

“Saving lives and Property”

Parliamentary Portfolio Committee on Environmental Affairs

01 July 2014

Dr. Linda Makuleni

Templ ref: PPT-ISO-.001 Doc Ref no: SAWS-Meeting with the PPC on EA- 01072014

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INTRODUCTION

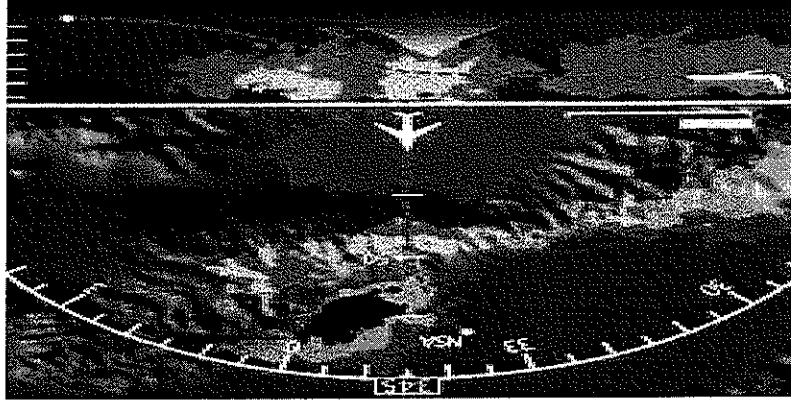
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SAWS MANDATE

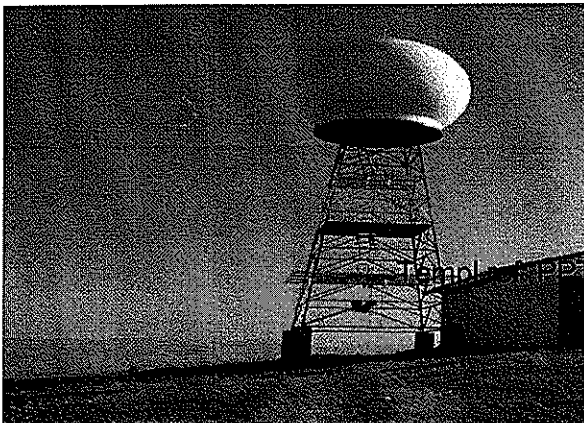
- SAWS is a section 3a entity governed by the South African Weather Service Act, (Act No. 8 of 2001 as amended), the public finance management act (PFMA) and associated treasury regulations.

- SAWS in terms of its enabling act, Act no 8 of 2001 (as amended) is mandated to:

- Provide reliable weather services to support public good and its commercial ventures
- Provide aeronautical meteorological services
- Provide ambient air quality services



VISION STATEMENT



VISION

“A weather and climate centre of excellence providing innovative solutions to ensure a weather-ready region, sustainable development and economic growth”

MISSION STATEMENT

MISSION

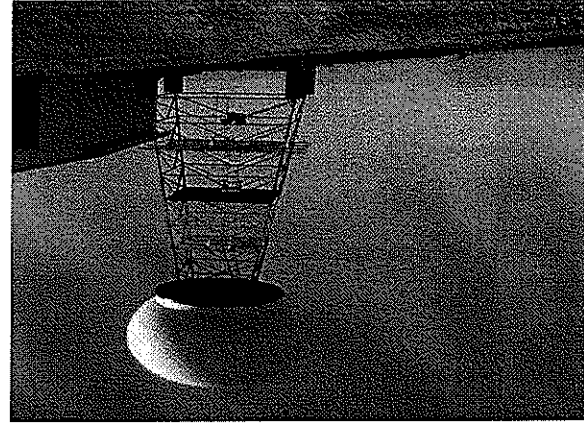
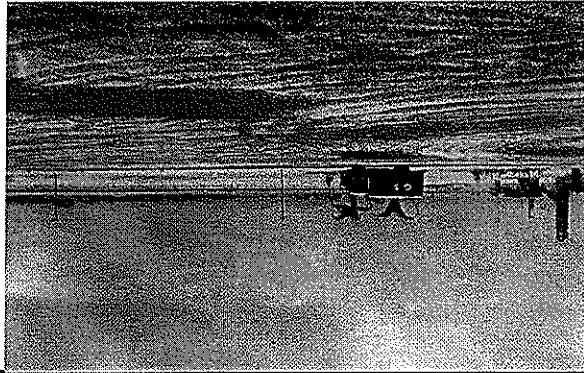
*SAWS will realize its vision through
excelling in the following areas:*

- *Thought leadership in meteorological, climatological and other related sciences;*

- *The development of relevant and innovative applications and products utilizing cutting edge technology;*

- *Establishing and leveraging collaborative partnerships.*

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SAWS SAWS OBLIGATIONS

- National:

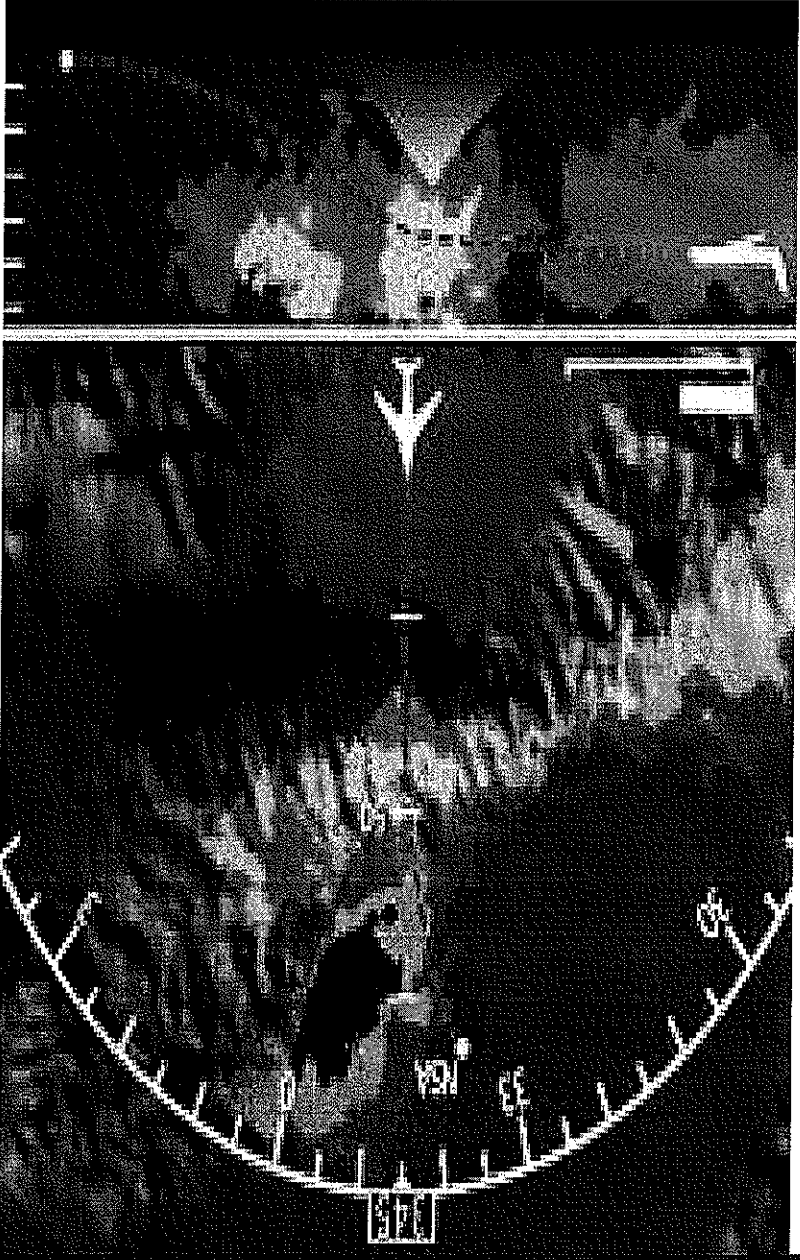
- Contribute to CC and Variability Adaptation
 - the safety of life and property
- Ensure Sustainability of Meteorological Competence
 - E.g. Build a national talent pool of atmospheric science and related services

- Regional:

- Meteorological Association of Southern Africa
- African Ministerial Conference on Meteorology



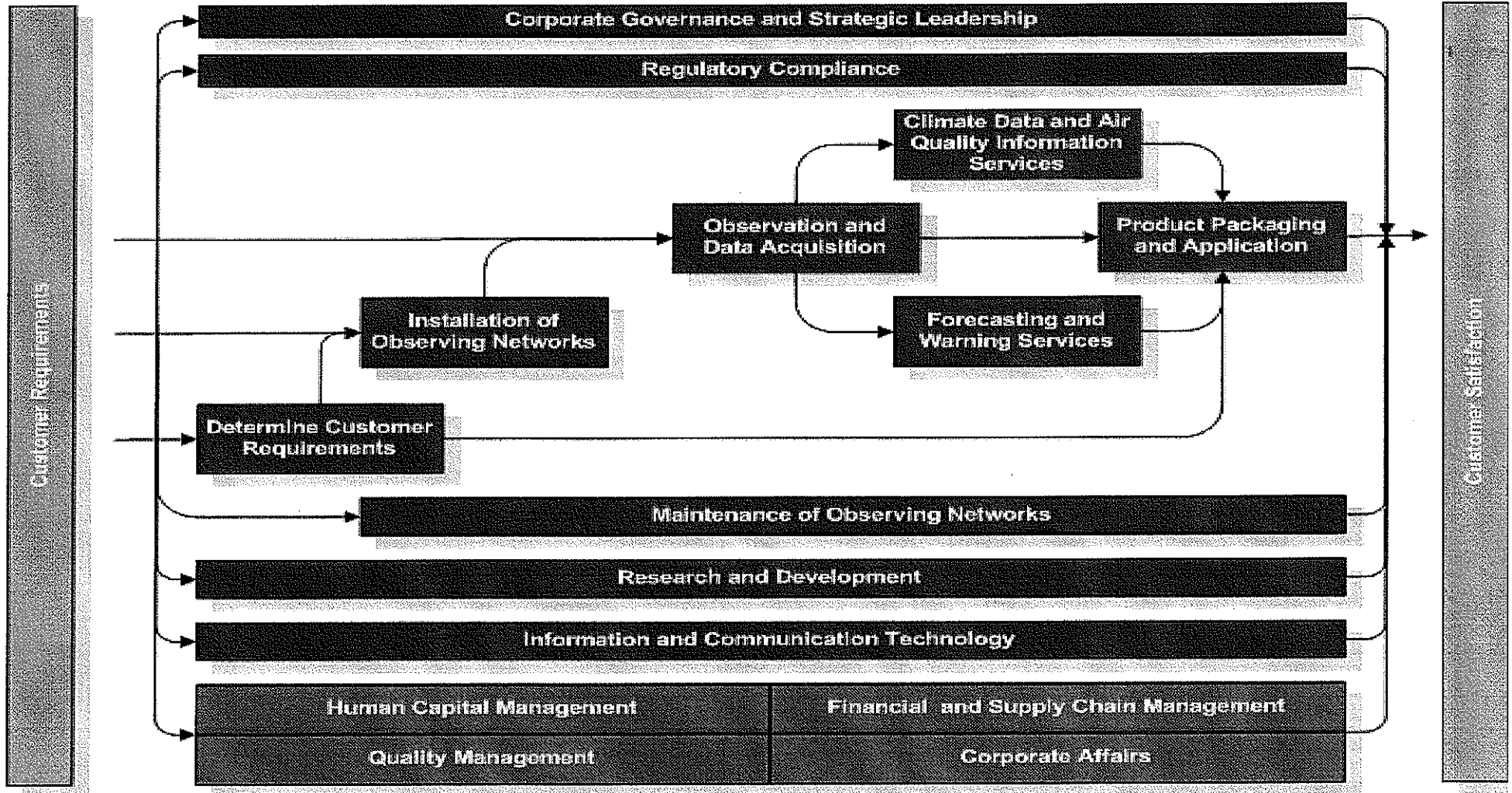
SAWS SAWS OBLIGATIONS



● International:

