


South African Weather Service

ANNUAL REPORT 2023/2024

At the Frontline of Climate Action




South African Weather Service

The South African Weather Service logo represents the movement of weather systems and their interaction with the earth, sun and atmosphere. It also portrays a fresh and dynamic visual appearance that identifies the South African Weather Service as a proudly South African organisation.

THE LIGHT BLUE

represents water which is our main source of life.

THE GREEN

symbolises sustainability and life.

THE DARK BLUE

represents the atmosphere in which all weather conditions occur.

THE RED-BROWN

represents the earth from which all growth and life originate.

THE PINK-BROWN

over the sun represents a South African sunset when air pollution is present.

YELLOW

represents the African sun.




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PART A:
GENERAL

1. Public entity's general information

Registered name	South African Weather Service
Registration number (if applicable)	n/a
Physical address	1263 Heuwel Road Centurion 0157
Postal address	South African Weather Service Private bag X097 Pretoria 0001
Telephone number	+27 12 367 6000
Email address	SAWS_ceo@weathersa.co.za
Website address	www.weathersa.co.za
External auditors	Auditor-General of South Africa
Bankers	Standard Bank
Company Secretary	Mr Nkululeko Ndebele

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2. List of abbreviations and acronyms

AA	Aerodrome Authorities
ACAMS	Aeronautical Committee for Aeronautical Meteorological Services
ACSA	Airports Company South Africa
AFI	Africa-Indian Ocean Region
AFS	Annual Financial Statements
AGSA	Auditor-General of South Africa
AIRMET	AIRman's METeorological Information
AMF	Aeronautical Meteorological Forecaster
AMO	Aeronautical Meteorological Observer
AMP	Aeronautical Meteorological Personnel
APCC	Project Coordination Committee
APIRG	African Planning and Regional Implementation Group
APP	Annual Performance Plan
ARC	Audit and Risk Committee
ARS	Automatic Rainfall Station
ASBU	Aviation System Block Upgrade
ATNS	Air Traffic and Navigation Services
AUC	African Union Commission
AVR	Automatic Voltage Regulators
AWOS	Automatic Weather Observation Systems
AWS	Automatic Weather Station
B-BBEE	Broad-Based Black Economic Empowerment
CEO	Chief Executive Officer
CCMA	Commission for Conciliation, Mediation and Arbitration
CoS	Committee on Services
CoT	City of Tshwane
CoCT	City of Cape Town
Covid-19	Coronavirus disease of 2019
CPUT	Cape Peninsula University of Technology
DBCP	Data Buoy Cooperating Panel
DESTEA	Department of Economic, Small Business Development, Tourism and Environmental Affairs
DFFE	Department of Forestry, Fisheries and the Environment
DIRCO	Department of International Relations and Cooperation
DoT	Department of Transport
DPME	Department of Planning, Monitoring and Evaluation
DRMC	The Disaster Risk Management Centre
DRR	Disaster Risk Reduction
EAP	Economically Active Population
EC	Executive Council (WMO)
EW4ALL	Early Warning for All
GANP	Global Air Navigation Plan
GAW	Global Atmosphere Watch
GBON	Global Basic Observing Network (WMO)
GRAP	Generally Recognised Accounting Practice
GSM	Global System for Mobile communications
GTC	Global Telecommunication Systems
HAIC	High-altitude ice crystals
HCM	Human Capital Management
HPW	Habitable Planet Workshops
IAVW	International Airways Volcano Watch
ICAO	International Civil Aviation Organization
ICT	Information and Communication Technology
IMISP	Integrated Meteorological Infrastructure Sustainability Plan
IMO	International Maritime Organization
IMSAS	International Maritime Organization Member State Audit Scheme
INAM	Instituto Nacional de Meteorologia (Mozambique)
LCS	Low-Cost Sensors

LDN	Lightning Detection Network
MANCO	Management Committee
MASA	Meteorological Association of Southern Africa
METP	Meteorological Panel
MOG	Meteorological Operations Groups
NMS	Namibian Meteorological Service
NPEP	Network Performance and Evaluation Programme
OECD	Organisation for Economic Cooperation and Development
OEM	Original Equipment Manufacturer
OPMET	Operational Meteorology
OTP	On-Time-Performance
PAIA	Promotion of Access to Information Act
PFMA	Public Finance Management Act
POPIA	Protection of Personal Information Act
PR	Permanent Representative (with WMO)
PRMA	Post-Retirement Medical Aid
PSC	Project Steering Committee
RA I	Regional Association I
RADAR	Radio Detection and Ranging
RSMC	Regional Specialised Meteorological Centre
RTC	Regional Training Centre
SAAF	South African Air Force
SAAQIS	South African Air Quality Information Systems
SABC	South African Broadcasting Corporation
SACAA	South African Civil Aviation Authority
SADIS API	Secure Aviation Data Information Service Application Programmer Interface
SANAE	South African National Antarctic Expedition
SANAP	South African National Antarctic Programme
SANBI	South African National Biodiversity Institute
SAWS	South African Weather Service
SCOM	SADC Sub-sectoral Committee on Meteorology
SDG	Sustainable Development Goals
SETA	Sector Education Training Authority
SIGMET	Significant Meteorological Advisories and Warnings
SIGWX	Significant Weather
SOFF	Systematic Observations Financing Facility (WMO)
SOLAS	Safety of Life at Sea (Convention)
SPC	Special Programmes Committee
SPI	Standardised Precipitation Index
SSP	Shared Socioeconomic Pathways
STC	Specialised Technical Committee
SwaSS	Wave and Storm Surge model
SWIM	System Wide Information Management
TAF	Terminal Aerodrome Forecast
TETA	Transport Education Training Authority
UAE	United Arab Emirates
USA	United States of America
UK	United Kingdom
UNFCCC	United Nations Framework Convention on Climate Change
UPS	Uninterruptable Power Supply
UV	Ultraviolet
WAFS	World Area Forecast System
WFP	World Food Programme
WG	Working Groups
WIFS	World Area Forecast Internet File Service
WIGOS	WMO Integrated Global Observing System
WISER	Weather and Climate Information Services
WMO	World Meteorological Organization
WSP	Workplace Skills Plan

3. Message from the **MINISTER OF FORESTRY, FISHERIES AND THE ENVIRONMENT**

As Minister for Forestry, Fisheries and the Environment (DFFE) of the recently constituted Government of National Unity, I am honoured to present the foreword for the Annual Report 2023/24 of the South African Weather Service (SAWS) – an entity of vital importance for its contribution towards economic growth and the addressing of climate change-related issues, including climate variability and weather vulnerability in South Africa and beyond. As an international meteorological role player to be reckoned with, the SAWS has, during 2023/24, once again made its mark in the Southern African Region, Africa and the United Nations World Meteorological Organization.

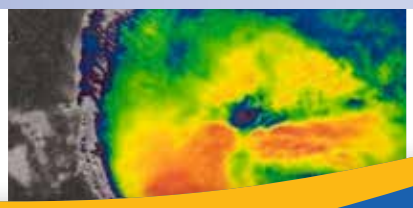
The SAWS provides meteorological-related solutions to South Africans in respect of weather, climate, air quality services and other related environmental aspects, including water. For this purpose, it proactively works towards enhancing its meteorological-related body of knowledge; providing meteorological-related solutions to meet user needs; ensuring an optimal core technical ability; and striving towards internal excellence in the organisation.

2023/24 had many economic challenges, with the annual growth rate at only 0,6% after expanding by 1,9% in 2022. The economic fallout from Covid-19 continued to affect many industries, including the aviation and tourism sectors, and this directly influenced the SAWS' ability to earn commercial income to such an extent that it had to revise its non-statutory commercial target in the mid-year review of its Annual Performance Plan (APP).

To secure further long-term growth, the entity continued its path towards long-term growth by providing dependable public weather, aviation, maritime and related severe weather forecasts as well as its Impact-Based Severe Warning Forecast System, which continued to see a shift from "what the weather will be" to "what the weather will do". This meant that the public and disaster management structures were warned about what could be the expected impact during severe weather events and take the necessary precautions.

Several severe weather events occurred throughout the year under review, which included minor flooding observed in Gauteng in May 2023 as well as localised flooding affecting informal communities and road infrastructure over parts of the Nelson Mandela Bay Metropolitan Municipality. *The Nelson Mandela Bay Metropolitan Municipality saw its wettest May in decades*.

Strong cold fronts occurred in June 2023, supported by a strong upper-level cut-off low pressure system during the same month and subsequent heavy rainfall, resulting in flooding over parts of the Western Cape, with the Huguenot tunnel affected by mudslides and the Breede River and Berg River in the Cape Winelands overflowing. *The Breede River even reached its 100-year flood mark*.

Snowfall occurred in July 2023 over the Western Cape and heavy, disruptive snowfall was observed over the eastern Highveld of Mpumalanga. The southern and central parts of Gauteng saw snowfall for the first time in a decade. In late July, the Eastern Cape also experienced widespread rainfall, gale-force winds, and snow over the high-lying areas. Unfortunately, at the end of July, two people lost their lives after the roofs and walls of their homes collapsed in the Buffalo City metropolitan area.

A storm surge event occurred over the Western and Eastern Cape in September 2023, wreaking havoc in coastal areas and resulting in significant coastline damage and beach erosion across the Western Cape, Garden Route coastline and the Eastern Cape. With significant wave heights experienced in September, two people unfortunately lost their lives in the Western Cape. A Cape storm cut-off low, bringing heavy 36-hour rainfall of 100 - 150 mm and subsequent damage and loss of lives to parts of the Western Cape, occurred during late September 2023. More than 80 roads were closed, and at least 15 000 homes were cut off due to these conditions.

During October 2023 a cut-off low-pressure system caused widespread flooding, damage to property, and loss of lives in parts of the Eastern Cape and KwaZulu-Natal. The worst affected area was the OR Tambo District in the north-eastern parts of the Eastern Cape. Another cut-off low-pressure system, associated with a cold front and a strong ridging high-pressure system, resulted in stormy conditions and very cold temperatures over the eastern and south-eastern parts of South Africa. Snowfall over parts of the Drakensberg, eastern Free State, and parts of Mpumalanga was experienced. *Due to this extreme weather, 30 October 2023 was also the coldest day of the year in Gauteng, parts of Mpumalanga and the eastern Free State, with low single-digit maximum temperatures observed in many areas*.

During November 2023 several severe storms occurred, with videos of a possible tornado over the Highveld of Mpumalanga being confirmed by the SAWS as a weak tornado. Later in November, heat wave conditions were experienced in the country's central, northern and eastern parts, with *temperature records having been broken in parts of the Northern Cape*.

Severe weather occurred almost daily in December 2023, and the last ten days of December were the worst, as stormy weather affected the country's central, southern, and eastern parts due to an upper-air and a ridging high-pressure system.

The public was not spared from severe weather impacts from January to March 2024:

Sweltering, dry and windy conditions persisted throughout much of the Western Cape during January 2024 and wildfires consumed 20,000 hectares (ha) of vegetation in just a week, which was regarded as the largest 2024 wildfire in the province at that stage.

In February 2024, a severe thunderstorm with large hail led to infrastructure damage in Mpumalanga. Further severe thunderstorms affected the escarpment, Highveld and Lowveld areas of Mpumalanga and Limpopo.

March is normally associated with tropical cyclone season. Despite a below-average projection for tropical cyclone activity, severe Tropical Storm Filipo affected South Africa in mid-March 2024. As the storm moved from Mozambique to South Africa, the extreme southern Lowveld (Komatipoort) and the extreme north-eastern parts of KwaZulu-Natal, were affected by heavy rainfall amounting to more than 100 mm.

The SAWS continued to provide high quality meteorological services to the aviation industry. Aviation meteorologists were well equipped to deliver this crucial service, and they effectively participated in an audit of the South African Civil Aviation Authority (SACAA). Aviation meteorological services further maintained a high accuracy rate of 99,22% and 94,99% for Aerodrome Warnings and Terminal Aerodrome forecasts respectively, while issuing 703 aerodrome warnings. The SAWS meteorological aviation systems have been prepared to accommodate system upgrades in the following reporting period.

South Africa is a member of the International Maritime Organization (IMO), a United Nations body responsible for the safety and security of shipping, and preventing marine and atmospheric pollution by ships. South Africa's membership to the IMO is led by the Department of Transport (DoT). Due to its crucial service to maritime activities, the SAWS was successfully audited (without any findings) by the IMO Member State Audit Scheme (IMSAS).

As one of the world-renowned meteorological services, the SAWS advances research and scientific progress, which serves as a valuable resource for policymakers, who, amongst others, need to effectively address weather and climate-related challenges, ultimately benefiting society.

The SAWS is at the forefront of innovation through its research, which adds significant value to the understanding of atmospheric processes; improving weather forecasting models and techniques; and contributing to disaster risk reduction by issuing early warnings and forecasts for extreme weather events. These latter efforts align with the United Nations' Sendai Framework and Early Warning for All (EW4ALL) initiatives, aiming to safeguard lives.

The SAWS and its partners collaborated to co-develop user-centric and innovative products and services. This collaboration integrates social and behavioural science to enhance impact-based forecasting and mitigate meteorological risks for safeguarding lives and property.

To enhance research capacity and knowledge generation, scientists and researchers across the SAWS produced 36 research outputs, encompassing peer-reviewed articles, conference papers, theses, book chapters and research project reports. The climate publication "Regional Weather and Climate: Limpopo" was also completed.

In terms of climate, South Africa experienced a relatively warm year, especially in the central and northern interior The annual mean temperature anomaly for 2023, based on the data of 20 climate stations, indicates that 2023 *was the eighth hottest year on record since 1951*.

Most parts of South Africa received near-normal rainfall during 2023 except for the north-western interior, which received well below normal rainfall. In contrast, some regions along the coast and extreme east received well above normal rainfall, especially in Mpumalanga.

During the year under review, the SAWS faced unprecedented challenges with its infrastructure, ranging from aged technology and technical lifespans to vandalism and network failure, compounded by loadshedding, which continued to negatively affect the upkeep and functioning of observation networks. The recapitalisation and securing of the monitoring networks as well as ensuring stable power supply to SAWS' various observations equipment have become an urgent priority and the plan to expand, automate, modernise, and upgrade SAWS' infrastructure networks is fully supported.

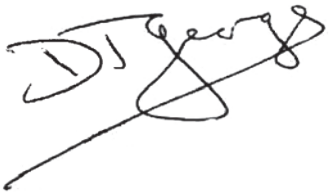
The SAWS is mandated by the South African Weather Service Act, 2001 (Act No. 8 of 2001 as amended), to act as the custodian of the South African Air Quality Information System (SAAQIS) and continued to host and operate the SAAQIS to ensure access to air quality information for all users.

The SAWS continued to ensure the ongoing collection of meteorological data over South Africa and its surrounding oceans, subsequently ensuring a reliable national climatological record in line with its mandate. The SAWS ensured that quality-controlled data from its Automatic Weather and Rainfall Stations (AWS and ARS) was available on the National Climate Database. An average of 85,97% data availability from the AWS and ARS networks was obtained.

On the international front, South Africa has been successfully elected as a Member of the Executive Council (EC) and subsequently participated in the WMO EC session convened in June 2023. The country also attended a meeting of the Southern African Development Community (SADC) Ministers responsible for Infrastructure, Transport, ICT Information and Meteorology, where it was decided that the Meteorological Association of Southern Africa (MASA) will become a technical advisory body for the SADC Sub-sectoral Committee on Meteorology (SCOM).

The year under review was characterised by numerous governance, financial and human capital initiatives and interventions, which are discussed in more detail in the report and the entity's efforts in this regard are appreciated. I would like to extend my appreciation to the Hon. Minister Barbara Creecy and Hon. Deputy Minister Makhotso Maggie Sotyu for their executive leadership, which ensured that the SAWS is a well-functioning weather service and set the foundation for the implementation of the Climate Change Act. Furthermore, the role of the SAWS Board is acknowledged, and I would like to commend the Board, management and all employees for their role played in ensuring the upkeep of this economically important organisation.

I hereby confirm that the 2023/24 Annual Report of the South African Weather Service complies with the statutory requirements of the Public Finance Management Act and National Treasury Regulations.



Dr Dion George, MP
Minister of Forestry, Fisheries and the Environment
Date: 27 August 2024

4. Message from the **BOARD CHAIRPERSON**

I am thankful for the opportunity to present the South African Weather Service's (SAWS) Annual Report for the period 1 April 2023 to 31 March 2024, the year during which the organisation attained a clean audit for a second successive year. This report, the third and last to be issued under the leadership of this Board, comes only a handful of months ahead of the end of our three-year tenure.

The report reflects on how the SAWS has fared in its continued efforts to execute its 2020/21 to 2024/25 Strategic Plan during the plan's penultimate year of implementation. The Plan sets out, as outputs, the provision of meteorological-related solutions to meet user needs; the need to realise an enhanced meteorological-related body of knowledge; the optimisation of core technological capability and the achievement of excellence within the organisation.

In simpler terms, it prioritises, among other things, the development of value-adding and user-friendly meteorological solutions; the leveraging of emerging technologies for improved solutions and competitiveness; the increase of non-regulated revenue generation from meteorological solutions; and the improvement of corporate governance within the organisation.

For the period under review, the overarching aim of these priorities was to continue rendering the demanding task of public good and commercial services, to protect lives and property against meteorological-related risks while ensuring organisational sustainability.

As in the preceding years, the reporting period did not make things any easier regarding the weather and climate events the public experienced. At different intervals of that year, there were several instances of above-normal rainfall, particularly in the Western Cape, Eastern Cape, and KwaZulu-Natal coastal provinces.

Inevitably, this resulted in devastating flooding, leading to the evacuation of 1 200 people in the Eastern Cape's Nelson Mandela Bay Municipality in May. Eleven fatalities, more than 200 road closures and a power outage over an extended period that left more than 80 000 people without electricity, were reported in the Western Cape in September. In KwaZulu-Natal, over 20 people died in Ladysmith in December. Extensive damage to infrastructure and the destruction of hundreds of homes were also reported in that province.

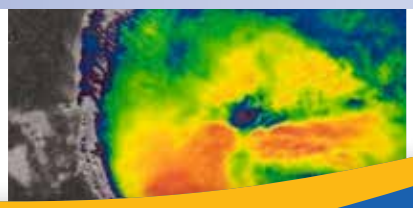
Our hearts go out to all the families that lost loved ones, and to those whose homes were wrecked. These tragedies notwithstanding, I am pleased to report that, during the period under review, the overall audit outcome of the SAWS is unqualified, without findings (a clean audit), similar to the previous year's audit outcome. The SAWS has consistently achieved an unqualified audit opinion for the past three years regarding its financial statements, with no material non-compliance findings reported over the last two years, and no material finding on predetermined objectives for more than three years.

Moreover, the SAWS did exceedingly well, achieving 82,14% of its performance targets. This marked a 3,14% spike in the performance graph, up from the 79% achievement of the previous financial year's targets.

This improvement in performance includes the accuracy of aviation information, which stood at 95,96%, while the availability of weather-related services came in at 98,65%. To put this in perspective, the SAWS issued 703 aerodrome warnings and 1 509 Impact-Based Forecasting Warnings during the reporting period.

These were in addition to regular daily minimum and maximum weather temperatures and rainfall forecasts, meteorological support for aviation and maritime search and rescue activities, and services for the benefit of subsistence farmers and fisheries.

Moreover, 34 weather awareness engagements targeted at vulnerable communities were held. On the sustainability front, the SAWS' non-regulated income grew to more than R29 million.

Such feats were not the result of the SAWS' solo campaign. The fulfilment of the entity's legislative mandate would be a lofty idea without the support of key stakeholders. Among the stakeholders are the World Meteorological Organization (WMO); International Civil Aviation Organisation (ICAO); the Department of Forestry, Fisheries and the Environment; Parliament; the aviation, maritime, air quality and water sectors; academic and atmospheric science and research; disaster management authorities, humanitarian aid-oriented non-governmental organisations, and the mass media.

Equally critical for the SAWS' satisfying performance was the need for communication channels between the entity and disadvantaged and vulnerable communities to be open, through public awareness programmes and information dissemination efforts. This significantly boosted ongoing efforts to cultivate a WeatherSMART nation that is safe, more informed, alert, resilient and has timely access to information and services regarding weather matters.

On administrative matters, the Board was deeply engaged in fortifying the governance framework that underpins the SAWS. Throughout the period under review, we convened numerous meetings dedicated to the meticulous approval and oversight of critical policies. These deliberations were essential to meet legislative requirements and uphold the highest standards of good governance.

We focused on various policy areas, including human resources, finance, and operational protocols. Each policy was carefully crafted to guide the SAWS, ensuring compliance and optimal functionality. The enhancements in these policies reflected our commitment to fostering a robust governance environment and driving sustainable success.

The reporting period also saw a significant increase in the frequency of Board and Committee meetings. This escalation was pivotal in stabilising the SAWS during a period of considerable change. Despite the increased meeting cadence, we have diligently maintained the Board's strategic focus.

These efforts have collectively strengthened our governance structures, positioning the SAWS for continued resilience and growth. As we move forward, the foundational work laid during this period will serve as a testament to our dedication to exemplary governance and operational excellence.

By the time this report is tabled in Parliament, we will be halfway through 2024/25, the final year of the implementation of the 2020/21 to 2024/25 Strategic Plan. It would be several weeks after the Government of National Unity took office; President Cyril Ramaphosa having outlined the 7th administration's priorities for the next five years in his Opening of Parliament Address.

Adhering to the President's marching orders, the SAWS will align its Strategic Plan for the next five years with the said priorities during a strategy session scheduled for the second quarter of 2024/25.

Without pre-empting the new Plan, it will continue emphasising, among other things, the accuracy of aviation information, the availability of weather-related services, awareness campaigns and revenue generation. As experts warn, the Southern African region, whose population is already at risk yearly with thunderstorms, floods, droughts and heatwaves wreaking havoc among communities, should brace itself for more hazardous weather events as climate change intensifies.

Above all else, the new Plan will have to help move the country, the African continent, and the world at large closer to realising the United Nations' Early Warning for All initiative, in which vulnerable people throughout the globe must be protected from hazardous weather, water, or climate events by the end of 2027.

On behalf of the Board, I would like to thank the employees of the SAWS, the Chief Executive Officer, its Executives, and Management. I would also like to acknowledge the wisdom and guidance provided by Parliament, the current and former Ministers, Deputy Ministers, and especially the Director-General of the DFFE, the public and all the role players in the economy for their unwavering support over the past three years. I also wish to thank my colleagues on the Board for their unparalleled dedication and devotion to the service of our citizens.

As the Board prepares to bow out, I am proud to say that we bequeath to our successors a meteorological organisation that is in a healthy financial state, and a performing organisation that complies with its policies, the law, and all other applicable prescripts. We wish the SAWS well as it carries on with the mammoth task of saving lives and property while keeping its head above the waters in these tough economic times.

Mr Itani Phaduli
Board Chairperson
South African Weather Service
Date: 1 August 2024

5. Overview and Executive Report by the **CHIEF EXECUTIVE OFFICER**

It is an honour and a privilege to present the South African Weather Service (SAWS) Annual Report for the period 1 April 2023 to 31 March 2024.

During the reporting period, the SAWS made great strides in its quest to return to the financial position it enjoyed in pre-Covid-19 times.

Stakeholders will recall that, at the commencement of the reporting period, the SAWS was still emerging from the devastating financial difficulties induced by the global pandemic.

In the main, the turbulence visited upon the aviation industry, with international and domestic travel restrictions leaving planes grounded for months on end, had a crippling effect on the SAWS' finances.

This was largely because the SAWS' revenue from rendering aeronautical meteorological services had all but diminished. Buckling under the weight of the shrinking budget, the SAWS had to implement sweeping cost-cutting measures to ride out the storm.

General financial review

With relative calm now returning to the global economy, the latest data shows that the organisation is slowly but surely on its way to full recovery.

The SAWS generated R574 million in revenue during the reporting period, a 5,3% increase from the previous year's R545 million. It includes R386 million in government grants and internally generated revenue to the value of R174,1 million.

The increase is attributed to the improvement in statutory commercial revenue due to positive developments in the airline industry. It is an indication of the confidence that is continuing to return to the aviation industry due to improved market conditions.

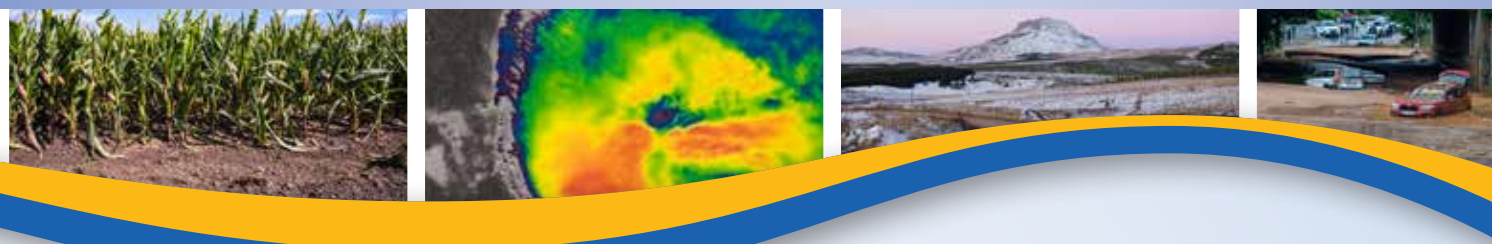
It also gives me great pleasure to report that our Revenue Turnaround Strategy is beginning to bear fruit, as evidenced by the increase in our non-statutory commercial revenue which increased by 15% year on year, from R26 million to R30 million.

Spending trends

The increased revenue generation allowed the SAWS to improve spending in critical areas, with expenditure soaring by 7% compared to the previous financial year. The total spend during the period under review was R520 million compared to R485 million in the previous year.

Employee-related costs remain the biggest expenditure item at roughly R300 million. It rose by 5% compared to the previous financial year's R287 million. General expenses climbed from R150 million to R169 million, while capital expenditure for infrastructure investment was slightly down from R49 million to R48 million.

Repairs and maintenance of the SAWS' infrastructure totalled R12 million, a staggering increase of 45%. Previously, the SAWS spent only R8 million on this critical line item, which is crucial for ensuring the sustainability and reliability of its infrastructure network.



Capacity constraints and challenges

The SAWS' financial stability is still a long way from what it was before the Covid-19 pandemic. It will take some time before the organisation is back to its best. However, it will have to play the hand it is given, aiming to do more with the little it has at its disposal.

Of all the constraints and challenges faced during the reporting period, loadshedding had the most significant impact on the SAWS' operations. It impacted the availability of data while damaging infrastructure. It also impacted the uptime of sensitive equipment.

Additionally, for various reasons, the SAWS lost critical staff members during the year and it is making every effort to ensure that its pipeline of critical and core skills is maintained.

The organisation has also experienced challenges with the procurement of a new High Performance Computing system.

The above challenges notwithstanding, the SAWS has delivered on its mandated functions and met its other commitments, even under trying circumstances.

Requests for rollover of funds

We are preparing a proposal to motivate a rollover of funds to the amount of R79 million and it will be submitted to the National Treasury in the near future.

Supply Chain Management

According to section 217 of the Constitution, the SAWS must implement and maintain an effective and efficient procurement and provisioning system that observes the five pillars of fairness, equitability, transparency, competitiveness, and cost-effectiveness.

Our Supply Chain Management (SCM) system also seeks to promote the principles of good corporate governance and complies with applicable prescripts such as the Public Finance Management Act (PFMA) and Preferential Procurement SCM Policy Framework Act (PPPFA).

SCM processes and systems

To ensure compliance with all legislative prescripts, an SCM policy and standard operating procedures were in force during the reporting period. This allowed the organisation to achieve operational efficiency while mitigating the risks inherent to the supply chain environment.

Moreover, these regulatory measures ensured continuous improvement that significantly reduced irregular expenditure.

The SAWS successfully awarded tenders for various solutions, including air quality and Radio Detection and Ranging (RADAR) sites. The organisation also actively promoted sustainable local economic development through preferential procurement and achieved a Broad-Based Black Economic Empowerment (B-BBEE) Level 4 status.

All concluded unsolicited bid proposals

There were no unsolicited bid proposals during the year under review.

Audit report matters

The bulk of the Auditor-General's and Internal Audit's findings for the 2022/23 financial year were addressed. Work on the outstanding findings, which are more complex, is ongoing and these matters will be addressed and resolved expeditiously.

Events after the reporting date

The SAWS is not aware of any events that occurred post the reporting period that have the potential to impact its finances and/or operations.

Economic viability

The SAWS has at its disposal the resources it requires to continue operations. These resources comprise, among others, the revenue generated from the organisation's commercial activities and government grants.

Acknowledgements

The success of public entities such as the SAWS requires all key stakeholders to join hands in pursuit of a common goal. Such collaboration was the driving force behind the SAWS' improved financial and operational performance during the reporting period.

I would, therefore, like to thank the Minister, Deputy Ministers, members of the Portfolio Committee on Forestry, Fisheries and Environment, past and present, the Auditor-General, the Board chairperson and Board members, the various Board committees, executive management and all the SAWS employees for their unwavering support.

Mr Ishaam Abader
Chief Executive Officer
Date: 1 August 2024

6. Statement of responsibility and confirmation of accuracy for the Annual Report

To the best of my knowledge and belief, I confirm the following:

All information and amounts disclosed in the annual report are consistent with the annual financial statements audited by the Auditor-General South Africa.

The annual report is complete, accurate and free from any omissions.

The annual report has been prepared in accordance with the guidelines on the annual report as issued by the National Treasury.

The Annual Financial Statements (Part F) have been prepared in accordance with the Generally Recognised Accounting Practice (GRAP) standards applicable to the public entity.

The Accounting Authority is responsible for preparing the annual financial statements and the judgements made using this information.

The Accounting Authority is responsible for establishing and implementing a system of internal control designed to provide reasonable assurance as to the integrity and reliability of the performance information, the human resources information and the annual financial statements.

The external auditors are engaged to express an independent opinion on the annual financial statements.

In our opinion, the annual report fairly reflects the operations, the performance information, the human resources information, and the financial affairs of the public entity for the financial year ended 31 March 2024.

Yours faithfully

Mr Ishaam Abader
Chief Executive Officer
Date: 1 August 2024

Mr Itani Phaduli
Chairperson of the Board
Date: 1 August 2024

Members of the Board

Ms Feziwe Renqe
Chairperson

Mr Itani Phaduli
Deputy Chairperson
(appointed as Chairperson 1 August 2024)

Ms Sandika Daya
Board Member
(appointed as Deputy Chairperson 1 August 2024)

Ms Nana Magomola
Board Member

Ms Mmapula Kgari
Board Member

Dr Grant Son
Board Member

Dr Mmaphaka Tau
Board Member

Prof. Sylvester Mpandeli
Board Member

Mr Maesela Kekana
DFFE Representative

Mr Ishaam Abader
Chief Executive Officer

Executive management

Mr Ishaam Abader
Chief Executive Officer

Mr Norman Mzizi
Chief Financial Officer

Dr Jonas Mphepya
Executive: Weather and Climate Services

Mr Mnikeli Ndabambi
Executive: Infrastructure and Information Systems

Ms Petro Dekker
Executive: Corporate Services

THE YEAR IN NUMBERS

Budget Revenue
R753 693 000

R574 463 051
Actual revenue

Expenditure
R520 351 954

R385 776 621
Government grant revenue

1509
Impact-Based Forecasting Warnings

Aerodrome warnings issued
703

36
Research outputs

Targets achieved
82,14%
(23 out of 28)

Footprint (number of weather offices)
23

451
as at 31 March 2024
Number of employees

New Facebook followers
215 000

Collaborations
18

62
Positioning activities

216 365
New X followers

34
Public awareness events

7. Strategic overview

7.1 VISION

"South African weather-related solutions for everyone, every day"

The vision clearly articulates the desired end state in which the SAWS is central to a situation where citizens, communities and business sectors can use the information, products and services across the weather, climate and related environmental space to support socio-economic development and build resilience.

7.2 MISSION

"To provide meteorological solutions for improved quality of life for all in South Africa"

Meteorological solutions include:

- Weather-related solutions
- Climate-related solutions
- Air quality solutions
- Other related environmental solutions, including water.

7.3 VALUES

Integrity	A consistent sense of honesty, truthfulness and trust in one's own actions, while valuing others' opinions and beliefs.
Collaborative	An approach to working together in a mutually beneficial environment with internal and external stakeholders to reach organisational goals.
Solution-oriented science	A quest for science excellence to find weather, climate and air quality solutions for all.
Passion for service excellence	A desire to deliver exceptionally high work and performance standards.

7.4 STRATEGIC OBJECTIVES

The SAWS is committed to implementing initiatives concerning its strategic output areas to realise the desired impact. Priority initiatives to be responded to include:

Enhanced meteorological-related body of knowledge	Meteorological-related solutions provided to meet user needs	Optimal core technical ability	Internal excellence achieved within the organisation

8. Legislative and other mandates

The SAWS is governed as a Schedule 3A public entity as listed in the Public Finance Management Act, 1999 (Act No. 1 of 1999) (PFMA). Its mandate is derived from the South African Weather Service Act, 2001 (Act No. 8 of 2001), as amended in 2013. No legislative changes were implemented during the period under review.

9. Organisational structure

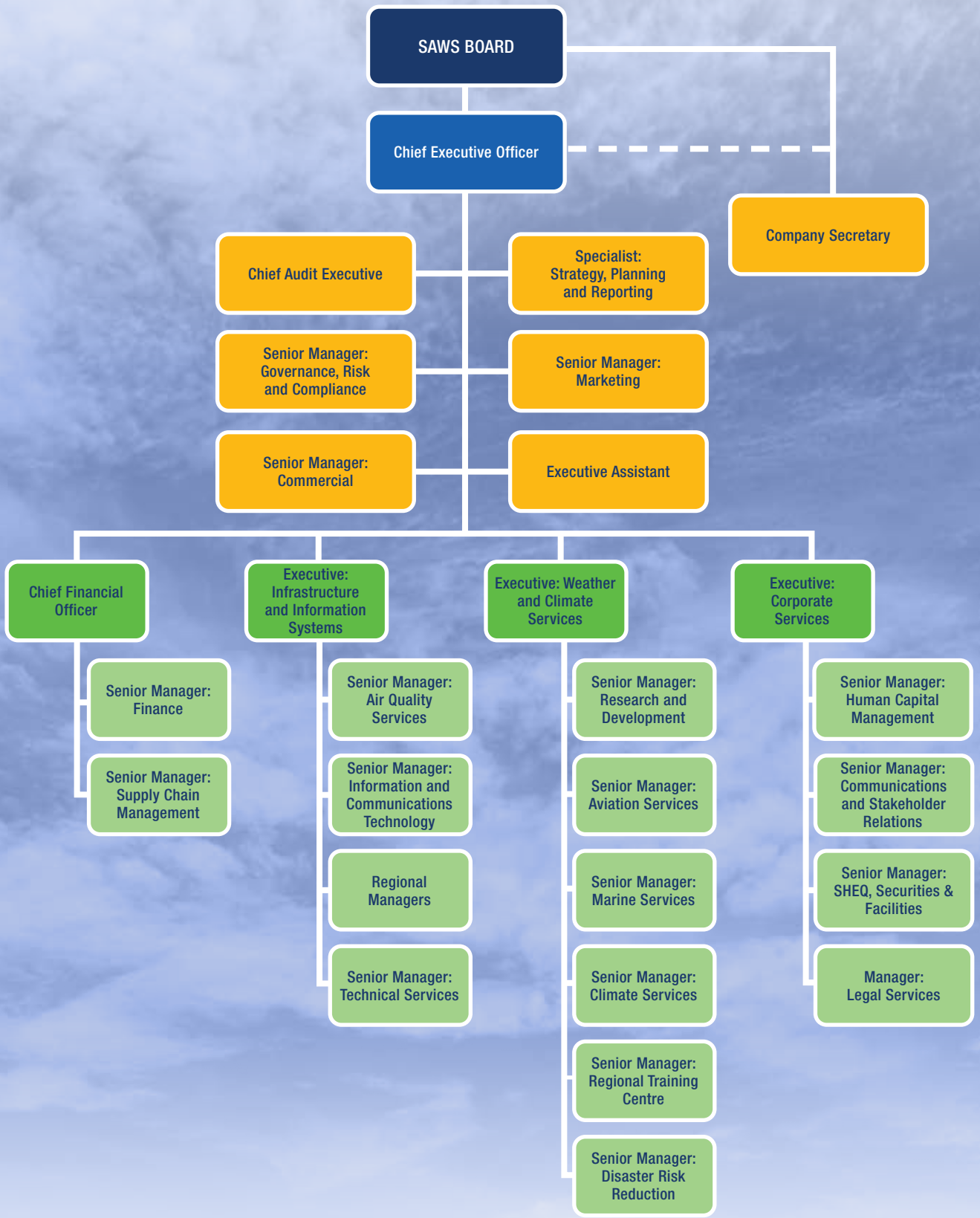


Figure 1: The SAWS organisational structure

PART B:
PERFORMANCE INFORMATION

1. Auditor's Report: Predetermined Objectives

The Auditor-General of South Africa (AGSA) performed the necessary audit procedures on the performance information to provide reasonable assurance in the form of an audit conclusion. The audit conclusion on the performance against predetermined objectives is included in the management report, with material findings (if any) being reported under the Predetermined Objectives heading in the Report on other legal and regulatory requirements section of the auditor's report.

Refer to the Report of the Auditor-General to Parliament on page 112 published as Part F: Financial Information.

2. Overview of performance

2.1 Service delivery environment

The 2023/24 financial year came at a time when parts of the country, in particular the provinces of Eastern Cape, Mpumalanga, and KwaZulu-Natal, experienced heavy and disruptive rainfall. This rainfall had the potential to endanger lives and cause untold property damage. Thankfully, those weather events came and went virtually without widespread damage and loss of life.

South Africa is in a region that is prone to weather hazards such as flash floods, heat waves, tropical cyclones and droughts. While the SAWS cannot stop extreme weather from occurring, the entity assists in averting catastrophes through effective forecasting and timely warnings. It is for the above reason that the Minister of Forestry, Fisheries and the Environment (DFFE), in the 2022/23 Budget Vote, committed an amount of R100 million over three years ending 2023/24 to the SAWS to bolster its observations infrastructure. This cash injection was a timely intervention to ensure that the crucial service delivered by the entity does not suffer to the detriment of the people of this country and the much-needed public infrastructure.

The SAWS has a hybrid funding model through which it receives a grant from the government via the DFFE to finance its public good services, while generating revenue through paid-for commercial services. The economic slump that followed the Covid-19 disaster is well documented, and the SAWS remained in recovery mode.

2.2 Organisational environment

Throughout the 2023/24 financial year, and in line with its Strategic Plan, the SAWS carried on with efforts to provide dependable public weather, aviation, maritime forecasts and severe weather guidance maps. Its early warning system efforts continued to be underpinned by the Impact-Based Severe Weather Warning System, which introduced a shift from the type of weather predicted to the potential effect or impact on lives and property. Further attention was directed towards research and innovation, infrastructure maintenance and modernisation, and public awareness programmes. All these occurred under challenging circumstances as the organisation sought to shake off the financial squeeze brought about by the Covid-19 pandemic.

The sluggish growth of the economy and decreasing formal employment in the country have an impact on the SAWS' ability to generate revenue, which goes a long way to ensure its long-term sustainability. A strategy for commercialising certain SAWS products and services and other commercial ideas was developed for implementation through the Revenue Turnaround Strategy. While the SAWS continues to implement its Revenue Turnaround Strategy practically, its clients are confronted with the effects of the country's economic challenges.

South Africa's energy challenges affected the SAWS' ability to keep key observation network infrastructure operating, affecting the upload of data into products and services and disseminating essential products and services to our partners and key clients. Much effort went towards refurbishing the key infrastructure and stabilising electricity supplied to sites through installing automatic voltage regulators, battery back-ups, diesel generators, and solar panels where feasible.

With staff always looking for better opportunities in the market, the SAWS attrition rate of 6,58% was nonetheless within the targeted maximum of 8%. Stability in the entity's leadership was realised as all executive positions remained occupied throughout the year.

2.3 Key policy developments and legislative changes

During the period under review, no policy or legislative changes were implemented.

2.4 Progress towards achievement of institutional impacts and outcomes

The SAWS, a National Meteorological Service organisation, remains committed to providing meteorological information and solutions of the highest quality for improved quality of life for all in South Africa. Weather and climate information informs the planning and decision-making across the public, aviation and marine sectors, among others, which the SAWS is mandated to service. Individuals and the country's various economic sectors make decisions based on weather and climate information to mitigate against the risks posed by weather elements. In the same breath, the SAWS continued to engage the public through programmes geared towards raising awareness on the impact of the weather and climate in their vulnerable communities. The SAWS remains on target for achieving

its five-year targets with indicators contributing to the desired outcome of *lives and property protected against meteorological-related risks.*

The year 2023 was challenging for the South African economy, with the annual growth rate at a muted 0,6% after expanding by 1,9% in 2022. According to Statistics South Africa, the annual increase in real GDP of 0,6% in 2023 was primarily led by higher economic activities in finance, real estate and business services, which contributed 0,4 of a percentage point based on growth of 1,8%; transport, storage and communication, which contributed 0,3 of a percentage point based on growth of 4,3%; personal services, which contributed 0,3 of a percentage point based on growth of 2,0%; and manufacturing, which contributed 0,1 of a percentage point based on growth of 0,5%.

The economic fallout from Covid-19 continued to affect many industries including the aviation and tourism sectors. A decline in revenue from domestic (resident) visitors and inbound (non-resident) visitors, exacerbated by stringent travel restrictions, saw a fall in tourism trips, tourism-related expenditure, and employment, which have not returned to full capacity.

Within the context of weaker global and local growth, risks to domestic economic performance, and the need for resilience to local economic shocks, the SAWS had to revise its non-statutory commercial target in the mid-year review of its Annual Performance Plan (APP). A rigorous approach to delivering on the Quick-Win Ideas under the Revenue Turnaround Strategy and successful tender submissions in the energy, air quality monitoring and transportation sectors sought to address the budget deficit and assisted the organisation to meet and exceed the revised non-statutory commercial target of R27 million. The Revenue Turnaround Strategy will continue to support revenue growth going forward.

Long-term growth depends on improving data collection, retaining key resources and building on the SAWS' capacity to meet the infrastructure and energy demands of a growing National Meteorological Service. Together with a stable macroeconomic framework, the rapid implementation of economic and structural reforms and improvements in state capability remain central to achieving higher growth for the SAWS and South Africa, as well as employment and competitiveness.

Table 1: Progress against 2020/21 to 2024/25 outcome indicators

Outcome	Outcome Indicator	2019/20 Baseline	2024/25 Target	Actual achievement 2020/21	Actual achievement 2021/22	Actual achievement 2022/23	Actual achievement 2023/24	Improvements required for the remainder of the planning period
Lives and property protected against meteorological-related risks	Percentage accuracy of aviation information	90%	≥90%	95,55%	95,73%	96,26%	95,96%	None
	Percentage availability of weather-related services	96%	≥96%	98,22%	98,87%	98,36%	98,65%	None
	Number of engagements to reach vulnerable communities	2	20	0	16	39	34	None
Organisational sustainability	Total non-regulated income growth (R-value)	R32,4m	R53,1m	R25,04m	R26,8m	R26,05m	R29,66	The non-regulated commercial revenue target has been revised since the advent of Covid-19. Factors such as the volatility of the economic environment significantly contribute to stunted growth.
	Number of accreditations maintained (n)	10	10	10	10	10	10	None

3. Institutional programme performance information

3.1 Programme 1: Weather and climate services

Purpose: To safeguard life and property and provide meteorological solutions to all South Africans.

• Sub-programme 1.1: Warnings, alerts and advisories

Purpose: To provide timeous and accurate impact-based early warnings, alerts and advisories to safeguard life and property against the impact of severe weather on land, oceans and in the air.

Outcome: Lives and property protected against meteorological-related risks.

3.1.1 Warnings, alerts and advisories

The SAWS' forecasts and severe weather warnings are constantly disseminated to the public through various means to inform them of impending weather hazards. Consistent achievement in this regard contributed significantly to the organisation reaching its goal of safeguarding lives and property against weather-related risks. This is also in line with the government's priority to maintain safer communities. The most significant weather events are summarised below:

April 2023

Upper-air systems moving west to east caused showers and thunderstorms over the central and eastern parts of South Africa. At the same time, relatively weak cold fronts were observed along the south-west and southern coastlines of the Western and Eastern Cape.

May 2023

An upper-air trough (low pressure system) brought cold and rainy conditions to the central and eastern parts of the country on 7, 8 and 9 May 2023. Some minor flooding was observed over parts of Gauteng, especially the low-lying areas around Centurion. The first major system, a cold front and upper-air trough, which would eventually cut off on 13 May, was experienced over the Cape provinces from 11 May. The SAWS issued a media release warning the public about the expected adverse weather conditions of heavy rainfall leading to flooding, very cold conditions and rough seas. An updated media release was issued on 12 May 2023, predicting heavy rain for parts of the Eastern Cape. It was subsequently observed in places in the Eastern Cape on 13 and 14 May 2023, especially along the coastal regions, with localised flooding affecting informal communities and road infrastructure over parts of the Nelson Mandela Bay Metropolitan Municipality. Significant flooding was observed on 14 May 2023 along the Wild Coast of the Eastern Cape, especially in Port St Johns and surrounding areas of the OR Tambo District.

Photographs A to C: Flooding in the OR Tambo District of the Eastern Cape, in and around Port St Johns, due to heavy rainfall on 14 May 2023. *Source: Disaster Management groups, the SAWS*

Several warnings were issued for this system, especially for the Cape provinces, with orange-level warnings issued for heavy rainfall in parts of the Wild Coast and the adjacent interior of the Eastern Cape. Rainfall figures for 12 to 14 May 2023 indicated significant falls for parts of the Eastern Cape coastline, especially in Nelson Mandela Bay, East London, and the Wild Coast regions. The Nelson Mandela Bay Metropolitan Municipality saw its wettest May in decades.

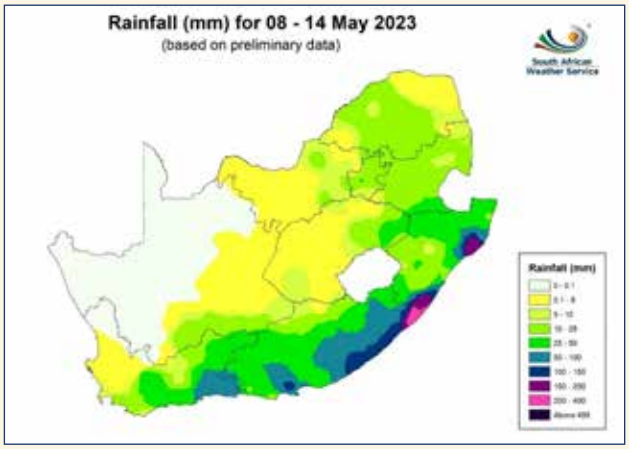


Figure 2: Rainfall for 8 to 14 May 2023

June 2023

Strong cold fronts made landfall on 2, 4, 7, and 11 June 2023, with an atmospheric river (which consists of upper-air perturbations with a strong jet stream) to the south of the country affecting the Western Cape from the evening of 13 June until 16 June, and cold fronts making landfall on 17 and 19 June as well. Thereafter, a strong cut-off low-pressure system made landfall over the western parts of the Northern Cape on 27 June 2023.

The atmospheric river to the south of the country allowed for heavy and continuous rainfall over the Western Cape from the evening of 13 to 16 June 2023. This occurred after rain received during earlier cold fronts saturated the soil earlier in the month. Heavy rainfall resulted in flooding over parts of the City of Cape Town, Paarl, Stellenbosch, Ceres, Citrusdal, Worcester, Franschoek and other towns. Significant flooding occurred in some areas, with the Huguenot tunnel affected by mudslides and the Breede River and Berg River in the Cape Winelands overflowing. The Breede River reached its 100-year flood mark.

Photographs D and E: Flooding over parts of the Western Cape.
Source: SABC News, Timeslive, Daily Maverick, Eyewitness News

The SAWS issued a media release on 13 June 2023 to warn residents that heavy rainfall and cold and wet weather would continue over the Cape provinces. Several warnings were issued, with an orange level 6 warning for disruptive rainfall for the Cape Winelands and City of Cape Town for 14 and 15 June. This indicated that 100 mm of rainfall was possible in 24 hours and that significant impacts could be expected. Between 100 and 170 mm was observed in parts of the Cape Winelands for the two days.

July 2023

Snowfall occurred from 8 to 10 July over the Western Cape as a cold front, with a steep upper-air system moved over the Western Cape, causing cold air to invade most of South Africa. The upper-air trough intensified and became a weak cut-off low over the central interior, causing widespread snowfall over the KwaZulu-Natal Drakensberg and Eastern Cape high ground on 9 July 2023. The Highveld and escarpment of Mpumalanga and the southern and central parts of Gauteng were mainly affected on 10 July 2023. Models underperformed with the amount of snowfall predicted, and heavy and disruptive snowfall of 10 to 20 cm was observed over the eastern Highveld of Mpumalanga. The SAWS issued a media release on 8 July 2023 indicating that widespread snowfall and very cold conditions were expected across many parts of South Africa.

