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BETTER TOGETHER.

State of Environment Outlook Report for the Western Cape Province

Introduction

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ABBREVIATIONS AND ACRONYMS

ARV	Anti-Retro Viral
CCT	City of Cape Town
CKDM	Central Karoo District Municipality
CS	Community Survey
CWDM	Cape Winelands District Municipality
DEA	Department of Environmental Affairs
DEA&DP	Department of Environmental Affairs and Development Planning
DPSIR	Driver-Pressure-State-Impact-Response
DSD	Western Cape Department of Social Development
EDM	Eden District Municipality
EEA	European Environment Agency
GDP	Gross Domestic Product
GDPR	Gross Domestic Product Per Region
gha	Global hectares
GHG	Greenhouse Gas
HDI	Human Development Index
IPWIS	Integrated Pollutant and Waste Information System
IDP	Integrated Development Plan
IDZ	Industrial Development Zone
NCDs	Non-Communicable Diseases
NDP	National Development Plan
NEMA	National Environmental Management Act 107 of 1998
NPC	National Planning Commission
NSSD	National Strategy for Sustainable Development
ODM	Overberg District Municipality
OECD	Organisation for economic Coordination and development
PERO	Provincial Economic Review and Outlook
PSDF	Provincial Spatial Development Framework
SADC	Southern African Development Community
SDG	Sustainable Development Goals
SoEOR	State of Environment Outlook Report
StatsSA	Statistics South Africa
UNEP	United Nations Environment Programme
WCDM	West Coast District Municipality
WCG	Western Cape Government

GLOSSARY

Agulhas Current	The southward flowing ocean current that is formed by the confluence of the warm Mozambique and East Madagascar Currents.
Benguela Current	The broad, northward flowing ocean current that forms the eastern portion of the South Atlantic Ocean.
Broad unemployment	The proportion of the work force that is unemployed but is willing and able to work and actively seeking employment.
GDPR	A subnational gross domestic product for measuring the size of a region's economy.
Gini-coefficient	A measure of inequality. It is normally used to measure income inequality, but can be used to measure any form of uneven distribution. The Gini-coefficient is a number between 0 and 1, where 0 corresponds with perfect equality (e.g. where everyone has the same income) and 1 corresponds with perfect inequality (where one person has all the income, and everyone else has zero income).
Metropolitan Municipality	A municipality which executes all the functions of local government for a city. This is in contrast to areas which are primarily rural, where the local government is divided into district municipalities and local municipalities.
Narrow unemployment	The proportion of the work force who are unemployed and available to work but have not taken active steps to look for work (discouraged workseekers).

1 INTRODUCTION

1.1 Introduction

The Western Cape State of Environment Outlook Report (SoEOR) 2018 is the third comprehensive report on environmental trends in the province. The first report, the Western Cape State of Environment Report – Year One baseline report was published in 2005, reporting on fourteen themes related to natural, social and economic aspects of sustainable development.

The second report, the Western Cape State of Environment Outlook Report 2013, took account of ongoing refinements to environment and sustainability reporting protocols, and the need to standardise State of Environment (and other similar) reports and align reporting structure with the National Environmental Outlook Report. The themes were consolidated and reduced to nine, largely scaling down socio-economic reporting in the SoEOR, so as to avoid duplication of more focused social and economic reporting in the province. Changes in, and trends relating to the nine key environmental themes were reported against data presented in the 2013, and where possible 2005 SoEORs.

The Western Cape SoEOR 2018 (this document) retains the nine themes included in the SoEOR 2013, and further refines reporting. For the review period 2014 – 2017, specific emerging trends have been identified and are now described[1].

The nine themes, each comprising an individual chapter of the report, are as follows:

- Land;
- Biodiversity and Ecosystem Health;
- Inland Water;
- Oceans and Coasts;
- Human Settlements;
- Air Quality;
- Climate Change;
- Energy; and
- Waste Management.

State of Environment reporting provides an update on the province's environmental conditions between 2014 and 2017 and records the efforts made to respond to environmental change. The response is an opportunity to influence and guide policy development and decision making in the Western Cape. Stakeholders and citizens are provided with an ongoing analysis of trends within the province, and an indication of the successes or failures of efforts to transition towards a more sustainable and resilient environment.

1.2 The Western Cape

The Western Cape lies on the southern tip of Africa and represents 10.6% of South Africa's total land area, encompassing 129 462km². The Western Cape stretches from beyond Strandfontein on the West Coast, around the Cape Peninsula and Cape Point, to Nature's Valley along the Garden Route on the South Coast.

[1] Noting that there are numerous studies containing relevant information which were ongoing at the time of compiling this report, the information includes in the 2018 version of the SoEOR is based on information available as at 31 October 2017.