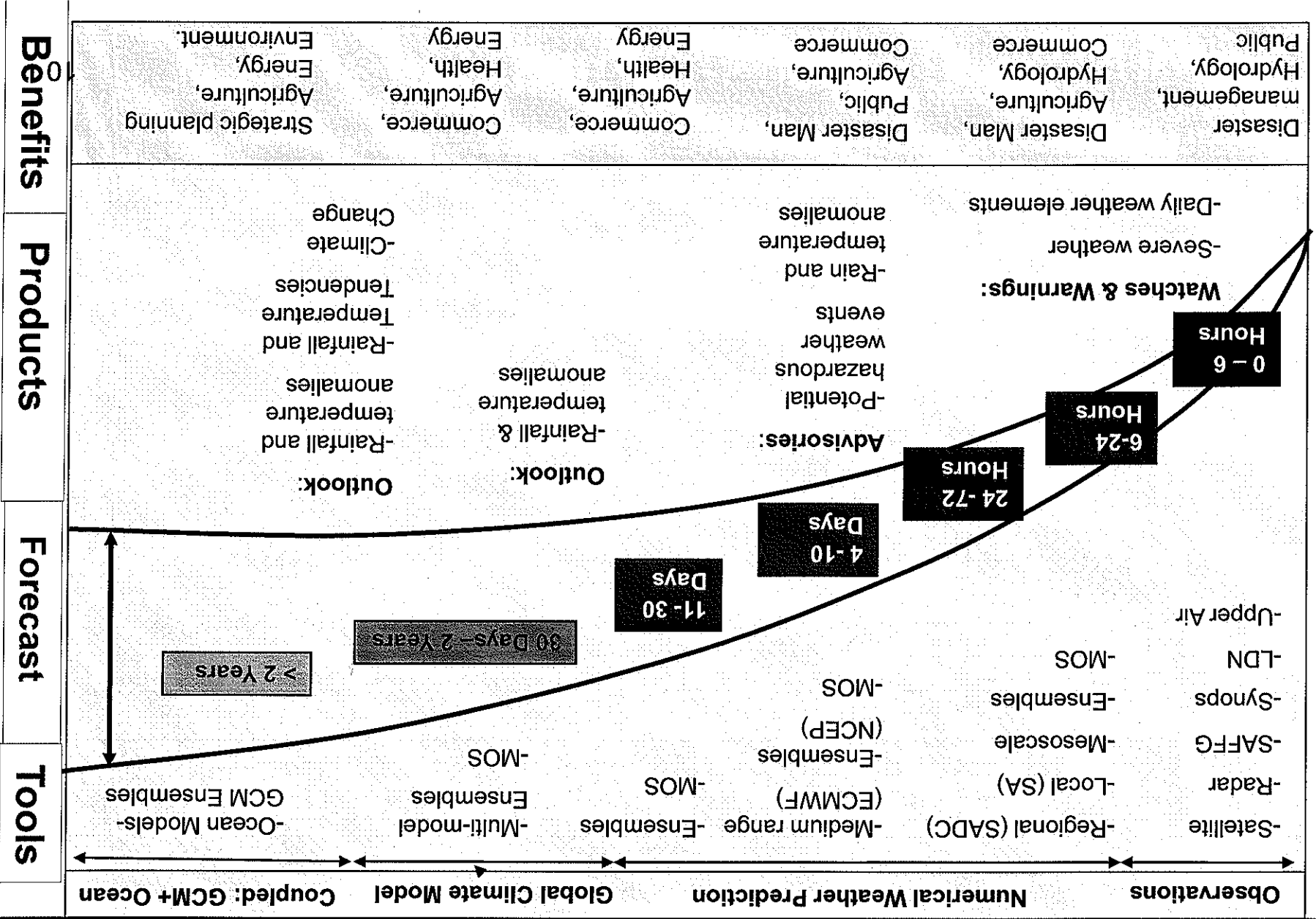
- Regional Telecommunications Hub – Telecomms hub
- Regional Training Centre – WMO Accredited training centre
- RSMC – Specialised early warning programmes
- Global Producing Centre for Long-Range Forecasts
- EUMETSAT COE – Satellite Meteorology capacity building
- International Civil Aviation Organisation (ICAO)

SAWS Organisational Overview



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SAWS KEY VALUE ADD ACTIVITIES



EMPLOYMENT EQUITY STATISTICS

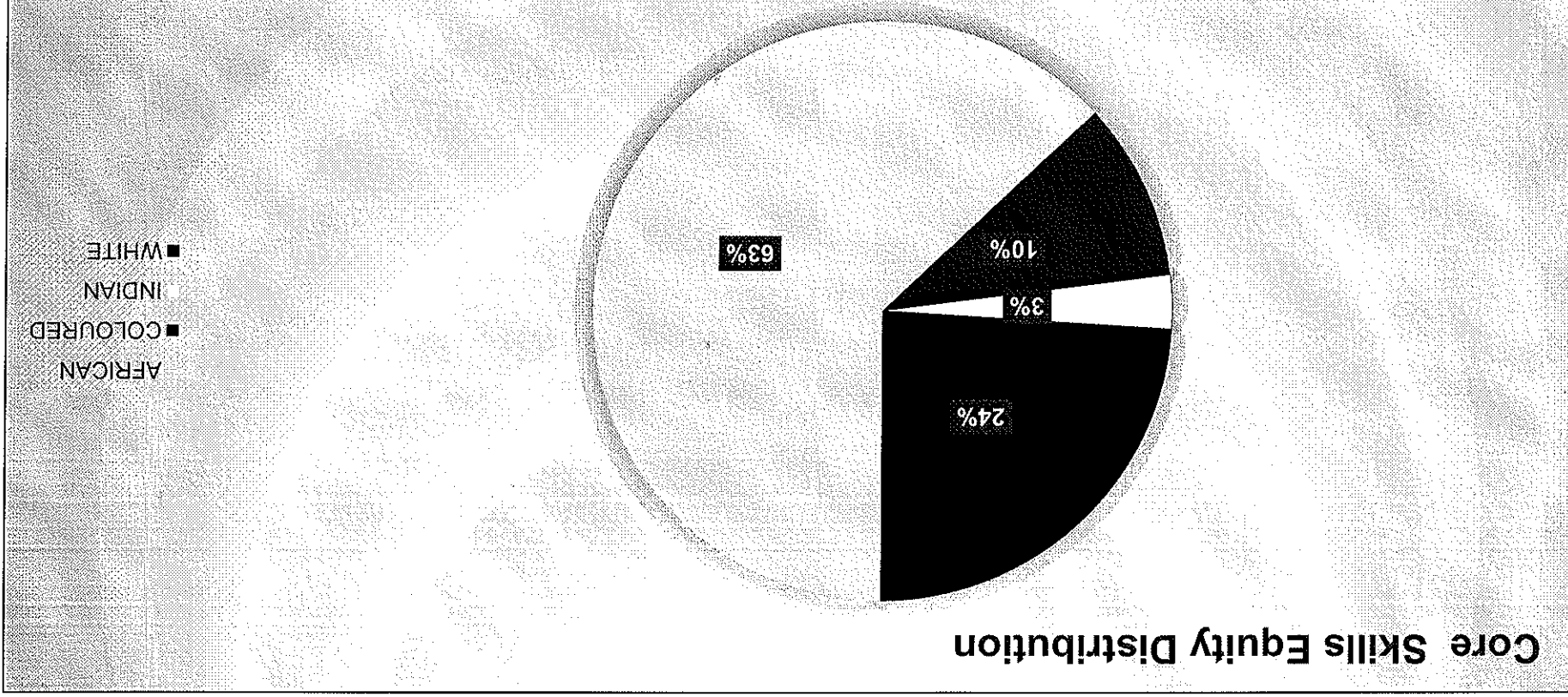
388 EMPLOYEES

Equity Distribution



CORE SKILLS EQUITY DISTRIBUTION

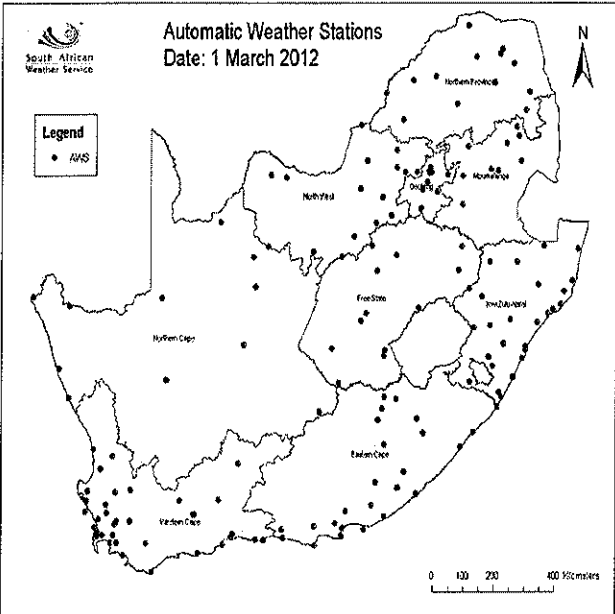
291 EMPLOYEES



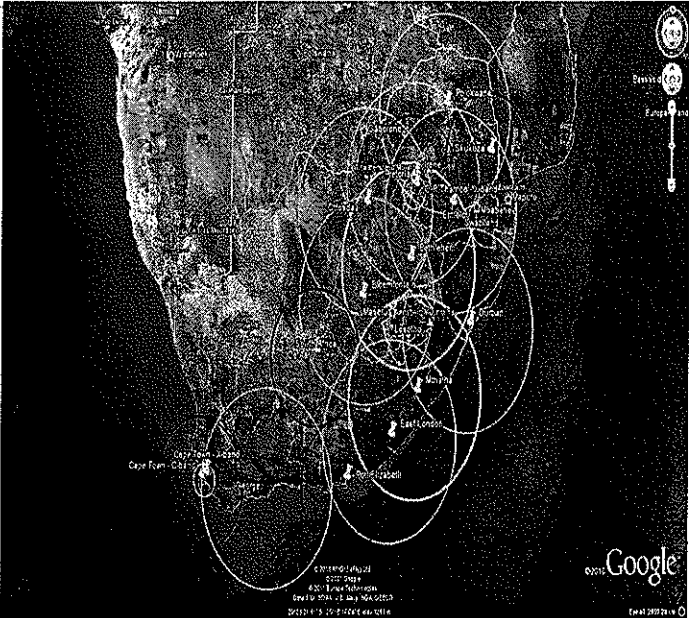
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SAWS Infrastructure

Automatic Weather Stations



Radar Network



Lightning Detection Network



OVERVIEW OF SUCCESSSES

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OVERVIEW OF SUCCESSES

Key achievements of the organisation are as follows.