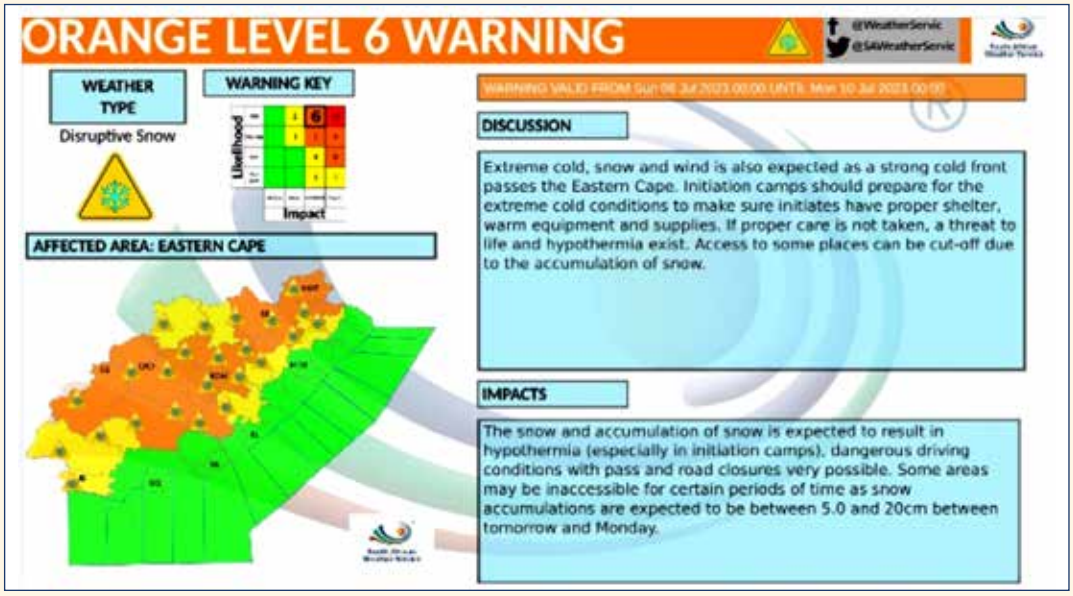


Figure 3: Orange Level 6 Warning for Eastern Cape valid 9 July to 10 July 2023.

During this event, several impact-based warnings were issued for parts of the country, ranging from yellow to orange for disruptive snowfall and damaging winds. Snowfall was not in the forecast for Gauteng. However, the southern and central parts of Gauteng, including the City of Johannesburg, saw snowfall for the first time in a decade. Extremely low maximum temperatures were recorded at seven to nine degrees Celsius (°C).

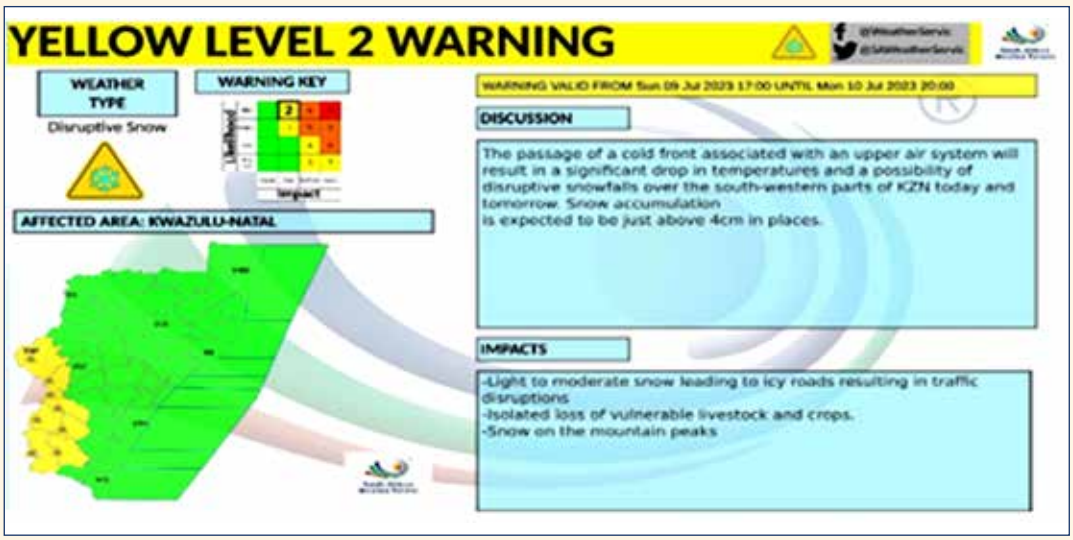


Figure 4: Yellow Level 2 Warning for KwaZulu-Natal valid 9 to 10 July 2023.

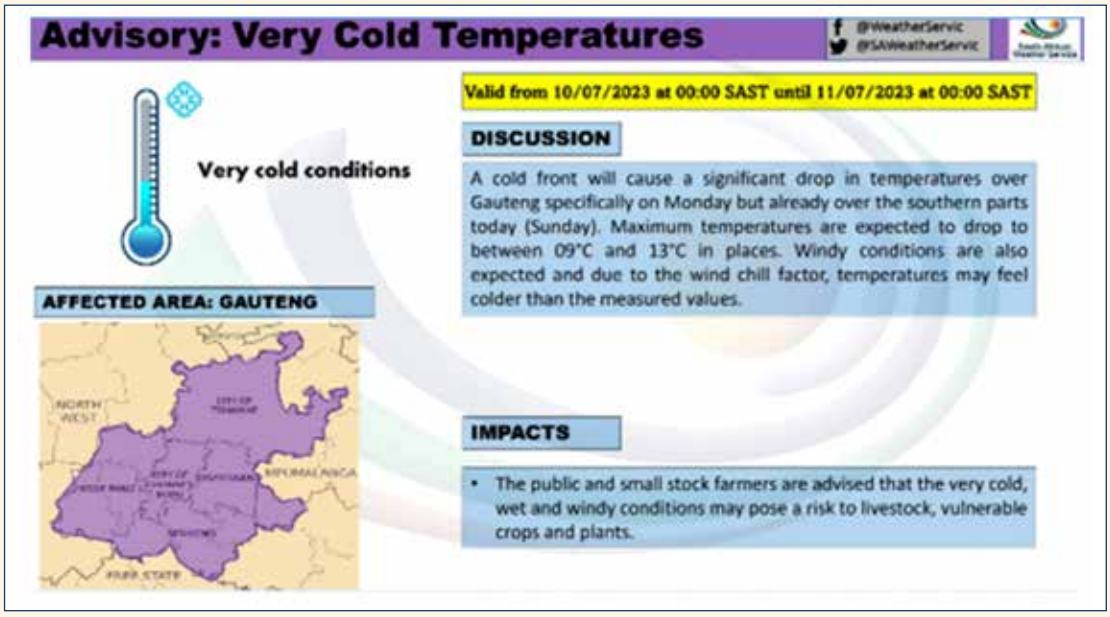


Figure 5: Advisory for very cold temperature in Gauteng valid 10 to 11 July 2023.

From 29 to 30 July 2023, the Eastern Cape experienced coastal wind as a strong cold front, associated with a cut-off low, moved over the western parts of South Africa, causing widespread rainfall, gale-force winds, and snow over the high-lying areas on 28 July 2023. The SAWS issued a media release on 27 July 2023 to warn the public and Disaster Management Centres of the expected weather conditions. Several impact-based warnings were also issued for parts of the Western Cape, the Northern Cape and the Eastern Cape on 31 July 2023. These warnings pertained to rainfall, snowfall and damaging wind.

The Eastern Cape coastline experienced damaging winds on 29, 30, and 31 July 2023, and wind-related damage was reported along many parts of the coast. The East London area and other parts of the Wild Coast of the Eastern Cape experienced the brunt of the damaging winds.

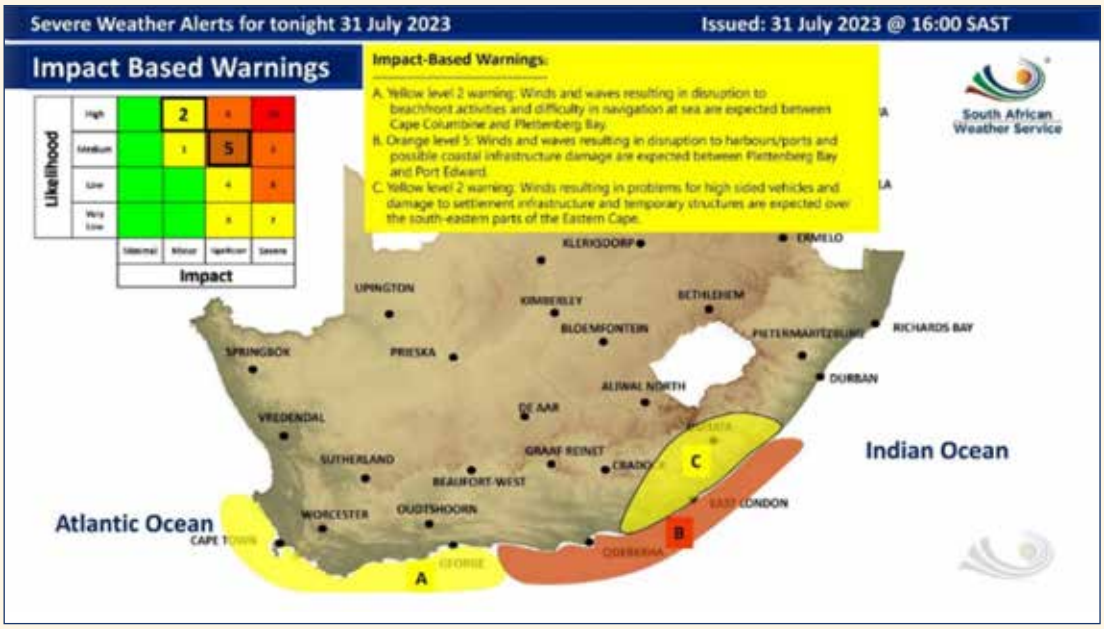


Figure 6: Impact-based warning issued on 31 July 2023.

Unfortunately, two people lost their lives after the roofs and walls of their homes collapsed in the Buffalo City metropolitan area.

Photographs F to H: Wind damage reported over parts of East London and other parts of the Eastern Cape and people affected by strong winds. *Source: The South African, 2023*

September 2023

During the weekend of 16 to 17 September 2023, a storm surge event occurred over the Western and Eastern Cape. A long fetch (from a ridging high-pressure and a deep low-pressure system to the south of South Africa) and a spring tide event resulted in positive storm surge effects experienced along the South African coastline, wreaking havoc in coastal areas. A combination of high waves, spring tide, and conducive wind conditions resulted in a positive storm surge, with its effects experienced along the coast at various locations, as reported on multiple media platforms, including social media.

Storm surge is the difference between the expected (astronomical) tide and the actual water level (including weather effects). Strong onshore winds and waves can further increase water levels at the coast. These waves can exacerbate the impact on the coastline when they occur during high tide or spring tide. Therefore, storm surges can be severe and cause widespread impacts, but they can also have little or no effect when they coincide with a low tide.

The storm surge of 16 to 17 September 2023 resulted in significant coastline damage and beach erosion across the south coast of the Western Cape, especially in the Garden Route District, the coast of the Eastern Cape, and particularly the south coast to the west of Port Alfred. Several warnings were issued, including orange and yellow level impact-based warnings for damaging winds and waves and a storm surge warning. These warnings were also widely disseminated on social media and other media platforms.

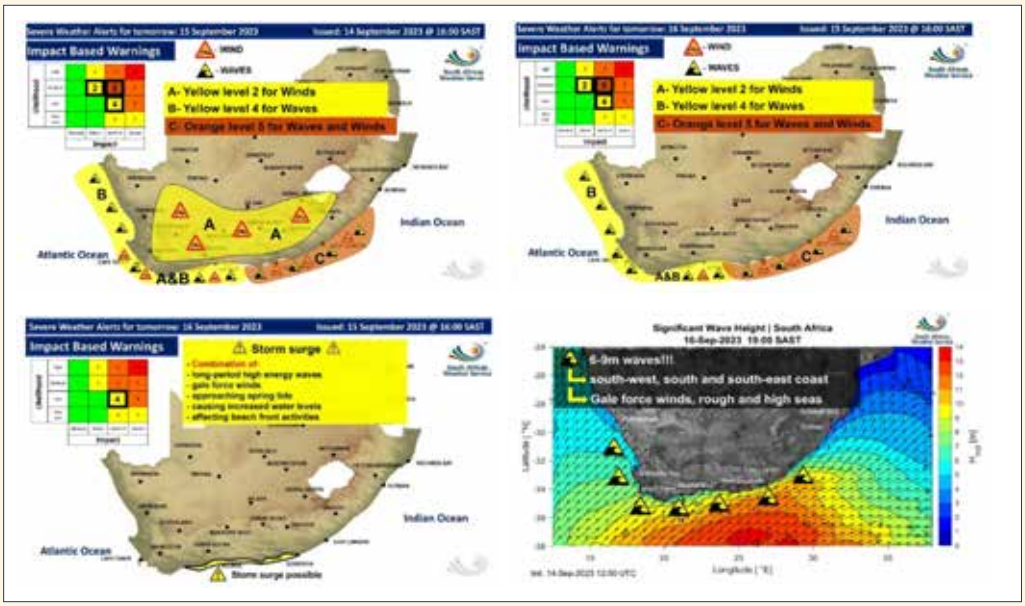


Figure 7: Warnings valid 15 to 16 September 2023.

Significant wave heights occurred along the country's south coast, with wave heights of more than 9 m reported along the Garden Route. Unfortunately, two people lost their lives in the Western Cape, while multiple reports of people being injured were received.

Figure 8: Wave heights observed from 16 to 17 September 2023.

Figure 9: Storm surge effects on 16 to 17 September 2023.

A Cape storm cut-off low occurred from 24 to 26 September 2023 following the issuing of a media release on 21 September 2023 for an upcoming intense cut-off low system expected to affect large parts of South Africa, particularly the Western Cape. The SAWS issued an updated media release on 23 September 2023 with further information regarding the significant rainfall that could be expected over the Western and Eastern Cape, particularly the Garden Route and Overberg District of the Western Cape and the Wild Coast as well as the adjacent interior of the Eastern Cape for 24 and 25 September 2023.

Various impact-based warnings were issued from 23 to 25 September 2023, including warnings for severe thunderstorms, disruptive rainfall, damaging winds and wave warnings. An orange level 8 warning for disruptive rainfall was issued for the Wild Coast and adjacent interior for Saturday, 24 September 2023. On Sunday afternoon, the SAWS issued an orange level 9 warning for disruptive rainfall for the Overberg, southern Cape Winelands and Garden Route Districts of the Western Cape. Heavy 36-hour rainfall of 100-150 mm was expected, particularly over the Overberg and southern Cape Winelands Districts of the Western Cape.

Significant flooding damaged parts of the Western Cape, particularly the Overberg and southern Cape Winelands. Roads were washed away, and the N1 and N2 highways were damaged and affected. Unfortunately, 11 lives were lost in the Western Cape due to the adverse weather conditions. More than 80 roads were closed, and at least 15 000 homes were cut off due to these conditions.

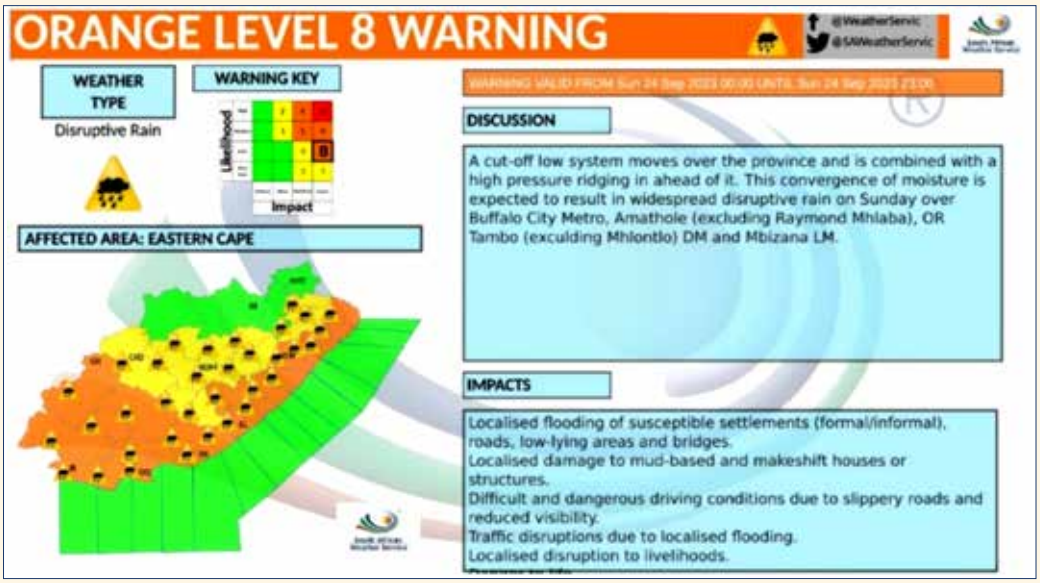


Figure 10: Orange Level 8 Warning for Eastern Cape valid for 24 September 2023.

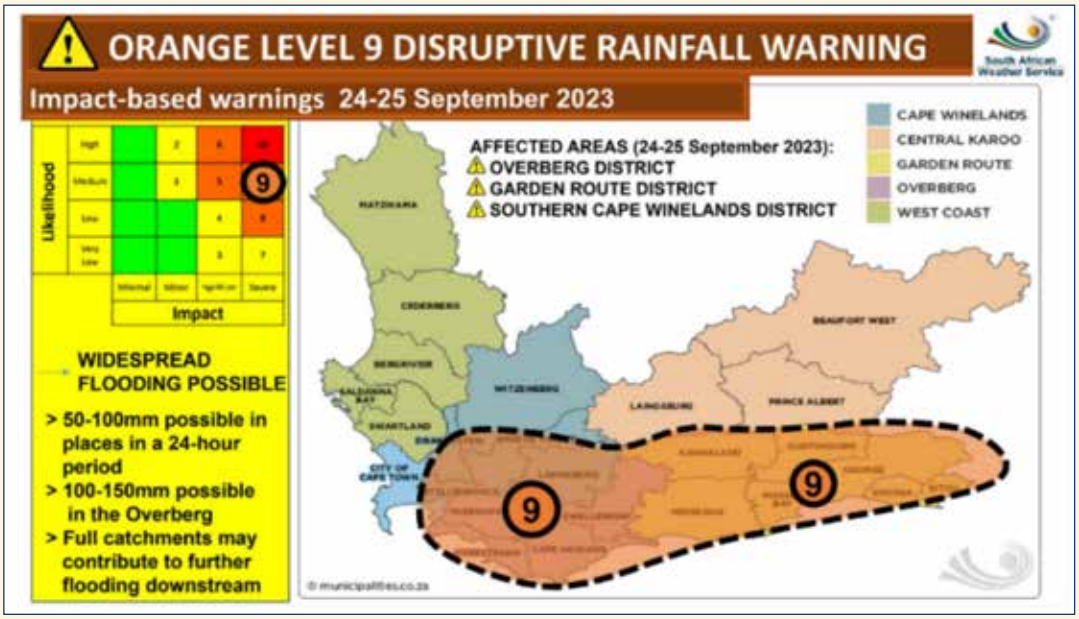


Figure 11: Orange Level 9 Warning for disruptive rainfall valid for 24 to 25 September 2023.

October 2023

A cut-off low-pressure system caused widespread damage in parts of the Eastern Cape and KwaZulu-Natal from Saturday, 21 October, into early Sunday, 22 October 2023. Heavy rainfall affected parts of the Eastern Cape, causing flooding and overflowing rivers, resulting in casualties and property damage. The worst affected area was the OR Tambo District in the north-eastern parts of the Eastern Cape. Sadly, three people lost their lives and two people were feared to be missing due to the flooding. Media reports indicated five fatalities in Mtubatuba in north-eastern KwaZulu-Natal due to severe thunderstorms. More than 70 houses were destroyed, and several roads and bridges were damaged across Mtubatuba, Greater Kokstad and Umzimkulu Municipalities. The SAWS issued several warnings to warn the public of possible severe thunderstorms, heavy rainfall, and flooding over the Western and Eastern Cape.

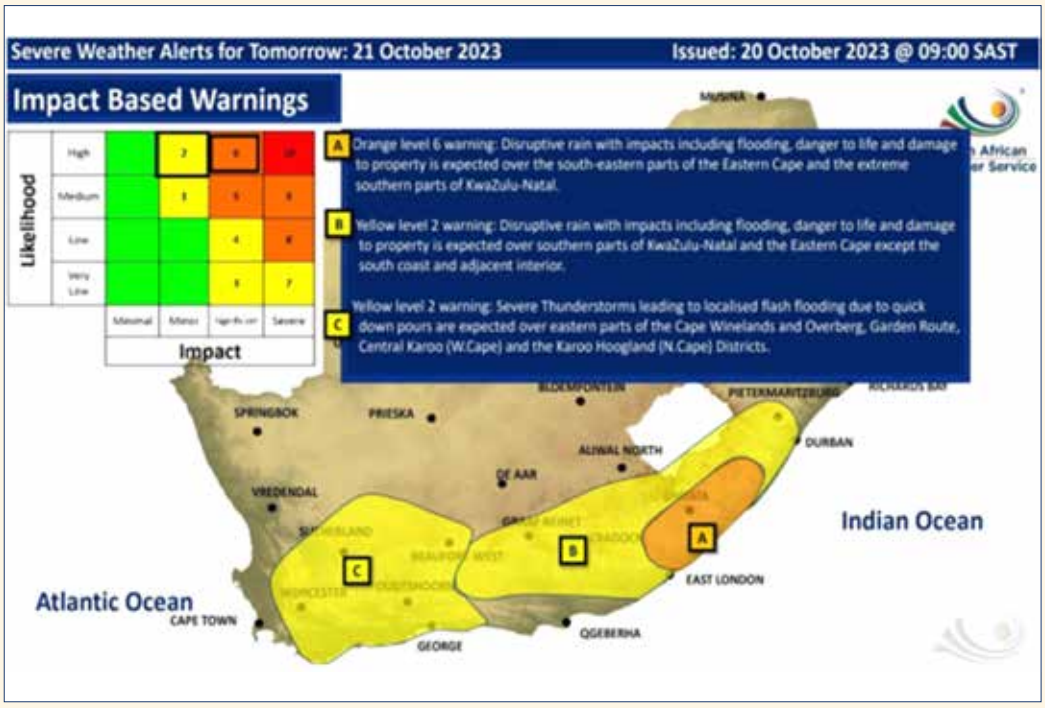


Figure 12: Severe weather alerts for 21 October 2023.

During late October, another cut-off low-pressure system associated with a cold front and a strong ridging high-pressure system resulted in stormy conditions and very cold temperatures over the eastern and south-eastern parts of South Africa. Late October snowfall over parts of the Drakensberg, eastern Free State, and parts of Mpumalanga was experienced on 30 October 2023. The SAWS issued a media release on Friday, 27 October, indicating that snowfall and bitterly cold conditions could be anticipated. It is worth mentioning that 30 October 2023 was also the coldest day of the year in Gauteng, parts of Mpumalanga and the eastern Free State, with low single-digit maximums observed in many areas.

Figure 13: Impact-based warnings for disruptive snow for 29 October 2023.

Photographs I to L: Snow in eastern Free State and KwaZulu-Natal on 30 and 31 October 2023. *(Source: Unknown)*

November 2023

A severe storm outbreak due to a combination of a weak upper-air trough, a surface trough, and a ridging high-pressure system occurred over the central and southern parts of Gauteng and the southern Highveld of Mpumalanga on 13 November 2023. Several severe thunderstorms developed over the Highveld on Monday afternoon, 13 November 2023. Some of these storms caused a trail of destruction in Gauteng and Mpumalanga, with damage occurring in both provinces.

A severe thunderstorm developed along the Vaal River and quickly spread northward. It affected large parts of the City of Johannesburg, where large hail was reported, particularly in the Midrand area. Severe thunderstorms were also observed over the Mpumalanga Highveld, causing damage to electrical infrastructure and housing. Significant hail and uprooted trees were reported in the Lekwa local municipality.

A video of a possible tornado over the Highveld of Mpumalanga spread across most media and social media platforms. The SAWS later confirmed that a weak and short-lived tornado indeed developed. Later in November, an upper-air high-pressure system was quasi-stationary over the northern and central parts of the country from 21 to 24 November 2023, causing stable and very hot conditions. Heat wave advisories were issued for the country's central, northern, and eastern parts. Temperature records were also broken in parts of the Northern Cape.

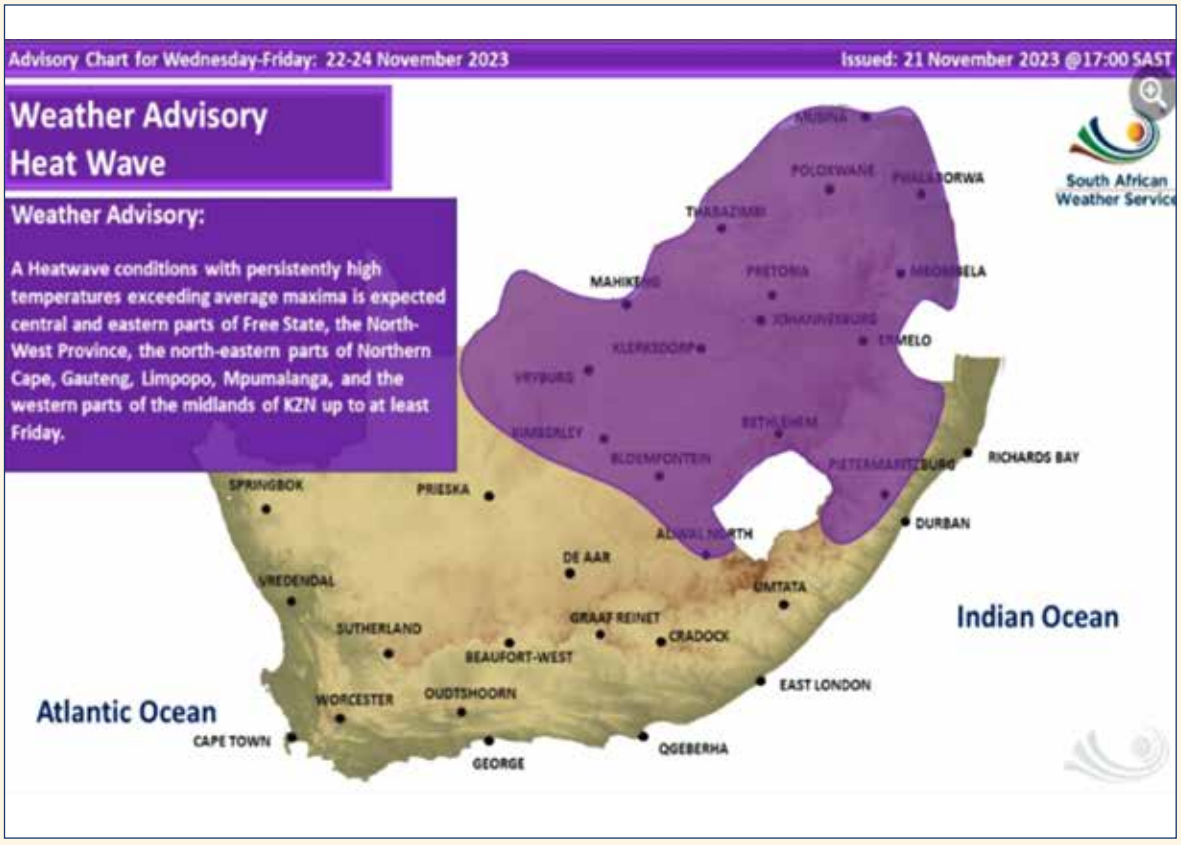


Figure 14: Heat wave advisory for 22 to 24 November 2023.

December 2023

December was the busiest month of the period under review, with severe weather occurring almost daily. The last ten days of December experienced the most severe weather.

The SAWS issued a media release on 22 December 2023 regarding the weather for the festive period of 23 to 26 December 2023. Stormy weather was expected over the country's central, southern, and eastern parts due to an upper-air and ridging high-pressure systems.

The SAWS also cautioned that strong to gale force winds might occur along the south-western coastline, where firefighting efforts might have to be temporarily halted and that fires in some places might worsen due to the strong winds. The hardest hit area was Ladysmith in the Uthukela district, KwaZulu-Natal. Heavy rainfall from thunderstorms on 24 December 2023 resulted in the Bellspruit river bursting its banks. As a result, around 1 400 homes were destroyed or damaged, and over 20 fatalities were reported.

Meanwhile, the western parts of the country remained mostly dry, especially in the extreme western interior and along the west and south-west coast, and strong winds were experienced. These conditions were favourable for the development of runaway fires, and numerous fires were indeed reported, especially in the City of Cape Town Metropolitan Municipality.

January 2024

On 1 January 2024, a ridging high pressure system extended over the eastern parts of the country, while a steep upper-air trough moved over the south-eastern parts of South Africa. Consequently, a severe thunderstorm developed over parts of the Lowveld of Limpopo that afternoon, damaging infrastructure and uprooting trees. The SAWS issued a warning for severe thunderstorms.

Sweltering, dry and windy conditions persisted throughout much of the Western Cape during January. Wildfires ignited over parts of the Western Cape, including parts of the Cape Winelands, during mid-to-late January. The Kluitjieskraal fire, which ignited near Wolseley in the Western Cape on 22 January 2024, consumed 20,000 hectares (ha) of vegetation in just a week, which, according to officials, was the largest wildfire in the province so far for 2024.

Photographs M to P: The Kluitjieskraal fire near Wolseley, Western Cape. *Source: Daily Maverick*

"On 23 January 2024, there was an ignition at Kluitjieskraal in the Wolseley area. Over the next three weeks, there were multiple ignitions throughout the Western Cape, with the concentration of conflagrations being the Boland and Whale Coast. On 31 January 2024, eight fires were burning on CapeNature land throughout the Western Cape. The first day where no fires were reported was on 7 February 2024, marking the end of a gruelling 15 days of firefighting by CapeNature staff. In total, 52 501 ha burnt, of which 15 587 ha were on the CapeNature estate." – Source: Cape Nature

February 2024

February 2024 was highlighted by an extended period of dryness over much of the country, resulting in a significant heat wave prevailing for more than a week. There were also periods of severe convection in places over the eastern half of the country.

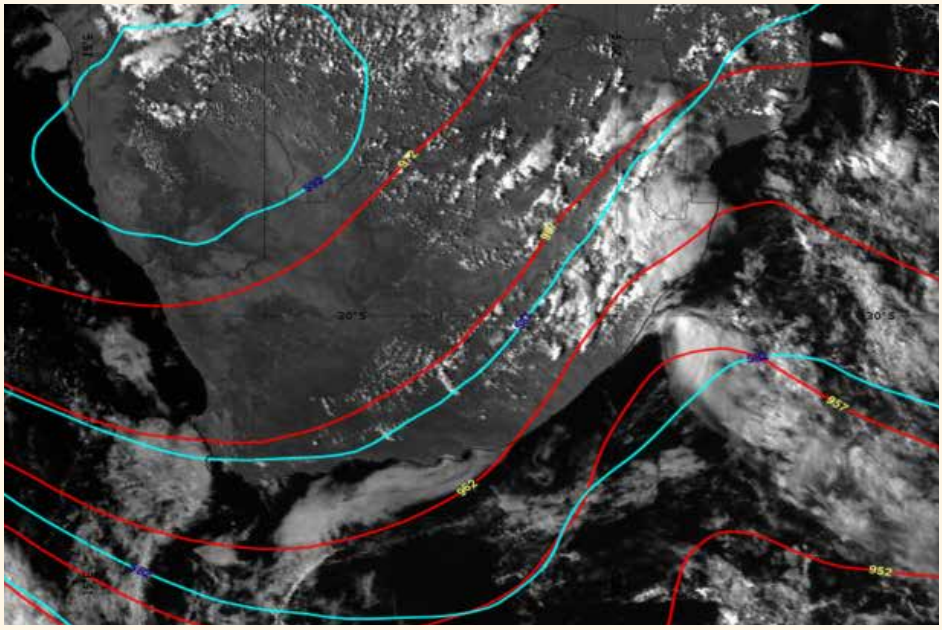


Figure 15: Yellow Level 2 impact-based warning for 17 February 2024. *Source: The SAWS*

On the afternoon of 5 February 2024, a severe thunderstorm occurred over Groblersdal, resulting in large hail, which led to infrastructure damage. While an upper-air high pressure system developed over Namibia, a weak upper-air trough extended over the eastern parts of the country, where scattered thunderstorms occurred, with some storms becoming severe. The SAWS issued a warning, which was valid for the escarpment, Highveld and Lowveld areas of Mpumalanga and Limpopo.

On 17 February 2024, a cut-off low-pressure system south of the country, with a ridging high pressure system, resulted in thunderstorm development over the northern parts of KwaZulu-Natal and the Highveld of Mpumalanga. Isolated severe thunderstorms occurred over the eastern Highveld, including around Ermelo, where large hail and damage to infrastructure occurred. A warning for severe thunderstorms was issued, particularly for the Highveld areas of Mpumalanga.

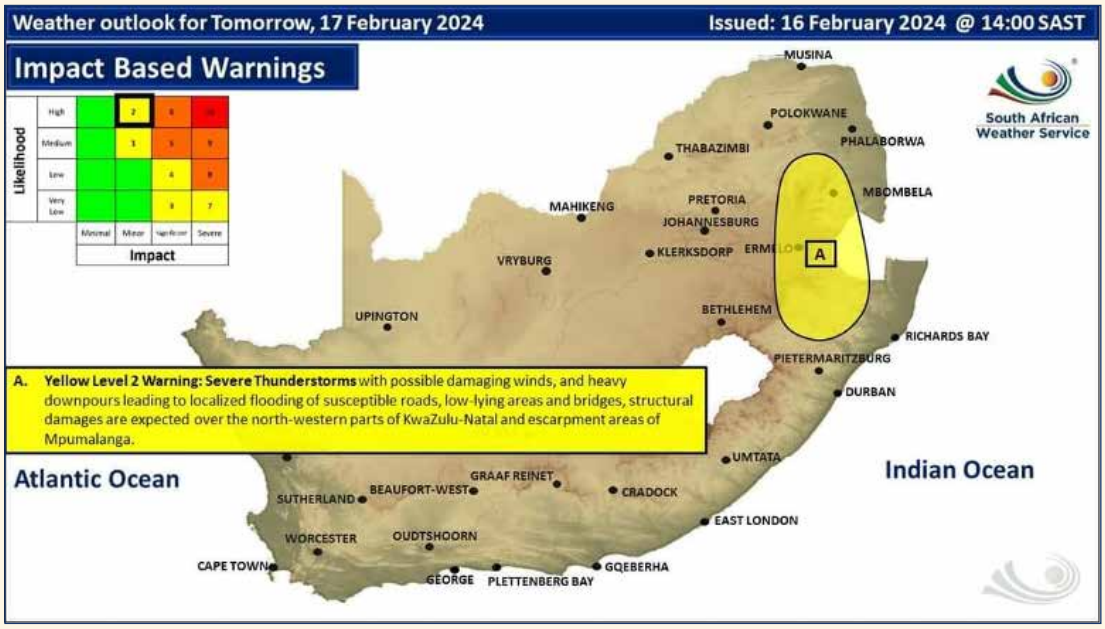


Figure 16: Yellow Level 2 impact-based warning for 17 February 2024. *Source: The SAWS*

March 2024

March also falls within the tropical cyclone season, with the forecast for the season projecting below-normal cyclone activity. However, there was still a chance for a tropical cyclone system to affect the sub-continent. This materialised when severe Tropical Storm Filipo affected South Africa in mid-March 2024.

Tropical Storm Filipo made landfall north of Vilanculos, Mozambique, on the evening of 11 March, with average wind speeds of 100 km/h. After that, Filipo moved across the southern parts of Mozambique as a post-tropical depression and caused widespread heavy rainfall and flooding. The extreme north-eastern parts of South Africa, particularly the extreme southern Lowveld (Komatipoort) and the extreme north-eastern parts of KwaZulu-Natal, received more than 100 mm of heavy rainfall.

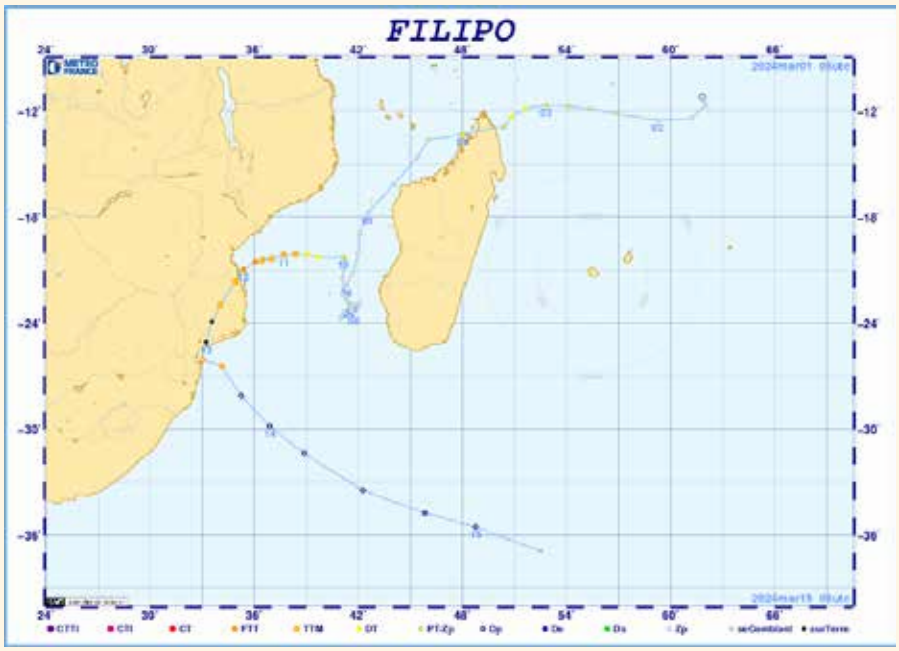


Figure 17: Tropical Storm Filipo's position at 12z on 12 March 2024. *Source: Eumetsat, 2024*

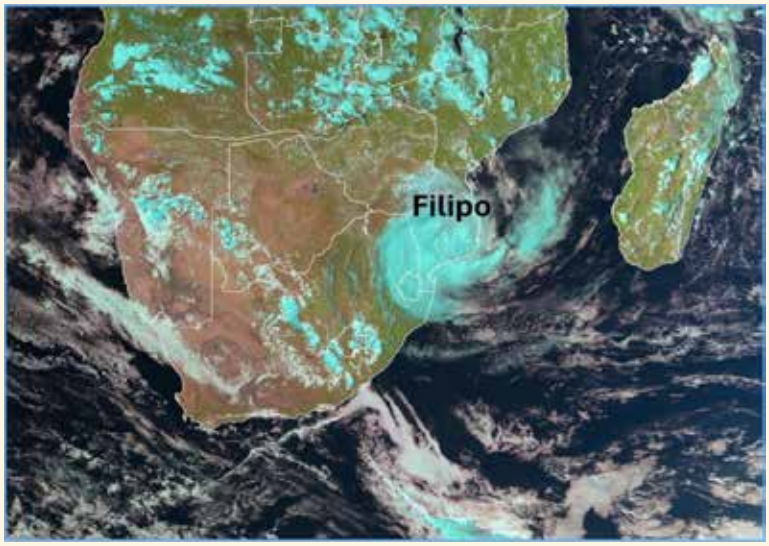


Figure 18: Tropical Storm Filipo's position at 12z on 12 March 2024. *Source: Eumetsat, 2024*

The SAWS issued several warnings for disruptive rainfall over the Lowveld areas of Mpumalanga and Limpopo, as well as the north-eastern parts of KwaZulu-Natal, from 13 March into the early part of 14 March 2024. Although no significant impacts were reported, heavy rainfall of more than 100 mm was reported in some areas.

3.1.2 Aviation meteorological services

The SAWS continues to be critical in improving global air navigation safety and efficiency. The SAWS ensured that all Significant Meteorological Advisories and Warnings (SIGMET and AIRMET) reached their intended destinations through its Meteorological Watch Office role.

To ensure that personnel responsible for aeronautical meteorological services and products are well equipped to deliver their assigned duties, Aeronautical Meteorological Forecaster (AMF) and Aeronautical Meteorological Observer (AMO) assessments were carried out. At the end of the year under review, the overall competency level for aeronautical meteorological personnel (AMP) was 95%.

Furthermore, South African Civil Aviation Authority (SACAA) audits were carried out, and some administrative recommendations were made. Evidence relating to competency assessments for AMP was shared with the SACAA auditors. These inspections assess whether the work carried out by aeronautical forecasters and meteorological technicians meets the minimum requirements set out by the International Civil Aviation Organization (ICAO) and SACAA regulations and technical standards.

All performance targets for Aerodrome Warnings and Terminal Aerodrome Forecasts (TAF) were achieved, realising accuracies of 99,22% and 94,99%, respectively. A total of 703 Aerodrome Warnings were issued, with thunderstorm warnings amounting to 70,84%.

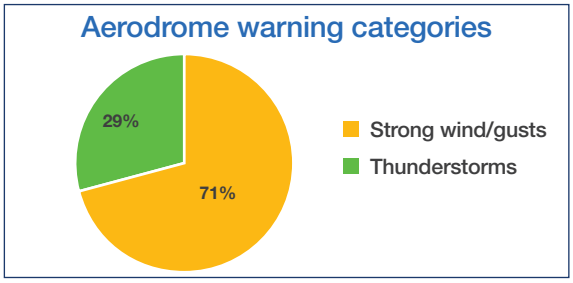


Figure 19: Aerodrome warning categories.

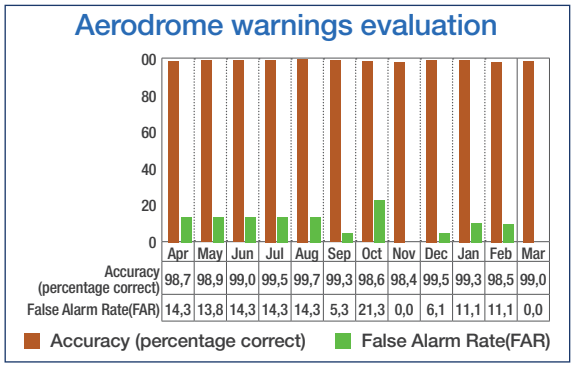


Figure 20: Aerodrome warnings evaluation.

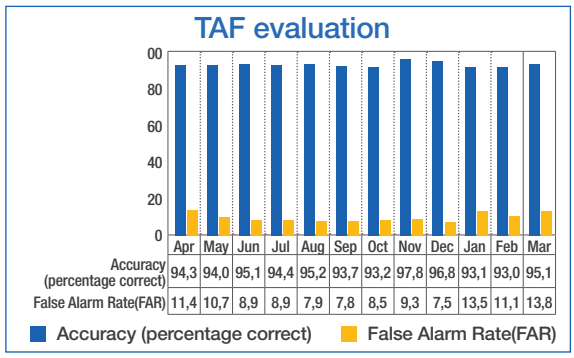


Figure 21: Terminal Aerodrome Forecast (TAF) Evaluation.

Enhancement work was underway to build the next-generation Secure Aviation Data Information Service Application Programmer Interface (SADIS API) and World Area Forecast Internet File Service (WIFS) API. These are done in collaboration with the World Area Forecast System (WAFS) workstream to ensure consistent functionality. The WAFS gridded data became operational in November 2023, with the API component for providing WAFS Significant Weather (SIGWX) data sets expected to be operational in July 2024. The SAWS aviation systems have already been prepared to accommodate these upgrades.

10 July 2023 hoar frost incident that affected parked aircraft at OR Tambo International Airport

Hoar frost is a type of frost that develops when the air is saturated with moisture and the temperature of the surface on which it forms is below freezing. It typically appears as delicate ice crystals that grow and accumulate on surfaces.

When an aircraft is parked outdoors during cold and humid weather, such as in winter or regions with high humidity, it can be susceptible to the formation of hoar frost. The frost can develop on various aircraft parts, including the wings, fuselage, tail, and other exposed surfaces.

On 10 July 2023, a strong ridging high pressure system and a steep upper-air trough dominated the eastern parts of the country after the cold front's passage. The combination of the two systems resulted in the temperature dropping over most of the country, with showers and rain over the eastern and southern parts. Freezing levels also fell below 6000 ft, resulting in snow occurring over the high lying areas of the country. The minimum temperature was expected to drop below 0 degrees Celsius at OR Tambo International Airport. The air was also expected to be saturated due to high humidity, and clear skies were expected in the morning, resulting in rime/hoar frost on parked aircraft.

A few aircraft were affected by hoar frost, resulting in some delays.

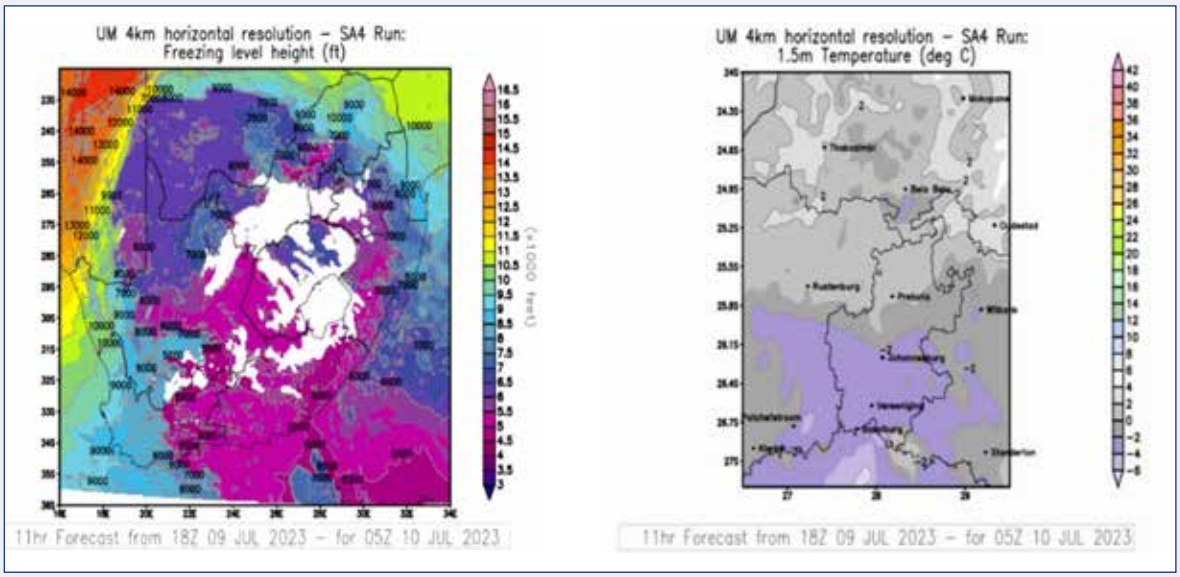


Figure 22: Unified Model (UM) 4 km freezing levels dropping below 6000 ft at OR Tambo International Airport, and the figure on the right shows UM 4 km 1,5 m temperatures dropping below 0 degrees Celsius at 05Z at OR Tambo International Airport.

20 February 2024 Aircraft diversions at OR Tambo International Airport due to bad weather

Bad weather conditions can significantly disrupt air travel, leading to delays, diversions, and inconvenience for passengers and airlines. On the afternoon of 20 February 2024, severe thunderstorms around the airport resulted in several airlines diverting from OR Tambo International Airport. The challenges imposed by severe weather, such as thunderstorms, disrupt aerodrome activities, thus affecting safety and efficiency in operations. Due to such thunderstorms, some long-haul aircraft, e.g., Emirates Airlines, had to divert to King Shaka International Airport.

Our Aeronautical Meteorological Forecasters forecasted these thunderstorm activities around the airport and issued appropriate warnings in advance.

