 623
Total revenue reconciling items				91 690 006
Entity's surplus (deficit) for the period				**32 478 606**

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.

Notes to the Financial Statements

Figures in Rand

37. Segment information (continued)

2021

	National Botanical Gardens	Biodiversity research and policy advice	National Zoological Gardens and related materials	Zoological research and related materials	Total
Revenue					
Revenue from non-exchange transactions	143 326 738	285 644 675	67 790 712	-	496 762 125
Revenue from exchange transactions	32 063 836	877 670	14 617 623	372 090	47 931 219
Interest revenue	2 960 653	1 740 029	-	-	4 700 682
Total segment revenue	**178 351 227**	**288 262 374**	**82 408 335**	**372 090**	**549 394 026**
Head office revenue					82 710 912
Entity's revenue					**632 104 938**
Expenditure					
Salaries and wages	113 100 031	149 352 407	60 906 896	12 954 730	336 314 064
Other expenses	42 115 827	78 629 224	11 404 291	1 311 686	133 461 028
Total segment expenditure	**155 215 858**	**227 981 631**	**72 311 187**	**14 266 416**	**469 775 092**
Total segmental surplus/(deficit)					**79 618 934**
Total revenue reconciling items					82 710 912
Head office expenditure					(237 445 669)
Total segment surplus					79 618 934
Entity's surplus (deficit) for the period					**(75 115 823)**

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.

Information about geographical areas

Science policy and research segment is not defined to a specfic geograhical location.

The entity's National Botanical Gardens operations are in eight of the nine provinces.

Notes to the Financial Statements

Figures in Rand

37. Segment information (continued)

The entity's zoological garden operates in the Gauteng province.

The table below indicates the relevant geographical information after eliminating inter segmental transfers:

2022

	External revenues from non-exchange transactions	External revenues from exchange transactions	Total expenditure
Eastern Cape	-	(76)	419 733
Free State	-	1 526 032	10 023 571
Gauteng	307 822 830	44 282 637	199 283 607
Kwa-Zulu Natal	50	1 619 142	9 628 129
Limpopo	-	499 019	1 240 189
Mpumalanga	28 650	1 728 122	15 423 607
Northern Cape	-	274 540	1 053 769
Western Cape	50 970	36 873 367	70 936 696
Total	**307 902 500**	**86 802 783**	**308 009 301**

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.

2021

	External revenues from non-exchange transactions	External revenues from exchange transactions	Total expenditure
Eastern Cape	-	-	234 573
Free State	-	1 198 131	10 071 513
Gauteng	209 194 469	26 753 680	143 228 696
Kwa-Zulu Natal	4 038	947 405	9 183 535
Limpopo	-	115 430	961 731
Mpumalanga	169 202	1 190 946	15 181 669
Northern Cape	-	325 075	1 637 344
Western Cape	1 749 741	19 483 535	61 294 399
Total	**211 117 450**	**50 014 202**	**241 793 460**

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.

Notes to the Financial Statements

Figures in Rand	2022	2021
38. Irregular expenditure		
Opening balance as previously reported	146 182 085	130 539 824
Opening balance as restated	**146 182 085**	**130 539 824**
Add: Irregular Expenditure - current	8 666 755	16 147 702
Add: Irregular Expenditure - prior period	45 746	1 341 640
Less: Amounts condoned	(154 064 521)	(1 847 081)
Less: Amounts previously incorrectly recognised as irregular	(518 952)	-
Closing balance	**311 113**	**146 182 085**