Externally focused initiatives include:

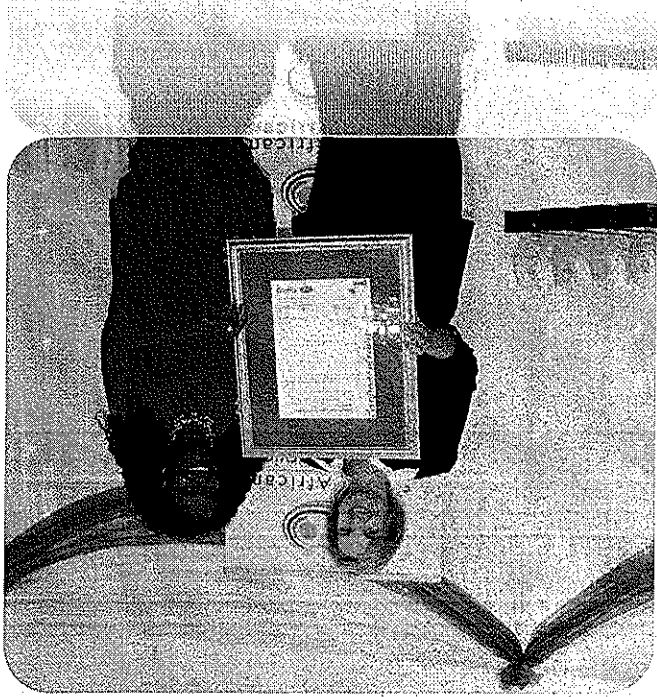
- The development and implementation of various forecasting products aimed at ensuring a weather ready society and economy.
- Leadership role in different international Meteorological fora.
- SAWS identified by ICAO as a key strategic partner for aviation safety in the SADC region through contribution to MASA

OVERVIEW OF SUCCESSSES

Internally focused improvements that will ensure the sustainability of the organisation include:

- Development of Governance Framework and Charter to enhance ICT governance

- Implementation of the attraction and Retention Programme



- Retention of ISO 9001 certification and adherence to good governance - unqualified audit reports

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OVERVIEW OF SUCCESSES 2013/14

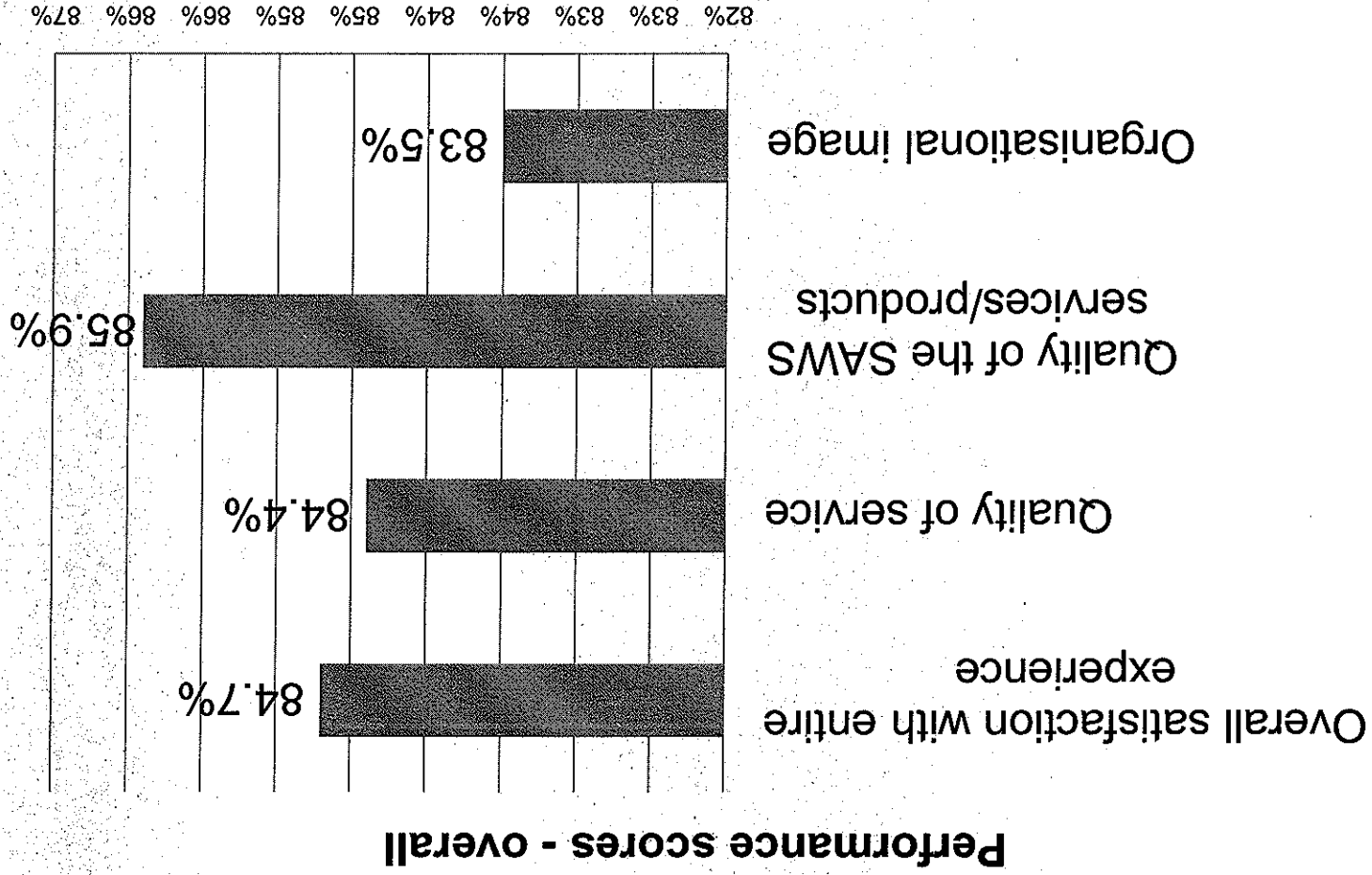
Achievements vs. Target

45 targets

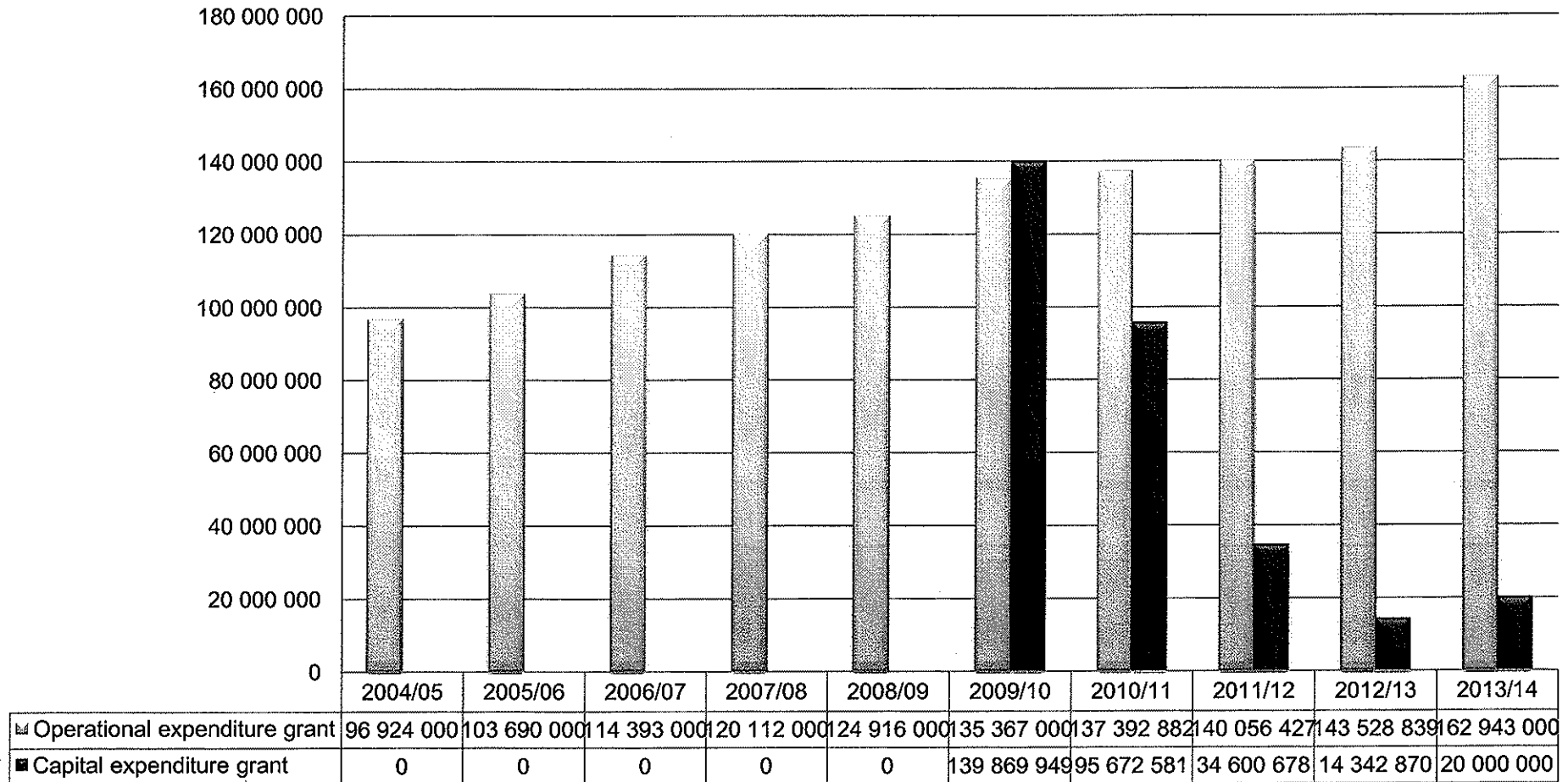
- 36 Achieved
- 9 Not Achieved

80% achieved of the targets
(Unaudited)