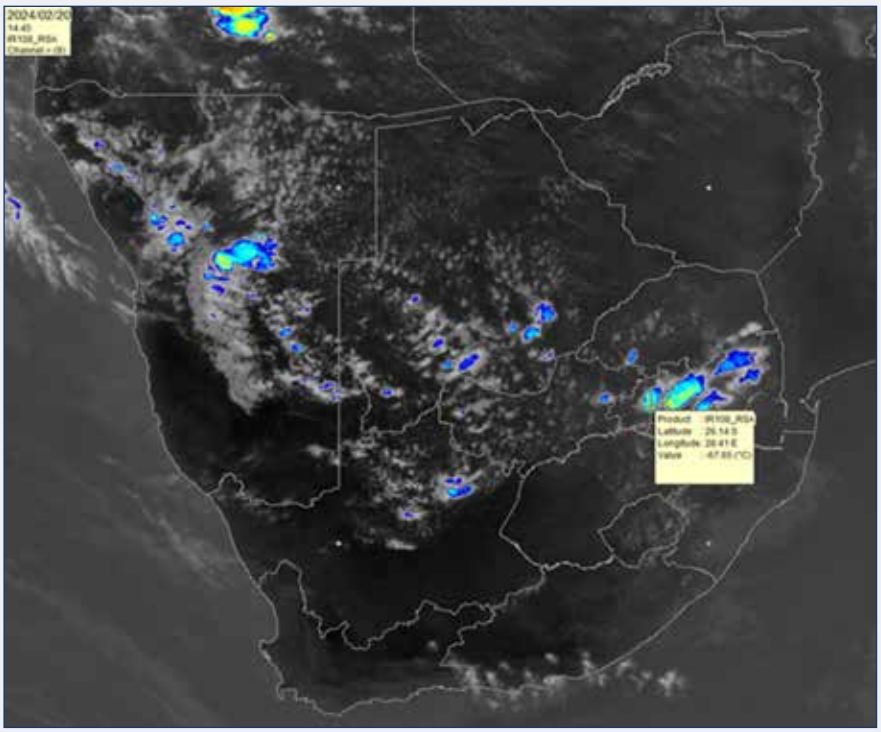


Figure 23: Infrared satellite image (IR imagery) overlayed with cloud top temperatures on 20 February 2024 at 1445Z. *Courtesy: EUMETRAIN, 2024*

3.1.2.1 Aviation Stakeholder engagements

a) African Planning and Regional Implementation Group (APIRG)

African Planning and Regional Implementation Group (APIRG) Project Coordination Committee (APCC) Infrastructure and Information Management subgroup (IIM/SG) Meteorology Project 1 meetings were held monthly during the first and second quarters of the period under review. The frequency of these meetings was due to the preparatory work for the sixth face-to-face Infrastructure and Information Management Subgroup (IIM/SG6) meeting, which took place from 31 July to 3 August 2023 in Nairobi, Kenya. The IIM/SG Met Project 1 team, one of the working groups led by the SAWS / South African representative, prepared and presented the working paper and four supporting documents to the IIM/SG6 meeting. The objective of the APIRG IIM/SG Met Project 1 is to assist States within the ICAO African region to:

- review and conduct a gap analysis between their National Aviation System Block Upgrade (ASBU) Plans and the Regional Air Navigation Plan;
- update their National Plans to integrate ASBU elements applicable in their area; and
- implement the State ASBU implementation action plan and transition from current aeronautical meteorological information to the future System Wide Information Management (SWIM)-enabled environment in the Africa-Indian Ocean Region (AFI) region. This is done by assisting AFI States in progressively developing the capability of handling Operational Meteorological (OPMET) data in digital format (XML/GML) and starting to use [Extensible Mark-Up Language / Geographic Mark-Up Language (XML/GML)] codes in the operational environment.

b) Advisory Committee on Aeronautical Meteorological Services (ACAMS)

The Advisory Committee on Aeronautical Meteorological Services (ACAMS) holds quarterly meetings hosted by the SAWS. These meetings focus on operational issues and performance for providing aeronautical meteorological services for domestic and international air navigation. The committee consists of stakeholders representing airlines, the South African Civil Aviation Authority (SACAA); Air Traffic and Navigation Services (ATNS); the South African Air Force (SAAF); the Airports Company South Africa (ACSA); Aerodrome Authorities (AA); the Commercial Aviation Association of Southern Africa (CAASA); and recreational aviation.

c) The Meteorological Operations Groups working group: International Airways Volcano Watch Work Stream

The Meteorological Operations Groups (MOG) working group meets every quarter and is responsible for the operational oversight of the International Airways Volcano Watch (IAVW). The IAVW workstream is working with the IAVW Concept of Operations, with new developments to be consistent with the International Civil Aviation Organization Meteorology Panel (ICAO METP) requirements development process, and progressed in coordination with other METP working groups, as appropriate. The benefits are to provide information to support safety risk management of aircraft operations related to pre-eruptive volcanic activity, volcanic eruptions and areas of volcanic ash and gas in the atmosphere and by integrating the information produced under the IAVW into the System Wide Information Management (SWIM) environment in line with the Global Air Navigation Plan (GANP).

3.1.3 Marine services

The SAWS successfully achieved its target of collecting marine meteorological data over the surrounding oceans through the South African National Antarctic Programme (SANAP), a collaboration with the Oceans and Coasts Branch of the DFFE. About seven meteorological technicians were deployed to the remote island stations Marion and Gough and the South African National Antarctic Expedition (SANAE) to ensure ongoing collection and reporting of meteorological data.

Surface and upper-air meteorological data, including sea-surface data along the South African coastline, collected at the remote islands and through the SA Agulhas II, were submitted to the Global Telecommunication Systems (GTC). Additionally, between 2022/23 and 2023/24, the SAWS deployed about 20 drifting buoys that were donated by the Data Buoy Cooperating Panel (DBCP) to the surrounding oceans as part of the objective to increase marine weather observations in the world for improved understanding of the oceans and better accuracy of numerical weather prediction models.

The remote island stations experienced communication challenges in reporting meteorological data to the SAWS climate database. Due to equipment failure, the upper-air data for Gough Island was not adequately documented in September 2023.

The International Maritime Organization (IMO) is the equivalent of the World Meteorological Organization (WMO), responsible for the safety and security of shipping and preventing marine and atmospheric pollution by ships. South Africa is a member of IMO and is led by the Department of Transport (DoT). The SAWS was audited by the International Maritime Organization (IMO) Member State Audit Scheme (IMSAS) in November 2023 in relation to the provision of marine meteorological services to support search and rescue activities in the maritime space as well as other activities. No findings were made.

Storm surge event of 16 to 17 September 2023

The SAWS houses and runs a high-resolution Wave and Storm Surge model (SWaSS), which provided an accurate forecast of the positive storm surge event of 16 to 17 September 2023 that led to damage to property along the South African coastline as reported across various media platforms, as well as loss of lives. The regional significant wave height reaching more than 6 m in certain areas along the coast is shown in the forecasted map for 16 September 2023 at 16h00 SAST.

During this event, the total predicted water level exceeded the predicted tide, resulting in excess water along the coastline (i.e., storm surge occurring), as shown in Figure 26 for Gqeberha. However, the event also occurred in other locations (not shown).

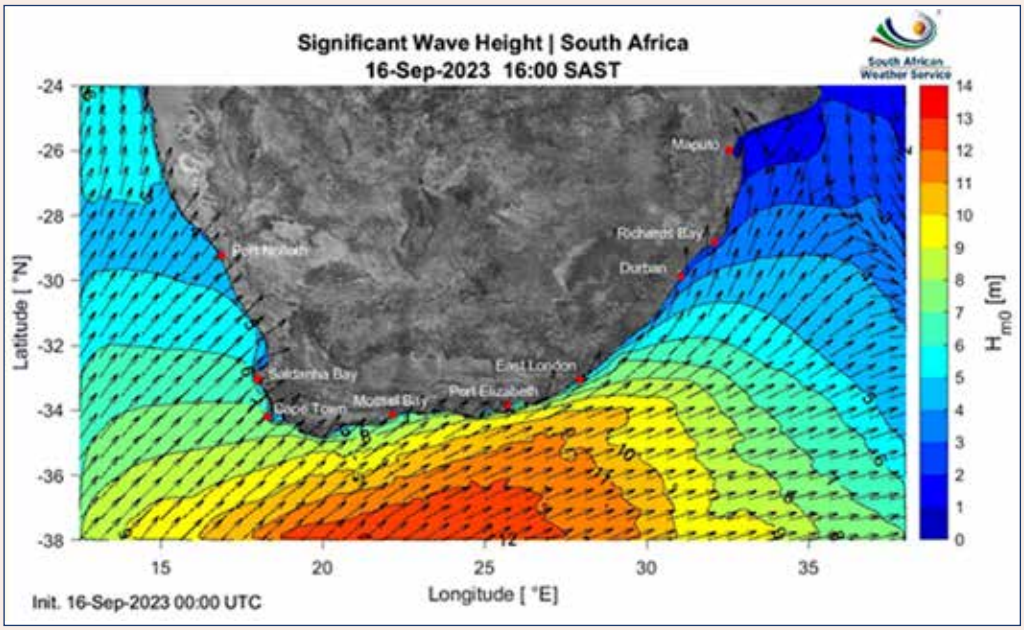


Figure 24: Forecasted wave conditions around South Africa for 16 September 2023 at 16h00 SAST, showing the significant wave height (m) and wave direction.

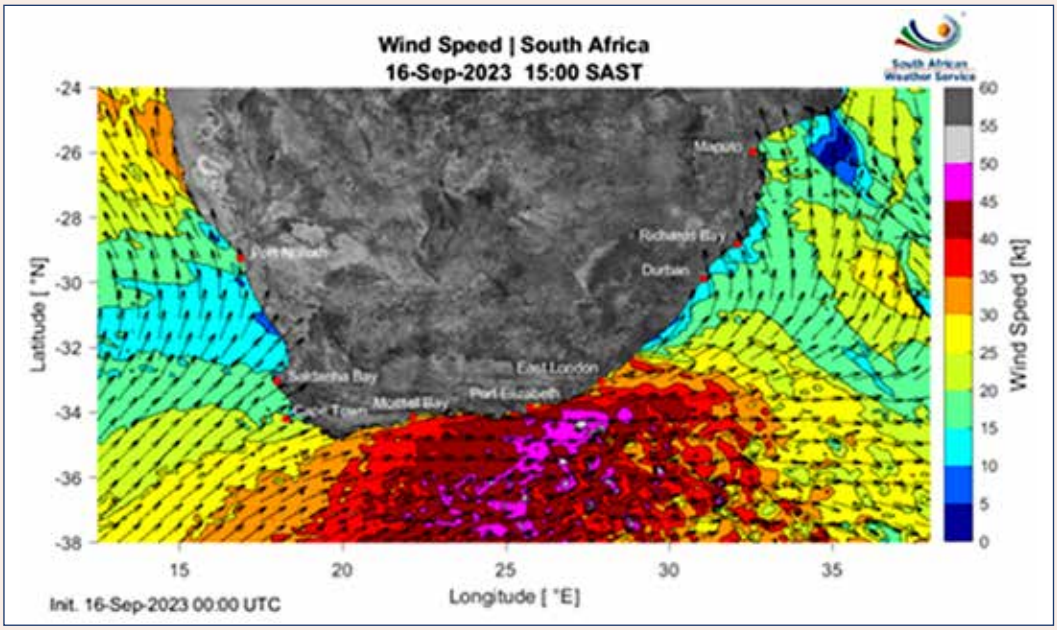


Figure 25: Forecasted onshore winds associated with the low-pressure system for 16 September 2023 at 15h00 SAST.

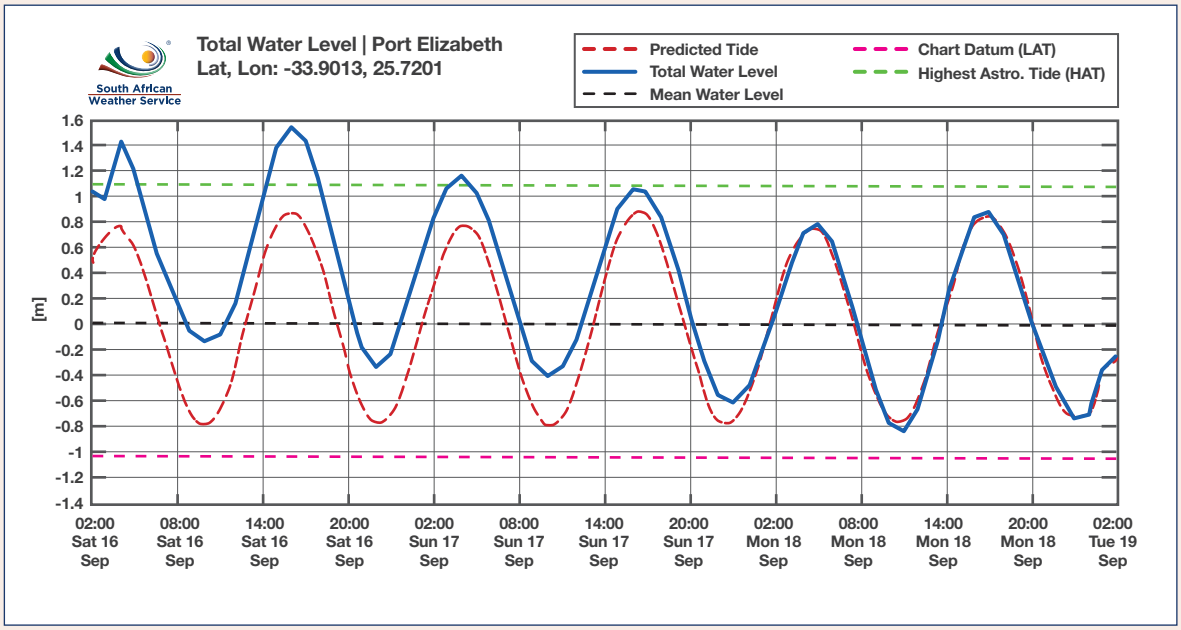


Figure 26: Predicted total water level (m) and tide for Gqeberha (Port Elizabeth) for 16 to 19 September 2023.

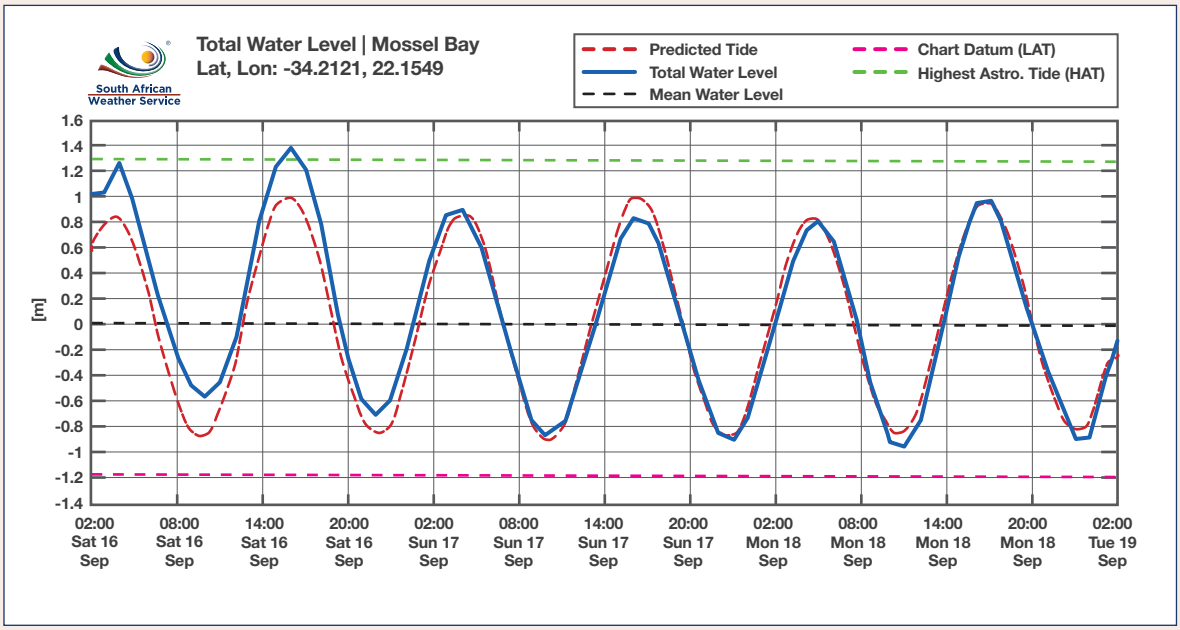


Figure 27: Predicted total water level (m) and tide for Mossel Bay for 16 to 19 September 2023.

This weather event occurred when the high tide coincided with a spring tide, thus significantly increasing the build-up of water along the coast.

Rip Hazard Forecast model for the Cape Peninsula

The SAWS recently operationalised a Rip Hazard Forecast model for the Cape Peninsula, contributing to the safety of lives along the coastal regions. This model was developed through partnerships with the UK Met Office and other strategic partners in South Africa.

Rip currents are powerful, narrow water channels quickly flowing away from shore. They form when waves at the surf zone drive water powerfully back to the sea, cutting through the lines of breaking waves and forming a current, like a river flowing out to sea.

Globally, rip currents are responsible for about 70 to 80% of fatal drowning cases per annum. The City of Cape Town experienced about 30 fatal drownings during the beach-going season of 2017/18 – 2018/19 related to rip currents. The model will forecast the likelihood of rip currents and the period of occurrence in about six beaches within the Cape Peninsula area, including Blouberg Beach, Fish Hoek, Monwabisi Beach and Strand Beach. Below are headlines for some of the reported rip current incidents.

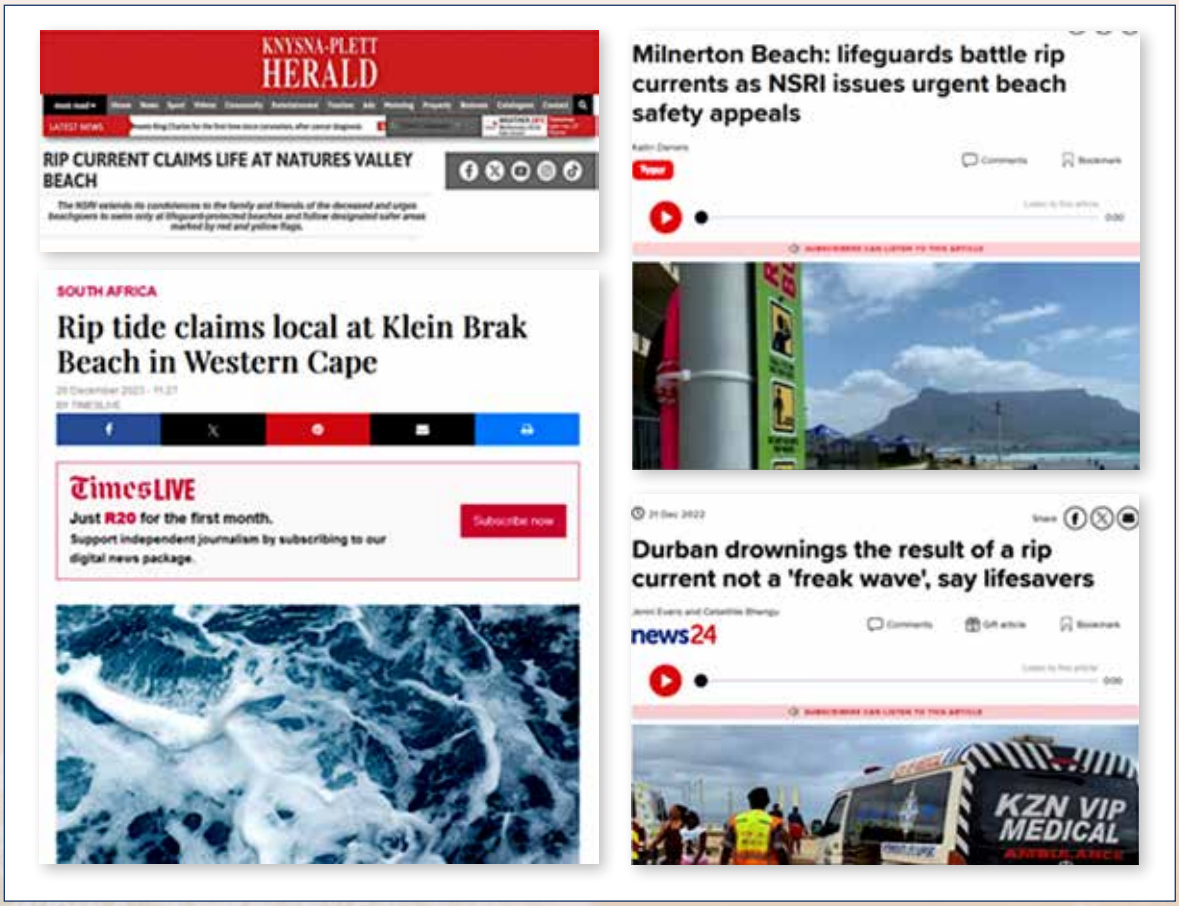


Figure 28: Rip-current headlines.

3.1.4 Annual performance results

● Sub-programme 1.1: Warnings, alerts and advisories

Purpose: To provide timeous and accurate impact-based early warnings, alerts and advisories to safeguard life and property against the impact of severe weather on land, oceans and in the air.

Table 2: Annual performance results - Sub-programme 1.1

Outcome	Output	Output indicators	Audited actual performance 2021/2022	Audited actual performance 2022/2023	Planned annual target 2023/2024	Actual achievement 2023/2024	Reasons for deviations
Lives and property protected against meteorological-related risks	Meteorological related solutions provided to meet user needs	Percentage availability of National Weather (FPZA41)	98,77%	97,95%	98%	Achieved 99% availability of National Weather (FPZA41) Average of quarterly performance (98,88% + 97,28% + 99,46% + 99,43%) ÷ 4 = 98,76%	None.
		Percentage accuracy of aerodrome warnings	98,73%	98,56%	98%	Achieved 99% accuracy of aerodrome warnings Average of quarterly performance (98,98% + 99,53% + 99,42% + 98,93%) ÷ 4 = 99,22%	Numerical Weather Prediction models contributed to high accuracies.
		Percentage accuracy of Terminal Aerodrome Forecast (TAF)	94,14%	96,71%	92%	Achieved 95% accuracy of Terminal Aerodrome Forecast Average of quarterly performance (94,45% + 94,48% + 96,96% + 94,08%) ÷ 4 = 94,99%	Numerical Weather Prediction models contributed to high accuracies.
		Percentage availability of Marine products (SOLAS - Safety of Life at Sea)	98,97%	98,76%	95%	Achieved 99% availability of Marine Products (SOLAS) Average of quarterly performance (99,73% + 99,44% + 97,53% + 97,51%) ÷ 4 = 98,54%	Less active marine weather resulted in quicker product preparation and dissemination.

3.1.5 Linking performance with budgets

Table 3: Linking performance with budgets - Programme 1

Programme/activity/ objective	2023/24			2022/23		
	Budget R'000	Actual expenditure R'000	(Over)/Under expenditure R'000	Budget R'000	Actual expenditure R'000	(Over)/Under expenditure R'000
Weather and Climate Services	14 041	15 639	(1 598)	18 225	14 810	3 415

3.2 Programme 2: Research and innovation

Purpose: Develop meteorological solutions to inform wise socio-economic choices.

Sub-programme 2.1: Research

Purpose: To generate new scientific insights in atmospheric and related sciences in collaboration with relevant stakeholders. To expand the existing knowledge base and intelligence related to climate change.

Sub-programme 2.2: Solution Development

Purpose: The provision of innovative meteorological and related products and services through the development and implementation of community weather-smart products and services.

Outcome: Lives and property protected against meteorological-related risks.

3.2.1 Research

As one of the world-renowned meteorological services, the SAWS is pivotal in advancing research and scientific progress. This advancement underpins the delivery of information, advice, impact-based forecasts, warnings and associated services for the benefit of the public. These contributions span a broad spectrum of scientific endeavours, ultimately enhancing society's understanding and response to the intricacies of the Earth's atmosphere in the ever-important realm of atmospheric sciences.

The SAWS is instrumental in collecting data on weather and atmospheric conditions. This abundance of information is foundational for collaborative scientific research conducted with academic institutions and research organisations. These collaborations foster joint research initiatives, facilitate data sharing and promote the exchange of expertise, thereby driving scientific advancements in meteorology and related sciences.

Moreover, the SAWS is at the forefront of innovation through conducting research studies that significantly add value to:

- Improving the understanding of atmospheric processes - by contributing to deepening the understanding of complex atmospheric phenomena, shedding light on the intricacies of weather and climate systems.
- Improving weather forecasting models and techniques - through continuous research efforts focused on refining and improving weather forecasting models and techniques. This dedication leads to more accurate and reliable predictions.
- Disaster Risk Reduction - the SAWS actively contributes to disaster risk reduction by issuing early warnings and forecasts for extreme weather events. These efforts align with the United Nations' Sendai Framework and Early Warning for All (EW4ALL) initiatives, aiming to safeguard lives and property.

Research conducted by the SAWS serves as an invaluable resource for policymakers, offering evidence-based insights that inform decisions related to climate change adaptation, disaster preparedness, and environmental management. Policymakers are guided in effectively addressing weather and climate-related challenges, benefiting society.

The SAWS collaborated with users and partners to co-develop user-centric and innovative products and services. This collaboration integrates social and behavioural science to enhance impact-based forecasting and mitigate meteorological risks for safeguarding lives and property.

To enhance research capacity and knowledge generation, scientists and researchers across the SAWS produced 36 research outputs (see Table 4). These outputs encompass peer-reviewed articles, conference papers, theses, book chapters and research project reports. They represent SAWS' dedication to advancing meteorological sciences and services, aligning with the constitutional vision of improved quality of life of all citizens as outlined in the Constitution of the Republic of South Africa, 1996 (Act No. 108 of 1996 as amended).

Table 4: Research outputs

DETAILED RESEARCH OUTPUT FOR THE PERIOD UNDER REVIEW	
Articles in scientific journals	
1.	AGBEHADJI, I.E., MABHAUDI, T., **BOTAI, J.** AND MASINDE, M. 2023. A Systematic Review of Existing Early Warning Systems' Challenges and Opportunities in Cloud Computing Early Warning Systems. *Climate*, **11**(9), Sep, 188, 34 pp. https://doi.org/10.3390/cli11090188
2.	DONAT, M.G., DUNN, R.J.H., SCHLEGEL, R.W. AND **KRUGER, A.** 2023. Surface temperatures extremes [in "State of the Climate in 2022: Regional climates"]. *Bulletin of the American Meteorological Society*, **104** (9), Sep, pp. S33-S35. https://ametsoc.net/sotc2022/SOTC2022_Ch2-GlobalClimate.pdf
3.	DUNN, R.J.H., HEROLD, N., ALEXANDER, L.V., DONAT, M.G., ALLAN, R., BADOR, M., BRUNET, M., CHENG, V., WAN IBADULLAH, W.M., BIN IBRAHIM, M.K.I., **KRUGER, A.**, KUBOTA, H., LIPPMANN, T.J.R., MARENGO, J., **MBATHA, S.**, MCGREE, S., **NGWENYA, S.**, CAICEDO, J.D.P., RAMOS, A., SALINGER, J., VAN DER SCHRIER, G., SRIVASTAVA, A., TREWIN, B., YÁÑEZ, R.V., VAZQUEZ-AGUIRRE, J., JIMÉNEZ, C.V., VOSE, R., BIN HJ YUSSOF, M.N.'A., AND ZHANG, X. 2024. Observed global changes in sector-relevant climate extremes indices - An extension to HadEX3. Earth and Space Science, 11, e2023EA003279. https://doi.org/10.1029/2023EA003279.
4.	HU, H., SUN, X., ZENG, B., GONG, D., ZHANG, Y., NYONGANYI, P. AND **TAZVINGA, H.**, 2024. Dispatch of a coal mine-integrated energy system: Optimization model with interval variables and lower carbon emission. Tsinghua Science and Technology. 10.26599/TST.2023.9010100
5.	LAMPTEY, B., SAHABI ABED, S., GUDOSHAVA, M., MUTEMI, J., **BOPAPE, M-J.**, ADEFISA, E.A., IGRI, M.P., SANDA, I.S., NDIAYE, O., PARKER, D.J., DOUGILL, A.J., FINK, A.H., KNIPPERTZ, P., WOOLNOUGH, S. & KOLSTAD, E.W. 2024. Challenges and Ways Forward for Sustainable Weather and Climate Services in Africa. *Nature Communications*, **15**, Article#2664, 4 pp. https://doi.org/10.1038/s41467-024-46742-6
6.	**KRUGER, A.C.**, **McBRIDE, C.**, ROBJHON, M., THIAW, W.M. AND DIRKSE, S. 2023. Southern Africa [in "State of the Climate in 2022: Regional climates"]. *Bulletin of the American Meteorological Society*, **104** (9), Sep, pp. S409-S412. https://ametsoc.net/sotc2022/SOTC2022_Ch7-RegionalClimates.pdf
7.	**MAHLOBO, D.**, ENGELBRECHT, F., NDARANA, T., ABUBAKAR, H.B., OLABANJI, M.F. AND **NCONGWANE, K.** 2023. Analysis of the Hadley cell, Subtropical Anticyclones and their effect on South African Rainfall. Theoretical and Applied Climatology, Published 11 Oct, 20 pp. https://doi.org/10.1007/s00704-023-04674-z
8.	**MAISHA, R.T.**, NDARANA, T., ENGELBRECHT, F.A., THATCHER, M., BOPAPE, M-J. M., VAN DER MERWE, J., PADAYACHI, Y. AND MASEMOLA, C. 2023. Simulation of the eThekwini Heat Island in South Africa. *Journal of Applied Meteorology and Climatology*, **62**(5), May, pp. 589-609. https://doi.org/10.1175/JAMC-D-21-0231.1
9.	MENDES, J., **ZWANE, N.**, **MABASA, B.**, **TAZVINGA, H.**, WALTER, K., MORCRETTE, C.J. AND **BOTAI, J.** 2023. An Analysis of the Effects of Clouds in High-Resolution Forecasting of Surface Short-wave Radiation in South Africa. *Journal of Applied Meteorology and Climatology*, Early View, 1 Dec, 37 pp. https://doi.org/10.1175/JAMC-D-23-0058.1
10.	**NCIPHA, X.**, **KRUGER, A.** AND SIBALI, L. 2024. Interannual Variation of Half-Hourly Extreme Precipitation in Africa: The Assessment of the Warmest Decade (2011–2020) Since the Beginning of Observations. *Earth Systems and Environment*, Early view, 14 pages. https://doi.org/10.1007/s41748-024-00375-3
11.	PAGANO, T.C., CASATI, B., **LANDMAN, S.**, LOVEDAY, N., TAGGART, R., EBERT, E.E., KHANARMUEI, M., JENSEN, T.L., MITTERMAIER, M., ROBERS, H., WILLINGTON, S., ROBERTS, N., SOWKO, M., STRASSBERG, S., KLUEPFEL, C., BULLOCK, T.A., TURNER, T.T., PAPPENBERGER, F., OSBORNE, N. AND NOBLE C. 2024. Challenges of Operational Weather Forecast Verification and Evaluation. *Bulletin of the American Meteorological Society*, Early view (6 March), 26 pp.https://doi.org/10.1175/BAMS-D-22-0257.1
12.	**PHAKULA, S.**, LANDMAN, W.A. AND **ENGELBRECHT, C.J.** 2024. Probabilistic Skill of Statistically Downscaled ECMWF S2S Forecasts of Maximum and Minimum Temperatures for Weeks 1-4 over South Africa. *Meteorological Applications*, **31**(1), Jan/Feb, e2176, 13 pp.https://doi.org/10.1002/met.2176
13.	**PHAKULA, S.**, LANDMAN, W.A., **ENGELBRECHT, C.J.** 2024. Literature survey of sub seasonal-to-seasonal predictions in the southern hemisphere. *Meteorological Applications*, **31**(1), Jan/Feb, e2170, 16 pp. https://doi.org/10.1002/met.2170

DETAILED RESEARCH OUTPUT FOR THE PERIOD UNDER REVIEW	
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3.2.2 Climate services

3.2.2.1 State of the South African Climate

a) Temperature

South Africa experienced a relatively warm year, especially in the central and northern interior. In the south, however, temperatures were near-normal. The annual mean temperature anomaly for 2023, based on the data of 20 climate stations, was, on average, about 0,4°C above the average of the reference period (1991–2020), making it approximately the eighth hottest year on record since 1951 (see Figure 29). A warming trend of approximately 0,17°C per decade is indicated for the country over the period 1951 – 2023, statistically significant at the 5% level.

b) Precipitation

The most significant feature of the 2023 rainfall, presented in Figure 30, is the near-normal rainfall amounts received over most of South Africa, except for the north-western interior, which received well below normal rainfall. In contrast, some regions along the coast and extreme east received well above normal rainfall, especially in Mpumalanga.

3.2.2.2 Noteworthy climate and weather events

In South Africa, the year started with relatively wetter conditions in the central and western interior but drier than usual in the coastal regions and some north-eastern parts. KwaZulu-Natal was relatively hot and a few highest maximum and minimum temperatures were broken. In February, higher rainfall shifted to the east, with subsequent lower-than-normal maximum temperatures and drier conditions in the western interior. With the higher rainfall, several flash floods were reported, with accompanying damage to infrastructure and, in some cases, loss of life. In March, the Western Cape received much higher rainfall than normal, while it was relatively dry in the rest of the country. The higher-than-normal rainfall persisted in the Cape Town metropole in April; about 130 residents and 50 shacks were flooded after spells of heavy rain.

In May, most of the country received above-normal rainfall. Several major flooding events occurred in the eastern and south-eastern coastal regions, with more than 1,200 residents evacuated from their homes in the Nelson Mandela Bay Municipality in the Eastern Cape after heavy rains on the 13th. Much above-normal rainfall occurred over most of the south-western half of South African in June. Many flooding events were reported, with hundreds of people left destitute. Traffic disruptions in the main arterials connecting the south-west to the remainder of the country occurred. However, it was unusually hot and dry in the far north-east, and maximum temperatures of more than 30°C were reported in many cases.

Rainfall and temperature conditions in July and August were relatively normal. However, rainfall in September was characterised by many instances of flooding in the Western Cape. A series of floods caused by heavy rainfall on 24 and 25 September 2023 led to 11 fatalities, the closure of over 200 roads, and more than 80,000 people being left without electricity for an extended period.

From October, the extreme eastern parts of the country received significantly above-normal rainfall, with many floods occurring in KwaZulu-Natal. Apart from several fatalities, extensive damage to infrastructure occurred and hundreds of homes were destroyed. More than 20 people were killed in floods in Ladysmith, KwaZulu-Natal due to floods that occurred mainly on 24 December.

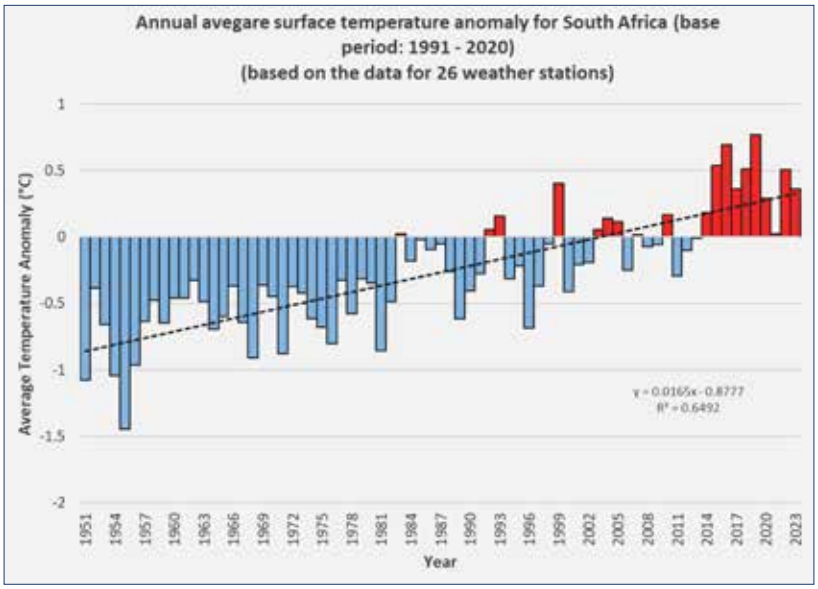


Figure 29: Average surface temperature deviation over South Africa based on 26 climate stations: 1951 – 2023 (base period: 1991 – 2020). The linear trend is indicated. *Source: The SAWS*

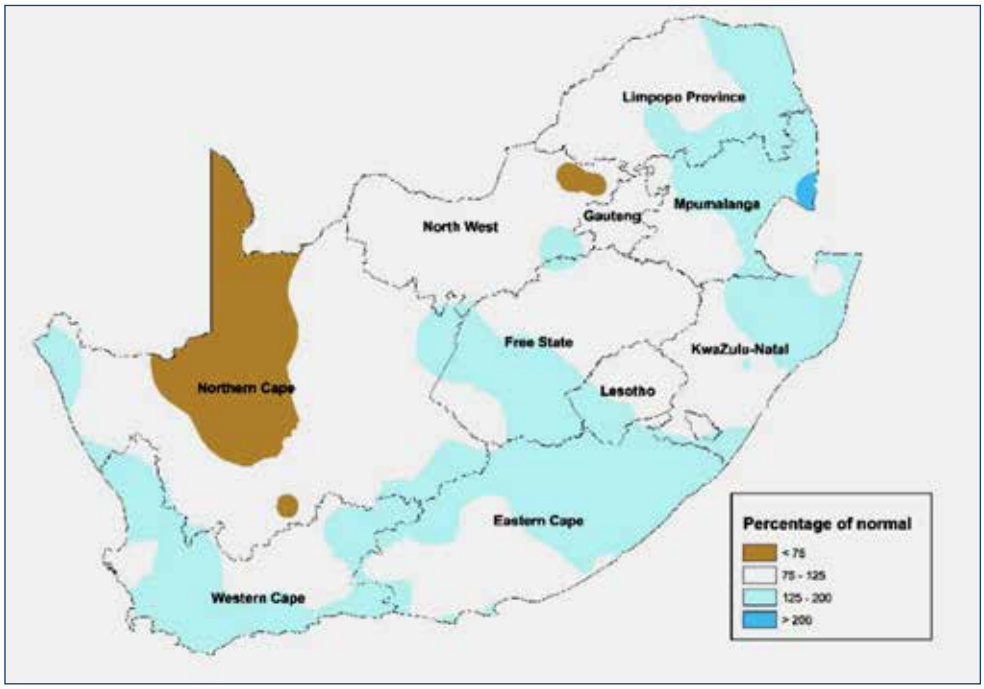


Figure 30: Rainfall anomalies (expressed as a percentage of the 1991 – 2020 annual average) for South Africa for 2023. *Source: The SAWS*

3.2.3 Solution development

3.2.3.1 Climate-specific solutions

The SAWS revised the publications on the general climate of South Africa to produce "Regional Weather and Climate of South Africa" publications. The development of these publications commenced with Gauteng, published during 2020/21. This publication included an examination of available Regional Climate publications globally. The SAWS was expected to provide, on an annual basis, one additional regional publication. For the 2023/24 financial year, the "Regional Weather and Climate: Limpopo" publication was completed. The publication covers the following topics and consists of 74 pages, 77 figures and 13 tables:

- Introduction (climate controls; climate regions; and seasonal weather)
- Surface winds (annual variation of wind direction and speed; annual variation of wind speed; strong winds of short duration; diurnal variation of wind speed and fire risk)

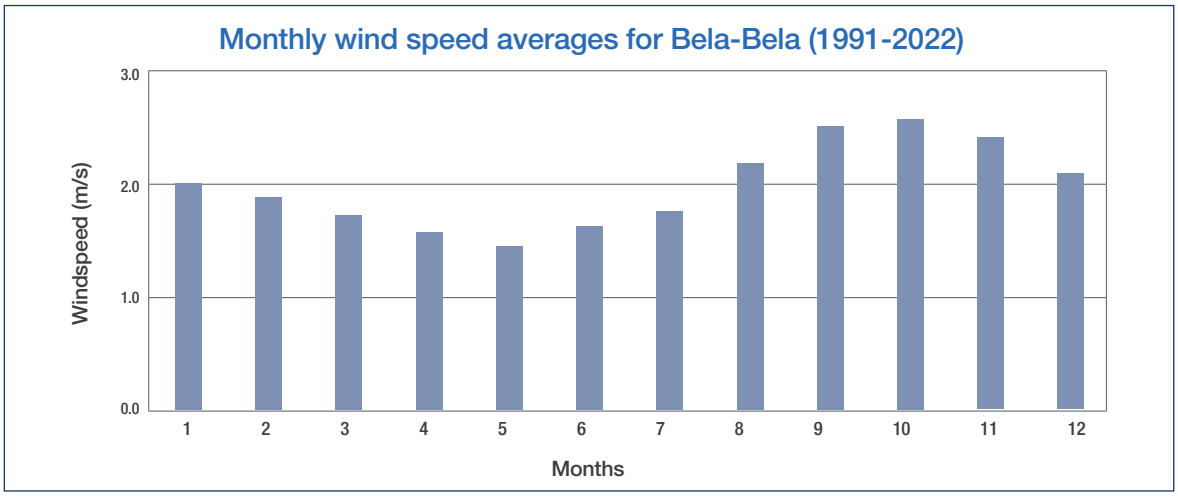


Figure 31: Monthly average wind speed over the period 1991 – 2022 for Bela-Bela.
Source: Regional Weather and Climate: Limpopo

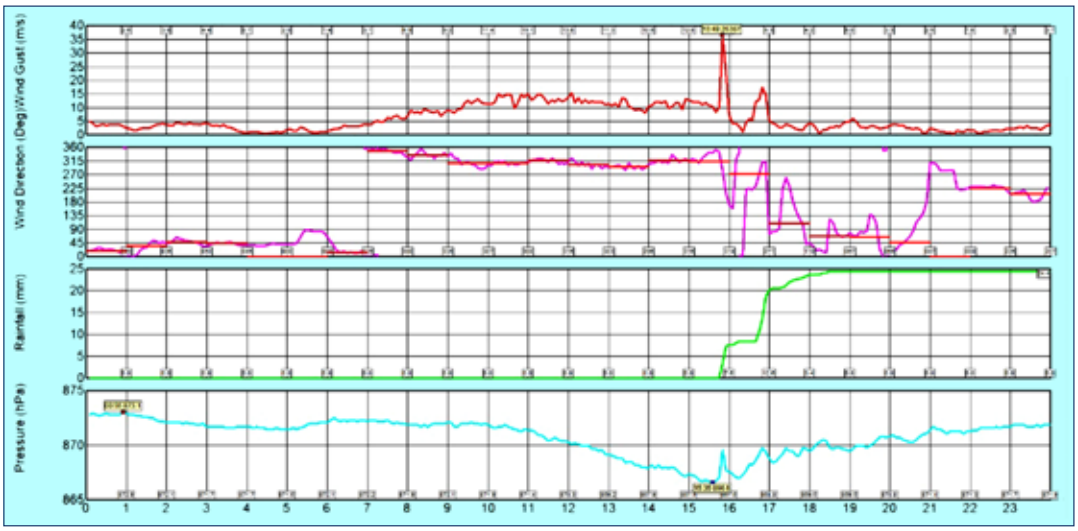


Figure 32: 5-minute measurements of wind gust (m/s), wind direction (degrees), rainfall (mm) and surface pressure (hPa) at Polokwane Weather Office on 15 November 2017, when probably the strongest wind gust was measured in the station's history. *Source: Regional Weather and Climate: Limpopo*

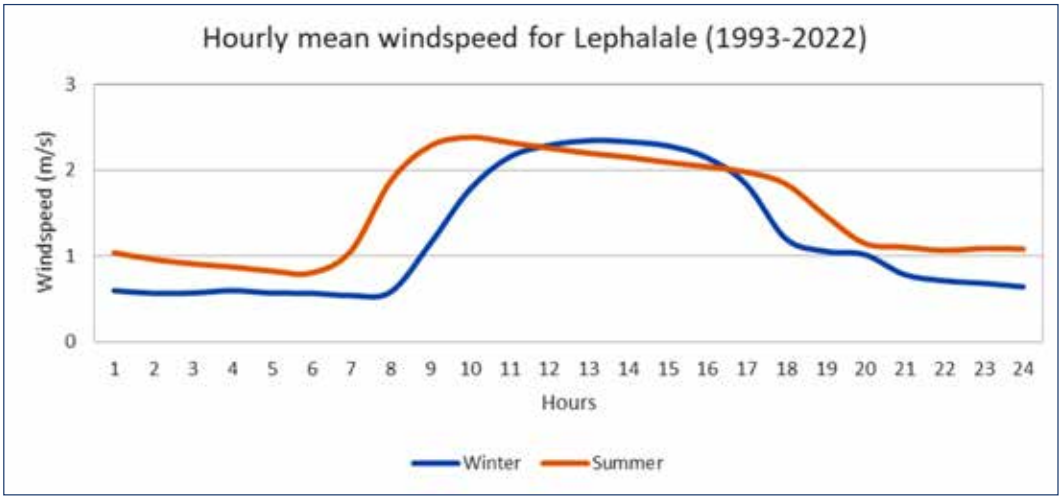


Figure 33: Hourly mean wind speed over 1993 – 2022 for Lephalale. *Source: Regional Weather and Climate: Limpopo*

- Surface temperature (mean seasonal and monthly temperature, extreme temperatures, temperature frequencies, apparent temperature, and frost)

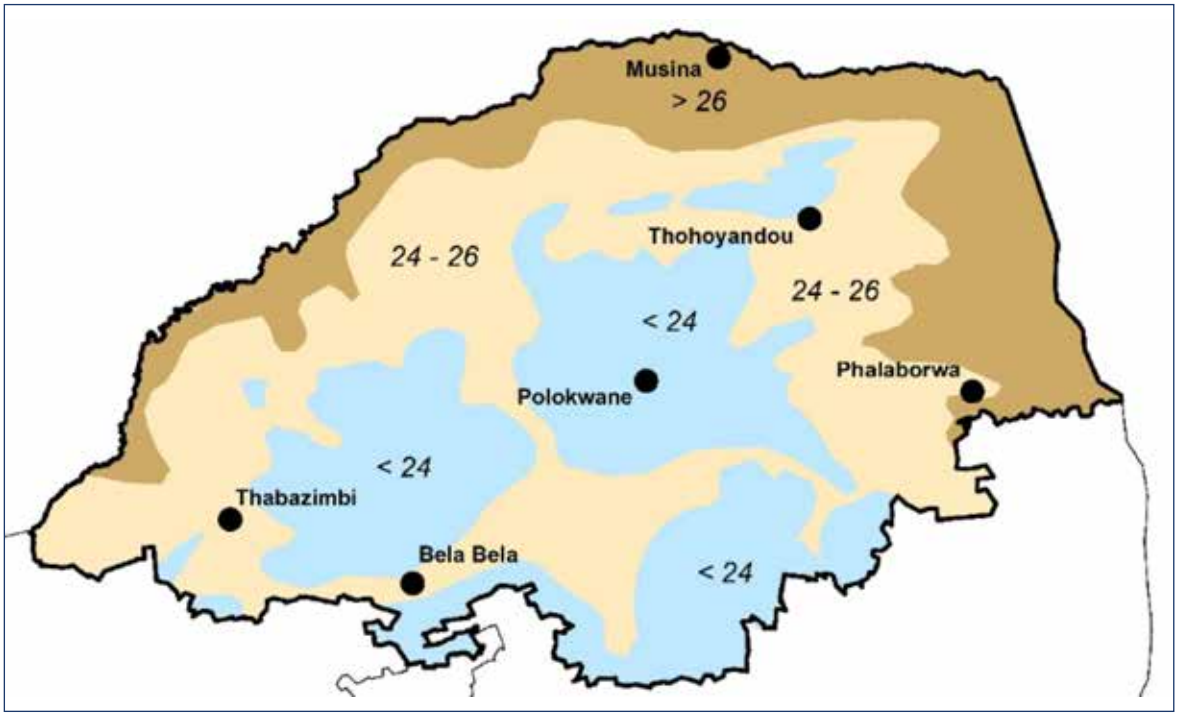


Figure 34: Mean summer December, January, February (DJF) temperature (°C) over Limpopo, based on topography and data for 1991 – 2020. *Source: Regional Weather and Climate: Limpopo*

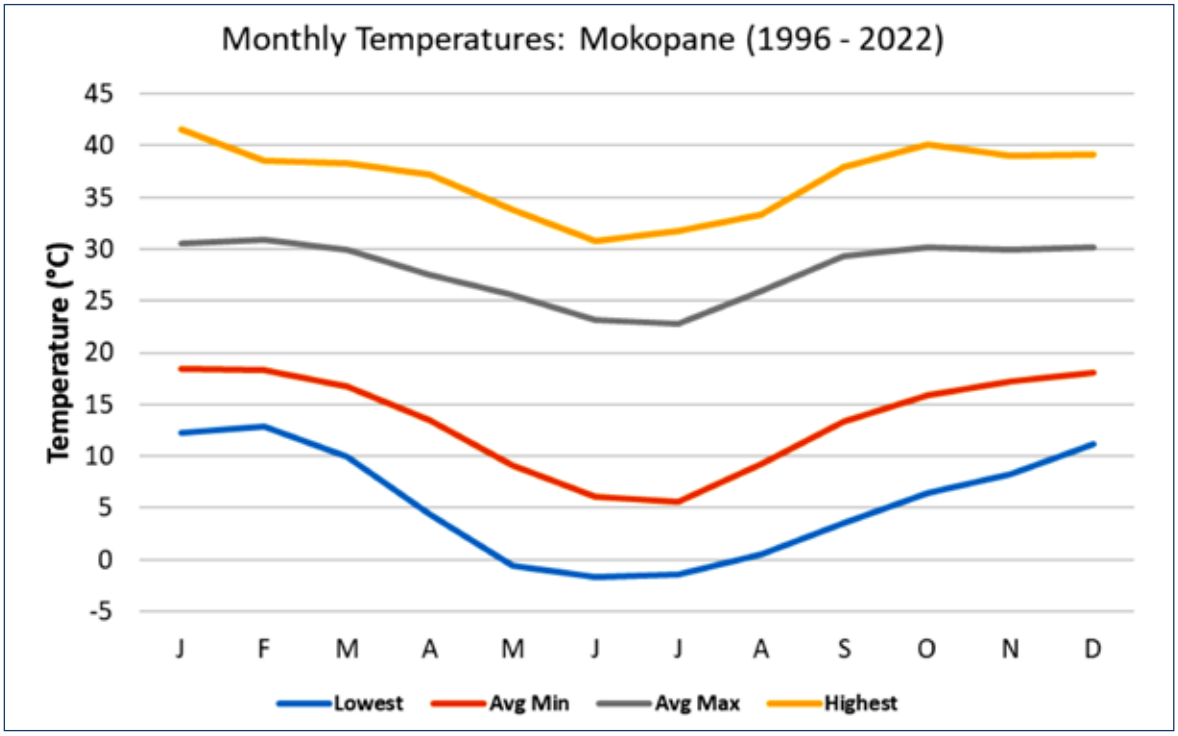


Figure 35: Monthly means and extremes of the maximum and minimum temperatures for Mokopane (1996 – 2022). *Source: Regional Weather and Climate: Limpopo*

- Sunshine and cloudiness (introduction; frequencies of days with sunshine within certain limits; different types of clouds and their frequencies of occurrence; and solar energy)

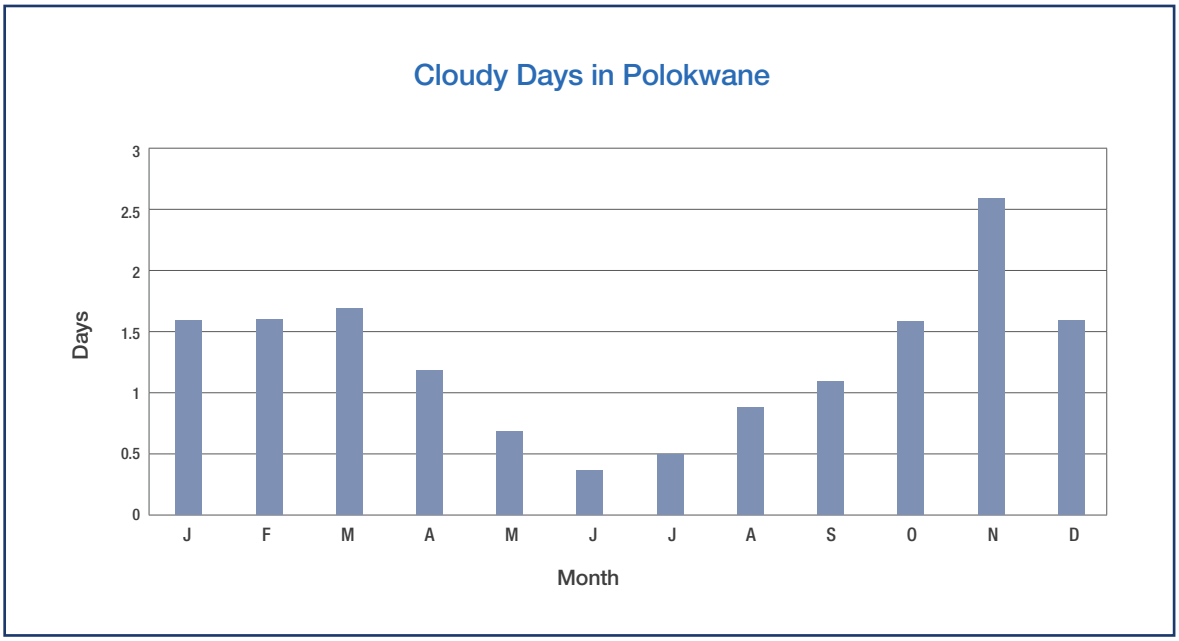


Figure 36: Average number of cloudy days in Polokwane for 2023.