Irregular expenditure is presented inclusive of VAT

Notes to the Financial Statements

Figures in Rand		2022	2021
38. Irregular expenditure (continued)			
Incidents/cases identified/reported in the current year include those listed below:			
	Disciplinary steps taken		
Procurement process not followed	Disciplinary process have been implemented and transactions	8 435 352	15 970 882
Procurement process not followed	Disciplinary actions taken	59 750	-
Procurement process not followed	Undergoing investigations	202 075	-
Contract amount exceeded	Disciplinary actions taken	15 324	-
Delegations of authority not adhered to		-	1 341 640
Local content and production percentage not stipulated on the SBD 6.2 form		-	176 820
		8 712 501	**17 489 342**
Details of irregular expenditure condoned			
	Condoned by (Condoning authority)		
Procurement processes not followed	National Treasury	88 005 004	-
Non-compliance with local content requirements i.e. not stated in the advert and SBD6.2 form not received	National Treasury	39 216 557	-
Expired contract continued in use without approval	National Treasury	15 164 530	-
Variation not approved by delegated authority	National Treasury	6 596 309	-
Non-compliance with CIDB requirements i.e. grading not included on the advert and advert not placed on CIDB website	National Treasury	3 627 284	-
Deviation not approved at the appropriate level	National Treasury	1 249 110	-
Contract value exceeded without approval	National Treasury	205 727	-
Non-procurement for banking services	National Treasury	-	1 847 081
		154 064 521	**1 847 081**

Notes to the Financial Statements

Figures in Rand		2022	2021
39. Fruitless and wasteful expenditure			
Opening balance as previously reported		620 064	32 049
Add: Fruitless and wasteful expenditure identified - current		-	588 015
Closing balance		**620 064**	**620 064**
Fruitless and wasteful expenditure is presented inclusive of VAT			
Details of fruitless and wasteful expenditure			
	Disciplinary steps taken		
Interest charged on overdue accounts	Investigation concluded		92 110
Damages to inventory	Investigation concluded		3 278
Expired inventory	Investigation concluded		96 972
Penalties on late payment of UIF	Investigation concluded		395 655
			588 015

Notes to the Financial Statements

Figures in Rand	2022	2021

40. Services in-kind

Use of buildings and facilities	16 623 926	20 538 050
Volunteers	842 310	314 397
	17 466 236	**20 852 447**

The NZG uses buildings and facilities situated at Boom Street, Pretoria and Mokopane which belong to the Department of Public Works. These buildings and facilities are used in a variety of ways including offices, animal holding facilities, research, restaurants and entertainment.

Services derived from volunteers is for the hours of work performed by the volunteers.

41. Prior period errors

The correction of the errors results from the review of useful life of various asset items and unspent conditional grants and receipts.

The correction of the error(s) results in adjustments as follows:

Statement of financial position	As previously stated	Prior period error adjustment	Amount restated
Property, plant and equipment	349 261 893	31 578 045	380 839 938
Intangible assets	10 124 540	303 037	10 427 577
Heritage assets	18 646 324	3 000 000	21 646 324
Unspent conditional grants and receipts	(94 025 391)	99 485	(93 925 906)
Accumulated Surplus - prior year adjustments opening balance	-	(34 578 126)	(34 578 126)
Accumulated Surplus - net surplus	78 612 416	(402 441)	78 209 975

Statement of financial performance	As previously stated	Prior period error adjustment	Amount restated
Other grants, bequests, sponsorships and donations	76 610 798	(99 485)	76 511 313
Depreciation	38 163 574	(302 956)	37 860 618
Net surplus	(78 612 416)	402 441	(78 209 975)

Annexure A - Donations, other grants and sponsorships

Figures in Rand	2022	2021
Government		
Department of Forestry, Fisheries and the Environment	80 536 000	-
Department of Science and Innovation	44 100 827	22 049 972
National Research Foundation	12 493 256	11 682 045
Northern Cape Department of Agriculture, Land Reform and Rural Development	-	105 000
Rand Water	-	30 000
South African Environmental Observation Network	-	205 000
Water Research Commission	1 889 985	5 010 015
	139 020 068	**39 082 032**
Foreign		
European Commission via Research Executive Agency	334 725	880 276
European Union (via United Nations Department of Economic & Social Affairs)	-	467 871
GEF-UNEP via DFFE	-	4 756 230
Global Environment Facility (via Development Bank of South Africa)	18 038 074	15 878 350
Government of Flanders	-	7 790 395
Green Climate Fund	-	2 545 940
Helmholtz-Zentrum Zentrum für Material und Küstenforschung GmbH	888 270	-
International Union for Conservation of Nature	-	91 839
JRS Biodiversity Foundation	3 804 985	2 457 529
Royal Botanic Gardens-Kew	2 110 060	2 975 715
The Adaptation Fund	12 766 930	29 331 038
The Rufford Foundation	45 612	-
BGCI/ArbNet Partnership	-	40 939
Traffic International	-	182 861
UN Environment - World Conservation Monitoring Centre	369 981	375 663
United Nations Development Programme	6 929 272	17 031 675
United Nations Environmental Programme	464 412	-
	45 752 321	**84 806 321**

The supplementary information presented does not form part of the financial statements and is unaudited.