Stakeholder Perceptions of Performance



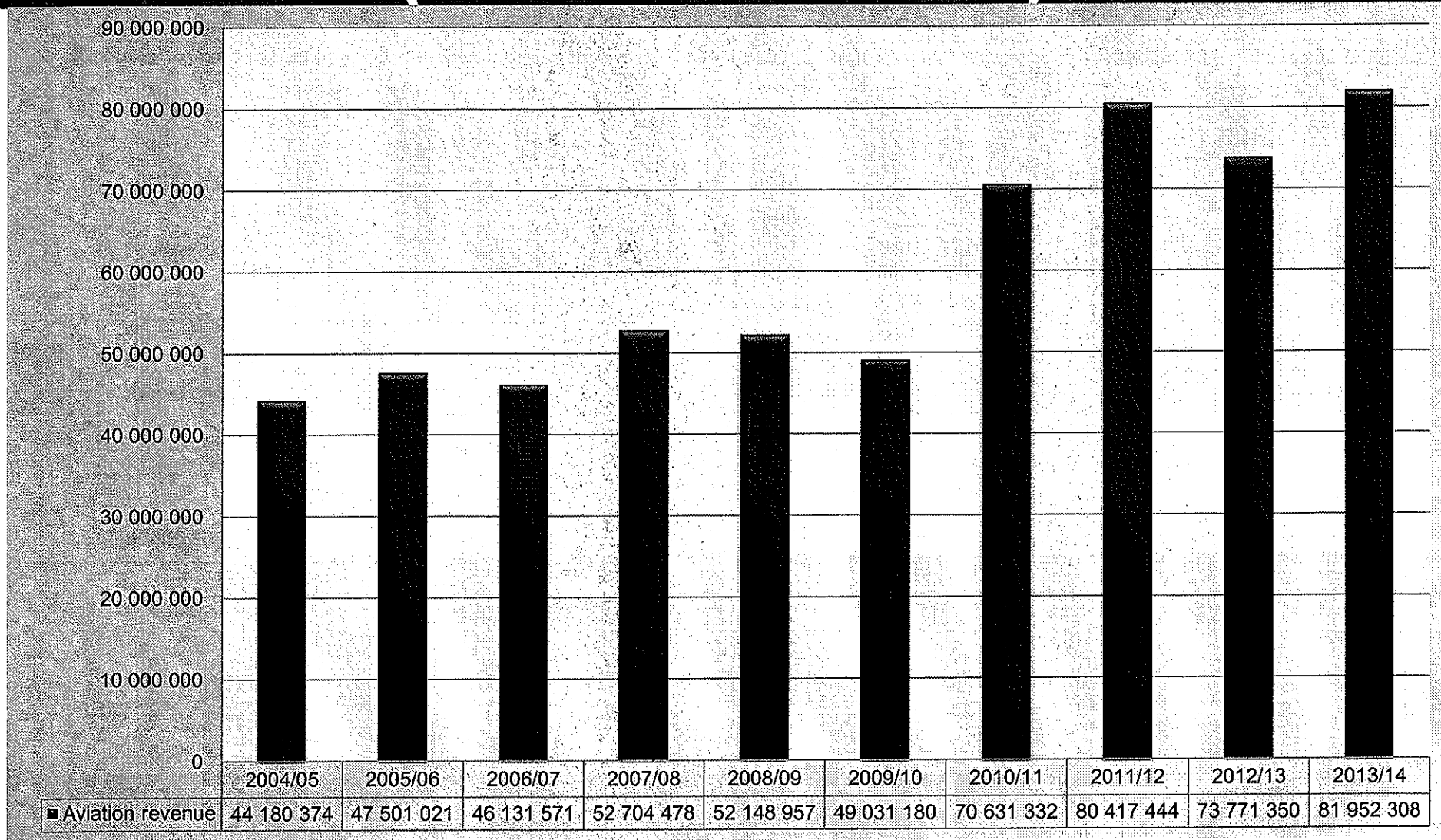
Government Grant Revenue Analysis



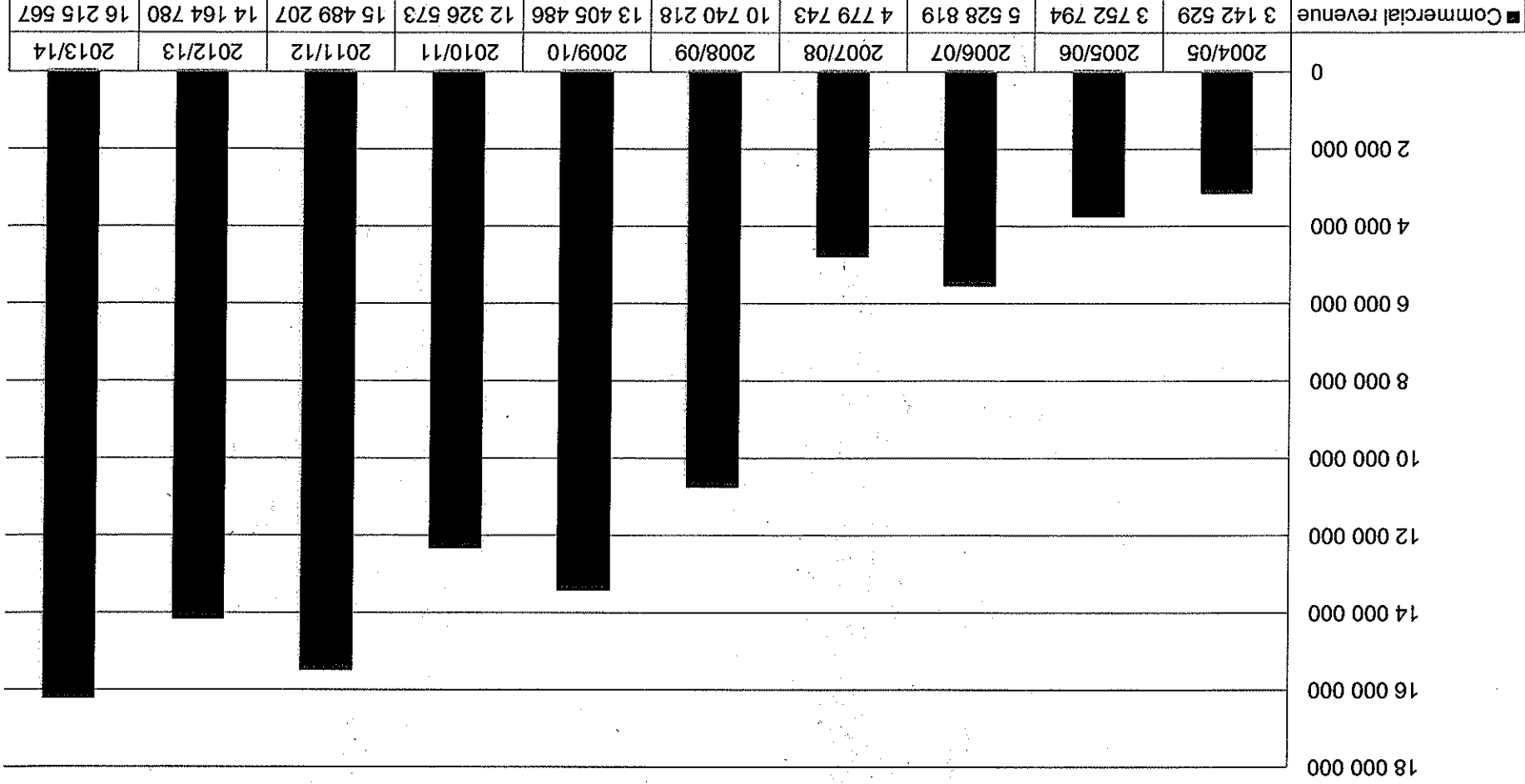
Operational Grant Trend over last 5 years

Operational Grant excluding SAQIS over last 5 years	2014/15	2013/14	2012/13	2011/12	2010/11
MTEF Proposed Budget	158 229 000	149 490 000	154 671 000	142 469 000	135 915 000
MTEF Approved Budget	138 229 000	149 490 000	138 318 000	126 024 000	135 915 000
Reduction in Proposed Budget	20 000 000	-	16 353 000	16 445 000	-
% Decrease in Proposed Budget	13%	0%	11%	12%	0%
% Increase/(Decrease) in Approved Budget (year-on-year)	-8%	8%	10%	-7%	4%

Regulated Commercial Revenue – (Aviation Revenue)