- Precipitation (introduction; long-term trends; daily rainfall; hourly rainfall; sub-hourly rainfall intensity; heavy precipitation and thunderstorms; and hail). *Source: Regional Weather and Climate: Limpopo*

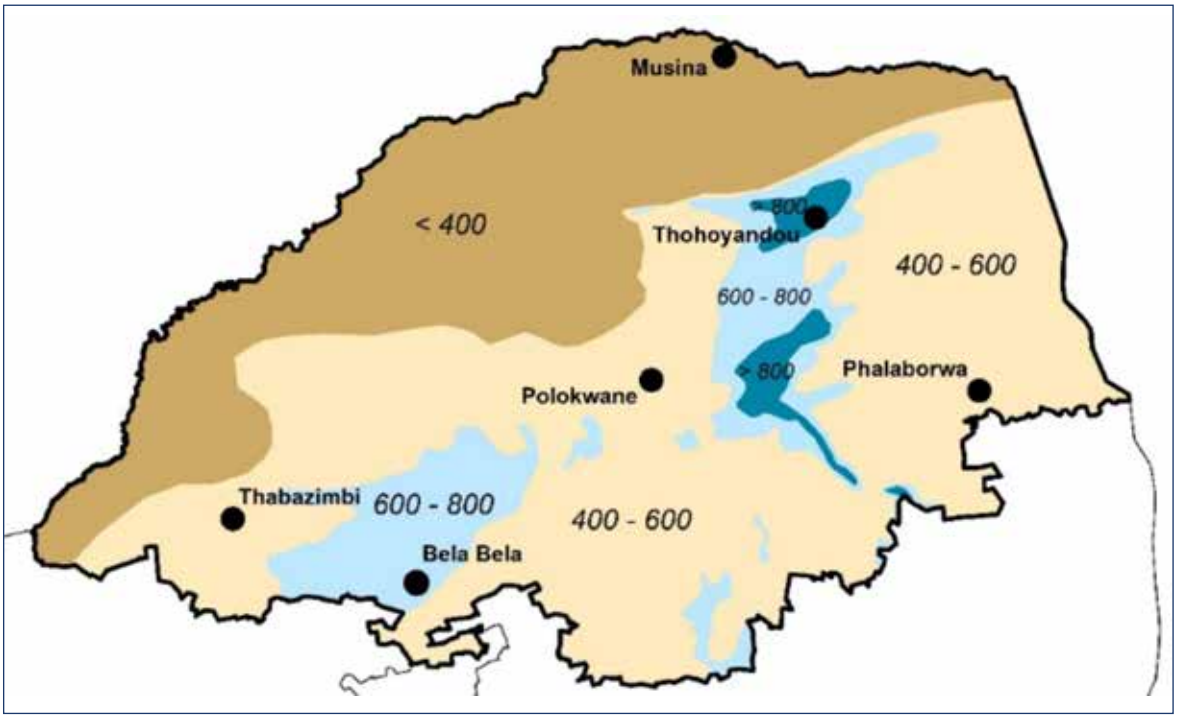


Figure 37: Mean annual rainfall (mm) based on topography and data over the period 1991 – 2020 (brown < 400, yellow 400 – 600, light blue 600 – 800, dark blue > 800 mm). *Source: Regional Weather and Climate: Limpopo*

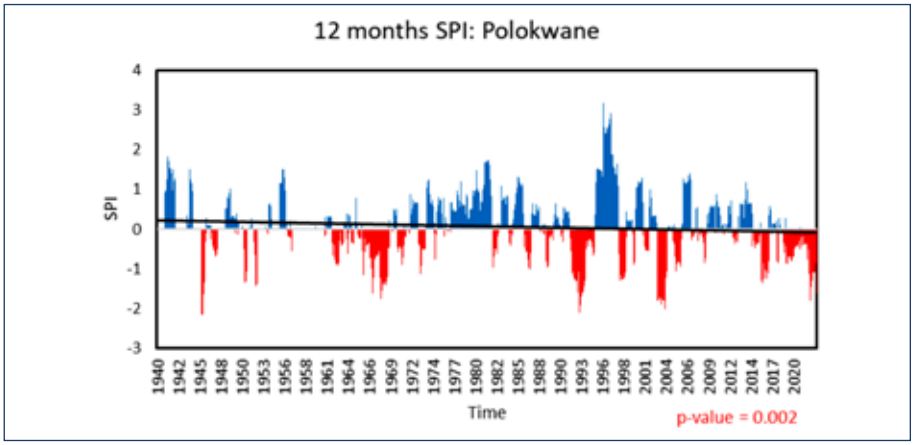


Figure 38: 12-month Standardised Precipitation Index (SPI) for Polokwane (1940 – 2022).
Source: Regional Weather and Climate: Limpopo

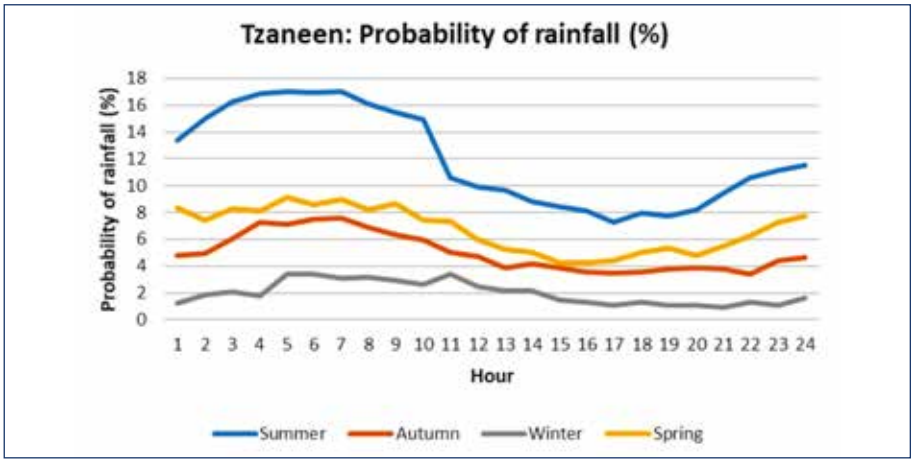


Figure 39: Probability of rainfall (%) during specific hours at Tzaneen (2007 – 2023).
Source: Regional Weather and Climate: Limpopo

- Climate change (introduction; trends in the average climate; trends in extreme climate; and significant weather events)

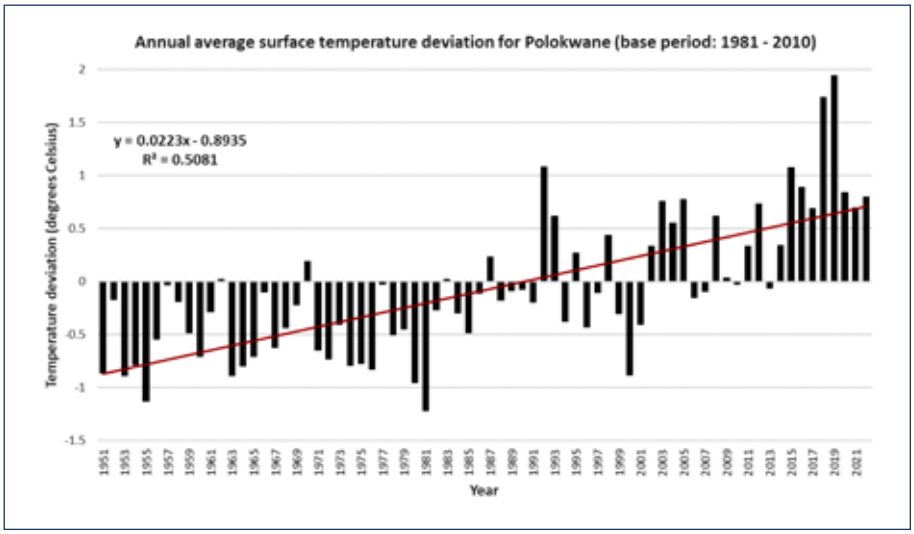


Figure 40: Annual average surface temperature deviation at Polokwane from 1951 to 2022 (base period: 1981 – 2010). *Source: Regional Weather and Climate: Limpopo*

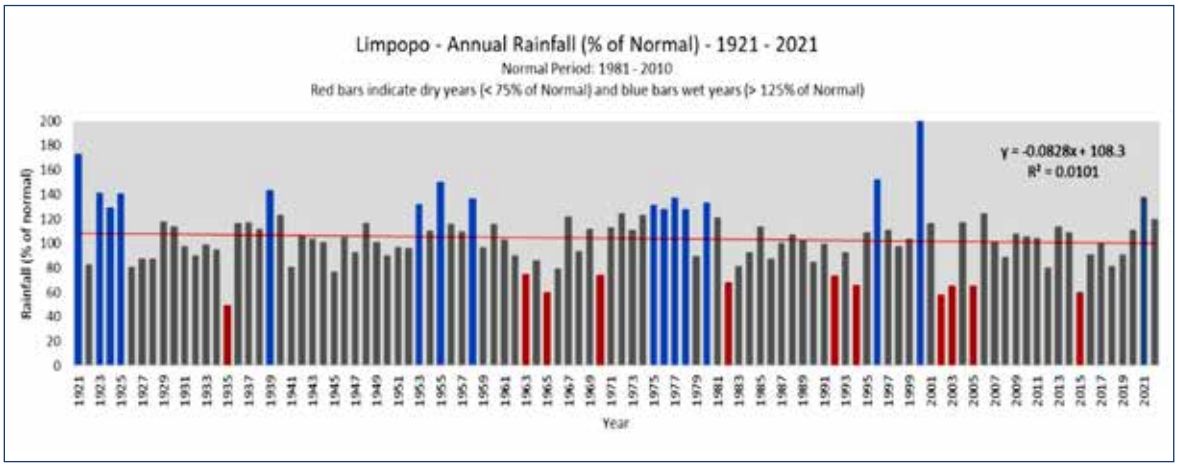


Figure 41: Annual rainfall (% of normal) for Limpopo over 1921 – 2022. The base period is 1981 – 2010. Red bars indicate dry years (< 75% of normal) and blue bars are wet years (>75% of normal). The red line indicates the linear trend. *Source: Regional Weather and Climate: Limpopo*

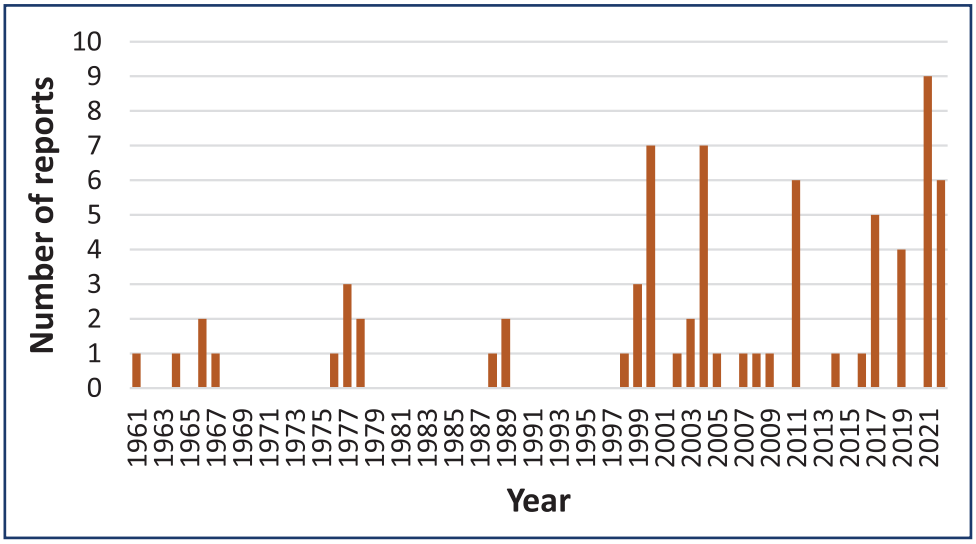


Figure 42: Annual number of reports of flooding in Limpopo over the period 1961 – 2022. *Source: Regional Weather and Climate: Limpopo*

3.2.3.2 Non-climate specific solutions

The development of accurate and dependable products and service solutions hinges on the foundation of a well-structured scientific research effort that remains responsive to users' needs, continuously aiming to meet the evolving needs of various industries, sectors and stakeholders. At the core of the SAWS' research initiatives lies a central objective: to develop products and services integral to nearly every aspect of modern society, supporting climate adaptation and mitigation actions and climate-resilient development. These product and service offerings boast scientific integrity and are profoundly user-centric. They enable society to prepare for and respond to natural disasters, protect public health, optimise resource management and support a wide range of industries, providing critical information for planning, operations, safety, and efficiency.

Enhancing resilience within communities and industries remains a goal of the SAWS. Through advanced weather insights, stakeholders are equipped with the tools and knowledge to prepare for and mitigate the impacts of extreme weather events, natural disasters, and climate variability. This heightened resilience is essential for safeguarding lives, property, and the environment.

As an operational organisation, the SAWS ensures its research efforts are closely aligned with practical applications, ultimately delivering a meaningful impact for users and clients. This support extends to various industries, providing critical information for planning, operations, safety, and efficiency. In pursuit of this objective, the products below were identified for development and successfully signed-off in the period under review:

Table 5: Products and solutions development

Product	Product description
Satellite-based Storm Severity Index	A product for assessing the severity of severe weather storms was developed. The product is primarily intended for forecasters and Disaster Risk Reduction (DRR) professionals in South Africa and the surrounding region as part of the Regional Specialized Meteorological Centre (RSMC).
Aviation products: High-altitude ice detection Turbulence detection	Two satellite-based products were developed to provide the aviation sector with observations and nowcast information on turbulence and high-altitude ice crystals (HAIC) hazards. These products will offer details on how the specific aviation-related weather hazards are expected to evolve in a few hours, enabling Aviation professionals to make informed decisions to ensure flight safety and efficiency. They guide flight route planning and tactical decision-making. There is a potential for these products to be extended to aviation forecasters, airlines, air traffic management, and other aviation stakeholders.
Satellite-based instability indices	A satellite-based product that indicates the potential for atmospheric instability. By analysing satellite-based instability indices, forecasters can identify regions where conditions are favourable for the formation of severe weather events. This information is crucial for issuing timely warnings and advisories to help mitigate the risks associated with severe weather, especially for aviation, agriculture, and public safety purposes. Forecasters and DRR professionals in South Africa and the RSMC region have implemented the algorithm.
Climate Change and Variability Atlas (CCVA) enhancement/update with CMIP-6 data.	The enhanced CCVA uses the latest data from the Coupled Model Intercomparison Project Phase 6 (CMIP 6). This enhanced climate atlas includes updated emissions, concentration, and land use scenarios known as Shared Socioeconomic Pathways (SSPs). SSP scenarios predict climate changes based on socioeconomic factors such as population, economy, land use, and energy. This product primarily aims to guide policymakers, decision-makers, the private sector, communities, and climate-sensitive industries. This information is crucial for developing effective adaptation and mitigation strategies to address the challenges posed by a changing climate.

The four developed products provide timely warnings and advisories to help mitigate the risks associated with severe weather, especially for DRR and the aviation sector. This is crucial for developing effective adaptation and mitigation strategies to address the challenges posed by a changing climate. Additionally, these products align with the Sustainable Development Goals as they enhance safety (SDG 3) and aid in climate risk management (SDG 13), as well as disaster preparedness (SDG 1 – 4, 6,9, 11, 13 – 15).

3.2.4 Annual performance results

Sub-programme 2.1: Research

Purpose: To generate new scientific insights in atmospheric and related sciences in collaboration with relevant stakeholders. To expand the existing knowledge base and intelligence related to climate change.

Table 6: Annual performance results – Sub-programme 2.1

Outcome	Output	Output indicators	Audited actual performance 2021/2022	Audited actual performance 2022/2023	Planned annual target 2023/2024	Actual achievement 2023/2024	Reasons for deviations
Lives and property protected against meteorological-related risks	Enhanced meteorological related body of knowledge	Number of research outputs	37	53	30	Achieved 36 research outputs Sum of quarterly performance (9 + 7 + 12 + 8) = 36	Attributed to increased contribution to the 37th South African Society for Atmospheric Sciences (SASAS) conference.

Sub-programme 2.2: Solution Development

Purpose: The provision of innovative meteorological and related products and services through the development and implementation of community weather-smart products and services.

Table 7: Annual performance results - Sub-programme 2.2

Outcome	Output	Output indicators	Audited actual performance 2021/2022	Audited actual performance 2022/2023	Planned annual target 2023/2024	Actual achievement 2023/2024	Reasons for deviations
Lives and property protected against meteorological-related risks	Enhanced meteorological related body of knowledge	Number of new or enhanced climate solutions for climate-sensitive sectors signed-off	1	1	1	Achieved 1 new or enhanced climate solution for climate-sensitive sectors signed-off	None.
		Number of new or enhanced non-climate-specific solutions signed-off	4	4	4	Achieved 4 new or enhanced non-climate-specific solutions signed-off	None.

3.2.5 Linking performance with budgets

Table 8: Linking performance with budgets - Programme 2

Programme/activity/ objective	2023/24			2022/23		
	Budget R'000	Actual expenditure R'000	(Over)/Under expenditure R'000	Budget R'000	Actual expenditure R'000	(Over)/Under expenditure R'000
Research and Innovation	3 544	3 249	295	4 535	4 361	174

3.3 Programme 3: Infrastructure and information systems

Purpose: To upgrade, expand and optimise infrastructure.

Sub-programme 3.1: Optimal management of infrastructure

Purpose: To ensure optimal infrastructure and systems uptime of observations, information dissemination and exchange that enables SAWS to achieve its mandate.

Sub-programme 3.2: Quality data

Purpose: To provide quality data meeting minimum data requirements.

Outcome: Lives and property protected against meteorological-related risks.

3.3.1 Optimal management of infrastructure

The SAWS' meteorological infrastructure faced unprecedented challenges, ranging from aged technological and technical lifespans to vandalism and network failure, compounded by the national electricity challenge. Loadshedding continued to present challenges for the upkeep of observation networks, resulting in breakdowns, data loss, and difficulty in achieving operational targets.

Likewise, the SAWS air quality monitoring infrastructure was impacted by intermittent power failures caused by loadshedding. At the same time, localised power supply issues such as load reduction and cable theft also impacted the infrastructure. Instrument failure/faults were experienced at numerous stations due to ageing equipment. To mitigate these challenges, interventions were discussed and agreed upon with the DFFE to recapitalise and secure the monitoring networks and to ensure a stable power supply to stations.

Management continued implementing its Integrated Meteorological Infrastructure Sustainability Plan (IMISP) to mitigate the challenges facing the overall SAWS observations infrastructure. This plan outlines the proposed expansion, automation, modernisation, and upgrading of the infrastructure networks. The plan also addresses the need for advanced telecommunication systems to transmit data from remote stations and effectively and efficiently disseminate life-saving information to the public, nationally, regionally, and international data end-users.

Through implementing its IMISP, the SAWS will continue to improve and modernise meteorological infrastructure, which is essential for the country to confront the challenges of a changing climate and evolving weather patterns. By strengthening this infrastructure, South Africa can enhance its resilience to weather and climate-related hazards, thereby contributing to sustainable development and the well-being of citizens.

3.3.1.1 Surface observations

The SAWS' surface observation technology includes a network of Automatic Weather Stations (AWSs) and Automatic Rainfall Stations (ARSs) across South Africa. As at the end of the period under review, the SAWS managed 251 AWSs and 150 ARSs across the country. As part of the surface observation modernisation and expansion projects, 25 remotely located AWS sites were upgraded and 14 new sites were established. The next phase in modernisation entails the assembling of 82 AWSs. Furthermore, 150 ARS electronic boards are being tested before deployment to various sites as part of the intention to deploy 400 ARSs through the conversion of manual rainfall stations to ARSs.

Table 9: AWS and ARS infrastructure availability

Quarter	% Availability AWS	% Availability ARS
1	79,82	72,50
2	82,68	76,13
3	85,41	81,23
4	83,6	82,77
Annual average	**82,88**	**78,16**

Table 10: AWS and ARS infrastructure failure analysis

AWS and ARS infrastructure failure analysis	
Main challenges	• Loadshedding has a direct impact on the availability of the sensors. Battery backups were impacted by long periods of loadshedding, thus affecting their lifespan. • Global System for Mobile communications (GSM) coverage communication challenges due to loadshedding. The service providers (MTN and Vodacom) are also affected by the theft of network infrastructure; hence, in some areas, they don't make backup interventions. • Communication failure, vandalism, shortage of spares, and inconsistency in the transmission of data from local databases to the central database.
Mitigation	• Procurement of solar panels, solar chargers and backup batteries • Procurement of LTE modems to enhance communication • Bulk spares were dispatched to the regions in February for the repairs of non-operational stations, and expecting improvement in system availability

3.3.1.2 Global Atmosphere Watch (GAW) infrastructure

The SAWS maintains an extensive observation network across South Africa and the surrounding oceans, ensuring comprehensive coverage of weather and environmental conditions. The SAWS conducts specialised observations and monitoring activities through the GAW Programme within this robust framework. The GAW Programme, an initiative of the WMO, aims to coordinate high-quality atmospheric composition observations across global to local scales to drive high-quality and impactful scientific research. As part of this effort, the SAWS conducts greenhouse gas observations to enhance understanding of atmospheric composition, dynamics of climate change, and air quality.

The SAWS' GAW Programme is further enriched by adding and integrating the GAW Regional component, which focuses on monitoring ozone and ultraviolet (UV) levels. These levels provide valuable insights into atmospheric composition changes and the impacts of ozone and solar radiation on the environment and public health.

Table 11: Data recovery at Cape Point and Regional GAW

Cape Point Data Set/ Parameter	Q1 average (%)	Q2 average (%)	Q3 average (%)	Q4 average (%)
Carbon dioxide (CO_2)	83,4	86,60	93,4	95,9
Carbon Monoxide (CO)	83,4	86,60	93,4	95,9
Methane (CH_4)	83,4	86,63	93,4	95,9
Surface Ozone (O_3)	98,7	91,73	95,13	100
Nitrous Oxide (N_2O)	0	59,00	89,4	99,9
Radon (Rn)	92,5	92,43	91,37	97,83
Gaseous Mercury (GEM)	92,8	91,23	93,8	94,8
Totals	**76,31**	**84,89**	**92,84**	**97,18**
Regional GAW Datasets	**Q1 average (%)**	**Q2 average (%)**	**Q3 average (%)**	**Q4 average (%)**
Total Ozone				
Dobson 132 - Springbok	100	100	100	100
Dobson 089 - Irene	83,7	94,67	82,33	81
Ozone Sonde Soundings Irene	100	83,33	100	100
UV-B Biometer network				
Irene	24	98,33	100	100
Cape Point	13	98,33	99,67	100
Cape Town International	100	100	100	100
Durban International	100	100	100	100
De Aar	21	87,33	100	100
Port Elizabeth	0	100	100	100
Totals	**60,19**	**95,78**	**98,00**	**97,89**
Overall GAW performance	68,25	90,33	95,42	97,53

With a focus on achieving high data recovery rates for the GAW measurements, the SAWS provides reliable and comprehensive data to support informed decision-making for sustainable development and environmental protection.

3.3.1.3 RADAR infrastructure

The successful implementation of projects identified in the RADAR Infrastructure Sustainability Plan remained key for improving the RADAR infrastructure performance. Loadshedding continued to affect the performance of most RADAR sites, thus making it a critical task to obtain and maintain stable power for the effective functioning of the RADARs. Furthermore, the RADAR network was impacted by poor availability of supporting infrastructure such as UPSs, automatic voltage regulators (AVRs) and standby diesel generators.

The RADAR equipment and the supporting peripheral systems were never developed to sustain long periods of loadshedding. To reduce downtime and speed up the delivery of spare parts when needed, an improved relationship with the Original Equipment Manufacturer (OEM) was pursued. Concerns continued with the lead-time for delivery of critical RADAR parts, such as the magnetron transmitter, being in some instances, up to 10 months.

Table 12: RADAR infrastructure performance

RADAR	Q1 (%)	Q2 (%)	Q3 (%)	Q4 (%)
Irene	96,18	93,22	93,65	96,15
Polokwane	65,34	83,69	87,71	85,46
Ermelo	0,22	0,00	41,25	81,06
Ottosdal	39,37	6,16	51,21	86,82
Bethlehem	26,28	94,68	68,64	0,04
Bloemfontein	22,29	87,64	96,68	90,49
Durban	47,02	54,52	96,00	82,70
Mthatha	15,34	0,00	0,00	0,00
East London	26,35	26,01	0,00	0,00
Cape Town	0,00	92,72	81,60	95,40
De Aar	0,06	0,00	0,00	0,00
Skukuza	0,00	12,00	0,00	0,00
Average performance	**28,20**	**45,88**	**51,40**	**51,51**

Table 13: RADAR infrastructure failure analysis

RADAR Infrastructure	
Main challenges	• Shortage of spares • Load shedding • The C-band RADARS infrastructure ageing and frequency interferences
Mitigation	• Bulk purchase of spares from the original equipment manufacturer (OEM) and engaging the OEM to improve the lead time and communication • Installation of AVRs, Upgrade of UPS battery packs, and solar project for power backup system • The C-band RADARS are deprioritised and will be removed from statistics in the new financial year 2024/25

3.3.1.4 Lightning Detection Network (LDN) infrastructure

The SAWS continued to command its arsenal of 24 lightning detection sensors to detect lightning occurrence over Southern Africa. Through a third-party project, a 25th sensor was added to the SAWS LDN at the Venetia Mine, in the Musina area. The Eswatini Meteorological Service lightning sensor was also incorporated into the network, allowing them improved lightning activity coverage over Eswatini.

In its effort to command contemporary meteorological infrastructure, the SAWS embarked on a project to deploy an upgraded LS7002 sensor network at 12 of its LDN sites in the North West, Free State, Gauteng, Limpopo, Mpumalanga and KwaZulu-Natal. This deployment would ensure that areas susceptible to lightning are aligned to the Ground Flash Density Map and are adequately covered during the summer rainfall period while the total completion of the network upgrade continues.

As part of the comprehensive IMISP, the entire lightning detection network is expected to be upgraded by September 2024, followed by an overall network calibration process (NPEP, Network Performance and Evaluation) by August 2025.

Table 14: LDN infrastructure performance

Name of site	Q1 (%)	Q2 (%)	Q3 (%)	Q4 (%)
Irene	87,23	94,63	87,76	95,78
Richards Bay	46,66	98,68	93,09	98,62
Mthatha	79,51	96,97	90,67	92,03
East London	96,83	95,94	98,10	96,39
Gqeberha/Port Elizabeth	99,99	99,76	98,31	99,81
Bethlehem	82,39	97,85	91,79	83,41
Kimberley	99,07	99,43	98,21	99,68
George	94,61	95,60	94,28	92,32
Cape Town	99,96	87,58	96,62	91,09
Upington	96,60	93,32	97,80	97,40
Calvinia	49,09	50,72	93,59	88,40
Mafikeng	68,40	72,95	68,52	81,07
Lephalale	70,76	90,95	90,45	79,23
Springbok	76,70	83,30	89,25	94,03
Aliwal North	79,31	81,62	87,56	84,60
Satara	97,08	97,68	98,07	95,73
Vryheid	97,90	93,15	96,46	92,25
Lebowakgomo	76,69	68,31	52,70	84,65
Musina	97,67	92,59	88,00	71,39
Kathu	85,52	87,97	92,03	93,71
Aberdeen	98,87	98,83	98,26	99,02
Alkantpan	91,77	99,65	96,15	69,62
Wolwespruit	61,75	68,05	85,86	76,63
Vernon Crookes	44,07	67,57	82,56	90,86
Average performance	**82,43**	**88,05**	**90,25**	**89,49**

Table 15: LDN challenges and mitigation

LDN Infrastructure	
Main challenges	• Vandalism • Load shedding • Network and communication challenges
Mitigation	• Installation of a security fence and surveillance camera • Installation of UPSs

3.3.1.5 Air quality services

The functions of the SAWS, as stipulated in the South African Weather Service Act, 2001 (Act No. 8 of 2001 as amended), include the responsibility to act as the custodian of the South African Air Quality Information System (SAAQIS). As such, the SAWS is responsible for hosting, operating, and maintaining the SAAQIS to ensure access to air quality information for all users, including the public, business, industry, government authorities and non-government organisations.

3.3.2 Quality data

3.3.2.1 Air Quality Priority Areas stations

In addition to hosting the SAAQIS, the SAWS is responsible for managing and reporting on data collection from ambient air quality monitoring networks in the Vaal, Highveld and Waterberg National Air Quality Priority Areas. The collected data must meet the minimum data requirement of 75%, as stipulated by the DFFE.

The performance target of 80% of priority areas air quality stations available on SAAQIS meeting the minimum data requirement of 75% was not achieved. The network achieved 52,78% of stations meeting minimum data requirements. The frequency of load shedding resulted in damage to UPSs and instrument electronics. It must also be noted that the downtime resulting from load shedding negatively affected the air quality monitoring instruments, as these require time to stabilise after being powered up. Data collected during the time taken for stabilising instruments had to be discarded. The time required for instruments to stabilise added to the period of data loss. Thus, on average, a two-hour load-shedding period would result in two to six hours of downtime, depending on the instrument concerned.

Focused discussions were held with the DFFE to agree on interventions to ensure a stable power supply to stations. The SAWS and DFFE identified the following interventions to help limit the impact of load shedding on instrument performance:

i) An 8kva, 4 – 6-hour lithium-ion battery backup solution for stations that can be charged by solar power and electricity.
ii) Installing automatic voltage regulators will help reduce damage to instruments caused by power surges and UPS failures. Installation for all stations was completed in July 2023. Since the installation, no damage due to power surges has been experienced.

The battery backup solution was installed in November and December 2023 for Xanadu and Diepkloof stations. These two stations were the pilot for this project, and since the installation of the battery backup solution, there has been a marked improvement in the data collection percentage. Procuring the backup solution for the remaining 14 stations was initiated in December 2023.

Instrument recapitalisation continued throughout the monitoring networks. The SAAQIS Project Steering Committee (PSC) allocated a budget for instrument recapitalisation and agreed on the list of instruments to be prioritised and purchased.

To ensure that air quality data is continuously collected and reported, despite the escalating costs of traditional monitoring equipment and the prevailing financial limitations, there has been investment in the research and the procurement of alternate monitoring technology known as Low-Cost Sensors (LCS). This air quality monitoring equipment is cost-effective while producing the required data for reporting. Low-Cost Sensors (LCS) were procured and commissioned. The service provider is still configuring the Application Programming Interface (API) to ensure that the Low-Cost Sensors report data to the SAAQIS. The data will be used for a comparison study, which will be undertaken in the next financial year.

3.3.2.2 Climate data

The SAWS continued to ensure the ongoing collection of meteorological data over South Africa and surrounding oceans, subsequently ensuring a reliable national climatological record in line with the mandate of the SAWS. For the period under review, the SAWS aimed to ensure that data from its AWSs and ARSs was available on the National Climate Database. Data from these infrastructure networks underwent rigorous quality control measures before maintaining the records on the database.

An average of 85,97% data availability from the AWS and ARS networks, meeting minimum data requirements, was obtained. Data is currently kept in the SAWS climate database for use by current and future generations.

3.3.3 Annual performance results

Sub-programme 3.1: Optimal management of infrastructure

Purpose: To ensure optimal infrastructure and systems uptime of observations, information dissemination and exchange that enables the SAWS to achieve its mandate.

Table 16: Annual performance results - Sub-programme 3.1

Outcome	Output	Output indicators	Audited actual performance 2021/2022	Audited actual performance 2022/2023	Planned annual target 2023/2024	Actual achievement 2023/2024	Reasons for deviations
Lives and property protected against meteorological-related risks	Optimal core technological capability	Percentage availability of automatic weather stations infrastructure	83,14%	81,42%	85%	Not achieved 83% availability of automatic weather stations infrastructure Average of quarterly performance (79,82% + 82,68% + 85,41% + 83,6%) ÷ 4 = 82,88%	Challenges: Shortage of spares and inconsistent data transmission from local regional servers to national database. Corrective measures: Bulk spares were dispatched to the regional offices in February 2024 for the repairs of non-operational stations to improve the surface observations network availability.
		Percentage availability of automatic rainfall stations infrastructure	81,33%	79,88%	80%	Not achieved 78% availability of automatic rainfall stations infrastructure Average of quarterly performance (72,5% + 76,13% + 81,23% + 82,77%) ÷ 4 = 78,16%	Challenges: Sub-optimal Global System for Mobile communications (GSM) coverage affected data transmission from stations to the database. Corrective measures: Deployment of long-term evolution (LTE) modems and new ARS boards.
		Percentage availability of global atmospheric watch infrastructure	81,58%	78,11%	80%	Achieved 88% availability of global atmospheric watch infrastructure Average of quarterly performance (68,23% + 90,38% + 95,42% + 97,53%) ÷ 4 = 87,89%	New Picaro instrument for N2O measurement to improve infrastructure availability installed. Installation of backup power at the Cape Point Laboratory to maintain infrastructure availability during loadshedding.
Lives and property protected against meteorological-related risks	Optimal core technological capability	Percentage availability of RADAR infrastructure	73,83%	52,23%	75%	Not achieved 44% availability of RADAR infrastructure Average of quarterly performance (28,2% + 45,88% + 51,4% + 51,51%) ÷ 4 = 44,25%	Challenges: The performance of the RADARs was impacted by loadshedding, shortage of spares and the aged C-Band RADARs (Skukuza and De Aar). Corrective actions: Bulk purchase of spares from the original equipment manufacturer and executing maintenance of peripheral equipment through the appointed panel of service providers. Appointment of additional capacity to do maintenance of RADARs.

Table 16: Annual performance results - Sub-programme 3.1 (continued)

Outcome	Output	Output indicators	Audited actual performance 2021/2022	Audited actual performance 2022/2023	Planned annual target 2023/2024	Actual achievement 2023/2024	Reasons for deviations
Lives and property protected against meteorological-related risks (continued)	Optimal core technological capability (continued)	Percentage availability of Lightning Detection Network infrastructure	93,76%	87,84%	90%	Not achieved 88% availability of Lightning Detection Network infrastructure Average of quarterly performance (82,43% + 88,04% + 90,25% + 89,49%) ÷ 4 = 87,55%	Challenges: Impact of loadshedding, power failure and communication challenges were the main factors that led to the underperformance. Corrective measures: The LDN upgrades and modernisation is underway. A panel of service providers for maintenance of uninterruptible power supplies (UPS) was appointed, and procurement of UPS batteries completed.
		Percentage availability of the South African Air Quality Information System	98,96%	99,38%	95%	Achieved 99% availability of the South African Air Quality Information System Average of quarterly performance (99,88% + 98,64% + 99,98% + 99,86%) ÷ 4 = 99,59%	Minimal downtime of the SAAQIS website. The system is hosted by a third party outside the borders of South Africa and is not at risk of being impacted by loadshedding.

Sub-programme 3.2: Quality data

Purpose: To provide quality data meeting minimum data requirements.

Table 17: Annual performance results - Sub-programme 3.2

Outcome	Output	Output indicators	Audited actual performance 2021/2022	Audited actual performance 2022/2023	Planned annual target 2023/2024	Actual achievement 2023/2024	Reasons for deviations
Lives and property protected against meteorological-related risks	Optimal core technological capability	Percentage of Priority Areas Air Quality Stations available on SAAQIS meeting minimum data requirements	69,44%	59,95%	80%	Not achieved 53% of Priority Areas Air Quality Stations available on SAAQIS meeting minimum data requirements Average of quarterly performance (46,67% + 53,33% + 64,44% + 46,67%) ÷ 4 = 52,78%	Challenges: Loadshedding and electricity challenges resulting in data loss and instability of instruments as well as damage to uninterruptible power supplies and instrument electronics. Corrective measures: Installation of 8kva, 4–6-hour lithium-ion battery backup solution.
		Percentage of AWS & ARS climate data available on National Climate Database meeting minimum data requirements	89,81%	86,37%	85%	Achieved 86% of AWS & ARS climate data available on National Climate Database meeting minimum data requirements Average of quarterly performance (82,58% + 87,97% + 87,6% + 85,72%) ÷ 4 = 85,97%	Constant engagements with responsible and contributing business units, inclusive of Regional Offices on challenges of effective data transmission to the database.

3.3.4 Linking performance with budgets

Table 18: Linking performance with budgets - Programme 3

Programme/activity/ objective	2023/24			2022/23		
	Budget R'000	Actual expenditure R'000	(Over)/Under expenditure R'000	Budget R'000	Actual expenditure R'000	(Over)/Under expenditure R'000
Infrastructure and Information Systems	103 246	87 708	15 538	78 104	74 224	3 880

3.3.5 Strategy to overcome areas of underperformance

Implementation of the Infrastructure Sustainability Plan, which includes modernisation, upgrades, expansion, and automation of the infrastructure networks, will continue to be implemented. The prioritisation of replacing the C-band RADARs due to ageing and frequency interferences will continue to turn RADAR infrastructure performance around.

3.4 Programme 4: Administration

Purpose: To provide leadership, strategic, centralised administration, executive support, corporate services and facilitate effective cooperative governance, international relations and environmental education and awareness.

Sub-programme 4.1: Sound corporate governance

Purpose: To provide business management and leadership.

Sub-programme 4.2: Adequate, appropriately skilled, transformed and diverse workforce

Purpose: To develop programmes which create a supportive environment for high performance, employee wellness, career development, attraction and retention.

Sub-programme 4.3: Brand positioning and stakeholder network development

Purpose: To develop and maintain various platforms for engagement with stakeholders to extend the reach and increase awareness of the SAWS brand. To promote engagement of stakeholders for mutually beneficial relationships.

Outcome: Organisational Sustainability

3.4.1 Sound corporate governance

During the year under review, the SAWS conducted a workshop on King IV codes for its Management Committee (MANCO) to cultivate sound corporate governance principles. The workshop aimed to create awareness of standards, roles, and responsibilities for implementation. Furthermore, the SAWS' strategic risks were reviewed, and the risk register was signed off to encourage accountability for the identified risks and mitigating actions.

As part of the SAWS' compliance assessment and combined assurance, verification of evidence to support the implementation of mitigating plans was conducted to strengthen internal controls. To promote the achievement of the Broad-Based Black Economic Empowerment (B-BBEE) objectives outlined in the Broad-Based Black Economic Empowerment Act, 2013 (Act No. 46 of 2013), the SAWS developed a policy guideline on B-BBEE aimed at, among other things, integrating all the elements of B-BBEE into relevant business processes of the organisation.

3.4.2 Adequate, appropriately skilled, transformed and diverse workforce

The Board approved the three-year Human Capital Management (HCM) strategy and implementation plans in February 2023. The plans identified the most critical initiatives needed to achieve the SAWS' strategy, particularly to systematically improve operational efficiencies by providing a diverse workforce with the requisite skills and expertise to drive and deliver the SAWS mandate. Consequently, the Workplace Skills Plan (WSP), which highlights the 2023/24 planned training initiatives for the SAWS staff, as well as the Annual Training Report (ATR) for the previous year, was submitted to the Transport Education Training Authority (TETA) Sector Education Training Authority (SETA) before 30 April 2023 as prescribed by the Skills Development Act, 1998 (Act No. 97 of 1998).

Against the above backdrop, the SAWS implemented approved plans for the period under review. Progress reports on the HCM strategy were provided to internal stakeholders such as the Bargaining Forum, the Executive Committee and the SAWS Board.

3.4.3 Brand positioning and stakeholder network development

As several severe weather events occurred during the year, the SAWS was prompted to issue media releases on various platforms to inform the public, enhance their preparedness for the events, and save lives and property. An analysis of media coverage during the same period shows that wherever the activities of the SAWS were reported on, the reportage was 74% neutral, 25,5% positive and 0,25% negative. Furthermore, online platforms accounted for most of the reportage (55,5%). These were followed by broadcast media (37,25%) and print publications (7,25%).

3.4.3.1 International commitments

In the period under review, the World Meteorological Organization (WMO) and the SAWS - in its capacity as the Chairperson of the Regional Association I (RA I) Committee on Services (CoS) - co-hosted a meeting of the committee on 4 April 2023. The primary aim of the meeting was to review the committee's plan for implementation by its continental Working Groups (WG), as well as the confirmation of the Regional Association I (RA I) Committee structure.

South Africa also commenced with implementing the WMO Systematic Observation and Financing Facility (SOFF) programme in its capacity as the SOFF Peer Advisor to Mozambique. The scope of work entailed developing a gap analysis, country contribution, and Hydromet diagnostics report on implementing the Global Basic Observing Network (GBON). The key outcome of this assignment was the successful completion of the readiness phase, and the investment phase will commence in the new financial year, led by the World Food Programme (WFP) as the implementing entity. The country also served as the Peer Advisor to Seychelles and Mauritius, although the processes were still at an early stage, and is expected to continue in the new financial year.

As a member of the WMO, South Africa participated in the 19th WMO Congress held from 22 May to 2 June 2023. The Congress preparations entailed consultations with the Department of International Relations and Cooperation (DIRCO) on South Africa's candidacy for the Executive Council seat and support reciprocations on the Congress elections. In its quest for election for the EC seat, the country convened numerous bilateral sessions to lobby for support. It is paramount to state that South Africa has been successfully elected as a Member of the EC and subsequently participated in the WMO EC session convened from 5 to 6 June 2023.

South Africa also participated in the meeting of the Southern African Development Community (SADC) Ministers responsible for Infrastructure, Transport, ICT Information and Meteorology. This session consisted of technical and Ministerial segments scheduled from 12 to 15 and 16 June 2023, respectively. The endorsement of the Meteorological Association of Southern Africa (MASA) to become a technical advisory body for the SADC Sub-sectoral Committee on Meteorology (SCOM), was significant. Subsequently, in November 2023, the SAWS participated in the SADC-MASA bilateral session on transforming the MASA into the SADC SCOM Advisory Committee. The outcomes of this session were further discussed and concluded during the SADC SCOM session held in Mozambique in February 2024 for tabling to the SADC Ministers meeting to be convened later in the new financial year.

To assist with the advancement of meteorology on the African continent, South Africa, as the Chairperson of the Committee on Services (CoS), participated in the RA I Management Group session convened from 19 to 21 July 2023. This session aimed to align the priorities of the continent with the resolutions of the WMO Congress. Furthermore, the SAWS, duly represented by the Permanent Representative (PR) of South Africa with the WMO, also formed part of the country delegation that participated in the inaugural African Climate Summit, which was scheduled from 4 to 6 September 2023 in Kenya, to advance the interests of the country and advocate its plight on meteorological issues.

As the designated WMO Regional Training Centre, the country hosted a WMO Executive Training Programme on Leadership and Management of National Meteorological and Hydrological Services (NMHSs) in Africa and beyond from 23 to 27 October 2023. This session aimed to empower and capacitate the top leadership of the African and other developing NMHSs on leadership and management of their institutions.

The SAWS was also represented in the African Union Commission (AUC) Specialised Technical Committee (STC) sessions for Agriculture, Rural Development, Water and Environment held from 14 to 17 November 2023 and in the 28th United Nations Framework Convention on Climate Change (UNFCCC) Conference of the Parties (COP-28), convened from 30 November to 12 December 2023 in Dubai. The main objective of both sessions was to promote the organisation's interests and advocate the role of meteorology in the environment and climate change spaces. Significantly, two MoUs to enhance cooperation between our respective countries were signed with the United Arab Emirates (UAE) (whose PR is currently the President of the WMO) and the Chinese Meteorological Services during the COP. South Africa's excellent work as a peer advisor to Mozambique was also acknowledged at a WMO side event with the SOFF funders, highlighting our significant contribution to the Early Warnings for All (EW4All) initiative.

As the Regional WIGOS Centre for Southern Africa, serving in its pilot phase, the country convened the Second Coordination Feedback session in February 2024 on implementing the WMO WIGOS programme in the SADC region. Finally, the country was represented in the WMO SERCOM-3 session held in Bali, Indonesia, in March 2024. This session discussed implementing the WMO Services programmes endorsed by the Congress in its 2023 sitting.

3.4.3.2 International collaborations

In efforts to enhance regional and international collaborations, South Africa, in its capacity as the WMO Systematic Observation and Financing Facility (SOFF) Peer Advisor, signed the WMO SOFF Assignment Agreement, committing to assist Mozambique (Instituto Nacional de Meteorologia (INAM)) with the GBON implementation. The implementation was kick-started by a high-level meeting between the SAWS and INAM, followed by a series of the SAWS-INAM technical sessions to operationalise the implementation of GBON and subsequent visits by the SAWS technical team to INAM for the development of the Mozambique gap analysis report and country contribution plan. Parallel to the Peer Advisory support to Mozambique, South Africa initiated collaborations with Seychelles and Mauritius through Phase II of the WMO SOFF programme for the GBON implementation that would be carried out in 2024/25.

The PR of South Africa with WMO held several bilateral sessions with his counterparts from the United Kingdom (UK), United States of America (USA), China, and United Arab Emirates (UAE) on the sidelines of the WMO Congress of 2023. These were in an effort to finalise the SAWS' international Memoranda of Understanding (MoUs) with these counterparts. The MoUs with the UAE and China were concluded and signed during COP-28, held in Dubai in December 2023, whilst the UK MoU was signed in February 2024, in South Africa, during the Weather and Climate Information Services (WISER) outreach event, which the UK sponsored.