Annexure A - Donations, other grants and sponsorships

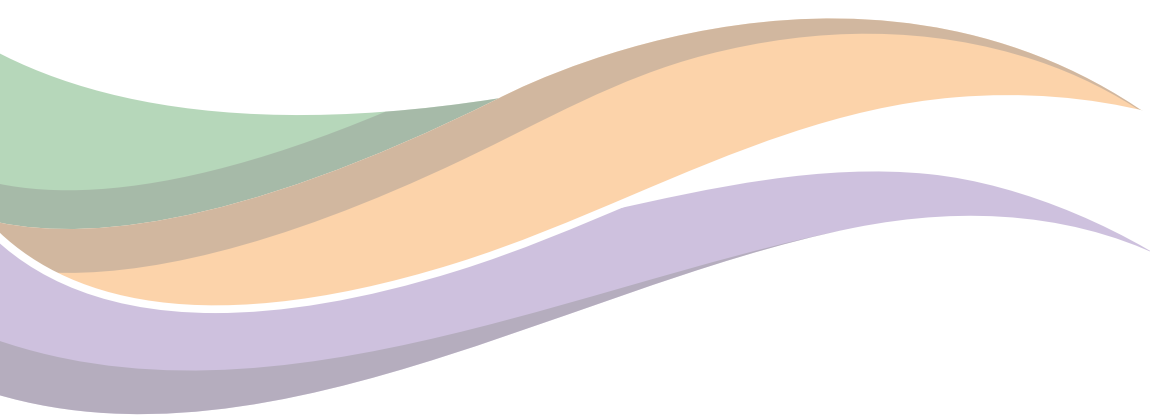
Figures in Rand	2022	2021
Individuals and Organisations		
Cape Nature	-	1 000 000
DSI-NRF via Stellenbosch University	-	40 000
Friends of the National Zoo	16 893	-
Freshwater Research Centre	72 228	-
Inqaba Biotech	4 000	-
Institute of Natural Resources	20 625	-
Lewis Foundation	-	171 018
Nelspruit Lions Club	-	4 589
Table Mountain Fund	-	210 000
The Botanical Society of South Africa	3 371 176	1 646 327
Whitehead Scientific (Pty) Ltd	7 000	-
	3 491 922	**3 071 934**

The supplementary information presented does not form part of the financial statements and is unaudited.

Supplementary Information

Figures in Rand	2022	2021
Trusts		
BOE Trust Ltd	30 000	30 000
Botanical Education Trust	25 000	-
Estate Late Joan Kathleen Boteville Wrench	-	530 154
Estate Late Pauline Marguerite Groves	-	976
Fitzroy Charitable Trust	100 000	-
Frances M Hawes Bequest	472	-
HR Hill Trust	96 345	87 042
Mapula Trust	-	617 019
Rowland and Leta Hill Trust	-	100 000
WWF Nedbank Green Trust	249 000	-
	500 817	**1 365 191**
Other		
Bench Donations	25 000	-
Sundry Donations	2 189	3 729
	27 189	**3 729**
Total donations, grants and sponsorships	**188 792 317**	**128 329 206**
Conditional donations, grants and sponsorships	57 501 350	51 920 229
Conditional infrastructure grant	80 536 000	-
Unconditional donations, grants and sponsorships	27 577 272	31 800 706
Bequests	30 000	560 154
Donations	983 731	1 335 564
Management fee	1 193 274	-
Agency (excluded from Revenue)	17 670 690	42 407 553
Service Provider	3 300 000	305 000
	188 792 317	**128 329 206**

The supplementary information presented does not form part of the financial statements and is unaudited.



SANBI
Biodiversity for Life
South African National Biodiversity Institute

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