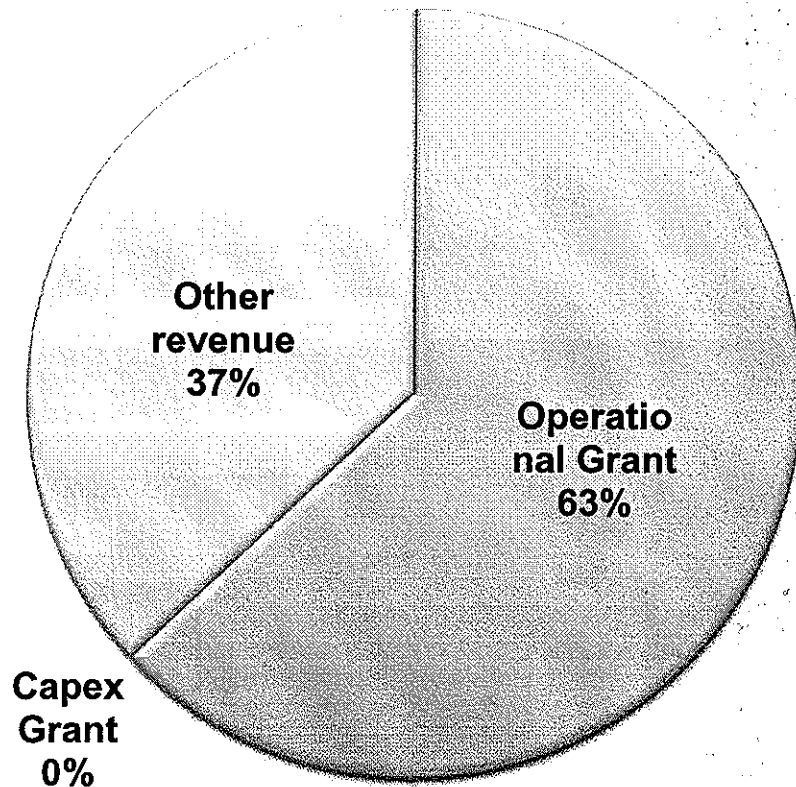


Non-regulated Commercial Revenue

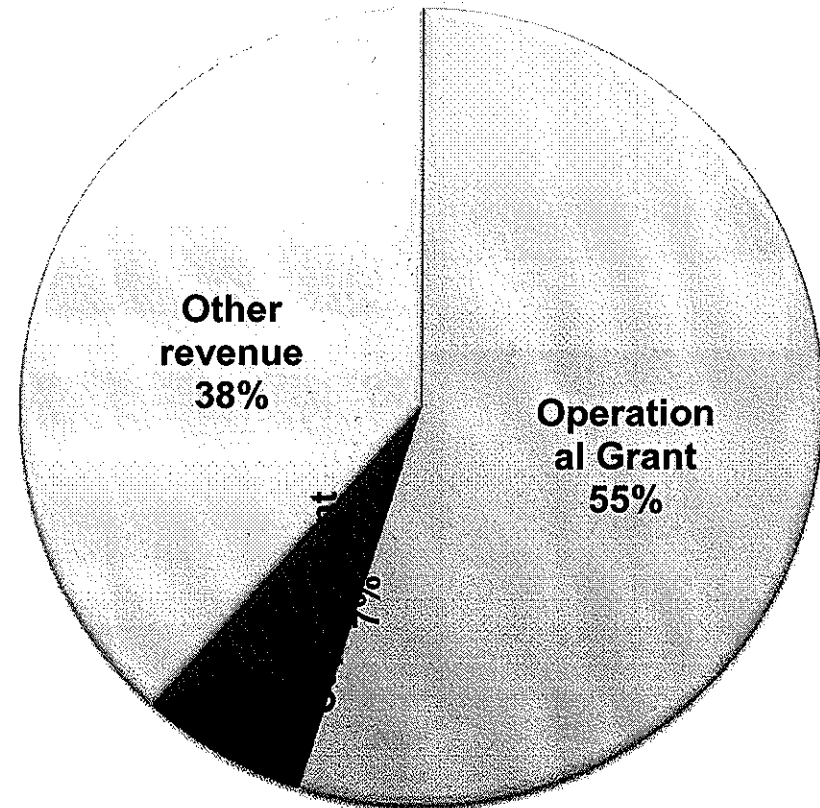


Operational Grant versus Total Revenue

2004/05

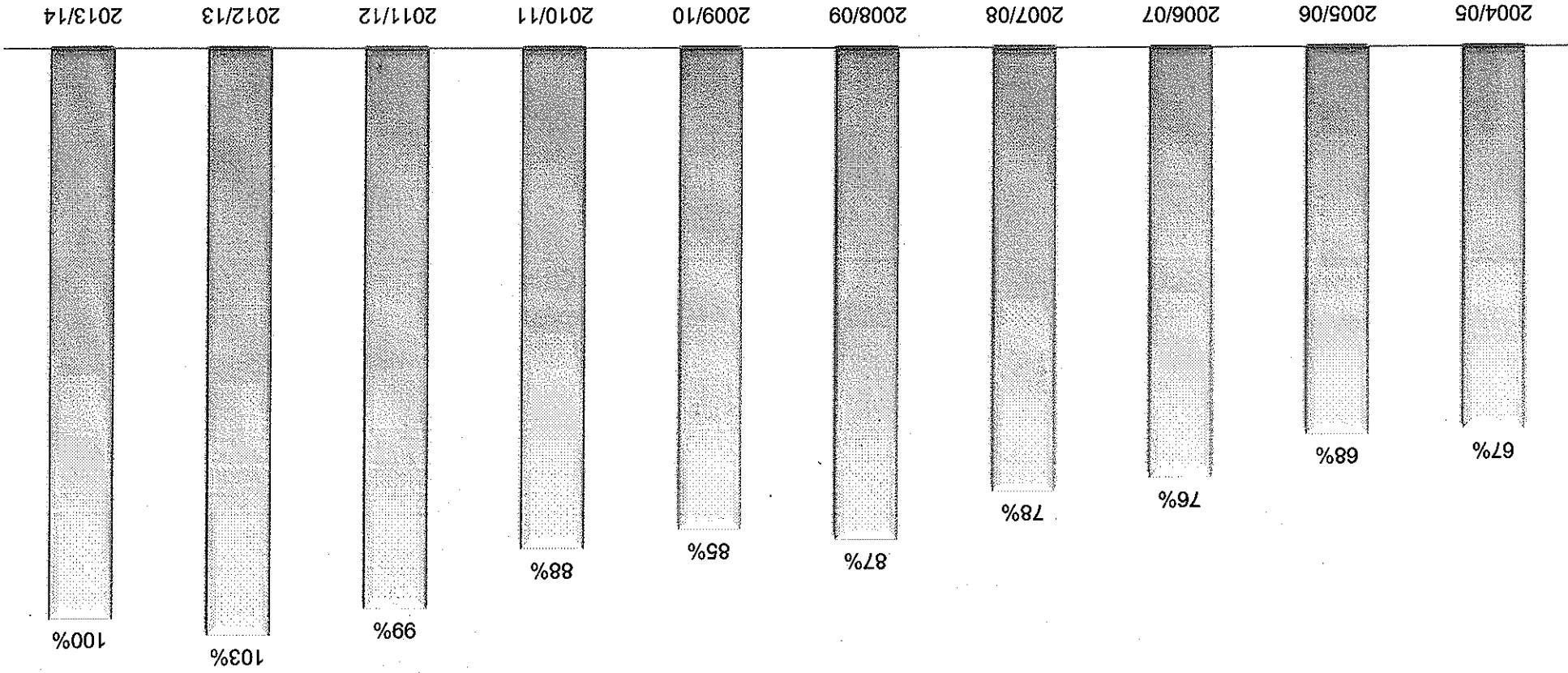


2013/14

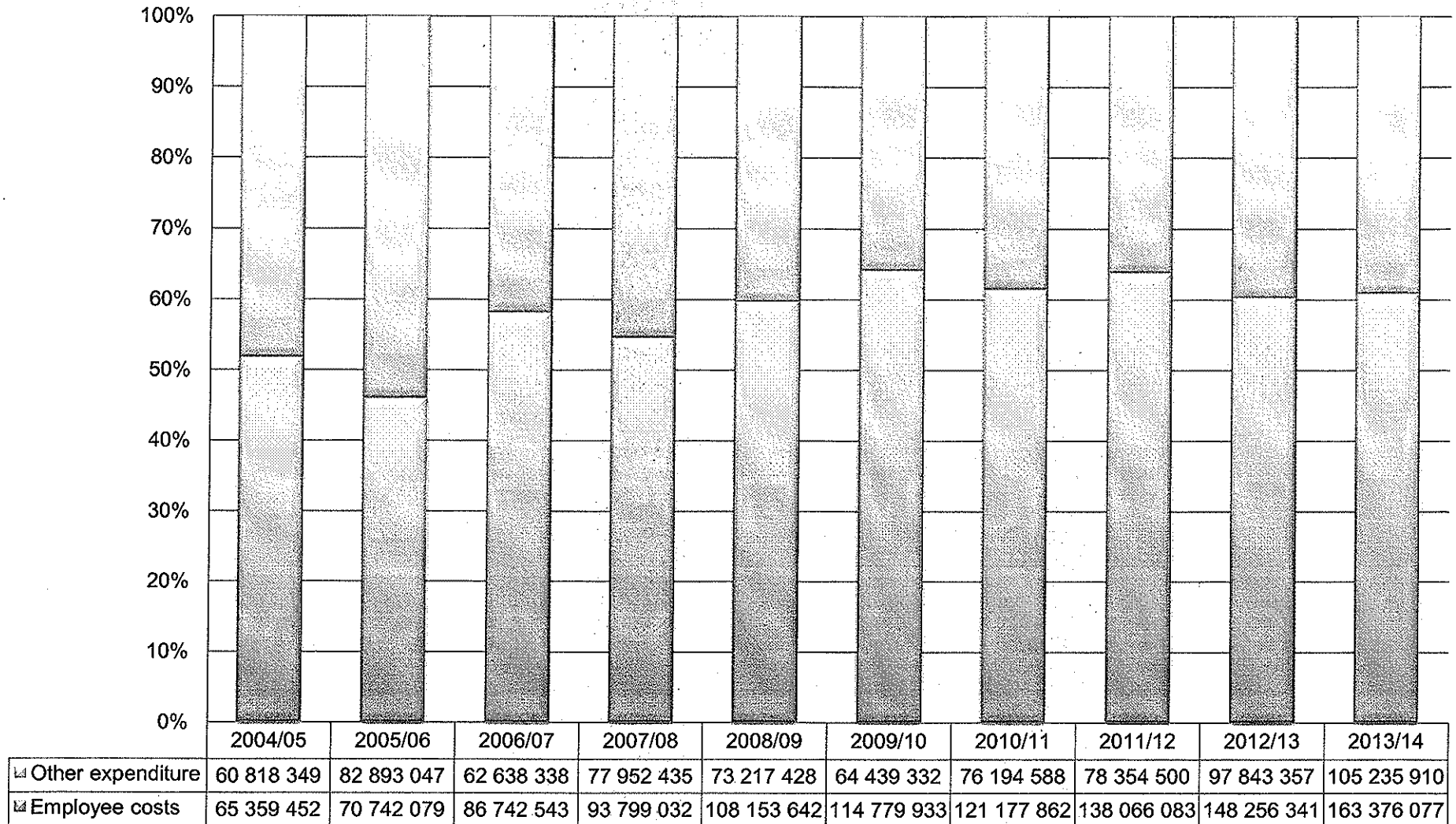


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Employee Costs as % of Operational Grant