While the MoU with the USA was not yet concluded, the SAWS hosted a high-level delegation from the USA at the SAWS Cape Point office in July 2023 to discuss the implementation of the USA-funded projects in South Africa, which included the Global Atmosphere Watch (GAW) Programme.

Finally, the country continued to enhance regional collaboration. In this regard, the SAWS assisted the Namibian Meteorological Service (NMS) with its International Civil Aviation Organization (ICAO) audit process in March 2024. This entailed the SAWS availing its technical expertise to assist the NMS technical team to upgrade the AWSs at their three airports to align them with the SAWS-developed METCAP software and the Weather Information Display System (WIDS) for data communication.

3.4.3.3 Public awareness programmes 2023/24

To increase public awareness about severe weather and create a South African nation that is WeatherSMART, the following public awareness outreach initiatives were conducted:

Table 19: Detailed public awareness programmes 2023/24

DETAILED PUBLIC AWARENESS PROGRAMMES 2023/24			
Date	**Engagement**	**Organiser/Partner**	**Venue**
20 April 2023	South African Civil Aviation Authority (SACAA) Aviation Youth Show	South African Civil Aviation Authority	Khola-Thuto Secondary School, Phuthaditjhaba
20-21 April 2023	7th Annual Kasi Career Exposition	WizeUp Foundation, SABC Education, John Taolo Gaetsewe Developmental Trust, Assmang Mines and the Northern Cape Department of Education	Joe Moorosi Multi-Purpose Centre, Mothibistad
4 May 2023	The University of the Free State (UFS) Career Fair	The University of the Free State	Universitas, Bloemfontein
5-6 May 2023	Career expo – South African Air Force Museum Airshow	South African Air Force (SAAF)	Air Force Mobile Deployment Wing, Centurion
11 May 2023	Free State and KwaZulu-Natal Cross Boarder Winter Contingency Planning	N3toll group	Harrismith Primary School, eastern Free State
18 and 24 May 2023	Capricorn District Disaster Management - School Competition	Capricorn District Municipality	Polokwane
22 May 2023	Celebration of Biodiversity Day	South African National Biodiversity Institute	Free State National Botanical Garden, Bloemfontein
29 May 2023	Environmental Education & Awareness Exposition	Department of Forestry, Fisheries and the Environment	Mantjedi Special School, Pankop.
2 June 2023	Department of Economic, Small Business Development, Tourism and Environmental Affairs (DESTEA) Environmental Career Exposition	DESTEA, Free State	Willem Pretorius Nature Resort, Ventersburg
8-11 June 2023	The SA Agulhas II Open Day	Department of Forestry, Fisheries and the Environment	Cape Town
18 July 2023	Nelson Mandela Day commemoration	Olievenhoutbosch Disability Centre	Olievenhoutbosch Disability Centre
22 July 2023	2023 National Science Week Launch	The Department of Science and Innovation (DSI) and The South African Agency for Science and Technology Advancement (SAASTA)	The University of Venda, Thohoyandou
28 July 2023	Career Day Subject Choice Awareness & Environmental Education	Department of Forestry, Fisheries and the Environment	Restoration Centre Ministries, Nelmapius
31 July to 4 August 2023	Mondi National Science Week	Mondi Science, Career Guidance and FET Skills Centre and the Mpumalanga Department of Education	Piet Retief
31 July to 4 August 2023	Penreach National Science Week	Penreach	Penryn College, Mbombela
1 August 2023	National Science Week Johannesburg	The City of Joburg	Johannesburg Botanical Gardens
3 August 2023	Overberg District Biodiversity Career Expo	South African National Biodiversity Institute (SANBI)	Betty's Bay
12 August 2023	Geography-Festival	Sentletse Foundation	Vuyolwethu High School, Kimberley
13 September 2023	Cholwane Primary School's visit to Irene Weather Office	Department of Forestry, Fisheries and the Environment	Irene Weather Office, Pretoria
30 September 2023	West Coast Air show	Dr Clive Coetzee	Saldanha airport
5 October 2023	Habitable Planet Workshops (HPW)	South African Polar Research Infrastructure (SAPRI)	Cape Peninsula University of Technology (CPUT), District 6 campus
13-14 October 2023	Phaphama Youth Centre: Environmental Awareness, Sport, and Career Exhibition	Phaphama Youth Centre in conjunction with the Nkomazi Greening and Beautification Forum	Mahlatsi Secondary School, Buffelspruit
13 October 2023	International Day for Disaster Risk Reduction (IDDRR) - WC	The Disaster Risk Management Centre (DRMC), City of Cape Town (CoCT)	City Chambers, Cape Town Civic Centre

Table 19: Detailed public awareness programmes 2023/24 (continued)

DETAILED PUBLIC AWARENESS PROGRAMMES 2023/24			
Date	**Engagement**	**Organiser/Partner**	**Venue**
20 October 2023	International Day for Disaster Risk Reduction (IDDRR) - FS	The Disaster Risk Management Centre (DRMC), Red Cross, SAPS, Social Development, and the Central University of Technology	Clarens, Thabo Mofutsanyana District Municipality
25-27 October 2023	2023 Disaster Management Institute of Southern Africa (DMISA) Conference	DMISA	Kalahari Waterfront Resort, Nandoni Dam, Thohoyandou
15 December 2023	Summer and Festive Season Disaster Risk Awareness Campaign	KZN Provincial Disaster Management Centre	Wadley Stadium in the Msunduzi Municipality, Pietermaritzburg
29 January 2024	Environmental Education & Awareness Expo	Department of Forestry, Fisheries and the Environment	Mantjedi Special School, Pankop
16 February 2024	St Cyprian's School for Girls visit	South African Weather Service	Cape Town Weather Office
17 February 2024	Blouberg International School visit	South African Weather Service	Cape Town Weather Office
22 February 2024	Impact-Based Severe Weather Community Workshop	Weather and Climate Information Services (WISER)	Dinokeng, Hammanskraal
23 February 2024	Hammanskraal WeatherSmart Community Outreach	South African Weather Service	Mandela Community Hall, Hammanskraal
7 March 2024	Presidential Imbizo	Mpumalanga Province SAPS/Security Cluster/Committee/PROVJOINTS	SY Mthimunye Stadium, Emalahleni
8-10 March 2024	Aero Club Airweek 2024 (Middelburg, Mpumalanga)	South African Civil Aviation Authority (SACAA)	Middelburg Airport
14 March 2024	Sekakane (Botlokwa) School Science Exhibition	Capricorn Municipality (Disaster Management)	Botlokwa village, Limpopo

The success of the impact-based warnings system and most national collaboration initiatives benefited from the relationship between the SAWS and disaster management structures at national, provincial and local levels.

3.4.4 Annual performance results

Sub-programme 4.1: Sound corporate governance

Purpose: To provide business management and leadership.

Applicable to Sub-programme 4.1: Sound corporate governance, until 1 November 2023

Table 20: Applicable to Sub-programme 4.1 until 1 November 2023

Outcome	Output	Output indicators	Audited actual performance 2021/2022	Audited actual performance 2022/2023	Planned annual target 2023/2024	Actual achievement until 1 November 2023	Reasons for deviations	Reasons for revisions to the annual target
Organisational sustainability	Internal excellence achieved within the organisation	Unregulated commercial revenue generated	R26 800 578	R26 046 706	R30 510 000	Not achieved R9 095 981 unregulated commercial revenue generated Sum of quarter 1 and 2 performance (R5 140 387 + R3 955 594) = R9 095 981	The achievement is reflective of the implementation until end of the second quarter of the financial year. Loadshedding impacted the ability to keep infrastructure fully functional, thus impacting on feeds and products issued. Certain products through the partners were cancelled and others not reinstated.	The need to revise the unregulated commercial revenue target was driven by factors such as: Volatility of the economic environment in which SAWS is positioned both locally and internationally. Increasing competition and capital-intensive demands by and on the SAWS basic infrastructure impacting on its ability to provide world-class weather and climate information. Limited resource availability to implement revenue generating channels such as web portals and weather applications.

Applicable for 2023/2024 with revision applied to Sub-programme 4.1: Sound corporate governance

Table 21: Annual performance results - Sub-programme 4.1 with revisions applied

Outcome	Output	Output indicators	Audited actual performance 2021/2022	Audited actual performance 2022/2023	Planned annual target 2023/2024	Actual achievement 2023/2024	Reasons for deviations
Organisational sustainability	Internal excellence achieved within the organisation	Percentage of local expenditure on affirmative procurement (Level 1 to 4)	91,26%	85,15%	75%	Achieved 81% of local expenditure on affirmative procurement (Level 1 to 4) (R274 497 533,77 ÷ R340 958 472,50) x 100 = 80,51%	Intentional targeting of Level 1-4 B-BBEE suppliers for local affirmative procurement as contribution towards improvement of the SAWS' B-BBEE Level.
		Level of B-BBEE Rating	8	6	6	Achieved Level 6 B-BBEE Rating	None
		Unregulated commercial revenue generated	R26 800 578	R26 046 706	R27 000 000	Achieved R29 657 014 unregulated commercial revenue generated Sum of quarterly performance (R5 140 387 + R3 955 594 + R8 115 316 + R12 445 717) = R29 657 014	Due to increased sales of real-time lightning data, training initiatives by the Regional Training Centre (RTC) as well as revenue from commercial partners reaching 15,5% above the budget for the year.
		External audit opinion	Unqualified audit opinion	Unqualified audit opinion	Unqualified external audit opinion with no material findings	Achieved Unqualified external audit opinion with no material findings	None

Sub-programme 4.2: Adequate, appropriately skilled, transformed and diverse workforce

Purpose: To develop programmes which create a supportive environment for high performance, employee wellness, career development, attraction and retention.

Table 22: Annual performance results - Sub-programme 4.2

Outcome	Output	Output indicators	Audited actual performance 2021/2022	Audited actual performance 2022/2023	Planned annual target 2023/2024	Actual achievement 2023/2024	Reasons for deviations
Organisational sustainability	Internal excellence achieved within the organisation	Percentage of attrition rate	6,22%	4,87%	≤8%	Achieved 6,58% Attrition Rate Attrition at year-end 31 ÷ ((483 + 459) ÷ 2) x 100 = 6,58%	None
		Percentage of Workplace Skills Plan targets met	86,89%	107,22%	80%	Achieved 105,18% of Workplace Skills Plan (WSP) targets met WSP at year-end (264 ÷ 251) x 100 = 105,18%	Due to improved efficiencies in sourcing training providers as well as increased attendance by employees.
		Percentage compliance to Employment Equity on women in management	38,71%	41,18%	42%	Achieved 42,4% women in management Year-end result (53 ÷ 125) x 100 = 42,4%	None
		Percentage compliance to Employment Equity on persons living with disabilities	3,03%	2,90%	2%	Achieved 3,05% Persons living with disabilities Year-end result (14 ÷ 459) x 100 = 3,05%	Employees living with disabilities were not impacted by attrition.
		Number of youths appointed for internships and learnerships as at the end of the year	15	25	10	Achieved 10 youths appointed for internships and learnerships as at the end of the year	None
		Number of placements in work-integrated learning as at the end of the year	4	5	8	Achieved 8 placements in work-integrated learning as at the end of the year	None

Sub-programme 4.3: Brand positioning and stakeholder network development

Purpose: To develop programmes which create a supportive environment for high performance, employee wellness, career development, attraction and retention.

Table 23: Annual performance results - Sub-programmes 4.3

Outcome	Output	Output indicators	Audited actual performance 2021/2022	Audited actual performance 2022/2023	Planned annual target 2023/2024	Actual achievement 2023/2024	Reasons for deviations
Organisational sustainability	Internal excellence achieved within the organisation	Number of positioning and profiling programmes conducted locally and internationally	9	26	20	Achieved 62 positioning and profiling programmes conducted locally and internationally Sum of quarterly performance (14 + 17 + 17 + 14) = 62	Due to numerous severe weather events occurring during the summer period and international activities under the World Meteorological Organization (WMO).
		Number of public awareness programmes conducted	16	39	27	Achieved 34 public awareness programmes conducted Sum of quarterly performance (10 + 10 + 6 + 8) = 34	Increased invitations from various stakeholders were honoured. The SAWS also supported initiatives from external funders to execute weather and climate awareness programmes.
		Number of collaborations through partnerships implemented locally and internationally	2	11	12	Achieved 18 collaborations through partnerships implemented locally and internationally Sum of quarterly performance (5 + 5 + 4 + 4) = 18	Increased collaboration with other Meteorological Institutions under the WMO Systematic Observations Financing Facility (SOFF) Peer Advisory programme.

3.4.5 Linking performance with budgets

Table 24: Linking performance with budgets - Programme 4

Programme/activity/ objective	2023/24			2022/23		
	Budget R'000	Actual expenditure R'000	(Over)/Under expenditure R'000	Budget R'000	Actual expenditure R'000	(Over)/Under expenditure R'000
Administration (Incl. Corporate and Regulatory Services	98 732	77 348	21 384	72 356	71 838	518

4. Revenue collection

The entity exceeded its revenue collection target of R156 million by R3 million due to improved air traffic volumes and commercial revenue collection.

Table 25: Revenue collection

Sources of revenue	2023/2024			2022/23		
	Estimate R'000	Actual amount collected R'000	(Over/Under) Collection R'000	Estimate R'000	Actual amount collected R'000	(Over/Under) Collection R'000
Aviation revenue	129 000	129 165	165	94 090	108 805	14 715
Other commercial revenue	27 000	29 837	2 837	27 000	26 047	(954)
Total	**156 000**	**159 002**	**3 002**	**121 090**	**134 852**	**13 761**

Collections for non-statutory commercial revenue exceeded the revenue collection target despite lower overall growth in South Africa. The improved revenue is attributable to the retention of key customers and the implementation of tenders awarded to the SAWS.

New opportunities were sought in air quality monitoring, instrumentation sales, forecasting, and advisory services to boost sales. New clients were contracted, while others were still exploring offerings as of the end of the financial year.

The improved collection during the year under review resulted in working capital, allowing the entity to deliver on its core mandate and annual performance targets.

Improved revenue from aviation income was attributable to improved air traffic volumes and the new tariff promulgated by the Minister during the year. Industry experts expect air traffic volumes and aviation revenue to recover to pre-Covid levels during 2024/25.

The SAWS' major customers honoured their contracts to maintain observations equipment, lightning and forecasting products. Finalising contracts for tenders awarded to the SAWS for the maintenance of air quality stations and forecasting and climate change adaptation products for the South African Ports took time. Still, they will contribute revenue returns as we advance.

When debtors' accounts were beyond the allowed normal credit terms and all collection avenues were exhausted without any debtors' commitment, these were handed over to debt collection attorneys. Final letters of demand and summons were issued where applicable.

5. Capital investments

Progress made with implementing the capital, investment and asset management plan

During the year under review, the R191,44 million grant allocation for capital expenditure was reduced by R127,63 million to R63,18 million. R127,63 million was made available to the Department of Forestry, Fisheries, and the Environment.

Infrastructure projects completed and progress in comparison to what was planned

The entity made progress in acquiring infrastructure during the financial year. However, most of the government infrastructure grant was unspent. This was due to some tenders being cancelled and readvertised due to inadequate market response, which contributed to a delay in procurement processes. R47,92 million was spent on infrastructure investment and maintenance for the year, while capital investment projects amounting to R48,35 million were committed at year-end.

Infrastructure projects that are currently in progress and are expected for completion

The following infrastructure projects were in progress at the end of the financial year and are expected to be completed by the end of the second and third quarters of the 2024/25 financial year:

- Replacement of RADAR systems fire suppression
- Automatic Voltage Regulators (AVR) system for 7 RADARs
- Uninterruptible Power Supply (UPS) backup battery packs upgrade for 7 RADARs
- Upgrade of the South African Lightning Detection Network (SALDN)
- Lightning Detection Network upgrade and modernisation
- Upgrade of TITAN weather radar software to LROSE
- Solar battery storage facility for Irene, Ottosdal and Bethlehem RADAR sites
- Modernisation of 82 automatic weather stations
- Conversion of 400 manual rainfall stations to automatic weather stations

Plans to close down or downgrade current facilities

The entity had no plans to close or downgrade its existing facilities.

Progress made on the maintenance of infrastructure

Efforts were targeted at upgrading and improving the performance of the observations infrastructure. However, it must be noted that some of the infrastructure is starting to reach the end of its useful life. It will soon be obsolete, technologically outdated, disposed of, and replaced, subject to budget availability.

The SAWS is in the process of procuring two RADARs in the Western Cape and one in KwaZulu-Natal. For the past ten years, the SAWS has been using its current Cray XC30 high-performance computer and Connexion Lustre file storage system. The current system has reached its full capacity and is nearing its end of life. Its utilisation needs to be improved for the SAWS to perform its operational requirements, and it is in the process of being replaced.

Various strategies for the maintenance of the SAWS infrastructure were implemented during the year and included the following:

- The Lightning Detection Network sensor upgrades, which seek to address the current concerns and shortages of network spares to free up used parts for sustaining network maintenance, were an ongoing process that formed part of the infrastructure sustainability plan. Two sensors were upgraded during the year, and six will be upgraded in the new financial year.
- The entity used the FIIX system to schedule maintenance interventions per infrastructure network to ensure sustainability and optimum performance.
- The entity was developing a solar battery storage backup plan to stabilise the observation network affected by load shedding.

The entity continued to look for alternative means of maintaining its infrastructure networks within the available budget. With an adequate funding allocation, network performance and maintenance turnaround could be achieved. However, due to budget limitations, some of the network performance targets were reduced to align the probability of performance with the allocation of funding.

Details how asset holdings changed over the period under review, including information on scrapping and loss due to theft

The change in the entity's asset holding was due to acquisition, impairment losses, and scrapping of assets. Some assets were identified as no longer required for service due to their usage and deemed obsolete and technologically outdated. These assets, identified during the physical asset verification, were subsequently impaired and recommended for disposal.

The table below provides a detailed breakdown of the change in the entity's asset holding for the year:

Table 26: Asset holding movement (carrying amounts as at 31 March 2024)

Accounting group	Additions R'000	Impairment/ scrapping losses and reversals R'000	Gains due to sale R'000
Property, plant and equipment	37 645	17 404	215
Intangible assets	1 399	262	-
Total	**39 044**	**17 666**	**215**

Measures taken to ensure that the SAWS' asset register remained up-to-date

Physical asset verification processes were carried out during the year as part of the asset management process to ensure the safekeeping of the entity's assets. In addition, the asset management team purchased modern asset scanners to ensure efficiency in recording and tracking assets.

The current state of the SAWS' capital assets

The table below indicates the overall condition, grading, and current state of the SAWS' capital assets, following the physical verification process which was conducted during the year:

Table 27: Condition grading of assets

Condition grading	Capital assets stated in percentages	Carrying amount R'000
Good	46%	R 329 940
Fair	33%	R 26 683
Poor/bad condition	21%	R 569
Total	**100%**	**R 357 192**

Major maintenance projects that have been undertaken during the period under review

The entity was able to carry out the following repairs and maintenance on its major capital projects:

- The assessment of the ionising radiation project at selected RADAR sites was concluded.
- The upgrade of security at RADAR sites to 24-hour monitoring was completed successfully, and all selected sites now have 24-hour security monitoring.
- A standby power upgrade for the Ottosdal RADAR site was concluded, and a new diesel backup generator was acquired.

Progress made in addressing the maintenance backlog during the period under review

Implementing the FIIX system addressed the significant backlogs for repairs and maintenance during the current financial year. This resulted in a substantial decrease in the organisational repairs and maintenance backlog. However, load shedding has proven to be a major challenge to these efforts.

PART C:
GOVERNANCE

1. Introduction

Corporate governance embodies processes and systems by which public entities are directed, controlled and held to account. In addition to legislative requirements based on a public entity's enabling legislation and the Companies Act, 2008 (Act No. 71 of 2008), corporate governance in public entities is applied through the precepts of the Public Finance Management Act, 1999 (Act No. 1 of 1999 as amended) (PFMA) and runs in tandem with the principles contained in the King IV Report on Corporate Governance.

Parliament, the Executive and the Accounting Authority of the public entity are responsible for corporate governance.

2. Portfolio Committees

The Forestry, Fisheries and the Environment Portfolio Committee (the Portfolio Committee) monitors and oversees the work and budget of the South African Weather Service (SAWS) – as an entity of the Department of Forestry, Fisheries and the Environment (DFFE) – and holds the organisation to account. During the 2023/24 financial year, the SAWS attended and took part in the following meetings with the Portfolio Committee:

- 19 April 2023, briefing on the Annual Performance Plan and Strategic Plans for 2023/24
- 13 September 2023, briefing on the third and fourth quarterly reports for the 2022/23
- 11 October 2023, briefing on the Annual Report for 2022/23
- 14 November 2023, briefing on the first quarter report for 2023/24

3. Executive Authority

The Government of the Republic of South Africa is the sole shareholder and the Executive Authority of the SAWS. The shareholder representative is the Minister of Forestry, Fisheries and the Environment. As such, during the period under review, the SAWS engaged the Minister on matters concerning its efficient and effective functioning and progress on implementing plans and the entity's mandate.

To this end, the SAWS quarterly presented progress on the implementation of the 2023/24 Annual Performance Plan (APP) to the Minister and the Deputy Minister, both of whom guided the entity and ensured that the government's priorities found expression in the performance plans for 2023/24.

4. The Accounting Authority/ Board

4.1 Introduction

The SAWS has a Board of ten (10) members appointed by the Minister as per the South African Weather Service Act, 2001 (Act No. 8 of 2001 as amended) (SAWS Act). The Board comprises one executive member (the Chief Executive Officer) and nine non-executive members. The Board meets quarterly to oversee the organisation's performance against the targets set in the APP. The composition of the Board is drawn from individuals with various skills and academic qualifications, which permit them to effectively exercise the requisite oversight, monitoring, and directing of the SAWS.

4.2 The role of the Board

The functions, roles and responsibilities of the Board are prescribed by the SAWS Act, PFMA and best practices such as the Companies Act, 2008 (Act No. 71 of 2008) and the King IV Report on Corporate Governance.

In terms of the SAWS Act, the Board's functions are:

- To ensure the financial viability and development of the commercial services;
- To ensure an efficient, cost-effective and high-quality weather service;
- To set policies, standards and objectives within the framework issued by the Minister and ensure that the Executive Management team implements these policies, standards and objectives;
- To facilitate succession and guide the appointment of senior managers;
- To ensure that the SAWS has adequate systems of internal control, both operational and financial;
- To monitor the performance of the SAWS and make adjustments to the conditions of service of the personnel with due regard to the applicable labour legislation;
- To recommend any budget proposals or adjustments and submit them to the Minister;
- To set policy for recruitment, training and transformation at the SAWS;
- To approve the Annual Performance Plan for the SAWS for the duration of its term of office and submit it to the Minister for final approval;
- To ensure that the majority of the South African population benefits from the public good services; and
- To perform any other function assigned to it by the Minister.

4.3 Board Charter

In line with best corporate governance practice, the Board reviewed and approved the Board Charter during the year under review. The purpose of the Board Charter is to:

- Set parameters within which the Board operates;
- Ensure that all Board members are aware of their duties and responsibilities as derived from applicable legislation, regulations and governance frameworks affecting their conduct; and
- Ensure that the principles of good corporate governance are applied in all Board activities regarding, and undertaken on behalf of the SAWS.

In addition, the Board approved its 2023/24 corporate calendar and the Board's annual workplan to ensure the completion of its activities for the year under review. The Board's corporate calendar is used as input for developing its annual work plan and Board committees' annual work plans to set out matters to be considered/approved by the Board during the year. The Board's annual work plan ensures that all matters are covered by the agendas of the meetings planned for the year and proper coverage of the matters laid out in the Board Charter. Progress reports on quarterly work plans were presented to the Board to guide key activities to be attended to by the Board and were amended as and when required.

Table 28: Composition of the Board

Name	Designation (in terms of the Public Entity Board structure)	Date appointed	Date resigned / date of the end of the Board term	Qualifications	Area of expertise	Board Directorships with other entities	Other committees or task teams from other entities	Total number of Board meetings attended	Ordinary Board meetings	Specials Board meetings
Ms Feziwe Renqe	Board Chairperson	1 January 2019	Reappointed 1 January 2022	LLM, MAP, Post Graduate Diploma Corporate Law, B Proc	Law and Corporate Governance	LIV-LUKHANYISO NPO	Chairperson of the Adjudication Panel for Covid-19 No-Fault Compensation (NFC) Scheme	20	11	9
Mr Itani Phaduli	Deputy Board Chairperson and Audit and Risk Committee Chairperson	1 January 2019	Reappointed 1 January 2022	Postgraduate Diploma in Accounting, CA (SA) Masters in Development Finance (MCom)	Finance, management and financial accounting, financial reporting, auditing and taxation	None	None	23	12	11
Ms Moipone Magomola	Member	1 January 2019	Reappointed 1 January 2022	BSc; LLB; Executive Development Programme (GIBS); Executive Development Programme (Wharton Business School, University of Pennsylvania) USA; Directors Development Programme (University of Western Cape)	Corporate governance, general management and law	GIBB (Pty) Ltd. Nelson Mandela Children's Fund. Nelson Mandela Children's Hospital (NPC)	None	22	12	10

Table 28: Composition of the Board (continued)

Name	Designation (in terms of the Public Entity Board structure)	Date appointed	Date resigned / date of the end of the Board term	Qualifications	Area of expertise	Board Directorships with other entities	Other committees or task teams from other entities	Total number of Board meetings attended	Ordinary Board meetings	Specials Board meetings
Dr Mmaphaka Tau	Member	1 January 2022	Current	PhD in Development and Management, Masters in Disaster Management, Masters in Development Studies, Honours in Development Studies, Higher Education Diploma, Bachelor of Arts	Disaster risk management, risk-informed development, strategy formulation and execution, community development, natural resources management, water use and irrigation development, capacity building and development, policy formulation and execution, policy and legislation drafting and review, research planning, design and execution, rural development programmes formulation and implementation, communication, public and stakeholder mobilisation	SANBI Board Disaster Relief Fund Board (until April 2022) Critical Infrastructure Council (until April 2022) Independent Trustee Armoede: Community Development Trust Independent Trustee: Ga-Pila Community Development Trust South African Programme Board Member: United Nations Development Programme Advisory Board Member: Disaster Management	Science and Technology Correspondent of South Africa: United Nations Convention to Combat Desertification (DFFE) Examiner Rhodes University & North-West University Research Associate: University of the Free State War Room Member: Department of Human Settlements (May 2022 to April 2023)	15	10	5
Prof. Sylvester Mpandeli	Member and Strategic Programmes Committee chairperson	1 January 2022	Current	Doctor of Philosophy (PhD) in Climatology	Climate change adaptation, water – energy – food nexus, agricultural water management, food security	International Commission on Irrigation and Drainage (ICID) Executive Council	None	18	10	8
Ms Sandika Daya	Member	1 January 2022	Current	Executive Master in Digital Transformation and Innovation Leadership, BSc Computer Science and Applied Mathematics, Professional Director PD(SA), CDPSE (Certified Data Privacy), ISAP (SA) (Audit Professional),	Digital transformation, Audit and Risk, Corporate Governance, Information Technology	None	SASSA SAQA SAIGA	17	8	9

Table 28: Composition of the Board (continued)

Name	Designation (in terms of the Public Entity Board structure)	Date appointed	Date resigned / date of the end of the Board term	Qualifications	Area of expertise	Board Directorships with other entities	Other committees or task teams from other entities	Total number of Board meetings attended	Ordinary Board meetings	Specials Board meetings
Ms Mmapula Kgari	Member and Human Resources and Remuneration Committee Chairperson	1 January 2022	Current	B.Com Economics, Masters in Business Leadership, Executive Development Programme	Moderately networked knowledge of the public sector, strategic planning & execution, governance and oversight, commercially adept, business model, disruptions, market intelligence, stakeholder relations and management, project management, risk management	None	None	19	10	9
Dr Grant Son	Member	1 January 2022	Current	Masters in Business Administration, Masters of Philosophy, PhD	Strategic business management, Risk management, Environmental management	Parliament Council for Critical Infrastructure HPCSA Department of Transport Gauteng Department of Economic Development	Council member: Council for Higher Education (CHE) City of Joburg Municipalities – Joburg Market Board Panel member: SARS Tax Court	17	7	10
Mr Maesela Kekana	Department representative	1 March 2023	Current	Masters of Sciences (dissertation)	Science	None		14	9	5
Mr Ishaam Abader	Ex officio member	1 April 2021	Current	Barchelor of Arts, B.Iuris, Masters in Business Administration	Legal, Managerial, Environmental Impact Assessment, Compliance, Enforcement	NNR CGS Interpol Advisory Board SAWS (DFFE representative)	None	20	12	8

Table 29: Board Committees

Committee	Number of meetings held	Number of members	Names of members
Human Resources and Remuneration Committee (HRRC)	13	4	Ms Mmapula Kgari (Chairperson) Ms Feziwe Renqe (Member) Ms Moipone Magomola (Member) Dr Grant Son (Member)
Audit and Risk Committee (ARC)	11	3	Mr Itani Phaduli (Chairperson) Ms Sandika Daya (Member) Mr Suren Maharaj (Independent member) Ms Nalini Maharaj (Independent member) Mr Robin Theunissen (Independent member)
Special Programmes Committee (SPC)	4	4	Prof. Sylvester Mpandeli (Chairperson) Dr Mmaphaka Tau (Member) Dr Grant Son (Member) Ms Sandika Daya (Member)
Infrastructure Sustainability Plan (ISP) Ad Hoc Committee	7	4	Dr Mmaphaka Tau (Chairperson) Mr Itani Phaduli (Member) Ms Sandika Daya (Member) Ms Moipone Magomola (Member) Ms Feziwe Renqe (Standing invitee)

4.4 Remuneration of Board members

Section 9 of the SAWS Act provides that any member of the Board, other than the Chief Executive Officer and the official contemplated in section(5)(1)(b), must be paid such remuneration and allowances as the Minister, with the concurrence of the Minister of Finance, may determine.

The Director-General of the National Treasury annually publishes a Notice of Adjustment of the remuneration levels and service benefit packages for office-bearers in certain statutory and other institutions. This Notice also applies to the SAWS as a Schedule 3A public entity. The SAWS is further classified as a Category A, Sub-category A1 entity. The meeting attendance fees are shown below:

Table 30: Meeting attendance fees

Category A	Meeting fee per day	Meeting fee per hour
Sub-category A1		
Chairperson	R5 387	R673
Vice-Chairperson	R4 578	R572
Member	R4 005	R501

The schedule indicating remuneration paid to each Board member is found under Note 36 on page 170 of the Annual Financial Statements.

5. Risk management

5.1 Risk management policy and strategy

In compliance with the requirements of the PFMA, the SAWS has reviewed and approved a Risk Management Policy during the year under review. The ongoing review of the policy demonstrates the SAWS' commitment to managing risk events, which might have a negative impact on the achievement of its objectives. The Risk Management Strategy, which details the SAWS' plan of action to implement the policy effectively, was also approved.

Regular risk assessments are conducted to identify emerging risks and to determine the effectiveness and suitability of existing control measures. In executing the policy, the Board had a session to review the Strategic Risks in alignment with the revised strategy and the risk register was compiled and approved. The risk response strategies to further mitigate the risks rated higher than the set risk tolerance and appetite levels, were documented and are monitored regularly to ensure that risk owners effectively manage risks.

Furthermore, to manage business continuity risks, the organisation assessed critical Information and Communication Technology (ICT) systems and conducted a business continuity management maturity assessment to assess the capability of the SAWS' business continuity during a disruptive incident.

A functional Risk Management Committee advises management on the overall risk management system, especially the mitigation of unacceptable levels of risk. The committee meetings were held quarterly, starting from the second quarter of the year under review, to evaluate the effectiveness of risk management activities. Furthermore, in line with relevant legislation, the Board established the Audit and Risk Committee (ARC) as its sub-committee. The ARC advises the organisation on risk management activities and independently monitors the effectiveness of the risk management system. Risk management reports were tabled at the ARC, which an independent person chairs. The committee met quarterly, as scheduled, and performed its oversight functions.

5.1.1 Progress on the management of risks

Every quarter, the SAWS conducts risk monitoring to track progress on implementing its risk mitigation plans developed to improve internal control systems. A significant improvement in risk management was registered. However, financial and capacity constraints were experienced during 2023/24. To address capacity issues, the organisation prioritises filling critical positions. Regarding financial constraints, the SAWS collaborates with other stakeholders to explore new commercial products for different sectors. It is also continuing to implement its Revenue Turnaround Strategy.

6. Internal Control Unit

The organisation does not have a specific Internal Control Unit. However, it ensures that a combined assurance model covers significant risks and material matters. The combination of the SAWS' line functions, risk and compliance functions, internal auditors, external auditors and other assurance providers relevant to the SAWS environment ensures that effect is given to the combined assurance model. The level of assurance provided by the different lines of defence is reported quarterly to oversight structures.

7. Internal Audit and Audit and Risk Committee

Internal Audit Department

The Internal Audit department is administratively accountable to the SAWS CEO and functionally to the Audit and Risk Committee (ARC). This reporting ensured the effectiveness of the department by guaranteeing that its work was performed objectively and independently. The department follows a co-sourced model whereby internal audits are performed in-house and by a co-sourced service provider. The department is governed by an Internal Audit Charter approved by the ARC and reviewed annually. The Charter defines the purpose, authority, responsibilities, and scope of the department. The PFMA, Treasury Regulations and the standards for the professional practice of internal auditing govern internal audits. The objective of the department is to provide independent, objective assurance and advisory services designed to add value and improve the SAWS operations and to evaluate the effectiveness of risk management, control, and governance processes.

Key objectives of the Internal Audit department are to evaluate the adequacy and effectiveness of controls in responding to risks within the organisation's governance, operations, and information systems regarding the:

- Achievement of the organisation's strategic objectives;
- Reliability and integrity of financial and operational information;
- Effectiveness and efficiency of operations and programmes;
- Safeguarding of assets;
- Compliance with laws, regulations, policies, procedures, and contracts.

During the 2023/24 financial year, the following internal audit reviews were conducted:

- Audit of Performance Information (Annual Performance of Financial Year 2022/23, Quarter 1, Quarter 2, and Quarter 3)
- Draft Annual Financial Statement Review
- Commercial Revenue Review
- Technical Services Infrastructure Review
- Information Technology Audits
- Supply Chain Management Review
- Human Resources Review
- SCM Probity Reviews
- Quarterly Follow-up Audits (Internal Audit and Auditor-General)

The department performed its audit assignments during the year as per the approved Internal Audit Plan for 2023/24.

Audit and Risk Committee

The Audit and Risk Committee is a statutory committee of the Board, established in terms of section 77 of the PFMA, read with Treasury Regulation 27.1, published in terms of the PFMA. The Committee is accountable to the Board for the exercise of its responsibilities and will fulfill all governance and strategic leadership matters within its mandate including the following responsibilities:

- Financial management and financial statements review and monitoring
- Performance information management
- Governance of Risk and Information and Communication Technology (ICT)
- Internal controls and compliance
- Internal Audit review and guidance
- External Audit review
- Reporting (including to the Board, Shareholder, and the Annual Report)
- Whistle blowing and fraud arrangements
- Other responsibilities relating to social and economic development, the Organisation for Economic Cooperation and Development (OECD) recommendations regarding anti-corruption.
- Review and recommend for Board approval, divisional strategies/plans, policies, governance frameworks within its scope and monitor the SAWS' compliance therewith.

Table 31: Composition of the Audit and Risk Committee

Name	Qualifications	Internal or external	If internal, position in the public entity	Date appointed	Date Resigned	No. of Meetings attended
Mr Itani Phaduli (Chairperson)	Postgraduate Diploma in Accounting, CA (SA) Masters in Development Finance (MCom)	Board member	N/A	1 January 2022	31 December 2024	11
Ms Sandika Daya	Executive Master in Digital Transformation and Innovation Leadership BSc Computer Science and Applied Mathematics, Professional Director, PD (SA) CDPSE (Certified Data Privacy) ISAP (SA) (Audit Professional) Certificate in Applied Project Management in an Information Technology Environment	Board member	N/A	1 January 2022	31 December 2024	11
Mr Suren Maharaj	Honours BCompt Degree, CA (SA)	Independent ARC Member	N/A	26 February 2019	Term ended 31 March 2022, and re-appointed for the second term, ending 31 December 2024	10
Mr Rob Theunissen	Bachelor of Accountancy. (B.Acc.) Chartered Accountant SA. CA (SA) Diploma in Criminal Justice and Forensic Auditing (Dip. CJFA)	External/ Independent ARC member	N/A	12 May 2022	31 December 2024	11
Ms Nalini Maharaj	B Proc LLB Financial Accounting Certificate Corporate Governance Certificate	External/ Independent ARC member	N/A	12 May 2022	31 December 2024	11

8. Compliance with laws and regulations

To deliver on its mandate and achieve its strategic objectives, the SAWS, as a law-abiding entity, must comply with all the legislation that apply to its operations and activities. Over 200 laws and regulations apply to and regulate the SAWS' operations and activities. The SAWS Board, as per the King IV Code on Corporate Governance, determined what laws apply to the SAWS' operations and activities. These are contained in the SAWS compliance framework, which is part of the SAWS compliance universe. The level of risk associated with the identified laws was assessed using the adopted SAWS risk assessment methodology. This ensures that the laws are prioritised according to their level of risk to the organisation.

Since laws constantly change, the compliance department monitors them and advises the organisation on those that impact its operations and activities. Training sessions and/or workshops are conducted where required to inform the SAWS employees of new laws.

The Board monitors compliance to ensure that the various executives, managers, employees, and any relevant stakeholders within the SAWS environment follow and obey these laws. Management presents compliance reports to the Board quarterly to assure the Board that the SAWS complies with applicable laws and regulations. Where there are areas of non-compliance, these are closely monitored, and plans and control measures are put in place to mitigate against non-compliance.

The various assurance providers, including the Auditor-General, and Internal Audit, and Governance, Risk, and Compliance, also assist the Board in identifying any non-compliance areas. These are immediately attended to.

During 2023/24, a service provider was appointed to assist with the development of further checklists and to provide access to a compliance tool in respect of legislation that has a significant and severe risk impact on the organisation. The organisation is currently monitoring compliance of about eleven prescripts, utilising the tool. This will enable it to ensure a wide range of applicable legislation.

To improve the SAWS B-BBEE status, the organisation appointed an internal B-BBEE Task Team and consultants to assess the entity's B-BBEE status. Furthermore, a verification service provider was appointed to conduct the verification process. The process has commenced, and the certificate is anticipated to be issued imminently.

The Promotion of Access to Information Act, 2000 (Act No. 2 of 2000) (PAIA) manual was also amended to accommodate the recent PAIA regulations amendments. The manual was also translated into two other languages: seSotho and isiZulu. Furthermore, measures have been put in place to ensure compliance with POPIA.

9. Fraud and corruption

To promote a zero-tolerance environment for fraudulent and corrupt activities, the SAWS has an approved whistle-blowing policy, a fraud policy and prevention plan, and a fraud and ethics hotline which an independent service provider facilitates.

The service provider was appointed to administer the fraud hotline on behalf of the organisation and provides reports every month. The service provider provided all reports as per their contractual obligation. However, no cases were reported by whistle-blowers through the fraud hotline and/or other reporting channels. These reports were highlighted in the risk management reports tabled at the Audit and Risk Committee meetings.

Fraud and ethics awareness workshops were held to educate employees on what constitutes fraud and unethical activities. The workshops also dealt with reporting channels that could be followed when safely reporting fraud allegations, and how whistle-blowers can be protected under the Protected Disclosures Act, 2000 (Act No. 26 of 2000). The workshops aimed to encourage employees to report fraud and any unethical behaviour that they may identify.

10. Minimising conflict of interest

The prescribed Standard Bidding Document (SBD 4 referenced "Declaration of Interest" form) was applied to procuring goods and services, whereby prospective suppliers/service providers are obliged to provide accurate information on their dealings with the State. The National Treasury's Central Supplier Database was also utilised to verify that suppliers and service providers are tax compliant in the service of the State, and supplier status was restricted before the awarding of price quotations and tenders to minimise conflict of interest in supply chain management.

The SAWS Conflict of Interest Policy governs SAWS employees' conflicts of interest. The policy states that all SAWS employees are obliged to act in the organisation's best interest and are not permitted to act in a manner that would amount to a perceived or actual conflict of interest with the SAWS.

Employees involved in the SAWS' procurement governance structures are required to comply with the policy and disclose their interests at meetings held to consider any particular transaction, contract, and/or appointment.

The chairperson ensures that a declaration of interest is included in the agenda. A participant in the meeting is obligated to inform the chairperson of any conflict or potential conflict of interest they may have concerning particular agenda items. The chairperson of the meeting then determines an appropriate course of action with the member, such as recusal of the member from the discussions of the relevant agenda item or other measures. In a case where the chairperson of the committee has a conflict of interest, the committee members are required to determine the appropriate course of action.

11. Code of Conduct

In pursuit of ethical business conduct and compliance with corporate governance practices, the SAWS considers effective ethics management as a critical element in the day-to-day activities of the entity. The SAWS Code of Conduct and Ethics applies to the Board, management, employees of the SAWS, and any other person(s) or parties contractually rendering services and/or doing any business on behalf of the SAWS, and those specifically doing business with the SAWS.

Awareness training on fraud, corruption and ethics was conducted for SAWS employees during the year under review. The SAWS regards the failure to comply, in whole or in part, with one or more provisions of the SAWS Code of Conduct and Ethics as a serious offence. Violations of the SAWS Code and Ethics regulations are dealt with in accordance with the applicable provisions of the SAWS Disciplinary Policy and/or any other relevant legislative and governance prescripts.

12. Health, safety and environmental issues

The SAWS is a public entity committed to providing a healthy and safe working environment for all its employees, visitors and contractors doing business with the institution and the public.

Occupational Health and Safety (OHS) Compliance Inspections and ISO 9001:2015 internal audits are conducted to identify hazards and monitor compliance.

For the year under review, the Mahikeng weather office was inspected by the Department of Labour on 15 September 2023. It was found to be compliant with the Occupational Health and Safety Act, 1993 (Act No. 85 of 1993) and the Compensation for Occupational Injuries and Diseases Act, 1993 (Act No. 130 of 1993). Continuous OHS compliance training was provided.

13. Company Secretary

The SAWS is an entity of the DFFE and is not incorporated into the Companies Act, 2008 (Act No. 71 of 2008). Therefore, the SAWS is not obliged to file returns to the Companies and Intellectual Property Commission as required by the Companies Act regulations. However, to comply with the principles of good corporate governance, appointing the Company Secretary is in line with the guidelines espoused in the Companies Act and King IV Code on Corporate Governance.

The role of the SAWS Company Secretary includes, amongst others, to:

- Provide guidance and advice to the Board to discharge its fiduciary duties and responsibilities in the best interest of the SAWS
- Ensure that the Board is aware of any new and relevant laws or any changes in the legislation that might affect the operations of the SAWS
- Ensure compliance with the PFMA and alignment with corporate governance guidelines, as well as any other relevant legislation
- Develop and review Board-related policies and monitor adherence with these and with the Delegation of Authority
- Assist the Board Chairperson and the Committees with the compilation of the annual Board and Board Committees calendar work plans and ensure circulation of these to members
- Give notice of Board meetings, prepare and circulate agendas, consolidate and disseminate Board pack presentations, maintain attendance registers and take minutes
- Ensure induction and orientation of new Board members and experts serving on the Board Committees
- Facilitate the evaluation of the Board, Board Committees and the Chairperson and Board members
- Manage conflicts of interest in relation to Board members and be the custodian of the Code of Conduct and Ethics approved by the Board
- Assist with stakeholder management

14. Social responsibility

The SAWS joined the rest of the world in humanitarian work as part of the 2023 Nelson Mandela International Day. The SAWS donated food, hygiene and cleaning supplies to children at the Olievenhoutbosch Disability Centre. About R7 600 was collected through a spirited fundraising drive at the Head Office. In addition, the SAWS pledged R5 000 through its Corporate Social Investment programme.

In February 2024, the SAWS engaged with vulnerable groups and local leaders in Hammanskraal, north of Pretoria, to raise WeatherSMART awareness and equip the community with crucial information that could help save lives, livelihoods and property from the effects of severe weather events. Over 600 people attended the mass event held at the Mandela Community Hall.

15. Audit and Risk Committee (ARC) Report

We are pleased to present our report for the financial year ended 31 March 2024.

The ARC's responsibility

The ARC complied with its responsibilities arising from Section 77 of the Public Finance Management Act, 1999 (Act No. 1 of 1999 as amended) and Treasury Regulations 1.1.13 and 27.1. The ARC also reports that it has adopted appropriate formal terms of reference as its Audit Committee Charter, regulated its affairs in compliance with this charter, and discharged all its responsibilities as contained therein.

The effectiveness of internal control

Risk assessments are conducted to identify potential risks, including emerging risks that could negatively impact the achievement of the SAWS' objectives, in line with the Risk Management Strategy. The ARC reviews the effectiveness of implementing the Risk Management Strategy regularly and continuously. The ARC also reviews the combined assurance process to determine the level of assurance provided on the internal controls by various assurance providers. The ARC guided the SAWS in developing its risk appetite and tolerance levels. During the year under review, the ARC was satisfied that the Annual Internal Audit Plan was risk-based, taking into account the risk profile of the SAWS and that Internal Audit provided the relevant assurance.

The ARC's review of the internal and external audit findings was based on the audit reports issued and the Committee's interrogation thereof. These reports revealed certain weaknesses, which were raised with the SAWS management. Based on these reviews, the ARC considers the systems of internal control for the period under review partially effective. Where weaknesses were identified, corrective measures were proposed for implementation.

The ARC

The SAWS has addressed most of the audit findings issued by the Auditor-General South Africa (AGSA) and Internal Audit from the 2022/23 audits. More complex remedial actions are still being implemented. An Audit Findings Register was presented at the ARC's meetings to track progress on resolving the findings (internal and external audit). Internal and external audits perform follow-up audits on resolved findings.

In-year management and monthly/quarterly report

The SAWS has submitted quarterly reports to the Executive Authority. With the oversight of the ARC, the SAWS submitted quarterly performance reports and PFMA compliance reports to the Executive Authority. The Committee was satisfied with the content and quality thereof. Furthermore, the Committee reviewed the actual performance of the SAWS against the targets set in the Annual Performance Plan for 2023/24. The ARC ensured that the performance information included in the quarterly performance reports was reviewed by Internal Audit. Therefore, any findings raised during the audit were to be corrected before these quarterly performance reports were sent to DFFE.

The ARC was also furnished with the entity's annual performance report, which underwent internal audit processes. The Committee was satisfied with the report and the outcome of the internal audit. Subsequently, the annual performance report was recommended to the Board for approval and for the entity to submit it to the AGSA.

Evaluation of financial statements

The ARC has performed the following activities during the review of the annual financial statements prepared by the South African Weather Service:

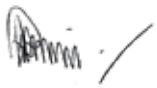
- Reviewed and discussed the audited financial statements to be included in the annual report with the AGSA and the Accounting Authority.
- Reviewed the AGSA's management report and management's comments thereon.
- Reviewed SAWS' compliance with legal and regulatory provisions.
- Reviewed the information on predetermined objectives to be included in the Annual Report.

Auditor-General of South Africa (AGSA)

The ARC ensured that the AGSA was presented with financial statements that were fairly presented and prepared in accordance with the standards of Generally Recognised Accounting Practice (GRAP) as required by section 55(1)(b) of the Public Finance Management Act. The ARC met representatives from the AGSA during the audit of the SAWS 2023/24 annual financial statements and exercised its oversight role on the overall audit process. The AGSA had a standing invitation to all Committee meetings conducted during the year under review.

In addition, the ARC reviewed the SAWS implementation plan for audit issues raised in the prior year and is monitoring it quarterly.

The ARC concurs and accepts the external auditor's conclusions on the annual financial statements and is of the opinion that the audited annual financial statements should be accepted and read together with the auditor's report.



Mr Rob Theunissen
Chairperson of the Audit and Risk Committee
South African Weather Service
Date: 19 August 2024

16. Broad-Based Black Economic Empowerment (B-BBEE) compliance performance information

The following table has been completed in compliance with the B-BBEE requirements of the Broad-Based Black Economic Empowerment Act, 2013 (Act No. 46 of 2013) and as determined by the Department of Trade, Industry and Competition.

Table 32: Application of any relevant Code of Conduct of good practice

Has the public entity applied any relevant code of good practice about the following:		
Criteria	**Response Yes / No**	**Discussion**
Determining qualification criteria for the issuing of licences, concessions or other authorisations in respect of economic activity in terms of any law	No	N/A
Developing and implementing a preferential procurement policy	Yes	The SAWS reviews the supplier performance management report, and suppliers identified as poor performers are considered for development in accordance with the SAWS Supply Chain Management Policy.
Determining qualification criteria for the sale of state-owned enterprises	No	N/A
Developing criteria for entering into partnerships with the private sector	Yes	The criteria for entering a partnership align with the approved SAWS Commercial Strategy.
Determining criteria for the awarding of incentives, grants and investment schemes in support of Broad-Based Black Economic Empowerment	Yes	Suppliers or enterprises that attend the supplier development training have the correct B-BBEE level for development. Criteria to be included in the SAWS B-BBEE Strategy are being developed.

PART D:
HUMAN CAPITAL MANAGEMENT

1. Introduction

The South African Weather Service (SAWS) is a knowledge-based institution that values its human resources as an important asset to the organisation. Through the employees' efforts, the organisation translates science into products and services for society, benefitting current and future generations.

The Human Resources and Remuneration Committee (HRRC) provides strategic oversight regarding human capital management in the organisation and approves a human capital management strategy. The strategy serves as a framework to guide the application of all aspects of human capital management. The strategy enables the SAWS to improve its operational efficiency by providing a diverse workforce with the requisite skills and expertise to drive and deliver on the SAWS mandate. Figure 43 below indicates the SAWS human capital objectives.

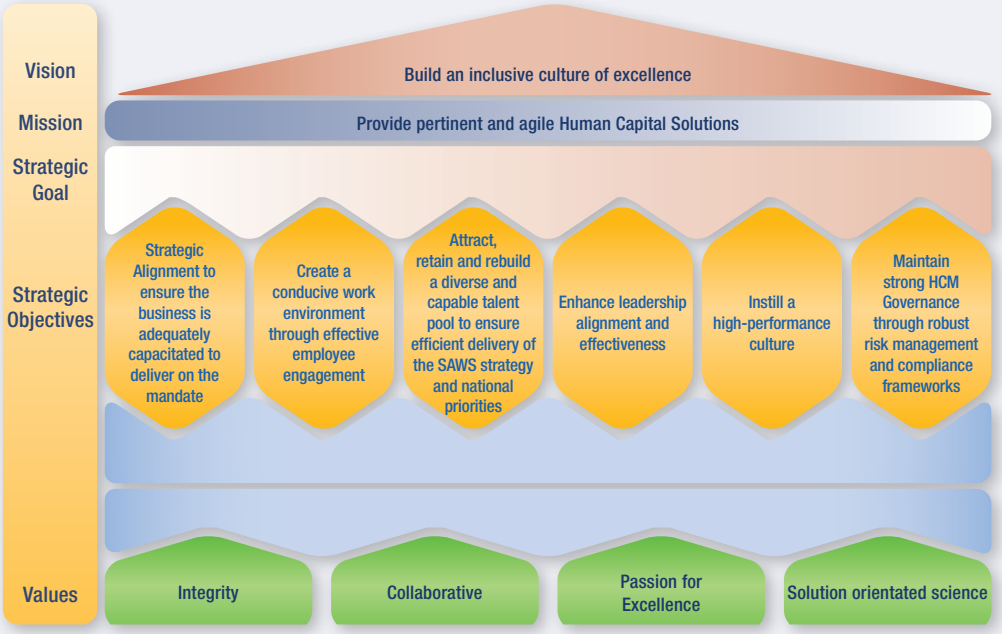


Figure 43: Strategic human capital management objectives

It was important to embark on a job evaluation and grading process during the reporting period to ensure that the SAWS is adequately capacitated. In this regard, all the SAWS job profiles were revised, evaluated and graded to determine the value of each job in relation to other jobs in the organisation, as well as in relation to the external market. This enabled the SAWS to embark on a remuneration benchmarking exercise.

An employee engagement survey, followed by focus group discussions, enabled the HRRC to confirm the engagement drivers that the SAWS employees value. The same process also identified areas of concern to guide the prioritisation of the human capital management strategic objectives going forward. The SAWS employees have access to an employee wellness programme, which offers confidential and professional counselling services and support on a 24/7 basis.

During the year under review, the SAWS employees had the opportunity to participate in 360-degree assessments. Through this process, employees received confidential, anonymous, and constructive feedback, highlighting their strengths and areas for potential development. Integrating this feedback with personal development plans enables the implementation of targeted development programmes.

To mitigate the risks of staff turnover, the HRRC approved a Succession Planning Framework. Aligned to the framework, the SAWS developed a succession plan, focussing on highly critical and critical positions. Successors and developmental areas for each successor were identified and incorporated into the SAWS Workplace Skills Plan. Leadership development is supported through a panel of professional mentors and coaches available to the SAWS employees.

The SAWS continued its quest towards high performance in meeting and, in some cases, exceeding all the human capital management-related targets in the 2023/24 Annual Performance Plan.

2. Human Resource oversight statistics

Personnel-related expenditure

The SAWS headcount, excluding temporary appointments, was reduced from 474 employees as of 31 March 2023 to 451 employees as of 31 March 2024. Personnel expenditure increased by approximately 3,7% over the same period, mainly because of an average salary increase of 4,5%.

Table 33: Personnel cost by programme/activity/objective

Programme/activity/objective	Total expenditure for the entity (R'000)	Personnel expenditure (R'000)	Personnel exp. as a % of total exp. (R'000)	No. of employees	Average personnel cost per employee (R'000)
Weather and climate services	520 352	94 337	18,1%	129	731
Infrastructure and information Systems		144 838	27,8%	250	579
Finance and supply chain		22 834	4,4%	36	634
Corporate services		32 750	6,3%	36	910
TOTAL	**520 352**	**294 759**	**56,6%**	**451**	**654**

Note: *The information in the table above excludes temporary employees appointed on fixed-term contracts and interns.*

Due to limited financial resources and the need to protect vulnerable employees from the current economic conditions, the SAWS implemented annual salary adjustments for 2023/24 on a sliding scale, ranging from 6,5% for lower-income employees to 4,0% for employees earning more than R1 million per annum.

Table 34: Personnel cost by occupational level

Level	Personnel expenditure (R'000)	% of personnel exp. to total personnel cost (R'000)	No. of employees	Average personnel cost per employee (R'000)
Top management	10 898	3,7%	5	2 180
Senior management	22 365	7,6%	14	1 598
Professional qualified	97 511	33,1%	106	920
Skilled	107 240	36,4%	195	550
Semi-skilled	50 630	17,2%	106	478
Unskilled	6 115	2,1%	25	245
TOTAL	**294 759**	**100,0%**	**451**	**654**

Note: *The information in the table above excludes temporary employees appointed on fixed-term contracts and interns.*

The SAWS met its target for implementing the Workplace Skills Plan during 2023/24. The table below indicates the cost associated with relevant training.

Table 35: Training costs

Programme/activity/objective	Personnel expenditure (R'000)	Training expenditure (R'000)	Training expenditure as a % of personnel cost. (R'000)	No. of employees trained	Average training cost per employee (R'000)
Learning and Development	294 759	3 279	1,1%	382	8,6

Staff turnover was still a concern for the SAWS, specifically in specialist positions where the organisation is losing skills to similar organisations nationally and internationally. The SAWS embarked on a remuneration benchmarking process to curb the loss of skills and retain institutional knowledge.

Table 36: Employment and vacancies per programme

Programme/activity/objective	2022/23 No. of employees	2023/24 approved posts	2023/24 No. of employees	2023/24 funded vacancies	Vacancy rate
Weather and climate services	132	16	129	19	12,8%
Infrastructure and information systems	261	5	250	16	6,0%
Finance and supply chain management	37	0	36	1	2,7%
Corporate services (incl. office of CEO)	44	0	36	8	18,2%
TOTAL	**474**	**21**	**451**	**44**	**8,9%**

Note: *The information in the table above excludes temporary employees appointed on fixed-term contracts and interns.*

Table 37: Employment and vacancies per level

Programme/activity/objective	2022/23 No. of employees	2023/24 approved posts	2023/24 No. of employees	2023/24 vacancies	Vacancy rate
Top management	5	0	5	0	0,0%
Senior management	15	4	14	5	26,3%
Professional qualified	116	5	106	15	12,4%
Skilled	202	8	195	15	7,1%
Semi-skilled	111	4	106	9	7,8%
Unskilled	25	0	25	0	0,0%
TOTAL	**474**	**21**	**451**	**44**	**8,9%**

Employment changes

Table 38: Employment changes per level

Occupational Levels	Employment at beginning of period	Appointments	Terminations	Employment at end of the period
Top management	5	0	0	5
Senior management	15	2	3	14
Professional qualified	116	5	15	106
Skilled	202	19	26	195
Semi-skilled	111	3	8	106
Unskilled	25	0	0	25
TOTAL	**474**	**29**	**52**	**451**

Note: *The terminations include positions vacated as a result of promotion.*

Table 39: Reasons for staff leaving

Reason	Number	% Of total no. of staff leaving
Death	3	5,9%
Resignation	30	58,8%
Dismissal	1	2,0
Retirement	6	11,7%
Ill health	1	1,9%
Expiry of contract	6	11,7%
Other	4	7,8%
TOTAL	**51**	**100,0%**

Note: *The figures above exclude the learnerships and internships, which ended on 31 March 2024, but includes temporary resources.*

The disciplinary actions listed below, relate mostly to inadequate diligence applied during procurement procedures. Consequence management was implemented to initiate corrective action.

Table 40: Labour relations - misconduct and disciplinary action

Nature of disciplinary actions	Number
Written warning	8
Final written warning	3
Dismissal	1
TOTAL	**12**

Building a diverse workforce

The SAWS aspires to have a truly diverse workforce that is representative of the economically active population (EAP) of South Africa at all levels of the organisation. Aligned to the Department of Forestry, Fisheries and the Environment (DFFE) Gender Mainstreaming agenda, the SAWS is committed to improving its target of women representation in management positions. In this regard, under the leadership of the Board, the SAWS increased female representation in Executive Management from 0% to 20%. The 2023/24 target for women in management positions was 42% and the SAWS achieved 42,4%. The SAWS also offers employment opportunities to youth through internships and work-integrated learning programmes. Figure 45 below depicts how the SAWS demographics moved closer to the EAP during the term of the Board.

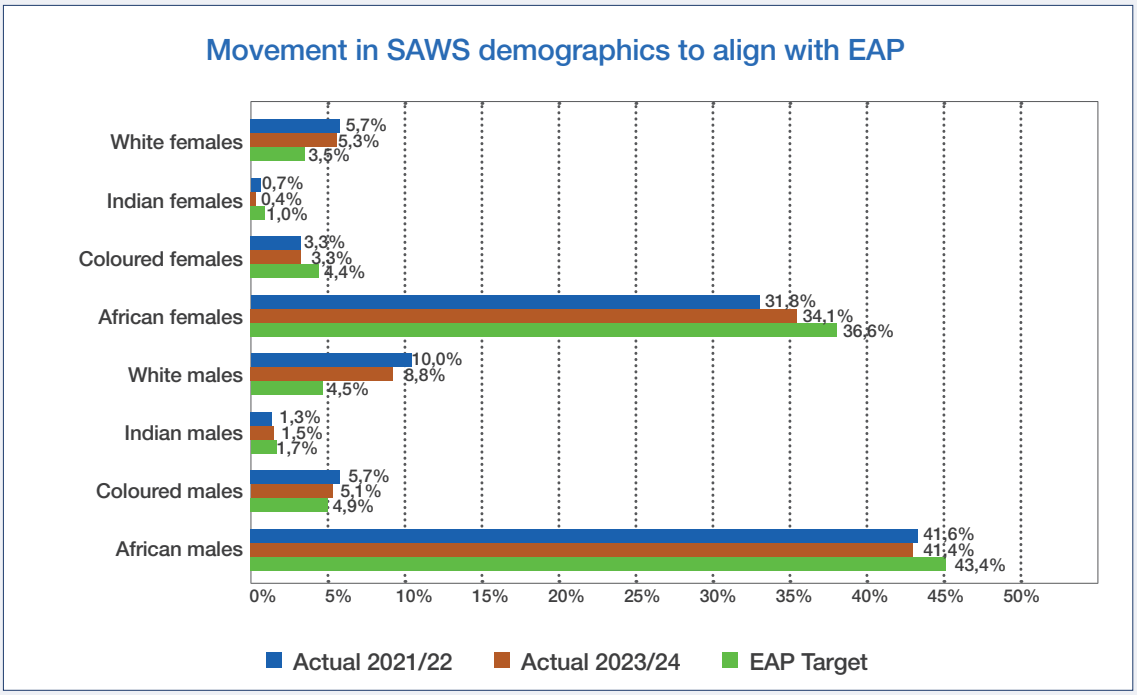


Figure 44: Movement in the SAWS demographics to align with the EAP

During the year under review, the SAWS offered a Generic Management Learnership on a National Certificate level to equip chief and senior meteorological technicians with foundation management training. The programme was delivered by an external service provider, with some of the SAWS senior managers participating as mentors. This was a one-year programme, and the Graduation Ceremony took place on 27 March 2024.

Photograph Q: Generic Management Learnership graduates

Tables 41 and 42 below depict the SAWS demographic profile as of 31 March 2024.

Table 41: SAWS transformation - equity target and employment equity status (male)

Levels	Male									
	African		Coloured		Indian		White		Total	
	Current	Target	Current	Target	Current	Target	Current	Target	Current	Target
Top management	3	3	1	0	0	0	0	0	4	3
Senior management	4	6	0	0	2	1	0	1	6	8
Professional qualified	43	47	4	4	1	1	14	26	60	78
Skilled	84	75	7	6	4	4	19	21	112	106
Semi-skilled	37	42	7	8	0	0	7	7	52	57
Unskilled	16	15	4	5	0	0	0	0	20	20
TOTAL	**187**	**188**	**23**	**23**	**7**	**6**	**40**	**55**	**254**	**272**

Table 42: SAWS transformation - equity target and employment equity status (female)

Levels	Female									
	African		Coloured		Indian		White		Total	
	Current	Target	Current	Target	Current	Target	Current	Target	Current	Target
Top management	0	2	0	0	0	0	1	0	1	2
Senior management	6	5	0	0	0	1	2	2	9	8
Professional qualified	33	28	2	1	0	0	9	10	39	39
Skilled	65	65	7	8	2	3	8	14	82	90
Semi-skilled	45	39	6	7	0	0	4	4	55	50
Unskilled	5	5	0	0	0	0	0	0	5	5
TOTAL	**154**	**144**	**15**	**16**	**2**	**4**	**24**	**30**	**191**	**194**

Note: *The figures above exclude Foreign National Employees (three male employees and three female employees).*

Table 43: Disabled staff

Levels	Disabled Staff					
	Male		Female		Total	
	Current	Target	Current	Target	Current	Target
Top management	0	0	0	0	0	0
Senior management	0	0	1	0	1	0
Professional qualified	1	0	1	1	2	1
Skilled	4	1	3	1	7	2
Semi-skilled	1	0	2	0	3	0
Unskilled	1	0	0	0	1	0
TOTAL	**7**	**1**	**7**	**0**	**14**	**3**

3. Key focus areas for the 2024/25 financial year

Strategic alignment to ensure the organisation is adequately capacitated

The SAWS continuously considers the adequacy of its organisational structure to support the implementation of its mandate. In this regard, the organisation commenced with a work-study exercise to systematically identify factors affecting operational efficiency to best utilise its human and financial resources.

A remuneration benchmarking exercise, currently underway, will provide further insight into how the SAWS' remuneration structures compare with similar organisations nationally and internationally. This will assist the SAWS in improving its employee value proposition.

Create a conducive working environment through effective employee engagement

The SAWS continues to offer an Employee Wellness Programme to encourage employees to lead a healthy lifestyle, enabling them to cope with stressful situations and giving them access to the resources they require to improve their well-being.

In addition, the SAWS appointed a panel of professional mentors and coaches who can assist the SAWS in building a leadership pipeline and improving its leadership bench strength.

Instilling a high-performance culture

The SAWS recognises the value of rewarding high performance and managing underperformance. An environment where employees are acknowledged and rewarded fairly for their contribution towards achieving the organisational strategic objectives is essential.

To instil a high-performance culture, the SAWS implemented a corporate balanced scorecard to measure the achievement of strategic and operational organisational objectives. Through cascading into each performance agreement, each employee is aware of their contribution towards achieving the organisational goals. In addition, the SAWS revised its Performance Management Policy, which emphasises teamwork in the future.

PART E:
PFMA COMPLIANCE REPORT

1. Information on irregular, fruitless and wasteful expenditure and material losses

Irregular expenditure

Table 44: Reconciliation of irregular expenditure

Description	2023/24 R'000	2022/23 R'000
Opening balance	179,1	0
Prior period errors		
Add: Irregular Expenditure confirmed	53,2	179,1
Less: Irregular Expenditure Condoned	179,1	0,00
Less: Irregular Expenditure not condoned and removed	0	0
Less: Irregular Expenditure recoverable	0	0
Less: Irregular Expenditure recoverable and written off	0	0
Closing balance	**53,2**	**179,1**

Table 45: Reconciling notes to the annual financial statement disclosure

Description	2023/24 R'000	2022/23 R'000
Irregular expenditure that was under assessment in 2023/24	0	0
Irregular expenditure that relates to 2022/23 and identified in 2023/24	0	179,1#
Irregular expenditure for the current year	53,2	0
Total	**53,2**	**179,1**

 # An amount of R179 100.00 was identified as irregular expenditure incurred in 2022/23 but was identified in the 2023/24 financial year by the external auditors during the review of irregular expenditure transactions.

Table 46: Details of irregular expenditure (under assessment, determination and investigation)

Description	2023/24 R'000	2022/23 R'000
Irregular expenditure under assessment	53,2	179,1
Irregular expenditure under determination	0	0
Irregular expenditure under investigation	0	0
Total	**53,2**	**179,1**

Table 47: Details of the irregular expenditure condoned

Description	2023/24 R'000	2022/23 R'000
Irregular expenditure condoned	0	179,1
Total	**0**	**179,1**

Additional disclosure relating to inter-institutional arrangements

Table 48: Details of non-compliance cases where an institution is involved in an inter-institutional arrangement (where such institution is not responsible for the non-compliance)

Description
None

Table 49: Details of disciplinary or criminal steps taken as a result of irregular expenditure

Description	2023/24 R'000	2022/23 R'000
Incorrectly appointing CGISA utilising a single source procurement method without conducting a thorough market analysis. The irregular expenditure was incurred in the financial year 2022/2023	0	179,1
SCM has implemented the process were all transactions above R2 000, proper tender document is drafted by SCM effective 16 May 2023, in line with the new SCM Policy. All RFQs were standardised between R2 000 and R500 000, including the technical specifications, evaluation criteria, mandatory requirements, preference points, and specific goals, terms, and conditions of the RFQ in line with the new SCM policy and the Demand management and acquisition SOP	53,2	0
Total	**53,2**	**179,1**

Fruitless and wasteful expenditure

Table 50: Reconciliation of fruitless and wasteful expenditure

Description	2023/24 R'000	2022/23 R'000
Opening balance	0	0
Add: Fruitless and wasteful expenditure confirmed	0	0
Less: Fruitless and wasteful expenditure written off	0	0
Less: Fruitless and wasteful expenditure recoverable	0	0
Total	**0**	**0**

Table 51: Details of disciplinary or criminal steps taken as a result of fruitless and wasteful expenditure

Description	2023/24 R'000	2022/23 R'000
	0	0
Total	**0**	**0**

Additional disclosure relating to material losses in terms of PFMA Section 55(2)(b)(i) & (iii)

Table 52: Details of material losses through criminal conduct

Description	2023/24 R'000	2022/23 R'000
Theft	0	0
Other material losses	770	4,437
Less: Recoverable	0	0
Less: Not recoverable and written off	0	4,437
Total	**770**	**0**

Table 53: Details of other material losses

Description	2023/24 R'000	2022/23 R'000
Bad debt written off	770	4,437
Total	**770**	**4,437**

Table 54: Other material losses not recoverable and written off

Description	2023/24 R'000	2022/23 R'000
	0	0
Total	**0**	**0**

Table 55: Information on late and/or non-payment of suppliers

Description	Number of invoices	Consolidated value (R'000)
Valid invoices received	5 229	240 330,1
Invoices paid **within** 30 days or the agreed period	5 219	239 375,7
Invoices paid **after** 30 days or the agreed period	0	0
Invoices older than 30 days or the agreed period (**unpaid and without dispute)**	0	0
Invoices older than 30 days or the agreed period (**unpaid and in dispute)**	10	954,5
Total	**5 229**	**240 330,2**

Information on Supply Chain Management

Table 56: Procurement by other means

Project description	Name of supplier	Type of procurement by other means	Contract number	Value of contract R'000
Procurement of repairs and maintenance of Isuzu bakkie	Fleet Horizon	Single Source Procurement	n/a	9,7
Provision of redevelopment of the Radar Data Acquisition and Control System (RDAS 2000) Rev 14A	North-West University	Single Source Procurement	n/a	150,0
Procurement of Universal Solar Albedo mounting stands and plates and a LiCor model Li-850 CO2 gas analyser, including pump and display panel	Campbell Scientific	Sole Source Procurement	n/a	214,0
Supply services and spares of the Thermo Fisher Scientific Air Quality Monitoring Instruments owned by the SAWS for three years on an as and when required basis	ERO Electronics SA (Pty) Ltd	Sole Source Procurement	n/a	4 000,0
Procurement of Data Analytics Practical Training facilitated by the Leadership Academy for Guardians of Governance (a subsidiary of the Institute of Internal Auditors South Africa)	Leadership Academy for Guardians of Governance	Single Source Procurement	n/a	30,4
Provision of Membership renewal fees	Institute of Internal Auditors South Africa	Single Source Procurement	n/a	9,1
Procurement of the South African Air Quality Information System (SAAQIS) Performance, Maintenance and Support with Envitech for five years	Envitech	Single Source Procurement	n/a	18 795,4
Provision of membership fees	Institute of Directors South Africa	Single Source Procurement	n/a	16,9
Services and spares for RM YOUNG instrumentation three years on an as and when required basis	INTELTRONICS	Sole Source Procurement	n/a	2 900,0
Repair of Horiba, Met One and SYNSPEC instruments in the Mpumalanga Province for the Department: Agriculture, Rural Development, Land and Environmental Affairs (DARDLEA)	Envirocon Instrumentation	Sole Source Procurement	n/a	358,4
Procurement for professional services from ANSYCO SA CC for the repair of NOx analyser	ANSYCO SA CC	Single Source Procurement	n/a	115,2
Procurement of TENET connectivity to SANREN	TENET	Single Source Procurement	n/a	1 120,8
Procurement of office accommodation from Gert Sibande Municipality at Ermelo Office	Gert Sibande Municipality	Single Source Procurement	n/a	1 144,0
Procurement of two Magnetrons (VMS-3013)	Accutronics (Pty) Ltd	Sole Source Procurement	n/a	4 290,6
Supply and delivery of spares, support and maintenance service for Met One, HORIBA, TSI and SYNSPEC B.V air quality monitoring Instruments owned by the SAWS for three years on an as and when required basis	Envirocon Instrumentation	Sole Source Procurement	n/a	2 100,0
Procurement of Board members training	IoDSA	Single Source Procurement	n/a	4,8
Procurement of repairs on Standby Diesel Generator at Bloemfontein RADAR	Diesel Innovations (Pty) Ltd.	Emergency Procurement	n/a	9,4
Supply and delivery of spares, support and maintenance service for Grimm, Chromatotec, Ecotech and Magee scientific air quality monitoring instruments owned by the SAWS for three years on an as and when required basis	SI Analytics	Sole Source Procurement	n/a	2 800,0
Procurement of four UV-Biometer Loggers/Recorders	Solar Light Pty (Ltd).	Sole Source Procurement	n/a	293,6
Procurement of conference registration cost	National Association of Clean Air (NACA)	Single Source Procurement	n/a	4,0
Procurement of mobile toilets and supply of fresh water at the Irene office	Khonagalo Entle	Single Source Procurement	n/a	59,0
Procurement for MATLAB software license and packages needed to operationalise the Marine Rip Hazard Forecast Model.	Opti-Num solutions	Sole Source Procurement	n/a	111,6
Procurement of repairs on standby diesel generator at Durban RADAR site	Diesel Innovations (Pty) Ltd.	Emergency Procurement	n/a	4,7

Table 56: Procurement by other means (continued)

Project description	Name of supplier	Type of procurement by other means	Contract number	Value of contract R'000
Supply, delivery and commissioning of three instruments for the measurement of hydrogen sulphide (H2S)	ERO Electronics SA (Pty) Ltd	Sole Source Procurement	n/a	1 414,9
Procurement of Leadership and Management training provider for the Executive training on Leadership and Management event of National Meteorological and Hydrological Services in Africa	Henley Business school	Single Source Procurement	n/a	855,0
Payment of the Compliance Institute Southern Africa (CISA) membership fees	Compliance Institute Southern Africa (CISA)	Single Source Procurement	n/a	3,5
Procurement of five NOAA Laboratory Standards	National Oceanic and Atmospheric Administration (NOAA).	Single Source Procurement	n/a	464,9
Provision of Annual membership	World Meteorological Organization (WMO)	Single Source Procurement	n/a	3 534,8
Procurement of Cabling Services	SKG Africa (Pty) Ltd	Single Source Procurement	n/a	1 232,9
Procurement of LoggerNet and database software	Campbell Scientific	Sole Source Procurement	n/a	77,7
Supply and delivery of three TSI flow meters for the verification of flows for AQS instrumentation	ENVIROCON (Pty) Ltd	Sole Source Procurement	n/a	132,7
Supply and delivery of RM Young MET verification instruments for the Air Quality Monitoring laboratory	INTELTRONICS	Sole Source Procurement	n/a	133,8
Renewal of CaseWare license	Adapt IT (Pty) Ltd	Sole Source Procurement	n/a	107,6
Supply, delivery and commissioning of two instruments for measurement of particulate matter, (PM10 and PM2.5) using betta attenuation technology 5028i and (PM10 and PM2.5) continuous direct mass measurements of particulates using a gravimetric method TEOM 1405D	ERO Electronics SA (Pty) Ltd	Sole Source Procurement	n/a	1 650,1
Procurement of library system upgrade to GeniePlus Software Subscription License (Hosted by SAWS) for the period of three years 2023-2026	Mindex Systems	Sole Source Procurement	n/a	712,3
Procurement supply and delivery of ten instruments which can automatically and continuously sample a complete suite of airborne particles and measure pollen levels in ambient air through the sole supplier procurement process	Skygauge Technology PTY LTD	Sole Source Procurement	n/a	4 000,0
Provision of specialised transportation services for the HPC Cray System from the ECO Glades office Park building to Teraco, Isando data hosting centre	Eclipse Holdings (Pty) Ltd	Single Source Procurement	n/a	963,5
Procurement of leased furniture	D and F Commodity Broking CC	Single Source Procurement	n/a	131,6
Appointment of a service provider to assist with repairs of the cable and overhead line that feeds to the SAWS	Lermat Construction and Projects	Emergency Procurement	n/a	61,1
Quantity Surveyor's services	SKG Africa (Pty) Ltd	Emergency Procurement	n/a	22,0
Procurement of 130 sealed lead acid 12 VOLTS 18 ampere hour batteries	BHM AMATOGO Trading cc	Emergency Procurement	n/a	140,0
Procurement of critical radar spares from Leonardo GmbH	Leonardo GmbH	Sole Source Procurement	n/a	1 247,0
Procurement of service provider to assist with standby assessor for the removal of the fireproof safe from the Eco Park Building through the lift	Schindler	Sole Source Procurement	n/a	5,7
Procurement of additional access cards for the new SAWS Head Office at 1263 Heuwel Road Centurion	SKG Africa (Pty) Ltd	Single Source Procurement	n/a	15,0
Procurement of Microsoft Office licences	Microsoft	Sole Source Procurement	n/a	26 395,5
Procurement of Ozonesonde consumables	Vaisala	Sole Source Procurement	n/a	700,0
Procurement of services from TxRx Pty to realign ORT Satellite	TxRx Pty	Emergency Procurement	n/a	5,0

Table 56: Procurement by other means (continued)

Project description	Name of supplier	Type of procurement by other means	Contract number	Value of contract R'000
Procurement of service to repair the Zenith hatch at the Ottosdal RADAR site	Hensoldt South Africa	Single Source Procurement	n/a	42,9
Procurement of a CR1000X Datalogger, Ceilometer, SOLYS2 full tracker with mounting stand and power supply, and shading ball assemblies	Campbell Scientific	Sole Source Procurement	n/a	1 481,5
Procurement of Services from Teraco for Africa Cloud Exchange	TERACO	Emergency Procurement	n/a	4,3
Procurement of American Meteorological Society (AMS) Publication Corporation and Institutional Member (CIM) 2024 Dues and Subscriptions, for the period 1 January 2024-31 December 2024	American Meteorological Society (AMS)	Single Source Procurement	n/a	142,8
Deviation from the normal procurement process and use a brand name when procuring the e-signature software i.e. DocuSign	DocuSign	Limited Bidding	n/a	0,0
Procurement for repairs of electrical HV cable with service point	LERMAT Construction and Projects	Emergency Procurement	n/a	99,8
Procurement of RADAR spares bin for the whole radar network	Leonardo GmbH	Sole Source Procurement	n/a	5 810,7
Procurement of Hogen S20 hydrogen generator spares	SmartCheck Technology (PTY)Ltd.	Single Source Procurement	n/a	1 884,6
Provision of utilities at the Irene weather office	Agricultural Research Council (ARC)	Single Source Procurement	n/a	32,0
Procurement of DocuSign annual subscription licence envelope 12 February 2024 to 11 January 2025	DocuSign	Limited Bidding	n/a	550,0
Procurement of IoDSA Training Courses	IoDSA	Single Source Procurement	n/a	74,0
Procurement of the MailXServer Email Management System license through the sole source procurement process for a period of 36 months	Network and Computing Consultants (NCC)	Sole Source Procurement	n/a	65,0
Procurement of one Multi-Domain OV SSL Certificate	Ubuntu Technologies	Emergency Procurement	n/a	4,1
Subscription to annual membership and SABINET Products and Services	SABINET Online	Single Source Procurement	n/a	133,8
Procurement of professional services: Appointment of National Metrology Institute of South Africa (NMISA) to provide PRM gases and the calibration of calibrators	National Metrology Institute of South Africa (NMISA)	Single Source Procurement	n/a	484,0
Procurement of Outside Broadcasting services	SABC	Single Source Procurement	n/a	255,0
Annual renewal and new registration membership for (13) SCM Supply Chain Management Officials	Chartered Institute of Purchasing and Supply (CIPS)	Single Source Procurement	n/a	28,8
Air Quality Training of Meteorological Technicians scheduled to commence from the 25 March 2024	Northwest University (NWU)	Single Source Procurement	n/a	1 462,8
Procurement of two Gill WindObserver65, Ultrasonic Wind Sensor for the SA Agulhas II	Measurement & Control Solutions CC	Sole Source Procurement	n/a	91,9
Procurement of a Gill MaxiMet Marine GMX560 compact weather station	Measurement and Control Solutions	Sole Source Procurement	n/a	75,9
Procurement of Onset Hobo Submersible temperature loggers, sensors and software	Euca Technologies	Sole Source Procurement	n/a	70,9
Procurement of Mapbox subscription payment for 24 months ($10 000.00)	Mapbox subscription	Single Source Procurement	n/a	189,0
Supply, delivery, and commissioning of one instrument, TEOM 1405D, for the measurement of particulate matter, (PM10 and PM2.5) through the continuous, direct mass measurements of particulates using a gravimetric method	ERO Electronics SA (Pty) Ltd	Sole Source Procurement	n/a	863,1
Procurement of annual Fiix license subscription	EOH Mthombo / iOCO	Limited Bidding	n/a	775,3
Procurement of two Hydrogen storage vessel support plates	Arcrite Engineering (Pty) Ltd.	Emergency Procurement	n/a	49,6
Total				**97 222,7**

Table 57: Contract variations and expansions

Project description	Name of supplier	Contract modification type (Expansion or Variation)	Contract number	Original contract value R'000	Value of previous contract expansion(s) or variation(s) R'000	Value of current contract expansion or variation R'000
Extension of the SLA maintenance and support contract for the current Wide Area Network (WAN)	Internet Solutions (Dimension Data)	Expansion	n/a	31 121,9	17 174,1	6 783,3
Extension of Data Centre Support	Ubuntu Technologies	Expansion	n/a	5 760,2	373,3	266,2
Variation of the provision of burglar bars for the new window that was installed at Irene weather office	Imboma Trading and Projects	Variation	n/a	49,9	-	5,6
Extension of the provision of security services	Khensani Security Services	Expansion	n/a	4 580,1	22,6	1 017,8
Provision of cleaning services for both Irene and Head Office	KNL Holdings	Expansion	n/a	229,5	-	76,5
Extension of maintenance and support for the current Alcatel LAN network	Altron Systems Integration.	Expansion	n/a	5 373,8	6 532,2	1 158,4
Extension of ADT Fidelity contract for six RADAR sites	ADT-Fidelity	Expansion	n/a	329,8	-	172,1
Provision of Azure account activation services for SAWS	Global Computing and Telecoms	Expansion	n/a	85,0	-	30,0
Leasing of Nama Khoi Office Premises for an additional 6-month period	Nama Khoi Municipality	Expansion	n/a	304,0	-	75,9
Provision of layout design and printing of 120 copies of the 2023/24 Annual Performance Plan (APP)	Linhleko Marketing	Expansion	n/a	24,7	-	0,8
Extension of the SLA contract of Maintenance and Support for the current HPC	Eclipse Holdings	Expansion	n/a	30 440,3	4 559,0	2 525,4
Provision of legal services (The Great Storm Matters)	Sanqela Attorneys	Variation	n/a	500,0	500,0	1 500,0
Provision of an additional three years' property leasing service	Mr. Clive Eugene Connellan.	Expansion	n/a	693,4	-	760,5
Maintenance and support for the current Wide Area Network	Dimension Data	Expansion	n/a	31 121,9	23 957,5	3,9
Additional services required for the relocation of the Head Office	TENET	Variation	n/a	1 120,8	-	1 498,9
De Aar weather office lease agreement with Emthanjeni municipality five years	Emthanjeni Local Municipality	Expansion	n/a	3 512,4	-	2,089,4
Provision of a security service at Waterkloof Land	Khensani Security Service	Expansion	n/a	4 580,1	1 017,8	508,9
South African Air Quality Information System (SAAQIS) Performance, Maintenance and Support	ENVITECH	Expansion	n/a	1 421,4	-	118,4
HPC hardware warranty from the HPE OEM of Maintenance and Support for the current HPC	Eclipse Holdings.	Expansion	n/a	30 440,3	12 574,5	1 149,9
Extension of the scope of work for the current Internal Audit Service Provider to include a tender/ probity review	Rakoma and Associates	Expansion	n/a	1 798,7	-	68,2
Provision of company secretariat service for one month	Ukhozi Transcribers Pty Ltd	Expansion	n/a	247,5	-	41,2
Supply and installation of white engineered stone tabletops for the steel frame tables at the SAWS Irene weather office	KUTHETHA Consulting Services	Variation	n/a	60,0	-	3,1

Table 57: Contract variations and expansions (continued)

Project description	Name of supplier	Contract modification type (Expansion or Variation)	Contract number	Original contract value R'000	Value of previous contract expansion(s) or variation(s) R'000	Value of current contract expansion or variation R'000
Licence: procurement of numerical weather prediction output (change in contract period only)	European Centre for Medium-Range Weather Forecasts (ECMWF)	Variation	n/a	5 400,0	-	-
Maintenance and support for the current Local Area Network in Head Office and Cape Town	Altron Systems Integration.	Expansion	n/a	7 690,6	-	130,6
Procurement of a prosecutor in the disciplinary procedures	Bafana Ncube Incorporated	Expansion	n/a	158,6	-	303,1
Procurement of additional services required for the Teraco Isando data centre	TENET	Variation	n/a	1 498,9	-	501,4
Provision of company secretariat services for two months from 1 October 2023 to 30 November 2023	Ukhozi Transcribers Pty Ltd	Expansion	n/a	247,5	41,2	82,5
Provision of a security service at the Waterkloof Land and the provision of two additional security personnel at the SAWS new Head Office building	Khensani Security Service	Variation	n/a	4 580,1	1 526,7	589,8
Variation of the contract for the Mthatha weather office	Department of Transport	Expansion	n/a	393,2	-	523,3
Re-allocation of the backup generator installation to the Ermelo weather office which was initially allocated to the Thohoyandou weather office	Siya-MS Trading	Variation	n/a	626,4	-	-
SD-WAN contract for the change of sites and period of contract	Ubuntu Technologies	Variation	n/a	45 287,9	-	-
Assistance with relocating additional items to the new SAWS Head Office from Eco Glades Office Park, Block 1B, to 1263 Heuwel Road, Centurion	I-Moves	Variation	n/a	2 207,6	-	64,0
Internal Audit Service Provider to include a Tender Probity Review	Rakoma and Associates	Variation	n/a	1 798,7	68,2	135,8
Provision of security services for a period of one month at New Head Office	Khensani Security Service	Expansion	n/a	4 580,1	1 723,3	161,9
Provision of cleaning services for both Irene and the new Head Office at the ABSA Building	KNL Holdings	Variation	n/a	447,5	-	89,5
Extension of the lease of Nama Khoi office premises for an additional six months	Nama Khoi Municipality	Expansion	n/a	304,0	75,9	75,9
Desktop valuation of the Springbok weather office property at Van Der Stel Street (en route to Kleinsee), Springbok	The Property Partnership CC	Variation	n/a	186,3	-	16,6
Provision of vehicle maintenance	Fleet Horizon Solutions	Variation	n/a	20 340,7	-	400,0
Provision of Lightning Detection Network upgrade, service, maintenance, and spares - inclusion of upgrade sensors, spare parts, and extended warranty into the year two conditions	Vaisala	Variation	n/a	8 550,7	-	-

Table 57: Contract variations and expansions (continued)

Project description	Name of supplier	Contract modification type (Expansion or Variation)	Contract number	Original contract value R'000	Value of previous contract expansion(s) or variation(s) R'000	Value of current contract expansion or variation R'000
Provision of additional electrical work to accommodate the three-phase generator set at the Polokwane weather office RFQ 2605/23	Siya-Ms Trading cc	Variation	n/a	626,4	-	55,6
Replace the Eastern Cape Enterprise Development Workshop with the Pretoria; Supplier Development Workshop in February 2024	REJCORP (PTY) LTD	Variation	n/a	105,0	-	98,9
Extension of King Shaka lease for office space	Air Traffic and Navigation Services SOC Limited	Expansion	n/a	2 066,2	-	236,7
Maintenance and support of the current Wide Area Network WAN) for a period of six months effective from 1 January to 30 June 2024	Dimension Data	Expansion	n/a	31 121,9	23 957,5	2 647,8
Renewal of the Oracle NetSuite Software licensing contract for a period of three years effective from 16 January 2024 to 15 January 2027	Oracle Netsuite	Expansion	n/a	27 036,5	-	6 841,5
Provision of branded material, on an awarded bid to allow for artwork and corporate notebook branding	Mtungwa and Kaka Projects (Pty) Ltd.	Expansion	n/a	149,8	-	4,9
Provision legal services during a disciplinary hearing	Cheadle Thompson and Haysom Inc	Expansion	n/a	154,5	92,7	123,6
Provision Legal services during disciplinary hearing	Gildenhuys Malatji	Expansion	n/a	243,5	-	204,6
Procurement of RADAR spares bin for the whole RADAR network to include the latest cost of the digital receiver item 43694 as the replacement for item 762452 in the list of critical RADAR spares	Leonardo Germany	Variation	n/a	1 125,4	-	22,3
Cape Town lease agreement to include parking bays for GAW/ Stellenbosch staff members and new forecasters	ACSA Cape Town	Expansion	n/a	5 545,7	2 992,8	129,9
Extension of contract for office space at the King Shaka Airport	ATNS	Variation	n/a	2 066,2	236,7	3 051,3
Procurement of five NOAA primary standard calibration gases which includes an updated quoted amount	Global Monitoring Laboratory (GML)	Expansion	n/a	413,7	-	9,9
Extension of the current Internal Audit Co-source Partner contract period with the service provider	Rakoma and Associates Pty (Ltd)	Expansion	n/a	1 798,7	204,1	-
Total				**323 205,2**	**94 637,9**	**36 357,5**




PART F:
FINANCIAL INFORMATION

Report of the auditor-general to Parliament on the South African Weather Service

Report on the audit of the financial statements

Opinion

1. I have audited the financial statements of the South African Weather Service set out on pages 120 to 175, which comprise the statement of financial position as at 31 March 2024, statement of financial performance, statement of changes in net assets, cash flow statement and statement of comparison of budget and actual amounts for the year then ended, as well as 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 Weather Service as at 31 March 2024 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 responsibilities of the auditor-general 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 matter

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

Impairments - Property, plant and equipment

7. As disclosed in note 28 to the financial statements, material impairment of R17,4 million was incurred as a result of outdated software system on the Radar equipment.

Responsibilities of the accounting authority for the financial statements

8. The accounting authority is responsible for the preparation and fair presentation of the financial statements in accordance with the GRAP and the requirements of the PFMA and for such internal control as the accounting authority determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

9. In preparing the financial statements, the accounting authority is responsible for assessing the public entity's ability to continue as a going concern; disclosing, as applicable, matters relating to going concern; and using the going concern basis of accounting unless the appropriate governance structure either intends to liquidate the public entity or to cease operations, or has no realistic alternative but to do so.

Responsibilities of the auditor-general for the audit of the financial statements

10. My objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error; and to issue an auditor's report that includes my opinion. Reasonable assurance is a high level of assurance but is not a guarantee that an audit conducted in accordance with the ISAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in aggregate, they could reasonably be expected

to influence the economic decisions of users taken on the basis of these financial statements.

11. A further description of my responsibilities for the audit of the financial statements is included in the annexure to this auditor's report. This description, which is located at page 116, forms part of our auditor's report

Report on the audit of the annual performance report

12. In accordance with the Public Audit Act 25 of 2004 (PAA) and the general notice issued in terms thereof, I must audit and report on the usefulness and reliability of the reported performance information against predetermined objectives for the selected material performance indicators presented in the annual performance report. The accounting authority is responsible for the preparation of the annual performance report.

13. I selected the following material performance indicators related to Programme 3: Infrastructure and Information Systems presented in the annual performance report for the year ended 31 March 2024. I selected those indicators that measure the public entity's performance on its primary mandated functions and that are of significant national, community or public interest.

- Percentage availability of Automatic Weather Stations infrastructure
- Percentage availability of Automatic Rainfall Stations infrastructure
- Percentage availability of Global Atmospheric Watch infrastructure
- Percentage availability of RADAR infrastructure
- Percentage availability of Lightning Detection Network infrastructure
- Percentage availability of the South African Air Quality Information System
- Percentage of Priority Areas Air Quality Stations available on SAAQIS meeting minimum data requirements
- Percentage of AWS & ARS climate data available on National Climate Database meeting minimum data requirements

14. I evaluated the reported performance information for the selected material performance indicators against the criteria developed from the performance management and reporting framework, as defined in the general notice. When an annual performance report is prepared using these criteria, it provides useful and reliable information and insights to users on the public entity's planning and delivery on its mandate and objectives.

15. I performed procedures to test whether:

- the indicators used for planning and reporting on performance can be linked directly to the public entity's mandate and the achievement of its planned objectives
- all the indicators relevant for measuring the public entity's performance against its primary mandated and prioritised functions and planned objectives are included
- the indicators are well defined to ensure that they are easy to understand and can be applied consistently, as well as verifiable so that I can confirm the methods and processes to be used for measuring achievements
- the targets can be linked directly to the achievement of the indicators and are specific, time bound and measurable to ensure that it is easy to understand what should be delivered and by when, the required level of performance as well as how performance will be evaluated
- the indicators and targets reported on in the annual performance report are the same as those committed to in the approved initial or revised planning documents
- the reported performance information is presented in the annual performance report in the prescribed manner
- there is adequate supporting evidence for the achievements reported and for the reasons provided for any over- or underachievement of targets / measures taken to improve performance.

16. I performed the procedures for the purpose of reporting material findings only; and not to express an assurance opinion or conclusion.

17. I did not identify any material findings on the reported performance information for the selected indicators.

Other matter

18. I draw attention to the matter below.

Achievement of planned targets

19. The annual performance report includes information on reported achievements against planned targets and provides explanations for over- or underachievement.

20. The table that follows provides information on the achievement of planned targets and lists the key indicators that were not achieved as reported in the annual performance report. The reasons for any underachievement of targets are included in the annual performance report on pages

Programme 3: Infrastructure and Information Systems

Targets achieved: 37,5% Budget spent: 85,0%		
Key indicator not achieved	**Planned target**	**Reported achievement**
Percentage availability of Automatic Weather Stations infrastructure	85%	83%
Percentage availability of Automatic Rainfall Stations infrastructure	80%	78%
Percentage availability of RADAR infrastructure	75%	44%
Percentage availability of Lightning Detection Network infrastructure	90%	88%
Percentage of Priority Areas Air Quality Stations available on SAAQIS meeting minimum data requirements	80%	53%

Report on compliance with legislation

21. In accordance with the PAA and the general notice issued in terms thereof, I must audit and report on compliance with applicable legislation relating to financial matters, financial management and other related matters. The accounting authority is responsible for the public entity's compliance with legislation.

22. I performed procedures to test compliance with selected requirements in key legislation in accordance with the findings engagement methodology of the Auditor-General of South Africa (AGSA). This engagement is not an assurance engagement. Accordingly, I do not express an assurance opinion or conclusion.

23. Through an established AGSA process, I selected requirements in key legislation for compliance testing that are relevant to the financial and performance management of the public entity, clear to allow consistent measurement and evaluation, while also sufficiently detailed and readily available to report in an understandable manner. The selected legislative requirements are included in the annexure to this auditor's report.

24. I did not identify any material non-compliance with the selected legislative requirements.

Other information in the annual report

25. The accounting authority is responsible for the other information included in the annual report. The other information referred to does not include the financial statements, the auditor's report and those selected material indicators in the scoped-in programme presented in the annual performance report that have been specifically reported on in this auditor's report.

26. My opinion on the financial statements, the report on the audit of the annual performance report and the report on compliance with legislation do not cover the other information included in the annual report and I do not express an audit opinion or any form of assurance conclusion on it.

27. My responsibility is to read this other information and, in doing so, consider whether it is materially inconsistent with the financial statements and the selected material indicators in the scoped-in programme presented in the annual performance report or my knowledge obtained in the audit, or otherwise appears to be materially misstated.

28. 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

29. I considered internal control relevant to my audit of the financial statements, annual performance report and compliance with applicable legislation; however, my objective was not to express any form of assurance on it.

30. I did not identify any significant deficiencies in internal control.

Auditor-General

Pretoria

31 July 2024

AUDITOR-GENERAL
SOUTH AFRICA

Auditing to build public confidence

Annexure to the auditor's report

The annexure includes the following:

- The auditor-general's responsibility for the audit
- The selected legislative requirements for compliance testing

Auditor-general's responsibility for the audit

Professional judgement and professional scepticism

- 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 material performance indicators and on the public entity's compliance with selected requirements in key legislation.

Financial statements

- 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
  - conclude on the appropriateness of the 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 public entity 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.

Communication with those charged with governance

- 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.
- I also provide the accounting authority with a statement that I have complied with relevant ethical requirements regarding independence and communicate with them 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.

Compliance with legislation – selected legislative requirements

The selected legislative requirements are as follows:

Legislation	Sections or regulations
Public Finance Management Act No.1 of 1999 (PFMA)	Section 50(3); 50(3)(a); 50(3)(b) Section 51(1)(a)(ii); 51(1)(a)(iii); 51(1)(a)(iv); 51(1)(b); 51(1)(b)(i); 51(1)(b)(ii); 51(1)(e)(iii) Section 52(b); Section 53(4); Section 54(2)(c); 54(2)(d) Section 55(1)(a); 55(1)(b); 55(1)(c)(i) Section 56; Section 57(b); 57(d); Section 66(3)(a)
Treasury Regulations for departments, trading entities, constitutional institutions and public entities (TR)	Regulation 29.1.1; 29.1.1(a); 29.1.1(c); 29.2.1; 29.2.2; 29.3.1 Regulation 31.2.5; 31.2.7(a) Regulation 33.1.1; 33.1.3
Prevention and Combating of Corrupt Activities Act No.12 of 2004 (Precca)	Section 34(1)
PPPFA	Section 1(i); 2.1(a); 2.1(b); 2.1(f)
PPR 2022	Paragraph 3.1 Paragraph 4.1; 4.2; 4.3; 4.4 Paragraph 5.1; 5.2; 5.3; 5.4
NT SCM Instruction Note 03 2021/22	Paragraph 4.1; 4.2; 4.2 (b); 4.3; 4.4; 4.4 (c);4.4(d); 4.6 Paragraph 5.4
NT SCM Instruction 4A of 2016/17	Paragraph 6
NT SCM Instruction Note 03 2019/20	Paragraph Par 5.5.1(iv); 5.5.1(x)
NT SCM Instruction Note 11 2020/21	Paragraph 3.1; 3.4 (a); 3.4(b); 3.9: 6.1;6.2;6.7
PFMA SCM instruction 08 of 2022/23	Paragraph 3.2 Paragraph 4.3.2; 4.3.3
Competition Act	Section 4(1)(b)(ii)
NT instruction note 4 of 2015/16	Paragraph 3.4
Public Finance Management Act No.1 of 1999 (PFMA)	Section 50(3); 50(3)(a); 50(3)(b) Section 51(1)(a)(ii); 51(1)(a)(iii); 51(1)(a)(iv); 51(1)(b); 51(1)(b)(i); 51(1)(b)(ii); 51(1)(e)(iii) Section 52(b); Section 53(4); Section 54(2)(c'); 54(2)(d) Section 55(1)(a); 55(1)(b); 55(1)(c)(i) Section 56; Section 57(b); 57(d); Section 66(3)(a)
Treasury Regulations for departments, trading entities, constitutional institutions and public entities (TR)	Regulation 29.1.1; 29.1.1(a); 29.1.1(c); 29.2.1; 29.2.2; 29.3.1 Regulation 31.2.5; 31.2.7(a) Regulation 33.1.1; 33.1.3

General Information

Country of incorporation and domicile	South Africa
Members of the Board	Ms Feziwe Renqe (Chairperson) Mr Itani Phaduli (Deputy Chairperson) Mr Maesela John Kekana (DFFE representative) Ms Mmapula Kgari Ms Sandika Daya Ms Moipone Edith Magomola Dr Mmaphaka Ephraim Tau Prof. Sylvester Mpandeli Mr Ishaam Abader (CEO) Dr Grant Son
Registered office	1263 Heuwel Road Centurion Central ABSA Building Centurion 0157
Business address	1263 Heuwel Road Centurion Central ABSA Building Centurion 0157
Postal address	South African Weather Service Private Bag X097 Pretoria 0001
Controlling entity	Department of Forestry, Fisheries and the Environment
Bankers	Standard Bank
Auditors	Auditor-General of South Africa
Level of assurance	These annual financial statements have been audited in compliance with the applicable requirements of the Companies Act, 2008 (Act No. 71 of 2008).
Nature of business and principal activities	The South African Weather Service (SAWS) is an entity of the Department of Forestry, Fisheries and the Environment. It derives its mandate from the South African Weather Service Act, 2001 (Act No. 8 of 2001, as amended in 2013). The SAWS is a science-based, service-oriented, and technology-driven entity that delivers public and commercial services to the public and weather-sensitive industries and is the authoritative voice for weather warnings in South Africa.