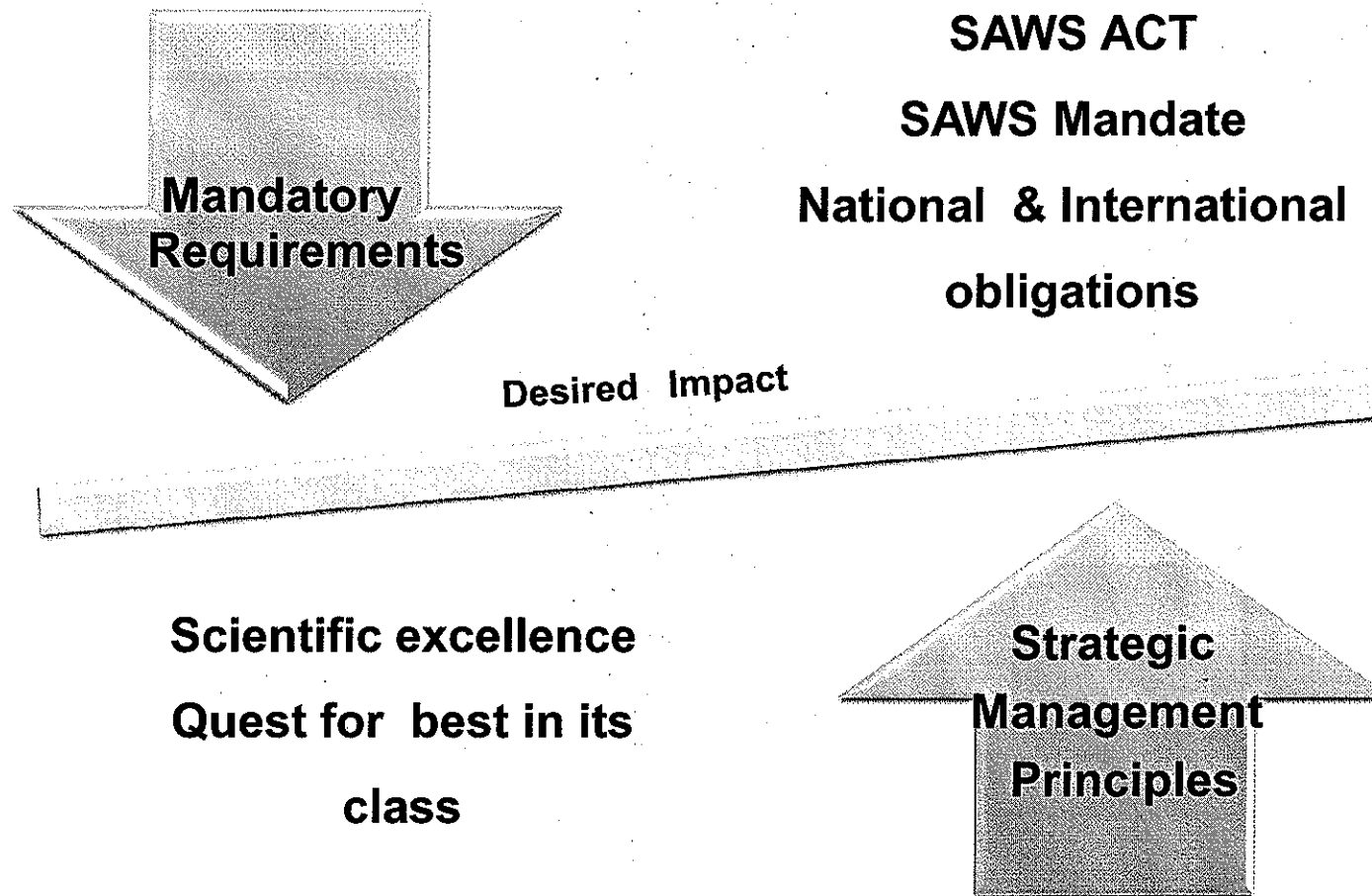
Employee Costs as % of Total Cost



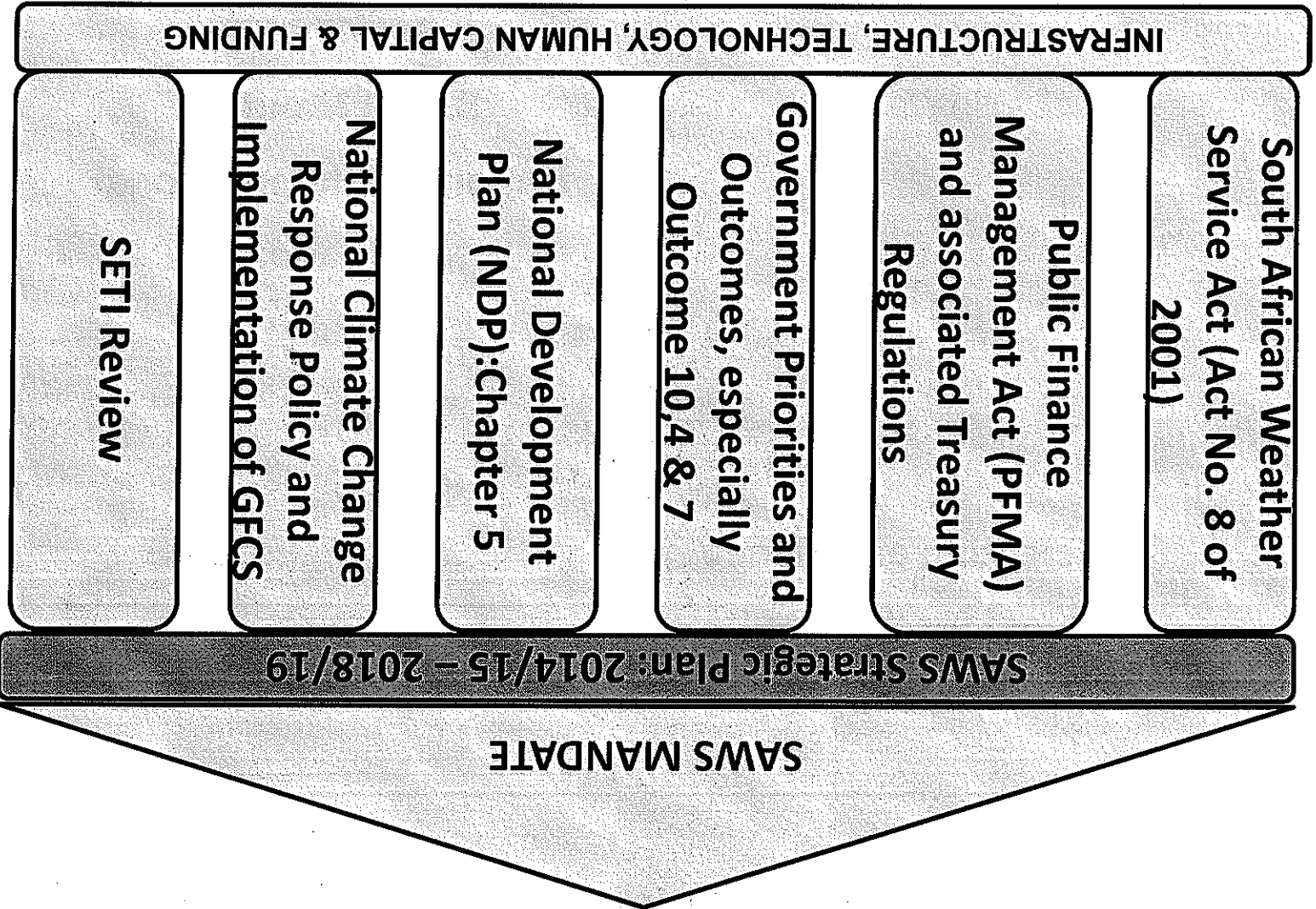
SAWS STRATEGY 2014/15-18/19

KEY Strategic Goals and Objectives

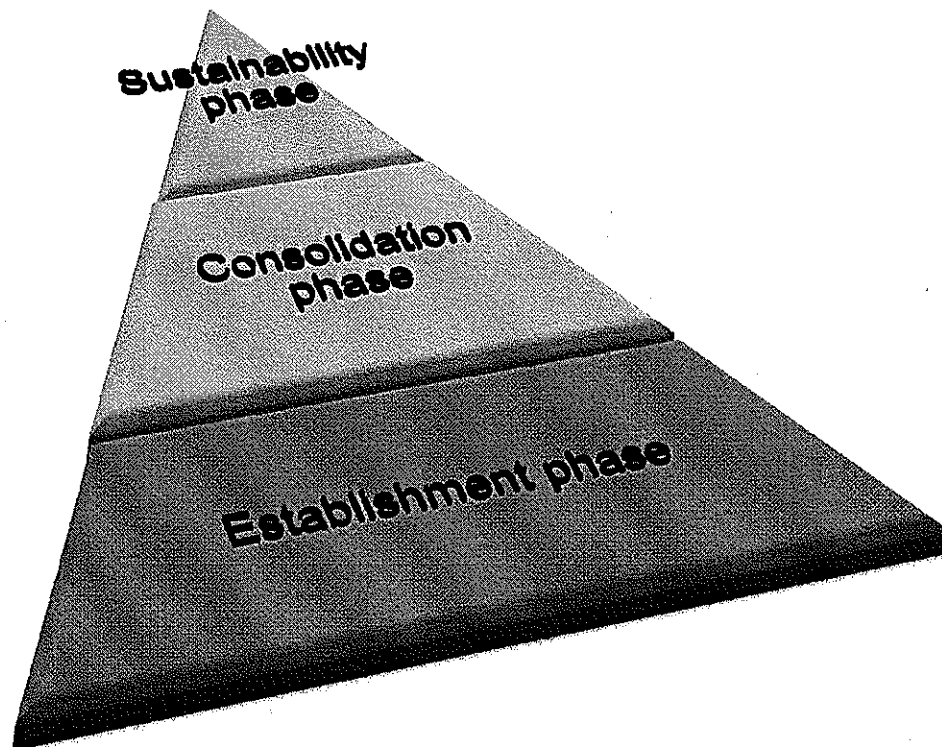
SAWS STRATEGIC APPROACH



SAWS ROADMAP



SAWS ROADMAP



Sustainability – focus of strategy

- **Resource mobilisation**
- **Strategic partnering/collaboration**
- **Positioning of SAWS**
- **Relevant projects**

KEY STRATEGIC GOALS & OBJECTIVES

STRATEGIC OBJECTIVES	STRATEGIC GOALS
<p>1.1. Maintain compliance with all statutory requirements</p> <p>1.2. Improve programmes and applications for weather and climate variability, climate change adaptation and mitigation</p> <p>1.3. Develop products and services</p>	<p>1. To ensure the continued relevance of the organisation in delivering meteorological and related products and services</p>

KEY STRATEGIC GOALS & OBJECTIVES

STRATEGIC GOALS	STRATEGIC OBJECTIVES
2. To ensure the effective management of stakeholder, partner and key client relations	2.1. Maintain stakeholder relationships 2.2. Increase partnerships and collaborations

KEY STRATEGIC GOALS & OBJECTIVES

STRATEGIC GOALS	STRATEGIC OBJECTIVES
<p>3. To address the short-term viability and long-term sustainability of SAWS revenue and ensure continued fiscal discipline</p>	<p>3.1. Grow public good revenue 3.2. Grow aviation revenue 3.3. Grow commercial revenue</p>

KEY STRATEGIC GOALS & OBJECTIVES

STRATEGIC GOALS	STRATEGIC OBJECTIVES
4. To ensure continuous organisational effectiveness and efficiency	4.1. Provide and enhance optimal observation network, processing and dissemination platforms 4.2. Retain and Maintain the Total Quality Management System

KEY STRATEGIC GOALS & OBJECTIVES

STRATEGIC GOALS	STRATEGIC OBJECTIVES
<p>5. To create a strategy - driven human capital capacity for SAWS performance</p>	<p>5.1. Ensure the availability of strategy-driven human capital capacity</p> <p>5.2. Build a talent pool for atmospheric science and related services</p>

KEY PROGRAMMES

Climate Change and Variability

Commercialisation and Resource Mobilisations

Infrastructure Recapitalisation

Business Optimisation and Re-alignment

Human Capital Development

CLIMATE CHANGE AND VARIABILITY PROGRAMME

Severe Weather Early Warning System

- Through this programme, SAWS is able to alert Disaster Managers and Public to minimize impact
- Recent example: March 2014 floods (Limpopo pictures below)

Impact (Pictorial evidence)



CLIMATE CHANGE AND VARIABILITY

PRIORITY AREA: Climate change impacts effective management

MTSF (2019)	SAWS INPUT (2019)
Adaptation plans developed for 6 key sectors	<ul style="list-style-type: none"> • Implementation of the Research and development strategy
	<ul style="list-style-type: none"> • Establishment of hydrometeorology and Agro-meteorology capabilities • Development of 8 Product/Service Applications and Systems • Develop, operate and manage SAAQIS/NAAQMN
	<ul style="list-style-type: none"> • Severe Weather Warning System maintenance and enhancement. <ul style="list-style-type: none"> • Early Warning System • Severe Weather Forecasting guidance products SADC • South African Flash Flood Guidance system • Southern African Regional Flash Flood Guidance system

CLIMATE CHANGE AND VARIABILITY

PRIORITY AREA: A fair contribution to the global effort to stabilize GHG concentrations in the atmosphere facilitated

MISF (2019)

SAWS INPUT (2019)

Development and implementation of sector adaptation strategies/plans

- Conduct Research to improve climate change modelling techniques as well as climate change impacts on severe weather patterns
- Research Project on Climate Change impacts on drought and flood hazards in South Africa for planning and decision making completed
- Research Project on the implications of changes in soil moisture – climate interactions on droughts, heat waves and desertification in the SADC region completed
- Research Project on the impacts of the 2°C global warming target over the SADC region completed
- Continuous monitoring of trace gas and green house gas species conducted
- Solar resource monitoring stations established

CLIMATE CHANGE AND VARIABILITY

PRIORITY AREA: A fair contribution to the global effort to stabilize GHG concentrations in the atmosphere facilitated

MTSF (2019)	SAWS INPUT (2019)
Establish a national framework for climate services (SAWS)	<ul style="list-style-type: none"> • National Framework for Climate Services (NFCS) developed and implemented in line with the National Climate Change Response Policy and the GFCS Roadmap. • Observations and Monitoring • Climate Services information System • Research, Modeling and Prediction • Capacity Development
Framework for reporting on Green House Emissions by industry developed and reports provided	<p>A fully functional SAAQIS/NAAQMN GAW Station Monitoring of GHG</p>

CLIMATE CHANGE AND VARIABILITY

PRIORITY AREA: Cleaner and healthy air

MTSF (2019)

SAWS INPUT (2019)

<p>% compliance with National Annual Ambient Air Quality Standards (National Air Quality Indicator – NAQI less than 1)</p>	<p>100% facilities with Atmospheric Emission Licences reporting to the National Atmospheric Emissions Inventory System (NAEIS)</p>	<p>Continuous collection and storage of ambient air quality data on SAAQIS as well as maintenance of the database</p>
<p>% compliance with National Annual Ambient Air Quality Standards (National Air Quality Indicator – NAQI less than 1)</p>	<p>There are currently 98 ambient air quality monitoring stations reporting to SAAQIS. Continued operation of Vaal, Highveld and Waterberg priority area monitoring networks by SAWS and data reported to SAAQIS 80% data recovery for all stations operated by SAWS.</p>	<p>Hosting of SAAQIS NAEIS will be within the SAAQIS</p>
<p>Monthly air quality monitoring reports compiled and submitted to DEA.</p>	<p></p>	<p></p>

INFRASTRUCTURE RECAPITALISATION PROGRAMME

- Automation of observation infrastructure

- Optimal observation network

- Preventative Maintenance Plan

- Attainment of 80% availability of information from key observation infrastructure, e.g. Radars, SAAQIS
- Planned maintenance of infrastructure (e.g. AWS, ARS, CRS, LDN etc.) done as per schedules

- Implementation of MSP

ICT is core in supporting AWS business for both national and international operations

- High Performance Computing (HPC)

-Higher Model resolution

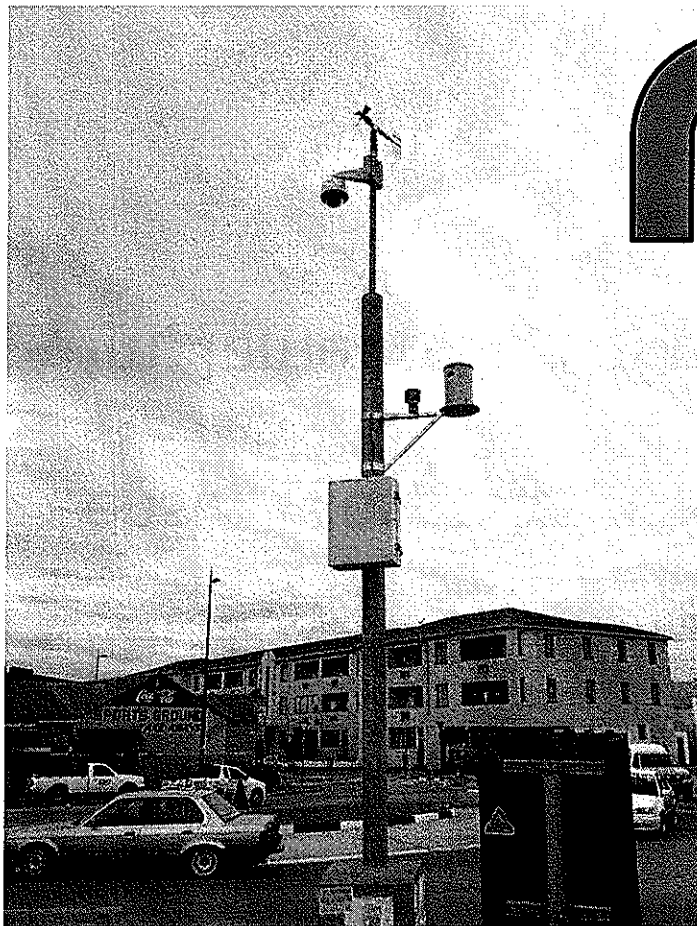
-More accurate Weather Forecast

-Enhanced applications (for Climate Change impact-adaptation)

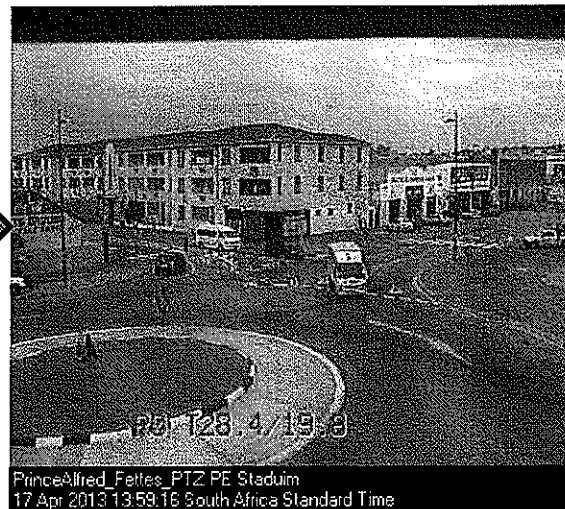
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APPLICATION-HYBRID CCTV/AWS

**Nelson Mandela Municipality
AWS and pan tilt camera**



Fettes Street – close to PE Stadium



Port of Ngqura



BUSINESS OPTIMISATION & RE-ALIGNMENT

- Maintenance of TQM System
- Improvement and optimisation of business processes to ensure cost effectiveness
- Implementation of the BCP

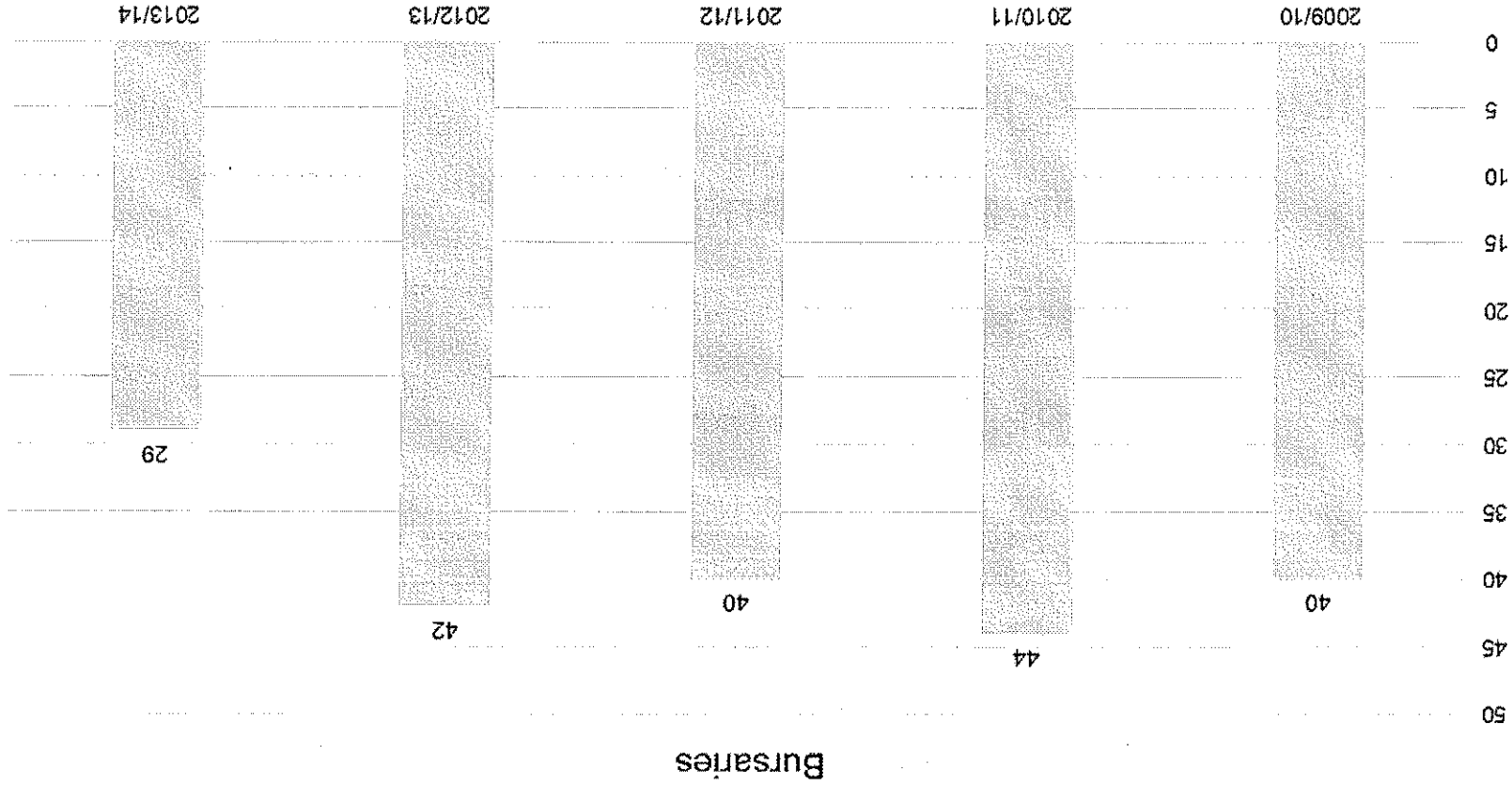
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HUMAN CAPITAL DEVELOPMENT PROGRAM