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

Statement of financial position

as at 31 March 2024

Figures in Rand	Note(s)	2024	2023 RESTATED*
Assets			
Current assets			
Inventories	4	18 790 631	13 410 877
Operating lease asset	5	1 008 900	1 110 304
Accounts receivable from exchange transactions - other	6	8 655 795	6 374 392
Accounts receivable from exchange transactions - statutory receivable	7	13 111 247	13 598 188
Prepayments	8	15 013 363	11 402 162
Cash and cash equivalents	9	221 895 376	135 481 883
		278 475 312	**181 377 806**
Non-current assets			
Investment property	10	70 497 351	70 497 351
Property, plant and equipment	11	282 896 286	296 452 815
Intangible assets	12	3 799 180	4 518 579
		357 192 817	**371 468 745**
Total assets		**635 668 129**	**552 846 551**
Liabilities			
Current liabilities			
Accounts payable from exchange transactions	14	34 470 194	26 943 426
Employee benefit obligation	15	10 939 942	10 783 701
Unspent conditional grants and receipts	16	49 342 990	24 638 235
Unspent Government allocations - conditional grant	18	69 606 110	53 713 731
Deferred income	19	303 002	473 905
		164 662 238	**116 552 998**
Non-current liabilities			
Employee benefit obligation	15	1 554 000	2 131 000
Provisions	17	229 568	250 968
		1 783 568	**2 381 968**
Total liabilities		**166 445 806**	**118 934 966**
Net assets		**469 222 323**	**433 911 585**
Reserves			
Revaluation reserve		49 480 336	49 334 344
Accumulated surplus		419 741 987	384 577 241
Total net assets		**469 222 323**	**433 911 585**

*See Note 37

Statement of financial performance

Figures in Rand	Note(s)	2024	2023 RESTATED*
Revenue			
Revenue from exchange transactions			
Commercial revenue	20	159 001 590	134 852 124
Other income	21	948 059	5 234 752
Interest received - investment	22	13 863 164	5 155 533
Total revenue from exchange transactions		**173 812 813**	**145 242 409**
Revenue from non-exchange transactions			
Transfer revenue			
Government grants and subsidies	23	385 776 621	386 281 335
Public contributions and donations	24	14 873 617	13 271 556
Total revenue from non-exchange transactions		**400 650 238**	**399 552 891**
Total revenue		**574 463 051**	**544 795 300**
Expenditure			
Employee related costs	25	(300 132 910)	(286 521 036)
Administration	26	(14 789 104)	(11 397 548)
Depreciation and amortisation	27	(35 504 510)	(32 463 654)
Bad debts expenses	29	(769 800)	(4 437 395)
General expenses	30	(169 155 630)	(149 679 643)
Total expenditure		**(520 351 954)**	**(484 499 276)**
Operating surplus		**54 111 097**	**60 296 024**
Gain/(Loss) on disposal of assets		(214 995)	469 099
Gain/(Loss) on foreign exchange	31	(1 971 365)	(2 391 050)
Fair value adjustments	32	-	(13 494 606)
Actuarial gains/(losses)	15	906 000	367 000
Impairment of assets	28	(17 665 991)	(4 763 497)
		(18 946 351)	**(19 813 054)**
Surplus for the year		**35 164 746**	**40 482 970**

**See Note 37*

Statement of changes in net assets

Figures in Rand	Revaluation reserve	Accumulated surplus	Total net assets
Balance at 1 April 2022	**58 166 609**	**344 094 271**	**402 260 880**
Changes in net assets			
Revaluation of building - Irene and Bethlehem	132 624		132 624
Revaluation of land - Irene and Garsfontein	(8 964 889)		(8 964 889)
Surplus for the year	-	39 885 045	39 885 045
Prior period error	-	597 925	597 925
Total recognised income and expenses for the year	(8 832 265)	40 482 970	31 650 705
Balance at 31 March 2023 as restated*	**49 334 344**	**384 577 241**	**433 911 585**
Revaluation of building - Irene and Bethlehem	145 992	-	145 992
Net gain recognised directly in net assets	145 992	-	145 992
Surplus for the year		35 164 746	35 164 746
Total recognised income and expenses for the year	145 992	35 164 746	35 310 738
Total changes	145 992	35 164 746	35 310 738
Balance as at 31 March 2024	**49 480 336**	**419 741 987**	**469 222 323**

***See** Note 37*

Cash flow statement

Figures in Rand	Note(s)	2024	2023 RESTATED*
Cash flows from operating activities			
Receipts			
Sale of goods and services		157 187 641	131 894 731
Grants		441 247 372	418 494 900
Interest income		13 863 164	5 155 533
		612 298 177	555 545 164
Payments			
Employee costs		(299 669 069)	(285 171 761)
Suppliers		(187 375 606)	(168 857 825)
		(487 044 675)	(454 029 586)
Net cash flows from operating activities	33	**125 253 502**	**101 515 578**
Cash flows from investing activities			
Purchase of property, plant and equipment	11	(37 521 396)	(35 705 651)
Proceeds from the sale of property, plant and equipment	11	80 349	469 099
Purchase of other intangible assets	12	(1 398 962)	(795 778)
Net cash flows from investing activities		**(38 840 009)**	**(36 032 330)**
Net increase/(decrease) in cash and cash equivalents		**86 413 493**	**65 483 248**
Cash and cash equivalents at the beginning of the year		135 481 883	69 998 635
Cash and cash equivalents at the end of the year	9	**221 895 376**	**135 481 883**

**See Note 37*

Statement of comparison of budget and actual amounts

Figures in Rand	Approved budget	Adjustments	Final budget	Actual amounts on comparable basis	Difference between final budget and actual	Reference
Statement of financial performance						
Revenue						
Revenue from exchange transactions						
Sale of goods	138 951 000	17 049 000	**156 000 000**	159 001 590	**3 001 590**	Note 1 (1,6)
Other income	450 000	-	**450 000**	948 059	**498 059**	
Interest received - investment	2 800 000	-	**2 800 000**	13 863 164	**11 063 164**	Note 1(7)
Total revenue from exchange transactions	**142 201 000**	**17 049 000**	**159 250 000**	**173 812 813**	**14 562 813**	
Revenue from non-exchange transactions						
Transfer revenue						
Government grants - operational expenditure	336 856 000	6 000 000	**342 856 000**	337 856 000	**(5 000 000)**	Note 1(1,2,8)
Government grant - conditional grant	191 437 000	-	**191 437 000**	47 920 621	**(143 516 379)**	Note 1(2,9)
Contributions and donations	22 250 000	-	**22 250 000**	14 873 617	**(7 376 383)**	Note 1 (10)
Cash surplus capex (Prior year) -		38 900 000	**38 900 000**	-	**(38 900 000)**	Note 1(1,4,11)
Total revenue from non-exchange transactions	**550 543 000**	**44 900 000**	**595 443 000**	**400 650 238**	**(194 792 762)**	
Total revenue	**692 744 000**	**61 949 000**	**754 693 000**	**574 463 051**	**(180 229 949)**	
Expenditure						
Employee cost	(307 493 000)	(5 000 000)	**(312 493 000)**	(300 132 910)	**12 360 090**	Note 1(5,12)
Administrative and general expenses	(193 814 000)	(25 749 000)	**(219 563 000)**	(183 944 734)	**35 618 266**	Note 1(3,13)
Depreciation and amortisation	(42 304 000)	-	**(42 304 000)**	(35 504 510)	**6 799 490**	Note 1(14)
Bad debts written off	-	-	**-**	(769 800)	**(769 800)**	Note 1(15)
Total expenditure	**(543 611 000)**	**(30 749 000)**	**(574 360 000)**	**(520 351 954)**	**54 008 046**	
Operating surplus	**149 133 000**	**31 200 000**	**180 333 000**	**54 111 097**	**(126 221 903)**	
Loss on disposal of assets and liabilities	-	-	**-**	(214 995)	**(214 995)**	
Loss on foreign exchange	-	-	**-**	(1 971 365)	**(1 971 365)**	Note 1(16)
Actuarial gains/losses	-	-	**-**	906 000	**906 000**	
Impairment of assets	-	-	**-**	(17 665 991)	**(17 665 991)**	Note 1(17)
	-	**-**	**-**	**(18 946 351)**	**(18 946 351)**	
Surplus before capital expenditure	**149 133 000**	**31 200 000**	**180 333 000**	**35 164 746**	**(145 168 254)**	
Surplus / (deficit) for the year from continuing operations	**149 133 000**	**31 200 000**	**180 333 000**	**35 164 746**	**(145 168 254)**	
Capex expenditure	(149 133 000)	(31 200 000)	**(180 333 000)**	(47 920 621)	**132 412 379**	Note 1 (9)
Surplus / (deficit) after capital expenditure	**-**	**-**	**-**	**(12 755 875)**	**(12 755 875)**	

1. Comparison of budget and actual amounts

Explanation of budget adjustments and significant differences

1. Total budget revenue for the year was revised upwards due to:
    - improved air traffic volumes by R17 million
    - improvement of the National Fire Danger rating system of R6 million
    - rollover of prior year cash surplus for CAPEX of R38,9 million
2. Government grant: The R191,44 million was reduced by R127,63 million to R63,18 million for infrastructure investment. The amount was made available to the Department of Forestry, Fisheries, and Environment to assist with the budget constraints identified. R6 million was allocated to improve the National Fire Danger rating system and operationalise the Fire Early Warning System.
3. Administrative and operating expenses: Administrative and operating expenses were adjusted upwards by R25,75 million. This adjustment was affected to cater for infrastructure maintenance due to ageing equipment and other expenses.
4. Cash surplus capex (prior year): The National Treasury granted the retention of the cash surplus of the prior year, R38,9 million, to be used for investment in infrastructure and meteorological equipment.
5. Employee cost: Employee costs were adjusted by R5 million to cater for the identified critical vacancies.

Explanation of budget and actual (comparison)

6. Commercial revenue: The positive variance of R3 million is mainly attributed to improved commercial revenue.
7. Interest received - Investment: The positive variance of R11,06 million is due to interest earned on a higher cash balance.
8. Government grant - operational expenditure: The negative variance of R5 million is due to the adjustment of R6 million for improving the National Fire Danger Rating system. This amount has been reclassified to Unspent Government Grants as the attached conditions have yet to be met.
9. Government Grant - conditional grant: There was under-expenditure on infrastructure investments between the budget and the actual amount as some commitments were not yet fulfilled at year-end. The main difference is R127 million, which was made available to DFFE to assist them with budget constraints.
10. Contributions and donations: The under-expenditure of R7,38 million is due to fewer project activities during the year than anticipated.
11. Cash surplus capex (Prior year): Infrastructure investments of R38,9 million were not finalised at year-end as the amount was allocated in quarter 3 of the year.
12. Compensation of employees: The under expenditure of R12,33 million is due to vacancies as a result of the delay caused by the directive on cost control measures from the DPSA, which was clarified late in the financial year.
13. Administrative costs and operating expenses: A positive variance of R35,58 million was realised from administrative and operating expenses, mainly due to management's implementation of cost containment measures during the year. Savings were realised by ensuring that the entity realised value for money by spending its finances on its most critical expenses, which were aligned with its mission, public service needs, servicing of commercial clients, and meeting annual performance objectives.
14. Depreciation and amortisation —The underspending of R6,8 million was mainly due to less asset procurement than anticipated.
15. Bad debts written off: These relate to debts that were not recoverable, caused mainly by airlines that were either in business rescue or whose performance struggled to recover after the COVID-19 pandemic.
16. Loss on foreign exchange: This is due to the weaker rand in the payment to foreign suppliers.
17. Impairment of assets: the amount of R17,67 million is due to obsolete assets that are no longer in use.

Accounting policies

2. Presentation of annual financial statements

The annual financial statements have been prepared in accordance with the Standards of Generally Recognised Accounting Practice (GRAP) issued by the Accounting Standards Board following Section 91(1) of the Public Finance Management Act, 1999 (Act No. 1 of 1999).

These annual financial statements have been prepared on an accrual basis of accounting and are following historical cost conventions as the basis of measurement unless specified otherwise. They are presented in South African Rand and rounded off to the nearest rand.

Assets, liabilities, revenues, and expenses were not offset, except where offsetting is either required or permitted by a GRAP standard.

Below is a summary of the significant accounting policies consistently applied in preparing these annual financial statements.

2.1 Presentation currency

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

2.2 Going concern assumption

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

2.3 Significant judgements and sources of estimation uncertainty

In preparing the annual financial statements, management must make estimates and assumptions that affect the amounts represented in the annual financial statements and related disclosures. The use of available information and the application of judgment is inherent in forming estimates. Actual results in the future could differ from these estimates, which may be material to the annual financial statements.

Significant judgements include:

Trade receivables

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

The impairment for trade receivables is calculated on a portfolio basis based on historical loss ratios, adjusted for national and industry-specific economic conditions and other indicators present at the reporting date that correlate with portfolio defaults. These annual loss ratios are applied to loan balances in the portfolio and scaled to the estimated loss emergence period.

Fair value estimation

The carrying value, less impairment provision of trade receivables and payables are assumed to approximate their fair values. For disclosure purposes, the fair value of financial liabilities is estimated by discounting the future contractual cash flows at the current market interest rate available to the entity for similar financial instruments.

Impairment testing of non-financial assets

The recoverable amounts of cash-generating units and individual assets have been determined based on the higher ofvalue-in-use calculations and fair values less costs to sell. These calculations require the use of estimates and assumptions. It is reasonably possible that the assumption may change, impacting our estimations and requiring a material adjustment to the carrying value of tangible assets.

Accounting policies (continued)

Provisions

Provisions were raised, and management determined an estimate based on the available information. Note 17—Provisions include additional disclosure of these estimates of provisions.

Post-retirement benefits

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

The entity determines the appropriate discount rate at the end of each year. This interest rate 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 15.

Allowance for doubtful debts

Trade receivables which are past due are not automatically considered to be impaired. Management's judgment is used to impair amounts that are past due based on being satisfied that all reasonable steps have been taken to recover the debt that the recovery of the debt would be uneconomical, or the recovery would cause undue hardship to the debtor or his or her dependents, or it would be to the advantage of the entity to effect a settlement or waive the claim.

Revaluations

Significant assumptions are applied using industry methodologies to determine the fair values of revalued property, plant and equipment, and investment property based on entity-specific or observable market input coupled with assumptions on future expectations.

Useful lives of property, plant and equipment

The entity's management determines the estimated useful lives and related depreciation charges for property, plant, equipment, and other assets. This estimate is based on industry norms and the pattern in which the entity is expected to consume an asset's future economic benefits or service potential.

2.4 Investment property

Investment property is property held to earn rentals, for capital appreciation, or both, and is accounted for using the fair value model.

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

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 replace a part of or service a property. If a replacement part is recognised in the investment property's carrying amount, the replaced part's carrying amount is derecognised.

Accounting policies (continued)

Fair value

After initial measurement, investment property is measured at fair value.

A gain or loss arising from a change in fair value is included in the net surplus or deficit for the period in which it arises.

2.5 Property, plant and equipment

Property, plant and equipment are initially measured at cost.

The cost of a piece of property, plant, and equipment is the purchase price and other costs attributable to bringing 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 when the cost is calculated.

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

Where an item of property, plant, and equipment is acquired in exchange for a non-monetary asset or monetary asset 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 is not determinable, its deemed cost is the carrying amount of the asset(s) given up.

When significant components of an item of property, plant and equipment have different useful lives, they are accounted for as separate items (major components) of property, plant and equipment.

Costs include costs incurred initially to acquire or construct an item of property, plant and equipment and costs incurred subsequently to add to, replace part of, or service it. If a replacement cost is recognised in the carrying amount of an item of property, plant and equipment, the carrying amount of the replaced part is derecognised.

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 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.

Items such as spare parts, standby equipment, and servicing equipment are recognised when they meet the definition of property, plant, and equipment.

Major inspection costs that are a condition of continuing use of an item of property, plant, and equipment and that meet the recognition criteria above are included as a replacement in the cost of the item of property, plant, and equipment. Any remaining inspection costs from the previous inspection are derecognised.

Property, plant and equipment, excluding land, buildings and aircraft, are carried at cost less accumulated depreciation and any impairment losses.

Land, buildings, and aircraft are carried at the revalued amount, which is the fair value at the date of revaluation less any subsequent accumulated depreciation and impairment losses. Land is not depreciated.

Revaluations are made with sufficient regularity such that the carrying amount does not differ materially from that determined using fair value at the end of the reporting period.

When an item of property, plant and equipment is revalued, any accumulated depreciation at the date of the revaluation is restated proportionately with the change in the gross carrying amount of the asset so that the carrying amount of the asset after revaluation equals its revalued amount.

When an item of property, plant and equipment is revalued, any accumulated depreciation at the date of the revaluation is eliminated against the gross carrying amount of the asset and the net amount restated to the revalued amount of the asset.

Accounting policies (continued)

Any increase in an asset's carrying amount as a result of a revaluation is credited directly to a revaluation surplus. The increase is recognised in surplus or deficit to the extent that it reverses a revaluation decrease of the same asset previously recognised in surplus or deficit.

Any decrease in an asset's carrying amount due to a revaluation is recognised as a surplus or deficit in the current period. The decrease is debited directly to a revaluation surplus to the extent of any credit balance existing in the revaluation surplus with respect to that asset.

The revaluation surplus in equity related to a specific item of property, plant and equipment is transferred directly to retained earnings when the asset is derecognised.

The revaluation surplus in equity related to a specific item of property, plant and equipment is transferred directly to retained earnings as the asset is used. The amount transferred is equal to the difference between depreciation based on the revalued carrying amount and depreciation based on the asset's original cost.

Property, plant, and equipment are depreciated on a straight-line basis based on their expected useful lives. The useful lives of items of property, plant and equipment have been assessed as follows:

Item	Depreciation method	Range of useful life
Aircraft - airframes	Straight-line	20 years
Aircraft - engines	Unit of production	5 400 hours
Aircraft - propellers	Straight-line	5-20 years
Air quality equipment	Straight-line	10-50 years
Buildings	Straight-line	40-50 years
Fences	Straight-line	10-30 years
Furniture and fittings	Straight-line	2-30 years
Computer equipment	Straight-line	2-25 years
Leasehold assets	Straight-line	3-20 years
Library books and equipment	Straight-line	10-20 years
Meteorological equipment	Straight-line	10-30 years
Motor vehicles	Straight-line	3-20 years
Office equipment	Straight-line	2-30 years
Radar equipment	Straight-line	10-30 years
Tools and equipment	Straight-line	2-30 years
Computer servers	Straight-line	2-25 years

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

Each part of an item of property, plant, and equipment that is significantly costlier than the total cost is depreciated separately.

At each reporting date, the entity assesses whether there is any indication that its expectations about an asset's residual value and useful life have changed since the preceding reporting date. If such an 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.

Items of property, plant, and equipment are derecognised when they are disposed of or when no further economic benefits or service potential are expected from their use.

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

Accounting policies (continued)

Assets that the entity holds for rentals to others and subsequently routinely sells 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 other income. All cash flows on these assets are included in cash flows from operating activities in the cash flow statement.

The entity separately discloses expenditures to repair and maintain property, plant, and equipment in the notes in the financial statements (see Note 30).

2.6 Intangible assets

An intangible asset is an identifiable, non-monetary asset without physical substance. The entity has classified the assets listed below as intangible assets.

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
- the cost or fair value of the asset can be measured reliably

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 of that date.

An intangible asset arising from development (or from the development phase of an internal project) is recognised when:

- it is technically feasible to complete the asset to be available for use or sale
- there is an intention to complete and use or sell it
- there is an ability to use or sell it
- it will generate probable future economic benefits or service potential
- There are available technical, financial, and other resources to complete the development and use or sell the asset
- the expenditure attributable to the asset during its development can be measured reliably

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

The amortisation period and the amortisation method for intangible assets are reviewed at each reporting date. Amortisation is provided to write down the intangible assets, on a straight-line basis, to their residual values as follows:

Item	Amortisation method	Range of useful life
Computer software	Straight-line	3-15 years
Servitude	Straight-line	25 years

Intangible assets are 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 intangible assets is included in the surplus or deficit when the asset is derecognised (unless the Standard of GRAP on leases requires otherwise on a sale and leaseback).

2.7 Financial instruments

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

The amortised cost of a financial asset or financial liability is the amount at which the financial asset or financial liability is measured at initial recognition minus principal repayments, plus or minus the cumulative amortisation using

Accounting policies (continued)

the effective interest method of any difference between that initial amount and the maturity amount, and minus any reduction (directly or through the use of an allowance account) for impairment or non-recovery.

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

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

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

The effective interest method calculates the amortised cost of a financial asset or financial liability (or group of financial assets or financial liabilities). It allocates the interest income or interest expense over the relevant period. The effective interest rate is the rate that exactly discounts estimated future cash payments or receipts through the expected life of the financial instrument or, when appropriate, a shorter period to the net carrying amount of the financial asset or financial liability.

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 a financial instrument's fair value or future cash flows will fluctuate because of changes in market interest rates.

Liquidity risk is the risk encountered by an entity when it finds it difficult to meet obligations associated with financial liabilities that are settled by delivering cash or another financial asset.

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

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

Classification

The entity has the following types of financial assets (classes and categories) as reflected on the face of the statement of financial position or in the Notes thereto:

Class	Category
Cash and cash equivalents	Financial asset measured at amortised cost
Trade and other receivables from exchange transactions	Financial asset measured at amortised cost

Accounting policies (continued)

The entity has the following types of financial liabilities (classes and categories) as reflected on the face of the statement of financial position or in the Notes thereto:

Class	Category
Trade and other payables from exchange transactions	Financial liability measured at amortised cost
Unspent conditional grants and receipts	Financial liability measured at amortised cost
Unspent government allocations - conditional grant	Financial liability measured at amortised cost

Initial recognition

When an entity becomes a party to the contractual provisions of the instrument, it recognises a financial asset or a financial liability in its statement of financial position.

The entity recognises financial assets using trade date accounting.

Initial measurement of financial assets and financial liabilities

The entity measures a financial asset and financial liability initially at its fair value plus transaction costs that are directly attributable to the acquisition or issue of the financial asset or financial liability, except for financial instruments subsequently measured at fair value, which are measured at its fair value.

The entity measures a financial asset and financial liability initially at its fair value [if subsequently measured at fair value].

Subsequent measurement of financial assets and financial liabilities

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

Financial instruments at amortised cost

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

Gains and losses

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

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

Impairment and non-recovery of financial assets

At the end of each reporting period, the entity assesses whether there is any objective evidence that a financial asset or group of financial assets is impaired.

Financial assets measured at amortised cost:

There is objective evidence that an impairment loss on financial assets measured at amortised cost has been incurred. In that case, the amount of the loss is measured as the difference between the asset's carrying amount and the present value of estimated future cash flows (excluding future credit losses that have not been incurred) discounted at the financial asset's original effective interest rate. The carrying amount of the asset is reduced through the use of an allowance account. The amount of the loss is recognised in surplus or deficit.

Suppose the amount of the impairment loss decreases in a subsequent period and can be related objectively to an event occurring after the impairment was recognised. In that case, the previously recognised impairment loss is reversed by adjusting an allowance account. The reversal does not result in a carrying amount of the financial asset that exceeds what the amortised cost would have been had the impairment not been recognised when the impairment is reversed. The amount of the reversal is recognised as surplus or deficit.

Accounting policies (continued)

Financial assets measured at cost:

There is objective evidence that an impairment loss has been incurred on an investment in a residual interest that is not measured at fair value because its fair value cannot be measured reliably. In that case, the impairment loss is measured as the difference between the carrying amount of the financial asset and the present value of estimated future cash flows discounted at the current market rate of return for a similar financial asset. Such impairment losses are not reversed.

Derecognition

Financial assets

The entity derecognises financial assets using trade date accounting.

Financial liabilities

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

Presentation

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

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

2.8 Statutory receivables

Identification

Statutory receivables arise from legislation, supporting regulations, or similar means and require settlement by another entity in cash or another financial asset.

Initial measurement

The entity initially measures statutory receivables at their transaction amount.

Subsequent measurement

The entity measures statutory receivables after initial recognition using the cost method. Under the cost method, the initial measurement of the receivable is changed after initial recognition to reflect any:

- interest or other charges that may have accrued on the receivable (where applicable)
- impairment losses and
- amounts derecognised

Accrued interest

Where the entity levies interest on the outstanding balance of statutory receivables, it adjusts the transaction amount after initial recognition to reflect any accrued interest. Accrued interest is calculated using the nominal interest rate.

Interest on statutory receivables is recognised as revenue following the policy on revenue from exchange transactions or the policy on revenue from non-exchange transactions (taxes and transfers), whichever is applicable.

Accounting policies (continued)

Other charges

Where the entity is required or entitled in terms of legislation, supporting regulations, by-laws or similar means to levy additional charges on overdue or unpaid amounts, and such charges are levied, the entity applies the principles as stated in accrued interest" above, as well as the relevant policy on revenue from exchange transactions or the policy on revenue from non-exchange transactions (Taxes and transfers).

Impairment losses

At each reporting date, the entity assesses whether there is any indication that a statutory receivable or a group of statutory receivables may be impaired.

In assessing whether there is any indication that a statutory receivable, or group of statutory receivables, may be impaired, the entity considers, as a minimum, the following indicators:

- The debtor's significant financial difficulty, which an application for debt counselling, business rescue, or an equivalent may evidence.
- It is probable that the debtor will enter sequestration, liquidation or other financial re-organisation.
- A breach of the terms of the transaction, such as default or delinquency in principal or interest payments (where levied), and
- Adverse changes in international, national or local economic conditions, such as a decline in growth, an increase in debt levels and unemployment, or changes in migration rates and patterns.

An impairment loss recognised in prior periods for a statutory receivable is revised if the estimates used since the last impairment loss was recognised have changed or to reflect the effect of discounting the estimated cash flows.

Any previously recognised impairment loss is adjusted either directly or by adjusting the allowance account. The adjustment does not result in the carrying amount of the statutory receivable or group of statutory receivables exceeding what the carrying amount of the receivable(s) would have been had the impairment loss not been recognised at the date the impairment is revised. The amount of any adjustment is recognised as surplus or deficit.

2.9 Tax

Tax expenses

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

2.10 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 building elements, the entity assesses the classification of each element separately.

Operating leases - lessor

Operating lease revenue is recognised as revenue on a straight-line basis over the lease term.

Initial direct costs incurred in negotiating and arranging operating leases are added to the carrying amount of the leased asset and recognised as an expense over the lease term on the same basis as the lease revenue.

The aggregate cost of incentives is recognised as a reduction of rental revenue over the lease term on a straight-line basis. The aggregate benefit of incentives is recognised as a reduction of rental expense over the lease term on a straight-line basis. Income for leases is disclosed under revenue in the statement of financial performance.

Accounting policies (continued)

Operating leases - lessee

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

The aggregate cost of incentives is recognised as a straight-line reduction of rental revenue over the lease term, and the aggregate benefit of incentives is recognised as a straight-line reduction of rental expense over the lease term.

2.11 Inventories

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

Subsequently, inventories are measured at a lower 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.

The current replacement cost is the entity's cost to acquire the asset on the reporting date.

The cost of inventories comprises 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 weighted average cost formula. The same cost formula is used for all similar inventories and used by the entity.

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 is recognised as a reduction in the amount of inventories, which is recognised as an expense in the period in which the reversal occurs.

2.12 Impairment of cash-generating assets

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

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).

The 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.

A cash-generating unit is the smallest identifiable group of assets used to generate 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.

Accounting policies (continued)

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

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 disposal costs.

The recoverable amount of an asset or a cash-generating unit is the higher of its fair value, less costs to sell and its value in use.

Useful life is either:

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

Identification

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

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

Irrespective of whether there is any indication of impairment, the entity also tests a cash-generating intangible asset with an indefinite useful life or a cash-generating intangible asset not yet available for use for impairment annually by comparing its carrying amount with its recoverable amount. This impairment test is performed at the same time every year. If an intangible asset was initially recognised during the current reporting period, that intangible asset was tested for impairment before the end of the current reporting period.

Value in use

Value in use of a cash-generating asset is the present value of the estimated future cash flows expected to be derived from the continuing use of an asset and from its disposal at the end of its useful life.

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

Basis for estimates of future cash flows

In measuring value in use the entity:

- bases cash flow projections on reasonable and supportable assumptions that represent management's best estimate of the range of economic conditions that will exist over the remaining useful life of the asset. Greater weight is given to external evidence.
- bases cash flow projections on the most recent approved financial budgets/forecasts but excludes any estimated future cash inflows or outflows expected to arise from future restructurings or from improving or enhancing the asset's performance. Projections based on these budgets/forecasts cover a maximum period of five years unless a longer period can be justified and
- estimate cash flow projections beyond the period covered by the most recent budgets/forecasts by extrapolating the projections based on the budgets/forecasts using a steady or declining growth rate for subsequent years unless an increasing rate can be justified. This growth rate does not exceed the long-term average growth rate for the products, industries, or country or countries in which the entity operates or for the market in which the asset is used unless a higher rate can be justified.

Accounting policies (continued)

Composition of estimates of future cash flows

Estimates of future cash flows include:

- projections of cash inflows from the continuing use of the asset
- projections of cash outflows that are necessarily incurred to generate the cash inflows from continuing use of the asset (including cash outflows to prepare the asset for use) and can be directly attributed, or allocated on a reasonable and consistent basis, to the asset
- net cash flows, if any, to be received (or paid) for the disposal of the asset at the end of its useful life

Estimates of future cash flows exclude:

- cash inflows or outflows from financing activities
- income tax receipts or payments

The estimate of net cash flows to be received (or paid) for disposing of an asset at the end of its useful life is the amount that the entity expects to obtain from disposing of the asset in an arm's length transaction between knowledgeable, willing parties after deducting the estimated costs of disposal.

Foreign currency future cash flows

Future cash flows are estimated in the currency in which they will be generated and then discounted using a discount rate appropriate for that currency. The entity translates the present value using the spot exchange rate at the value in use calculation date.

Discount rate

The discount rate is a pre-tax rate that reflects current market assessments of the time value of money, represented by the current risk-free rate of interest and the risks specific to the asset for which the future cash flow estimates have not been adjusted.

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.

When the amount estimated for an impairment loss is greater than the carrying amount of the cash-generating asset to which it relates, the entity recognises a liability only to the extent required by the Standard of GRAP.

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

Cash-generating units

If there is any indication that an asset may be impaired, the recoverable amount is estimated for the individual asset. Suppose it is impossible to estimate the recoverable amount of the individual asset. In that case, the entity determines the recoverable amount of the cash-generating unit to which the asset belongs (the asset's cash-generating unit).

If an active market exists for the output produced by an asset or group of assets, that asset or group of assets is identified as a cash-generating unit, even if some or all of the output is used internally. If the cash inflows generated by any asset or cash-generating unit are affected by internal transfer pricing, the entity uses management's best estimate of future price(s) that could be achieved in arm's length transactions in estimating:

Accounting policies (continued)

- the future cash inflows used to determine the asset's or cash-generating unit's value in use; and
- the future cash outflows are used to determine the value of any other assets or cash-generating units that are affected by the internal transfer pricing.

Cash-generating units are consistently identified 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 how the recoverable amount of the cash-generating unit is determined.

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

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

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

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

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

Reversal of impairment loss

At each reporting date, the entity assesses 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.

An impairment loss recognised in prior periods for a cash-generating asset is reversed if there has been a change in the estimates used to determine the asset's recoverable amount since the last impairment loss was recognised. The carrying amount of the asset is increased to its recoverable amount. The increase is a reversal of an impairment loss. The increased carrying amount of an asset attributable to a reversal of an impairment loss does not exceed the carrying amount that would have been determined (net of depreciation or amortisation) if no impairment loss had been recognised for the asset in prior periods.

A reversal of an impairment loss for a cash-generating asset is recognised immediately in surplus or deficit. Any reversal of an impairment loss of a revalued cash-generating asset is treated as a revaluation increase.

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

A reversal of an impairment loss for a cash-generating unit is allocated to the cash-generating assets of the unit pro rata with the carrying amounts of those assets. These increases in carrying amounts are treated as reversals of impairment losses for individual assets. No part of the amount of such a reversal is allocated to a non-cash-generating asset contributing service potential to a cash-generating unit.

In allocating a reversal of an impairment loss for a cash-generating unit, the carrying amount of an asset is not increased above the lower of:

- Its recoverable amount (if determinable)
- The carrying amount that would have been determined (net of amortisation or depreciation) had no impairment loss been recognised for the asset in prior periods

Accounting policies (continued)

The amount of the reversal of the impairment loss that would otherwise have been allocated to the asset is allocated pro rata to the unit's other assets.

Redesignation

Assets should be redesignated from cash-generating to non-cash-generating or from non-cash-generating to cash-generating only when there is clear evidence that such a redesignation is appropriate.

2.13 Impairment of non-cash-generating assets

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

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

Identification

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

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

Irrespective of whether there is any indication of impairment, the entity also tests a non-cash-generating intangible asset with an indefinite useful life or a non-cash-generating intangible asset not yet available for use for impairment annually by comparing the carrying amount with its recoverable service amount. This impairment test is performed at the same time every year. If an intangible asset was initially recognised during the current reporting period, that intangible asset was tested for impairment before the end of the current reporting period.

Value in use

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

The present value of the remaining service potential of a non-cash-generating asset is determined using the following approach:

Service units approach

The present value of the asset's remaining service potential is determined by reducing the current cost of the remaining service potential before impairment to conform to the reduced number of service units expected from the asset in its impaired state. The current cost of replacing the remaining service potential of the asset before impairment is determined as the depreciated reproduction or replacement cost of the asset before impairment, whichever is lower.

Recognition and measurement

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

An impairment loss is recognised immediately in surplus or deficit.

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

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 required by the Standards of GRAP.

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

Accounting policies (continued)

Reversal of an impairment loss

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

An impairment loss recognised in prior periods for a non-cash-generating asset is reversed if there has been a change in the estimates used to determine the asset's recoverable service amount since the last impairment loss was recognised. The carrying amount of the asset is increased to its recoverable service amount. The increase is a reversal of an impairment loss. The increased carrying amount of an asset attributable to a reversal of an impairment loss does not exceed the carrying amount that would have been determined (net of depreciation or amortisation) had no impairment loss been recognised for the asset in prior periods.

A reversal of an impairment loss for a non-cash-generating asset is recognised immediately in surplus or deficit. Any reversal of an impairment loss of a revalued non-cash-generating asset is treated as a revaluation increase.

After a reversal of an impairment loss is recognised, 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

Assets are redesignated from cash-generating to non-cash-generating or from non-cash-generating to cash-generating only when there is clear evidence that such a redesignation is appropriate.

2.14 Employee benefits

Other long-term employee benefits are benefits other than short-term employee benefits, post-employment benefits and termination benefits.

Vested employee benefits are employee benefits that are not conditional on future employment.

Short-term employee benefits

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

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 due to 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 due to 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 and short-term employee benefits) that are payable after the completion of employment.

Post-employment benefit plans are formal or informal arrangements under which an entity provides post-employment benefits for one or more employees.

Post-employment benefits: Defined benefit 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

Accounting policies (continued)

defined benefit liability, the entity recognises actuarial gains and losses in surplus or deficit in the reporting period in which they occur.

Plan assets comprise assets held by a long-term employee benefit fund and qualifying insurance policies. 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 reflecting the time value of money.

Any adjustments arising from the limit above are recognised as 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 annual 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
- the effect of applying the limit on a defined benefit asset (negative defined benefit liability)

The entity uses the Projected Unit Credit Method to determine the present value of its defined benefit obligations, the related current service cost, and, where applicable, past service cost. The Projected Unit Credit Method (sometimes known as the accrued benefit method pro-rated on service or as the benefit/years of service method) sees each service period as giving rise to an additional unit of benefit entitlement and measures each unit separately to build up the final obligation.

In determining the present value of its defined benefit obligations and the related current service cost and, where applicable, past service cost, an entity shall attribute benefit to periods of service under the plan's benefit formula. However, suppose an employee's service in later years will lead to a materially higher level of benefit than in earlier years. In that case, an entity shall attribute benefit on a straight-line basis from:

- the date when service by the employee first leads to benefits under the plan (whether or not the benefits are conditional on further service) until
- the date when further service by the employee will lead to no material amount of further benefits under the plan other than from further salary increases

Actuarial valuations are conducted annually by independent actuaries separately for each plan. The valuation results 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.

Accounting policies (continued)

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 the same way as plan assets. In surplus or deficit, the expense of a defined benefit plan is presented as the net of the amount recognised for reimbursement.

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) reflects the time value of money. The currency and term of the financial instrument selected to reflect this value are consistent with the currency and estimated term of the post-employment benefit obligations.

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 inflation and specific medical costs.

2.15 Provisions and contingencies

Provisions are recognised when:

- the entity has a present obligation because 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 the effect of the time value of money is material, the amount of a provision is the present value of the expenditures expected to be required to settle the obligation.

Accounting policies (continued)

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 35.

2.16 Commitments

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

Disclosures are required regarding unrecognised contractual commitments, which include future capital commitments relating to property, plant and equipment, investment property, intangible assets, and heritage assets, as applicable, operational commitments, and future commitments relating to operating leases. Refer to Note 31 - Commitments.

2.17 Revenue from exchange transactions

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

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 the 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 with respect to the transaction can be measured reliably.

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 transaction's completion stage at the reporting date. The outcome of a transaction can be estimated reliably when all the following conditions are satisfied:

Accounting policies (continued)

- 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
- the costs incurred for the transaction and the costs to complete the transaction can be measured reliably

When services are performed by an indeterminate number of acts over a specified time frame, revenue is recognised on a straight-line basis, unless there is evidence that some other method better represents the completion stage. When a specific act is much more significant than any other act, revenue recognition is postponed until the significant act is executed.

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 transaction's stage of completion at the reporting date. The stage of completion is determined by the services performed to date as a percentage of the total services to be performed.

Interest

Revenue arising from the use by others of entity assets yielding interest, royalties, 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.

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

2.18 Revenue from non-exchange transactions

Revenue comprises gross inflows of economic benefits or service potential received and receivable by an entity, representing an increase in net assets other than increases relating to owner contributions.

Conditions on transferred assets specify whether the future economic benefits or service potential embodied in the asset must be consumed by the recipient as specified or returned to the transferor.

Control of an asset arises when the entity can use or otherwise benefit from the asset in pursuit of its objectives and can exclude or otherwise regulate the access of others to that benefit.

Exchange transactions are transactions in which one entity receives assets or services or has liabilities extinguished and directly gives approximately equal value (primarily in the form of cash, goods, services, or the use of assets) to another entity in exchange.

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

Restrictions on transferred assets are stipulations that limit or direct the purposes for which a transferred asset may be used. Still, they do not specify that future economic benefits or service potential must be returned to the transferor if not deployed as specified.

Stipulations on transferred assets are terms in laws or regulations or binding arrangements imposed on using a transferred asset by entities external to the reporting entity.

Accounting policies (continued)

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

Measurement

Revenue from a non-exchange transaction is measured as 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.

Transfers

The entity recognises an asset with respect to transfers when the transferred resources meet the definition of an asset and satisfy the criteria for recognition as an asset.

Transferred assets are measured at their fair value as of the date of acquisition.

Debt forgiveness and assumption of liabilities

The entity recognises revenue regarding debt forgiveness when the former debt no longer meets the definition of liability or satisfies the criteria for recognition as a liability, provided that the debt forgiveness does not satisfy the definition of a contribution from owners.

Revenue arising from debt forgiveness is measured at the carrying amount of debt forgiven.

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

The entity recognises services in-kind that are significant to its operations and/or service delivery objectives as assets and recognises the related revenue when it is probable that 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 discloses the nature and type of services in-kind received during the reporting period.

2.19 Investment income

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

2.20 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.

Accounting policies (continued)

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 on 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 annual financial statements are recognised in surplus or deficit in the period in which they arise.

When a gain or loss on a non-monetary item is recognised directly in net assets, any exchange component of that gain or loss is also recognised directly in net assets. Similarly, when a gain or loss on a non-monetary item is recognised in surplus or deficit, any exchange component of that gain or loss is recognised in surplus or deficit.

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

2.21 Comparative figures

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

2.22 Fruitless and wasteful expenditure

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

All fruitless and wasteful expenditures are recognised as expenses in the statement of financial performance in the year that they were incurred. The expenditure is classified in accordance with its nature, and where recovered, it is subsequently accounted for as revenue in the statement of financial performance.

2.23 Irregular expenditure

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

(a) this Act

(b) the State Tender Board Act, 1968 (Act No. 86 of 1968), or any regulations made in terms of the Act

(c) any provincial legislation providing for procurement procedures in that provincial government

The irregular expenditure register has been recorded for irregular expenditures incurred and identified during the current financial year and for which condonation awaits at year-end. No further action is required, except updating the Note to the financial statements.

Irregular expenditures that have not been condoned and for which no person is liable in law remain against the relevant expenditure item and are updated as such in the irregular expenditure register.

2.24 Budget information

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

The entity's general purpose financial reporting shall provide information on whether resources were obtained and used in accordance with the legally adopted budget.

Accounting policies (continued)

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

The approved budget covers the fiscal period from 2023/04/01 to 2024/03/31.

The annual financial statements and the budget are based on the same accounting principles; therefore, the statement of comparison of budget and actual amounts includes a comparison with the budgeted amounts for the reporting period.

2.25 Related parties

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

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

Management are those responsible for planning, directing, and controlling the entity's activities, including those charged with governing the entity under legislation, in instances where they are required to perform such functions.

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

2.26 Events after the reporting date

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

- those that provide evidence of conditions that existed at the reporting date (adjusting events after the reporting date)
- 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 has 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 based on the financial statements.

2.27 Prior period error

When the presentation or classification of items in the financial statements is amended, prior-period comparative amounts are reclassified. The nature and reason for the reclassification are disclosed.

Where accounting errors have been identified in the current financial year, the correction is made retrospectively as far as it is practical, and the comparatives of the prior year are restated accordingly. Where there has been a change in accounting policy in the current year, the adjustment is made retrospectively as far as it is practical and the prior year comparatives are restated accordingly.

Notes to the annual financial statements

Figures in Rand	2024	2023

3. New standards and interpretations

3.1 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 2024 or later periods:

GRAP 104 (as revised): Financial instruments

The revisions better align the GRAP Standards 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 1 April 2025.

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

GRAP 103 (as revised): Heritage assets

The effective date is yet to be determined.

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

4. Inventories

Components and finished goods*	17 151 687	12 648 044
Consumables (stationery)	77 103	52 687
Other commercial components	1 561 841	710 146
	18 790 631	**13 410 877**

Inventory components for repairs and maintenance.

Inventories recognised as an expense during the year	9 070 029	2 568 506
Inventory write-back / (write-down) for the year	(2 700)	(122 515)

The write-down relates to inventory reversals as a result of inventory on handbeing greater than the theoretical inventory value during the count at year-end.

5. Operating lease asset (liability)

Current asset / (liability)	1 008 900	1 110 304

Notes to the annual financial statements (continued)

Figures in Rand	2024	2023

The following lease payments are related to operating leases for the rental of premises, office equipment and motor vehicles:

The entity leases 10 premises (2023: 10 premises) from various lessors. The rental agreements for the premises include escalation clauses between 6% and 10% per year in rental payments. The duration of the rentals varies between two and ten years. The SAWS has an agreement with Dihlabeng Municipality that stipulates that the entity will offer free rental to the municipality in exchange for the entity incurring no levies and electricity costs. As a result of this arrangement, the SAWS incurs no levies and electricity costs on the property and no rental income accrues. This has no financial impact on the annual financial statements.

The lease agreement for renting the building with JR 209 Investment (Pty) Ltd was signed on 5 December 2017, was effective until 30 April 2023, and was extended to 31 October 2023.

The lease agreement for renting the building with SKG Africa (Pty) Ltd commenced on 11 November 2023 and will be effective until 31 October 2027.

The entity entered into a lease agreement with Dand F Commodity Broking CC to rent furniture and fittings for a total of R608,810 for four (4) years (13 November 2019 to 14 November 2023).

The SAWS signed a contract with Fleet Horizon Solutions for the rental of motor vehicles for a total of R20,340,715 for three (3) years, effective 1 October 2021.

The leases are renewed according to the lease agreements where applicable, and the entity does not have the option to purchase these leased assets at the end of the lease term.

2024

	PREMISES	MOTOR VEHICLES	TOTAL
Future minimum lease payments not later than 1 year	11 840 855	3 390 119	15 230 974
Later than 1 year and not later than 5 years	38 221 373	-	38 221 373
	50 062 228	**3 390 119**	**53 452 347**

2023

	FURNITURE AND FITTINGS	PREMISES	MOTOR VEHICLES	TOTAL
Future minimum lease payments not later than 1 year	88 785	21 324 032	6 780 238	28 193 055
Later than 1 year and not later than 5 years	-	12 820 060	3 390 119	16 210 179
Later than 5 years	-	460 893	-	460 893
	88 785	**34 604 985**	**10 170 357**	**44 864 127**

Straight lining effect on operating lease liability:

Opening balance	(1 110 304)	730 228
Deferred rental	101 404	(1 840 532)
	(1 008 900)	**(1 110 304)**

Notes to the annual financial statements (continued)

Figures in Rand	2024	2023

6. Accounts receivable from exchange transactions - other

Trade accounts receivable	6 005 646	2 461 125
Sundry receivables	3 553 290	4 401 074
Impairment of accounts receivable	(903 141)	(487 807)
	8 655 795	**6 374 392**

Trade receivables are stated at amortised cost using the effective interest rate method, less impairment of receivables. During the year, an average interest rate of 11,75% was charged on invoices over 60 days.

Provision for accounts receivable from exchange transactions - other	Current	31 - 120 days	Over 120 days	Total
Insurance clients	1 369	4 020	161 415	166 804
Contract clients	5 164	19 469	704 478	729 111
Other	71	144	7 011	7 226
	6 604	**23 633**	**872 904**	**903 141**

Accounts receivable from exchange transactions - other past due but not impaired

Accounts receivable from exchange transactions less than 3 months past due are not automatically considered impaired. Management examines the accounts records of its debtors based on payment history, credit risk characteristics and historical loss experience for each debtor or group which are adjusted to reflect current conditions as a basis to impair amounts that are overdue, R2 671 743 (2023: R 1 295 831) were past due but not impaired. Trade accounts receivable amounting to R2 430 080 (2023: R677 488) are neither past due nor impaired. Management considers these debtors to be of good credit quality despite not having an external credit rating.

	31 - 90 days	Over 90 days
Past due but not impaired	2 592 554	79 189

Reconciliation of provision for impairment of trade and other receivables

Opening balance	487 807	766 192
Provision for impairment	903 141	487 807
Amounts written off as uncollectible	(15 584)	(263 540)
Unused amounts reversed	(472 223)	(502 652)
	903 141	**487 807**

Unused amounts of prior year provision are reversed due to an improvement in payments.

7. Accounts receivable from exchange transactions - statutory receivable

Statutory accounts receivable	15 703 315	16 429 077
Impairment of accounts receivable	(2 592 068)	(2 830 889)
	13 111 247	**13 598 188**

Following the SAWS Act, the entity provides meteorological services to the airline industry at a rate promulgated by the Minister of Forestry, Fisheries and Environment, which gets promulgated in the Government Gazette. The Regulating Committee on Meteorological Services facilitate the consultative process between the entity and the Aviation industry for the tariff recommendation to the Minister. The entity does not hold any collateral on receivables as security.