- SAWS Human Capital Management Strategy:
 - Talent Management
 - Attraction and Retention
 - Dual Career Path
 - Critical Skills Transfer
 - Bursary scheme
 - Leadership Development program
 - Structured Closer Collaboration with Academic Institutions

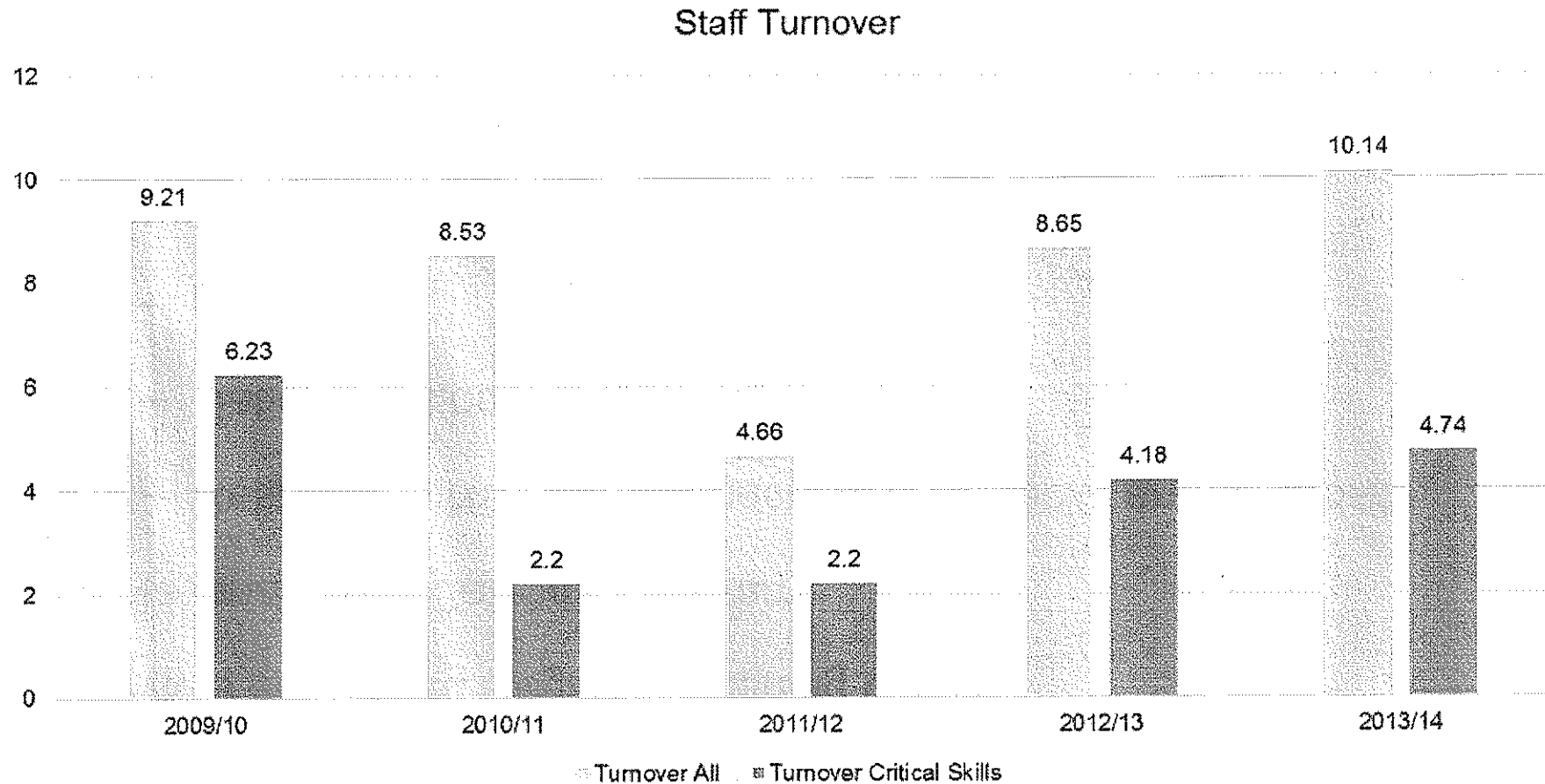
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Critical Skills Development Program: (Absorption Rate average 62%)



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Talent Management : Staff Turnover



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HUMAN CAPITAL DEVELOPMENT PROGRAM

- WMO accredited Regional Training Centre
- National Skills Catalytic Program
- Respond to NDP – build necessary capacity and capability.
- National & Local Government
- Skills:
 - Hydro meteorology
 - Agro meteorology
 - Air quality

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KEY RESOURCES REQUIRED

Resource Type	Comment
Physical	<ul style="list-style-type: none"> ● Key weather and climate infrastructure ● Infrastructure Recapitalisation plan and MSP need funding
Human	<ul style="list-style-type: none"> ● Well respected scientists ● Human Capacity is required to effect the Research and Development strategy, Agro Hydro feasibility study, MSP as well as the Preventative Maintenance Plan
Technology	<ul style="list-style-type: none"> ● Cutting edge, innovative technology ● Automation of business processes ● Integration of systems
Financial	<ul style="list-style-type: none"> ● Financial and fiscal discipline ● Additional funding required ● Cost structure
Intellectual	<ul style="list-style-type: none"> ● SAWS brand ● Proprietary knowledge ● Strategic alliances and partnerships ● Promote innovation and IP management and IKM

Medium Term Estimates 2014/15 to 2018/19 versus 2013/14

	Budget	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19
	R'000	R'000	R'000	R'000	R'000	R'000	R'000
Revenue							
Government Grant - Operational	157 943	152 489	160 423	189 985	207 238	217 600	
Government Grant - Capital		30 000					
Rollover Funds	24 643	-	-	-	-	-	
Commercial Income	19 000	26 000	36 981	46 892	48 993	51 443	
Aviation Income	86 053	101 800	98 449	103 371	108 540	113 967	
Other income and Donor Funds	6 450	7 000	7 500	7 875	8 269	8 682	
Total Revenue	294 089	317 289	303 353	348 123	373 040	391 692	
Expenses							
Employee Costs	(169 091)	(196 401)	(209 167)	(222 763)	(237 243)	(252 663)	
Administrative and Operating Costs	(104 551)	(90 888)	(94 186)	(125 360)	(135 797)	(139 029)	
Total Expenditure	(273 642)	(287 289)	(303 353)	(348 123)	(373 040)	(391 692)	
Operating Surplus Before Depreciation and Amortisation	20 447	30 000	-	-	-	-	
Depreciation and Amortisation	(24 343)	(28 743)	(28 116)	(30 250)	(32 147)	(34 380)	
Operating Surplus / (Loss) Before Fair Value Adjustment	(3 896)	1 257	(28 116)	(30 250)	(32 147)	(34 380)	
Post Retirement: Medical Aid	(3 240)	-	-	-	-	-	
Fair Value Adjustments	7 136	-	-	-	-	-	
Surplus / (Deficit) for the year	-	1 257	(28 116)	(30 250)	(32 147)	(34 380)	

Medium Term Estimates

CONCLUSION

- **Critical Success Factors**
 - Funding for the following:
 - Infrastructure life-cycle management
 - Master System Plan implementation
 - Human Capital Requirements
 - Closer relationship with the Aviation Industry and the Regulator
 - Effective implementation of the Commercialisation and Resource Mobilisation Programme

Key Considerations for the future

- Alignment of projects to National Development Plan and South African National Infrastructure Plan
- Financial model
- Positioning of organisation
- Collaborations

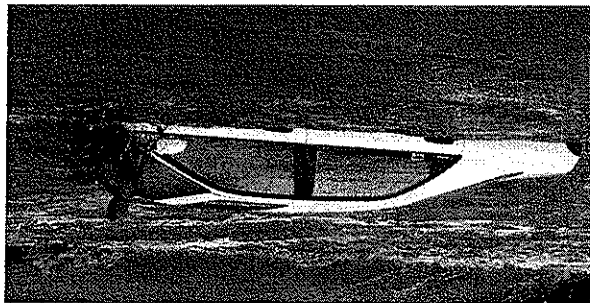
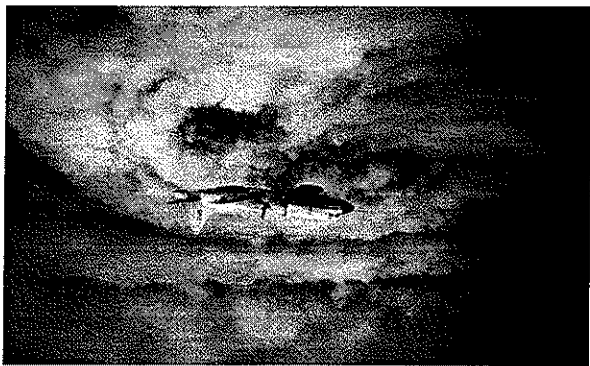
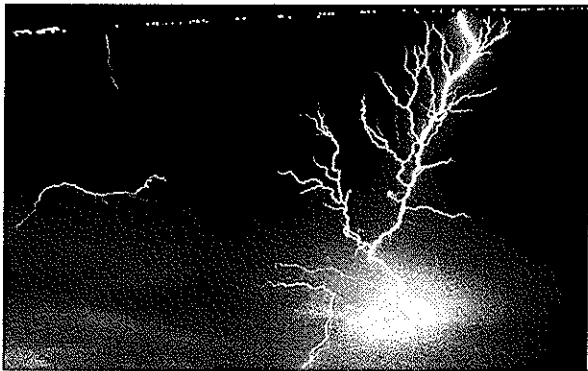
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CONCLUSION



- SAWS continued commitment to organisational performance excellence
- Increased capability and maturity levels
- Key challenges and identified critical success factors essential to SAWS' success
- SAWS Board and personnel would like to welcome the new PPC on Environmental Affairs

I thank you



Discussion?