Notes to the annual financial statements (continued)

Figures in Rand	2024	2023

The SAWS charges interest on all accounts overdue at a rate determined by the Minister of Finance in the Government Gazette. During the year under review, the interest rate charged varied between 11,25% and 11,75% (2023: 7,5% and 10,75%) on all overdue accounts. Statutory receivables amounting to R10 630 755 (2023: R11 061 773) are neither past due nor impaired and are considered to be fully recoverable.

Accounts receivable from exchange transactions - statutory receivable past due but not impaired

Statutory receivables are individually assessed for impairment monthly. Management's judgement is used to impair past-due amounts. Statutory receivables of R2 480 492 (2023: R2 536 416) were past due but not impaired.

The ageing of amounts past due but not impaired is as follows:

	31 - 90 days	Over 90 days	Total
Past due but not impaired	2 091 326	389 166	2 480 492

Accounts receivable from exchange transactions (statutory receivables) impaired

Other accounts receivable from exchange transactions of R2 592 068 (2023: R2 830 889) were impaired and provided for. Management considers the debtors who default, are under administration and business rescue when calculating the impairment.

Reconciliation of provision for impairment and bad debts written off for statutory accounts receivable

Opening balance	2 830 889	11 499 760
Provision for impairment	2 592 068	2 830 889
Amounts written off as uncollectible	(577 703)	(13 121 112)
Unused amounts reversed	(2 253 186)	1 621 352
	2 592 068	**2 830 889**

Provision for statutory accounts receivable	Current	31 - 90 days	Over 90 days	Total
Regulated/Statutory Commercial Debtors	41 783	141 184	2 409 101	2 592 068

8. Prepayments

Prepaid expenses	15 013 363	11 402 162

Prepaid expenses comprise of services paid in advance, license fees, subscription fees, and staff travel advance payments.

9. Cash and cash equivalents

Cash and cash equivalents consist of:

Bank balances	65 423 803	135 461 741
Short-term deposits	156 471 573	20 142
	221 895 376	**135 481 883**

The entity does not have any cash and cash equivalents that have been pledged as security.

Notes to the annual financial statements (continued)

Figures in Rand	2024	2023

10. Investment property

	2024			2023		
	COST / VALUATION	ACCUMULATED DEPRECIATION AND ACCUMULATED IMPAIRMENT	CARRYING VALUE	COST / VALUATION	ACCUMULATED DEPRECIATION AND ACCUMULATED IMPAIRMENT	CARRYING VALUE
Land	70 497 351	-	70 497 351	70 497 351	-	70 497 351

Reconciliation of investment property - 2024

	OPENING BALANCE	ADDITIONS	TOTAL
Land	70 497 351	-	70 497 351

Reconciliation of investment property - 2023

	OPENING BALANCE	ADDITIONS	FAIR VALUE ADJUSTMENTS	TOTAL
Land	83 991 957	-	(13 494 606)	70 497 351

The investment property (Land) includes portions 411, 412, 423, and 424 of the farm Garsfontein 374, registration division JR, Gauteng. The total property size is 37,1116 ha; however, the portions allocated for investment property are 25,6354 ha. The property is located west of the N1 National Freeway and immediately north of Rigel Avenue (South) in the Waterkloof Heights suburb of Pretoria.

The property was valued on 31 March 2024 by The Property Partnership CC, Registration Number CK1897/025962/23, a qualified independent professional valuer.

The valuer used the market data valuation approach, whereby similar properties' valuations are used as a motivation to value the property. This is an acceptable method for determining the value of this type of property.

If the property was stated on the historical cost basis, the amounts would be as follows:

Historical cost - investment properties	26 890 000	26 890 000

Valuations were made based on open-market value. The property was brought to book in 2003. The valuation from independent valuers was accepted to reflect the fair value on 31 March 2002 for comparative purposes.

The property is subject to several restrictions on the realisability of the investment property. These are summarised as follows:

- Eskom right of way servitude to convey electricity over the property.
- Eskom underground cabling right of way servitude to convey electricity.
- There is a beacon approximately 6 meters wide and approximately 35 m^2.
- There is a Telkom Mast measuring approximately 900 m^2.

Notes to the annual financial statements (continued)

Figures in Rand	2024	2023

11. Property, plant and equipment

	2024			2023		
	COST / VALUATION	ACCUMULATED DEPRECIATION AND ACCUMULATED IMPAIRMENT	CARRYING VALUE	COST / VALUATION	ACCUMULATED DEPRECIATION AND ACCUMULATED IMPAIRMENT	CARRYING VALUE
Land - Garsfontein and Irene	5 993 155	-	5 993 155	5 993 155	-	5 993 155
Buildings - Irene and Bethlehem	6 064 668	(916 191)	5 148 477	5 918 675	(780 494)	5 138 181
Fence	5 320 477	(3 206 040)	2 114 437	4 469 478	(2 957 278)	1 512 200
Furniture and fixtures	14 553 008	(7 430 296)	7 122 712	13 112 976	(7 076 502)	6 036 474
Motor vehicles	461 220	(116 425)	344 795	506 220	(132 628)	373 591
Office equipment	4 956 747	(3 050 147)	1 906 600	4 857 432	(2 668 604)	2 188 829
Computer equipment and servers	163 584 675	(100 834 225)	62 750 450	172 609 884	(96 878 966)	75 730 918
Leasehold improvements	7 167 630	(2 207 006)	4 960 624	4 003 822	(1 092 276)	2 911 546
Aircraft - airframes	16 852	-	16 852	16 852	-	16 852
Radar - equipment	271 949 758	(150 266 000)	121 683 758	271 447 413	(125 952 340)	145 495 073
Aircraft - propellers	3 481	-	3 481	3 481	-	3 481
Aircraft - engines	34 667	(2 491)	32 176	34 667	(2 491)	32 176
Library books and equipment	51 483	(45 421)	6 062	51 483	(43 787)	7 696
Air quality equipment	70 216 911	(29 543 645)	40 673 266	54 629 777	(25 169 046)	29 460 731
Meteorological equipment	84 438 245	(61 611 345)	22 826 900	77 945 984	(59 913 683)	18 032 301
Tools and other equipment	11 503 861	(4 191 320)	7 312 541	7 064 655	(3 545 044)	3 519 611
Total	**646 316 838**	**(363 420 552)**	**282 896 286**	**622 665 954**	**(326 213 139)**	**296 452 815**

Notes to the annual financial statements (continued)

Figures in Rand	2024	2023

Reconciliation of property, plant and equipment - 2024

	OPENING BALANCE	ADDITIONS	DISPOSALS	REVALUATIONS	DEPRECIATION	IMPAIRMENT LOSS	TOTAL
Land - Garsfontein and Irene	5 993 155	-	-	-	-	-	5 993 155
Buildings - Irene and Bethlehem	5 138 181	-	-	145 992	(135 697)	-	5 148 476
Fence	1 512 199	851 000	-	-	(248 762)	-	2 114 437
Furniture and fixtures	6 036 474	1 954 000	(21 133)	-	(789 135)	(57 494)	7 122 712
Motor vehicles	373 591	-	-	-	(28 797)	-	344 794
Office equipment	2 188 829	234 714	(5 140)	-	(250 849)	(260 954)	1 906 600
Computer equipment and servers	75 731 543	2 961 678	(185 957)	-	(14 963 928)	(792 886)	62 750 450
Leasehold improvements	2 911 547	3 243 179	(204)	-	(466 203)	(727 695)	4 960 624
Aircraft - airframes	16 852	-	-	-	-	-	16 852
Radar - equipment	145 495 073	502 346	-	-	(8 860 745)	(15 452 915)	121 683 759
Aircraft - propellers	3 481	-	-	-	-	-	3 481
Aircraft - engines	32 176	-	-	-	-	-	32 176
Library books and equipment	7 695	-	-	-	(1 633)	-	6 062
Air quality equipment	29 460 731	15 871 543	(82 910)	-	(4 576 098)	-	40 673 266
Meteorological equipment	18 031 677	7 508 622	-	-	(2 600 923)	(112 475)	22 826 901
Tools and other equipment	3 519 611	4 517 876	-	-	(724 947)	-	7 312 540
Total	**296 452 815**	**37 644 958**	**(295 344)**	**145 992**	**(33 647 717)**	**(17 404 419)**	**282 896 285**

Reconciliation of property, plant and equipment - 2023

	OPENING BALANCE	ADDITIONS	REVALUATIONS	REVALUATIONS	DEPRECIATION	IMPAIRMENT LOSS	TOTAL
Land - Garsfontein and Irene	14 958 044	-	(8 964 889)	-	-	-	5 993 155
Buildings - Irene and Bethlehem	5 145 885	-	132 624	-	(140 328)	-	5 138 181
Fence	1 226 942	567 693	-	-	(282 435)	-	1 512 200
Furniture and fixtures	4 988 784	1 724 091	-	-	(619 016)	(57 485)	6 036 374
Motor vehicles	131 857	270 000	-	-	(17 903)	(10 363)	373 591
Office equipment	1 757 068	695 347	-	-	(238 253)	(25 333)	2 188 829
Computer equipment and servers	71 386 777	18 069 796	-	408 187	(13 098 767)	(1 035 075)	75 730 918
Leasehold improvements	3 038 843	166 584	-	-	(239 142)	(54 739)	2 911 546
Aircraft - airframes	-	16 852	-	-	-	-	16 852
Radar - equipment	153 882 631	2 222 351	-	-	(8 659 738)	(1 950 171)	145 495 073
Aircraft - propellers	-	3 481	-	-	-	-	3 481
Aircraft - engines	-	34 667	-	-	(2 491)	-	32 176
Library books and equipment	10 423	-	-	-	(2 728)	-	7 695
Air quality equipment	28 630 868	5 311 067	-	-	(3 583 130)	(898 003)	29 460 802
Meteorological equipment	14 859 324	6 405 527	-	-	(2 590 022)	(642 498)	18 032 331
Tools and other equipment	3 702 747	218 195	-	207 203	(533 659)	(74 875)	3 519 611
Total	**303 720 193**	**35 705 651**	**(8 832 265)**	**615 390**	**(30 007 612)**	**(4 748 542)**	**296 452 815**

Notes to the annual financial statements (continued)

Figures in Rand	2024	2023

Depreciation rates and impairment

No depreciation was recognised for aircraft engines in the financial year as there were no flight hours. Depreciation is based on the hours flown.

Revaluations

Reconciliation of surplus or (loss) recognised in the revaluation reserve in the statement of changes in net assets:

Revaluation of PPE

Land and building - revaluation		
Land - Garsfontein and Irene	-	(8 964 889)
Building - Irene and Bethlehem	145 992	132 624
	145 992	**(8 832 265)**

Other information

At the reporting date, the entity had not entered into contractual commitments for the acquisition of property, plant, and equipment and did not have assets pledged as security.

Details of properties

Bethlehem Property (Building)		
If the property was stated at a historical cost basis, the amounts would be as follows: Historical cost	600 000	600 000
Accumulated depreciation	(264 000)	(252 000)
	336 000	**348 000**

The Bethlehem extension 24, Free State property, was revalued on 31 March 2024 by The Property Partnership CC, an independent valuer, regarding the provisions of the Property Valuations Professional Act, 2000 (Act No. 47 of 2000). Valuations were made based on open-market value. The decrease in the property's carrying amount was debited to the revaluation surplus.

The property includes Erf 1997, valued at R965 000 and Erf 2064, valued at R950 000, in the town of Bethlehem in the Free State province. Erf 1997, also known as 8 Dr Clark Street, Bethlehem, has an area of 1,487 square meters and includes a house and buildings.

Erf 2064, also known as 19 Gordon Dreyer Street, Bethlehem, has an area of 1,568 square meters and includes a house and outbuildings. The title deed of the Bethlehem property was not registered in the entity's name at the financial year end; however, the Minister of Public Works passed all rights, obligations, and liabilities to the entity on the commencement of the SAWS Act, 2001 (Act No. 8 of 2001).

Irene Property

The entity utilises Portion 110 of the farm Doornkloof 391 JR for scientific purposes for no consideration, which was fair valued at R3 272 730 for the land and R3 208 000 for the buildings on 31 March 2024. Property improvements include two interconnected offices, a workshop, storage wings, and some outbuildings and carports. The title deed is registered in the name of the Republic of South Africa. The property shall be used for research and experimental institute purposes. Valuations were made based on open market value

The property, which is 21.8182 hectares, was valued on 31 March 2024 by The Property Partnership CC, Registration Number CK1897/025962/23, a qualified independent professional valuer.

Notes to the annual financial statements (continued)

Figures in Rand	2024	2023

Land - Garsfontein

The Land includes a portion of 412 and a portion of 423 of the farm Garsfontein 374, registration division JR, Gauteng. The total property size is 37,1116 ha; 11,4759 ha has been earmarked for administrative purposes. The property is located in the west of the N1 National Freeway and immediately north of Rigel Avenue (South) in the Waterkloof Heights suburb of Pretoria.

The Property Partnership cc, Registration Number CK 1897/025962/23, a qualified independent professional valuer, valued the property at R2 720 425 as of 31 March 2024.

The valuer used the market data valuation approach, whereby similar properties' valuations are used as a motivation to value the property. This is an acceptable method for determining the value of this type of property.

12. Intangible assets

	2024			2023		
	COST / VALUATION	ACCUMULATED AMORTISATION AND ACCUMULATED IMPAIRMENT	CARRYING VALUE	COST / VALUATION	ACCUMULATED AMORTISATION AND ACCUMULATED IMPAIRMENT	CARRYING VALUE
Computer software	26 041 248	(23 086 859)	2 954 389	24 642 286	(21 028 496)	3 613 790
Servitude	1 500 000	(655 209)	844 791	1 500 000	(595 211)	904 789
Total	**27 541 248**	**(23 742 068)**	**3 799 180**	**26 142 286**	**(21 623 707)**	**4 518 579**

Reconciliation of intangible assets - 2024

	OPENING BALANCE	ADDITIONS	AMORTISATION	IMPAIRMENT LOSS	TOTAL
Computer software	3 613 790	1 398 962	(1 796 790)	(261 573)	2 954 389
Servitude	904 789	-	(59 998)	-	844 791
	4 518 579	**1 398 962**	**(1 856 788)**	**(261 573)**	**3 799 180**

Reconciliation of intangible assets - 2023

	OPENING BALANCE	ADDITIONS	AMORTISATION	IMPAIRMENT LOSS	TOTAL
Computer software	5 229 010	795 778	(2 396 043)	(14 955)	3 613 790
Servitude	964 791	-	(60 002)	-	904 789
	6 193 801	**795 778**	**(2 456 045)**	**(14 955)**	**4 518 579**

Other information

Intangible assets include computer software and a servitude. The servitude comprises the right to use land for the SAWS meteorological equipment from a property owned by AP Beckely in Bloemfontein. The servitude is amortised over the useful life of the meteorological equipment installed on the land. An impairment loss was recognised for software that was no longer in use.

The SAWS has no intangible assets whose title is restricted and whose carrying amounts have been pledged as security.

Notes to the annual financial statements (continued)

Figures in Rand	2024	2023

13. Change in estimate

During the current financial year, the estimate of depreciation changed due to changes in useful lives. Reassessments of useful lives were enacted due to the discovery of well-preserved assets that are still in use but nearing the end of their useful lives.

Effects of changes in the statement of financial performance

Decrease in depreciation	(790 516)	(667 161)

Effects of changes in the statement of financial position

Decrease in accumulated depreciation	(790 516)	(667 161)

14. Accounts payable from exchange transactions

Trade and sundry accounts payable	34 135 594	26 857 817
Payroll payables (PAYE and UIF)	25 633	3 000
Students' bursary	129 692	-
Staff subsistence and travel allowances	179 275	82 609
	34 470 194	**26 943 426**

Trade and other payables are subsequently carried at amortised cost.

Spot rates at period-end.

CHF	20.8834	-
US Dollar	18.8443	17.9698
EURO	20.3371	19.5455

Unrealised foreign exchange gains and losses are calculated using the spot rate at year-end.

Included in trade and other payables are foreign creditors	Currency	2024 Foreign currency	2023 Foreign currency	2024	2023
Envitech	USD	-	13 440	-	241 514
Vaisala	USD	191 742	43 112	3 613 242	774 714
Microsoft Ireland	USD		113 926	-	2 047 227
American Meteorological Society	USD	7 620	1 817	143 594	32 651
Eumetnet	EURO	-	310	-	6 059
ECMWF	EURO	39 925	-	811 959	-
World Meteorological Organization	CHF	167 190	-	3 491 501	-
				8 060 296	**3 102 165**

Notes to the annual financial statements (continued)

Figures in Rand	2024	2023

15. Employee benefit obligations Defined benefit plan

Post-retirement medical aid plan

Objectives and considerations

All eligible employees of the entity who joined the entity before 1 November 2008, excluding those that accepted the settlement offer in September 2011, receive a 100% subsidy of medical aid scheme contributions in retirement, provided that the employee belonged to a registered medical scheme before leaving the entity on grounds of retirement, including early retirement and retirement due to ill-health and death. The subsidy is subject to a maximum cap amount. The Rand cap amount for 2024 is R3,332 (2023: R3,173), irrespective of the number of dependants. The Rand cap is expected to increase with healthcare cost inflation each year.

During the financial year, the number of employees eligible to receive post-employment medical aid subsidies from the entity was as follows:

Current (In-service) employees	15	15
Continuation members (Pensioners)	30	31
	45	**46**

The actuarial valuation of the liability regarding the post-employment medical aid benefit is performed on the Statement of Financial Position date, as summarised below. The 2024 valuation was performed by an independent company of actuaries, Alexandra Forbes Consultants and Actuaries, whose registration number was 2007/015447/07.

This actuarial valuation is based on economic assumptions as performed by Alexandra Forbes. These assumptions have resulted in a decrease in the present value of the liability due to expected subsidy payments. The assumption for the net discount rate used for 2024 compared to the prior year is 4.25% (prior year: 3.79%). The return on Plan Assets is 12.90% compared to 12.20% in the prior year. In conclusion, these rates have resulted in a decrease in the actuarial liability.

Plans according to their characteristics

All the applicable employees have more than 20 years of service, and the subsidy will, therefore, be payable until the death of the principal member and his/her dependents.

Risks associated with the plans

Future CPI inflation and healthcare cost inflation might be higher than expected.

Pensioners may live longer than expected; thus, their healthcare benefits are payable longer than expected and uncontrolled.

The liability may be volatile and uncertain in the future.

Changes to legislation regarding post-employment healthcare liability may increase the SAWS' liability. The return earned by the plan assets might be lower than expected, making them insufficient. The market value of the plan assets might decrease due to unexpected movements in market factors.

Notes to the annual financial statements (continued)

Figures in Rand	2024	2023
The plan's relationship with the entity's AFS and future cash flows		
The plans are independent of the SAWS, which will provide future payments or cash flows according to the determined contributions.		
Plan asset		
Current service cost	-	1 726 000
Net interest	1 746 000	-
Actuarial gains (losses)	(571 000)	(1 387 000)
	1 175 000	**339 000**
Accrued liability		
Current service cost	75 000	95 000
Interest cost		1 966 000
Actuarial loss/(gain)	(1 477 000)	(1 754 000)
Net interest	2 000 000	-
	598 000	**307 000**
Movement in the defined benefit obligation		
Opening balance	17 012 000	17 867 000
Current service cost	75 000	95 000
Interest cost	-	1 966 000
Actuarial gains	(1 477 000)	(1 754 000)
Net interest	2 000 000	-
Benefits paid	(1 169 000)	(1 162 000)
	16 441 000	**17 012 000**
Changes in the fair value of plan assets are as follows:		
Opening balance	14 881 000	15 703 000
Expected return	-	1 726 000
Actuarial gains/(losses)	(571 000)	(1 387 000)
Benefits paid	(1 169 000)	(1 161 000)
Net interest	1 746 000	-
	14 887 000	**14 881 000**
Summary of employee benefit obligation		
Defined benefit obligation	16 441 000	17 012 000
The fair value of plan asset	(14 887 000)	(14 881 000)
	1 554 000	**2 131 000**
Amounts recognised in the statement of financial performance:		
Current service costs	75 000	95 000
Interest costs	-	1 966 000
Expected return on plan assets	-	(1 726 000)
Actuarial (gain)/loss	(906 000)	(367 000)
Net interest	254 000	-
	(577 000)	**(32 000)**

The entity expects to contribute R1 216 000 to its defined benefit plans in the following financial year.

Notes to the annual financial statements (continued)

Figures in Rand	2024	2023

Key assumptions used

Assumptions used at the reporting date:

Discount rates used	12.90 %	12.20 %
Consumer price inflation	6.80 %	6.60 %
Medical cost trend rates	8.30 %	8.10 %
Expected increase in healthcare costs	65 %	65 %
Future changes in maximum state healthcare benefits	90 %	90 %

The expected return on plan asset is based on the market expectations at the beginning of the period, for the returns over the entire life of the related obligation.

The two most important variables are the discount and medical aid inflation rates.

Other assumptions

Assumed healthcare cost trend rates significantly affect the amounts recognised in surplus or deficit. A one percentage point change in assumed healthcare cost trend rates would have the following effects:

	One percentage point increase point	One percentage decrease
Employer's accrued liability	16 605 410	16 276 590
Employer's service cost	75 750	74 250
Employer's interest cost	256 540	251 460
Employer's plan asset	15 035 870	14 738 130

Amounts for the current and previous four years are as follows:

	2024	2023	2022	2021	2020
Defined benefit obligation	16 441 000	17 012 000	17 867 000	18 323 000	16 920 000
Plan asset	(14 887 000)	(14 881 000)	(15 703 000)	(15 228 000)	(14 279 000)
	1 554 000	**2 131 000**	**2 164 000**	**3 095 000**	**2 641 000**

Defined contribution plan

The entity's policy is to provide retirement benefits to all its employees. The Pensions Fund Act regulates defined contribution provident funds.

Included in the defined contribution plan information is a Defined Benefit Plan.

Short-term employee benefit

Leave pay accrual

Opening balance	10 783 701	9 751 196
Leave raised	17 929 809	16 733 516
Leave utilised/paid	(17 773 568)	(15 701 011)
	10 939 942	**10 783 701**

Notes to the annual financial statements (continued)

Figures in Rand	2024	2023

16. Unspent conditional grants and receipts

Unspent conditional grants and receipts consist of:

Unspent conditional grants and receipts		
Unspent public contributions and donations	49 342 990	24 638 235
Movement during the year		
Balance at the beginning of the year	24 638 235	30 772 828
Additions during the year	40 458 550	6 133 835
Income recognition during the year	(15 753 795)	(12 268 428)
	49 342 990	**24 638 235**

Donor funds consist of funding received from various institutions. Memorandums of Understanding (MoUs) are entered into between the entity and the funders to utilise the entity's expertise in meteorology.

17. Provisions

Reconciliation of provisions - 2024

Non-current liabilities	229 568	250 968

	OPENING BALANCE	ADDITIONS	TOTAL
Capped leave provision: non-current	250 968	(21 400)	229 568

Capped leave is calculated based on the working days each employee had as of 31 July 2001, during the transition of the South African Weather Service from the national state department into a public entity. Adjustments to this provision relate to increases in salary rates, days claimed, or payments through retirement, death, or resignation.

18. Unspent Government allocations - conditional grant

Breakdown of Unspent Government Grant - Conditional grant

Opening balance	53 713 731	28 021 739
Government grant - capital expenditure	63 813 000	74 944 000
Income recognition during the year - capital expenditure	(47 920 621)	(49 252 335)
Other deferred income	-	327
	69 606 110	**53 713 731**

19. Deferred income

Rental income	295 160	472 255
Income received in advance	7 842	1 650
	303 002	**473 905**

Notes to the annual financial statements (continued)

Figures in Rand	2024	2023

20. Revenue from exchange transactions

Commercial revenue

Aviation	129 164 877	108 805 418
Aviation instruments - maintenance income*	2 168 611	1 667 987
Air quality revenue	1 654 627	628 629
Information fees	17 678 351	16 983 793
Regional Training Centre income	1 275 044	759 122
Lightning Detection Network sales	4 828 292	5 406 401
Sale of instruments	2 231 788	600 774
	159 001 590	**134 852 124**

Aviation instruments - maintenance income*

The SAWS entered into an operating lease agreement with the City of Tshwane Municipality and the Department of Transport, Eastern Cape Mthatha, for a period of three (3) years, effective from 1 September 2021 to 30 August 2024, ACSA Kimberley and Upington for a period of five (5) years, effective from 1 December 2022 to the 30 November 2027 as well as Air Traffic Navigation Services for a period of three (3) years effective from 8 December 2022 to 8 November 2025. Air Traffic Navigation Services paid an amount of R531 287 in advance in October 2022 for three years. The SAWS bears all repairs and maintenance for the equipment. Upon termination of these contracts, all equipment, hardware and meteorological instrumentation supplied and installed by the SAWS shall be returned to the SAWS.

Operating lease income

2024	CITY OF TSHWANE	AIRPORTS COMPANY SOUTH AFRICA - KIMBERLEY	AIRPORTS COMPANY SOUTH AFRICA - UPINGTON	DEPARTMENT OF TRANSPORT - EASTERN CAPE MTHATHA	TOTAL
Future minimum lease income not later than one year	189 933	217 472	299 701	116 637	823 743
Later than one year and not later five years	-	644 161	887 727	-	1 531 888
	189 933	**861 633**	**1 187 428**	**116 637**	**2 355 631**

2023	CITY OF TSHWANE	AIRPORTS COMPANY SOUTH AFRICA - KIMBERLEY	AIRPORTS COMPANY SOUTH AFRICA - UPINGTON	DEPARTMENT OF TRANSPORT - EASTERN CAPE MTHATHA	TOTAL
Future minimum lease income not later than one year	455 839	205 162	282 737	279 928	1 223 666
Later than one year and not later three years	189 933	861 633	1 187 428	116 637	2 355 631
	645 772	**1 066 795**	**1 470 165**	**396 565**	**3 579 297**

Notes to the annual financial statements (continued)

Figures in Rand	2024	2023

21. Other income

Miscellaneous income	690 398	5 122 733
Interest on debt	256 762	106 760
Recovery of bad debts provision	899	5 259
	948 059	**5 234 752**

22. Investment income

Interest revenue		
Bank	13 863 164	5 155 533

23. Government grants and subsidies

Operating grants		
Government grant	337 856 000	337 029 000
Conditional grants		
Government grants	47 920 621	49 252 335
	385 776 621	**386 281 335**

24. Public contributions and donations

TETA SETA Grants	962 618	1 433 728
Donor funds - Other	13 910 999	11 837 828
	14 873 617	**13 271 556**

25. Employee-related costs

Employee pension	15 604 536	15 070 338
Expedition salary	164 030	234 160
Leave paid	971 926	631 827
Leave pay provision	85 106	959 969
Medical aid contributions	17 717 903	16 863 976
Occupational Health and Safety	519 527	455 280
Overtime and shift allowance	17 026 137	15 501 802
Post-retirement medical aid	413 065	334 000
Salaries and wages	246 626 104	235 456 441
Unemployment Insurance Fund	1 004 576	1 013 243
	300 132 910	**286 521 036**

Notes to the annual financial statements (continued)

Figures in Rand	2024	2023

26. Administrative expenditure

Administration fees	1 340 145	1 529 553
Advertising	155 318	-
Audit expenses (Internal)	837 573	584 956
Bank charges	896 824	845 830
Board expenses	1 808 278	1 103 723
Conference costs	179 414	1 019 100
Entertainment	50 616	47 128
Entrance fees	-	360
Legal fees	5 620 531	4 274 478
Printing and stationery	497 676	345 381
Refreshments	290 512	121 624
Training	3 112 217	1 525 415
	14 789 104	**11 397 548**

27. Depreciation and amortisation

Property, plant and equipment	33 647 718	30 007 610
Intangible assets	1 856 792	2 456 044
	35 504 510	**32 463 654**

28. Impairment loss

Impairments		
Property, plant and equipment	17 404 418	4 748 542
Intangible assets	261 573	14 955
	17 665 991	**4 763 497**

29. Bad debts expenses

Accounts receivable from exchange transactions - other	23 094	87 371
Statutory accounts receivable	746 706	4 350 024
	769 800	**4 437 395**

Notes to the annual financial statements (continued)

Figures in Rand	2024	2023
30. General expenses		
Aircraft expenses	193 240	385 384
Audit fees (External)	4 923 956	4 403 048
Cleaning	920 359	864 062
Computer expenses	-	815 665
Conferences and seminars	11 631	758 687
Consultants	6 657 485	3 500 110
Consumables spares	5 544 615	16 269 816
Electricity	5 768 023	6 362 665
Relocation costs	3 459 667	247 283
Computer and software licences	21 334 020	29 007 354
Insurance	2 200 527	1 941 398
Leases and rentals	35 132 424	34 116 733
Levies	2 691 327	2 566 428
Motor vehicle leases	4 109 386	3 877 204
Placement fees (employees)	976 550	772 830
Postage and courier	1 046 252	1 308 131
Publications	397 699	357 081
Promotions and sponsorships	3 359 239	2 014 976
Repairs and maintenance (property, plant and equipment)	11 941 129	8 259 271
Security	3 850 272	3 504 304
Subscriptions and membership fees	10 399 037	1 701 113
Communication costs	29 223 052	19 352 194
Travel and accommodation	14 645 221	7 293 706
Venue expenses	370 519	200
	169 155 630	**149 679 643**
31. Gain/(Loss) on foreign exchange		
Gain/(Loss) on foreign exchange	(1 971 365)	(2 391 050)
32. Fair value adjustments		
Investment property	-	(13 494 606)

Notes to the annual financial statements (continued)

Figures in Rand	2024	2023

33. Cash generated from operating activities

Surplus for the year	35 164 746	40 482 969
Adjustments for:		
Depreciation and amortisation	35 504 510	32 463 654
Loss / (gain) on sale of assets and liabilities	214 995	(469 099)
Loss on foreign exchange	1 971 365	2 391 050
Fair value adjustments	-	13 494 606
Impairment deficit	17 665 991	4 763 497
Debt impairment	-	(5 259)
Bad debts written off	769 800	4 437 395
Movements in operating lease assets	101 404	(1 840 532)
Movements in employee benefit obligation	(420 759)	999 505
Movements in provisions	(21 400)	(17 230)
Non-cash items	(240 873)	(1 836 821)
Actuarial (gain)/loss	(906 000)	(367 000)
Miscellaneous income	(948 059)	(5 234 752)
Changes in working capital:		
Inventories	(5 379 754)	(8 219 969)
Accounts receivable from exchange transactions - other	(2 304 497)	(2 160 330)
Accounts receivable from exchange transactions - statutory receivables	(259 765)	(2 082 626)
Prepayments	(3 611 201)	(8 880 124)
Unspent Government allocations - conditional grant	15 892 379	25 691 992
Accounts payable from exchange transactions	7 526 768	13 565 340
Unspent conditional grants and receipts	24 704 755	(6 134 593)
Deferred income	(170 903)	473 905
	125 253 502	**101 515 578**

Notes to the annual financial statements (continued)

Figures in Rand	2024	2023

34. Commitments

Capital expenditure		
Approved and contracted		
Computer equipment	5 901 137	399 346
Office furniture	317 047	822 610
Motor vehicle	1 218 281	-
Land and buildings	1 000 000	1 000 000
Meteorological and technical equipment	29 118 890	29 678 420
Computer software	10 793 697	19 235 010
Fence	-	259 000
Approved but not yet contracted		
Computer equipment	-	6 072 336
	48 349 052	**57 466 722**
Operational expenditure		
Approved and contracted	190 937 780	60 211 500
Approved but not yet contracted	-	39 215 595
	190 937 780	**99 427 095**
Commitments split per period		
Up to 12 months	74 266 901	58 305 727
Longer than 12 months	165 019 931	98 588 090
	239 286 832	**156 893 817**

35. Contingent liabilities

The table below sets out the contingent liabilities at year-end with the maximum potential liability to the entity:

Contingent liabilities		
Legal claims - Court	-	123 791
Legal claims - Labour Court / Court	1 284 697	1 284 697
Cash surplus to be retained	79 000 182	38 655 622
	80 284 879	**40 064 110**

Notes to the annual financial statements (continued)

Legal claims - Labour Court / Court

1. The Commission for Conciliation, Mediation and Arbitration (CCMA) awarded a former employee R1 284 697; however, an application for review in the Labour Court has been instituted, and the SAWS has yet to obtain a court order. The review process is ongoing.

Legal claims - Court

2. The illegal occupiers have unlawfully built on the land that belongs to the SAWS. While the SAWS is obligated to remove these illegal structures to proceed with their intended development, such actions may entail the payment of damages to the structures. Attorneys are unable to quantify the potential costs associated with these damages,
3. Several service providers are suing the SAWS for alleged failure to issue severe weather warnings. Notices of intention to defend were filed, and initial consultations to prepare for defence also took place. The litigation amount cannot be determined. The matter is ongoing.

Cash surplus to be retained

4. The cash surplus to be retained - significant projects were completed in quarter four, and their goods or services were not yet delivered, hence the significant number of commitments at year-end. SAWS Management will motivate to retain this amount.

36. Related parties

Relationships

The entity is deemed under common control with all the entities in the national sphere of Government; therefore, these entities are considered related parties.

Entity structure

The SAWS was established in terms of national legislation as one of the government's essential scientific institutions that provide information and services that directly impact the lives of citizens and their properties and contribute greatly to sustainable development in South Africa. The entity reports functionally to the Department of Forestry, Fisheries and Environment Affairs and therefore, the Minister of Forestry, Fisheries and Environment is the Executive Authority. The entity is governed by the Board, which the Minister appoints. The details of the Board members are disclosed below. The SAWS receive donor funds from the Department of Science and Innovation and The Water Research Council to finance some research projects.

The SAWS provides weather and climate-related services to various entities in the national government. This includes the provision of services and instruments to public entities.

The SAWS further provides aviation services to national carriers, which the national government controls. These services are provided on a cost-recovery basis. The transaction amounts are included either in the Statement of Financial Performance as revenue from exchange transactions and related account balances in the Statement of Financial Position as trade and other receivables from exchange transactions or in the respective Notes.

Apart from transactions listed in the previous paragraph, the SAWS undertakes the following transactions with other entities in the public sector:

- PAYE, UIF, SDL and other payroll taxes are collected by the entity and remitted to the revenue authority monthly
- Basic services such as electricity, water and sanitation by local municipalities
- Air travel as supplied by the national carrier, which the National Government controls
- Post-retirement benefits to former employees of the entity by the Government Pension Fund
- The collection of aviation and other related services revenue from entities controlled by the National Government
- The provision of air quality equipment to municipalities

Notes to the annual financial statements (continued)

Figures in Rand

The transaction amounts for the above services are included either in the Statement of Financial Performance as expenditure and related account balances in the Statement of Financial Position as trade and other payables or the respective Notes.

The following related party transactions occurred during the financial year:

Revenue related		
Government grant and subsidies	337 856 000	337 029 000
Capital expenditure grant	47 920 621	49 252 335
	385 776 621	**386 281 335**

A capital expenditure grant of R49 252 335 was incorrectly reported as R47 683 725 in the prior year.

Remuneration of management

Management class: Executive management

2024

Name	Designation	BASIC SALARY	OTHER SHORT-TERM EMPLOYEE BENEFITS	MEDICAL AID, UIF & PENSION	OTHER BENEFITS RECEIVED	TOTAL
Mr Abader I	Chief Executive Officer	1 904 302	228 516	249 685	75 692	2 458 195
Mr Mzizi NM	Chief Financial Officer	1 788 180	129 839	136 239	72 972	2 127 230
Dr Mphepya JN	Executive Weather and Climate Services	1 850 210	66 813	140 891	73 048	2 130 962
Mr Ndabambi MF	Executive Infrastructure & Information Systems	1 332 304	542 891	193 167	73 218	2 141 580
Ms Dekker PA	Executive Corporate Services	1 231 230	728 478	94 468	74 062	2 128 238
	-	**8 106 226**	**1 696 537**	**814 450**	**368 992**	**10 986 205**

2023

Name	Designation	BASIC SALARY	OTHER SHORT-TERM EMPLOYEE BENEFITS	MEDICAL AID, UIF & PENSION	ACTING ALLOWANCE	OTHER BENEFITS RECEIVED	TOTAL
Mr Abader I	Chief Executive Officer	1 831 060	219 727	240 163	-	67 868	2 358 818
Mr Mzizi NM	Chief Financial Officer	1 719 404	124 845	131 081	-	65 387	2 040 717
Dr Mphepya JN	Executive Weather and Climate Services	1 877 260	45 101	56 485	-	65 206	2 044 052
Mr Ndabambi MF	Executive Infrastructure & Information Systems	1 282 452	520 543	175 728	-	65 521	2 044 244
Ms Dekker PA*	Executive Corporate Services	786 302	469 921	60 390	-	40 253	1 356 866
Ms Makongolo Z**	Acting: Executive Corporate Services	1 047 367	185 609	80 678	88 516	48 789	1 450 959
		8 543 845	**1 565 746**	**744 525**	**88 516**	**353 024**	**11 295 656**

** Appointed in August 2022*

*** Acting as an Executive from April 2022 to July 2022*

Notes to the annual financial statements (continued)

Figures in Rand

Management class: Non-executive management

2024

Name	Designation	FEES	TOTAL
Ms Renqe F	Chairperson	339 293	339 293
Mr Phaduli I	Deputy Chairperson	298 677	298 677
Ms Magomola N	Non-Executive Member	227 334	227 334
Prof. Mpandeli S^	Non-Executive Member		
Dr Son G	Non-Executive Member	211 803	211 803
Dr Tau ME	Non-Executive Member	211 279	211 279
Ms Kgari M ^	Non-Executive Member		
Ms Daya S	Non-Executive Member	255 867	255 867
Mr Kekana MJ	Non-Executive Member		
Mr Theunissen R	Independent Member of the ARC	86 118	86 118
Ms Maharaj N	Independent Member of the ARC	87 298	87 298
Mr Maharaj S	Independent Member of the ARC	84 810	84 810
		1 802 482	**1 802 482**

^ Board member works for a Government / Public Entity and thus was not remunerated

2023

Name	Designation	FEES	TOTAL
Ms Renqe F	Chairperson	236 174	236 174
Mr Phaduli I	Deputy Chairperson	218 260	218 260
Ms Magomola N	Non-Executive Member	123 612	123 612
Prof. Mpandeli S^	Non-Executive Member		
Dr Son G	Non-Executive Member	142 650	142 650
Dr Tau ME	Non-Executive Member	92 582	92 582
Ms Kgari M ^	Non-Executive Member		
Ms Daya S	Non-Executive Member	150 666	150 666
Mr Lukey P*	Non-Executive Member		
Mr Kekana MJ#	Non-Executive Member		
Mr Theunissen R	Independent Member of the ARC	29 559	29 559
Mr Amod A**	Independent Member of the ARC	8 517	8 517
Ms Maharaj N	Independent Member of the ARC	54 108	54 108
Mr Maharaj S	Independent Member of the ARC	47 595	47 595
		1 103 727	**1 103 727**

** The term of office ended on 28 February 2023*
 # Appointed on 1 March 2023
^ Board member works for a Government / Public Entity and thus was not remunerated
*** Resigned on 21 April 2022*

Notes to the annual financial statements (continued)

Figures in Rand	2024	2023

37. Prior-year error

Presented below are those items contained in the statement of financial position, statement of financial performance and cash flow statement that have been affected by prior-year adjustments:

Statement of financial position

2023

	AS PREVIOUSLY REPORTED	ADJUSTMENTS	RESTATED
Computer equipment and servers	172 201 697	408 187	172 609 884
Tools and other equipment	6 857 452	207 203	7 064 655
Accumulated depreciation - Computer equipment and servers	(96 864 898)	(14 067)	(96 878 966)
Accumulated depreciation - Tools and other equipment	(3 541 646)	(3 398)	(3 545 044)
	78 652 605	**597 925**	**79 250 529**

Statement of financial performance

	AS PREVIOUSLY REPORTED	ADJUSTMENTS	RESTATED
Donor fund income (revenue)	(11 222 439)	(615 390)	(11 837 829)
Depreciation - Computer equipment and servers	13 084 700	14 067	13 098 767
Depreciation - Tools and other equipment	530 261	3 398	533 659
Surplus	39 885 045	597 925	40 482 970
	42 277 567	**-**	**42 277 568**

During the financial year 2022/23, SADC donated computers, servers and other equipment to SAWS. The donation occurred towards the 2022/23 financial year end, after physical verifications were completed. As a result, assets were not added to the fixed asset register.

Notes to the annual financial statements (continued)

Figures in Rand

Cash flow statement

Cash generated from operating activities

	AS PREVIOUSLY REPORTED	ADJUSTMENTS	RESTATED
Sale of goods and services	135 731 901	(3 837 170)	131 894 731
Grants	398 937 501	19 557 399	418 494 900
Suppliers	(153 137 596)	(15 720 229)	(168 857 825)
	381 531 806	**-**	**381 531 806**

Cash generated from operating activities Note 33

	AS PREVIOUSLY REPORTED	ADJUSTMENTS	RESTATED
Interest income	(5 155 533)	5 155 533	-
Miscellaneous income	(1 300 653)	(3 934 099)	(5 234 752)
Other non-cash items	-	(1 836 821)	(1 836 821)
	(6 456 186)	**(615 387)**	**(7 071 573)**

Interest income was erroneously disclosed on cash generated from operating activities Note 33 in the prior year.

	AS PREVIOUSLY REPORTED	ADJUSTMENTS	RESTATED
Irregular Expenditure	-	179 100	179 100

The AGSA identified the irregular expenditure of R179 100 in the 2022/23 audit. It emanated from the emergency procurement made through the deviation of company secretarial services from the Chartered Governance Institute of SA on short-term contracts. Management did not agree with the AGSA and agreed that they would approach the National Treasury for clarity. Hence, it was not recorded as an irregular expenditure in 2022/23. National Treasury confirmed during 2023/24 that the amount was irregular. Subsequently, the National Treasury condoned the irregular expenditure after a review of corrective actions taken by Management.

38. Risk management

Financial risk management

Liquidity risk

Prudent liquidity risk management implies maintaining sufficient cash and marketable securities, the availability of funding through an adequate amount of committed credit facilities and the ability to close out market positions. Due to the dynamic nature of the underlying businesses, entity treasury maintains flexibility in funding by maintaining availability under committed credit lines.

The entity's risk to liquidity is related to 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, and adequate utilised borrowing facilities are monitored. Prudent liquidity risk management implies maintaining sufficient cash and obtaining the continued commitment from risk management implies maintaining sufficient cash and obtaining the continued commitment from the Department of Forestry, Fisheries and Environment for the government grant and the collection of aviation income from respective airlines.

Notes to the annual financial statements (continued)

Figures in Rand	2024	2023

Due to the nature of the business, management maintains flexibility in funding by keeping expenses below budget and continuously pursuing additional income via donor funding, information fees and the sale of lightning detection networks.

The table below analyses the entity's financial liabilities and net-settled derivative financial liabilities into relevant maturity groupings based on the remaining period from the statement of financial position to the contractual maturity date. The amounts disclosed in the table are the contractual undiscounted cash flows. Balances due within 12 months equal their carrying balances, as the impact of discounting is not significant.

Trade and other payables	34 470 192	26 943 426

Credit risk

Credit risk consists mainly of cash deposits, cash equivalents, derivative financial instruments, and trade debtors. The entity only deposits cash with major banks with high-quality credit standing and limits exposure to any one counterparty.

Trade receivables comprise a widespread customer base. Management evaluated credit risk relating to customers on an ongoing basis. If customers are independently rated, these ratings are used. Otherwise, if there is no independent rating, risk control assesses the customer's credit quality, considering its financial position, past experience and other factors. Individual risk limits are set based on internal or external ratings following limits set by the board. The utilisation of credit limits is regularly monitored. Sales to retail customers are settled in cash or using major credit cards. Credit guarantee insurance is purchased when deemed appropriate.

The maximum exposure to credit risk at year end were as follows:

Cash and cash equivalents	221 895 376	135 481 883
Accounts receivable from exchange transactions (excluding statutory receivables)	8 655 795	6 374 392

Market risk

Interest rate risk

The entity's exposure to market risk (interest rate risk) arises primarily from its cash and cash equivalents, accounts receivable and payable. The entity manages its interest rate risk by obtaining competitive rates from approved financial institutions on a monthly basis. The entity's policy is to manage interest rate risk so that fluctuations in variable rates do not have a material impact on surplus/ (deficit).

The entity's exposure to interest rate risk and the effective interest rates on financial instruments at the Statement of Financial Position date is as follows:

	2024 Effective interest rate	2023 Effective interest rate	2024	2023
Cash	6,9%	4,36%	221 895 376	135 481 883
Accounts receivable	11,75%	10,75%	21 767 042	19 972 580
			243 662 418	**155 454 463**

	2024 Effective interest rate	2023 Effective interest rate	2024	2023
Financial assets	9,33%	7,56%	243 662 418	155 454 463
Financial liabilities	-	-	(34 470 192)	(26 943 426)
			209 192 226	**128 511 037**

Notes to the annual financial statements (continued)

Figures in Rand

Foreign currency risk

	2024 Effective interest rate	2023 Effective interest rate	2024	2023
CHF Payables	167 190	-	3 491 501	-
USD Payables	199 362	172 295	3 756 836	3 096 107
EUR Payables	39 925	310	811 959	6 059
			8 060 296	**3 102 166**

Sensitivity analysis

The entity is mainly exposed to CHF, GBP, EUR and US dollar currencies.

The following table details the entity's sensitivity to a 5% increase and decrease in Rand against the relevant foreign currencies.

The sensitivity analysis includes only outstanding foreign currency-denominated monetary items and adjusts their translation at financial year-end for a 5% change in foreign currency rates. A positive number below indicates an increase in surplus where the Rand strengthens by 5% against the relevant currency.

A 5% weakening of the rand against the relevant currency would have an equal and opposite impact on the surplus, and the balances below would be negative.

	USD Impact		EUR Impact		CHF Impact	
	2024	2023	2024	2023	2024	2023
Figures in Rand	187 842	13 554	40 598	304	174 575	-

39. Irregular expenditure and fruitless and wasteful expenditure

Irregular expenditure	53 226	179 100

Individuals who caused these irregular expenditures were disciplined, determination tests were concluded, and condonation requests were submitted to the National Treasury for consideration.

40. Events after the reporting date

No adjusting or significant non-adjusting events have occurred between 31 March 2024 and the date of authorisation.

41. Heritage assets

The entity has acknowledged a heritage asset in line with GRAP 103 based on its scientific information's historical significance and environmental impact. The entity is the only institution legislated by the Government in the country to provide early warning, climate and air-quality information to the public as legislated by Parliament through the SAWS Act. The intellectual and scientific information at the entity's disposal is over 150 years old and will benefit future generations and, as such, needs to be protected and preserved. Management is unable to quantify the value of the heritage assets at this stage.

For an asset to fulfil the requirements of being classified as a heritage asset, it has to meet the recognition criteria, which include reliable measurement of its cost. Where an entity cannot reliably measure the heritage asset's cost, such an asset should be disclosed in the Annual Financial Statements. The SAWS cannot reliably estimate the cost of its heritage asset, so none has been recognised.

Notes to the annual financial statements (continued)

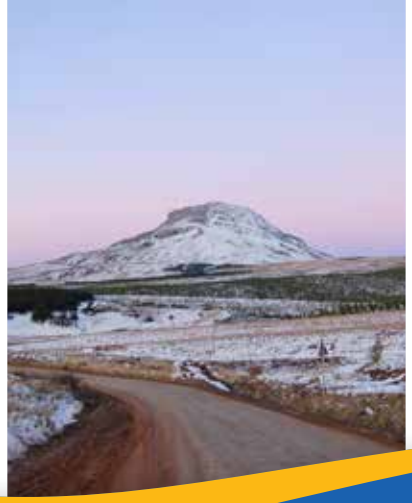
42. Going concern

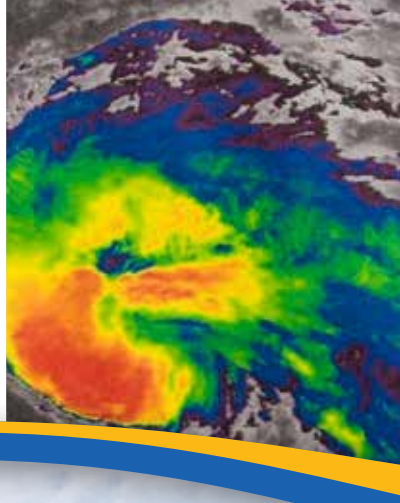
The annual financial statements have been prepared using accounting policies applicable to a going concern. This basis presumes that funds will be available to finance future operations and that the realisation of assets and settlement of liabilities, contingent obligations, and commitments will occur in the ordinary course of business.

43. Authorisation for issue

The Annual Financial statements were prepared by Finance Management and authorised for issue by the Board Members on 29 July 2024.

NOTES:



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