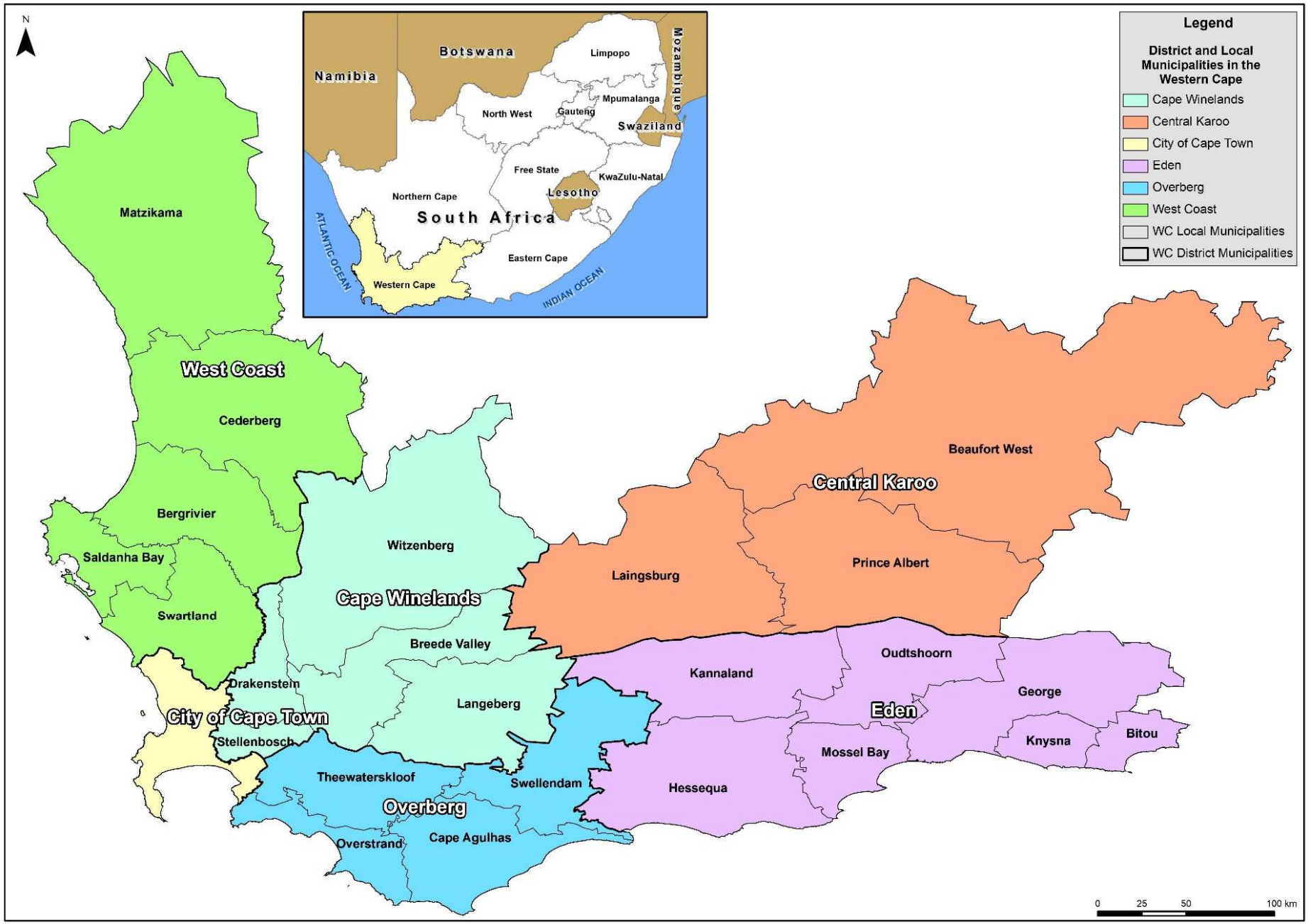


Figure 1-1: The Western Cape

The Western Cape Province comprises one Metropolitan Municipality - the City of Cape Town (CCT) - and five district municipalities namely West Coast, Cape Winelands, Overberg, Eden[2] and Central Karoo. The District Municipalities, comprising 24 Local Municipalities are depicted in Figure 1-1. Municipal profiles for the CCT and each of the district municipalities are presented in Annexure A.

The Western Cape has an estimated population of 6.51 million, accounting for just over 11% of South Africa's population (StatsSA, 2017). The Western Cape's growing population is largely attributable to in-migration from other provinces and immigration.

Socio-economic conditions in the Western Cape are considered to be marginally better than in other provinces, as is evidenced by the rate of in-migration from other provinces, and the self-perceptions reported by residents of the Western Cape in the 2016 StatsSA Community Survey (StatsSA CS, 2016). Especially notable is the performance in terms of basic service delivery and the relatively higher levels of education and lower levels of unemployment compared to other provinces.

The Western Cape is a major agricultural export area, the centre for the fisheries industry and the most valuable tourist destination in South Africa, and contributes approximately 14% to South Africa's GDP. Cape Town remains the economic hub of the province, contributing approximately 72% to the total provincial economy (WCG, 2017a). A more detailed Western Cape provincial profile is provided in Annexure A.

1.3 Strategic vision for the Western Cape

OneCape 2040 is the longer-term vision adopted by the Western Cape Government and other key institutions in the province in 2013, to stimulate the transition towards a more inclusive and resilient economic future for the Western Cape. OneCape 2040 envisages a "highly-skilled, innovation driven, resource-efficient, connected, high opportunity and collaborative society"; while recognising the challenge of creating "a resilient, inclusive and competitive Western Cape with high rates of employment, growing incomes, greater equality and an improved quality of life for all our citizens and residents that addresses the crisis of joblessness, overcomes our legacy of skills and asset deficits and responds to environmental risk" (OneCape 2040, 2012).

This strategic vision for the Western Cape Province is affirmed by the Provincial Strategic Goals embedded in the Western Cape Provincial Strategic Plan 2014 – 2019 (WCG, 2015a). This plan provides for a unified articulated vision that incorporates both the Provincial objectives and development strategy of the City of Cape Town.

The five strategic goals for the province are as follows:

- Strategic Goal 1: Create opportunities for growth and jobs;
- Strategic Goal 2: Improve education outcomes and opportunities for youth development;
- Strategic Goal 3: increase wellness, safety and tackle social ills;
- Strategic Goal 4: Enable a resilient, sustainable, quality and inclusive living environment;
- Strategic Goal 5: Embed good governance and integrated service delivery through partnerships and spatial alignment.

[2] The Eden District Municipality council resolved in principle to change the name of the district municipality to Garden Route District Municipality, however this has not been formally adopted subject to public and other regulatory processes.

The Provincial Strategic Goals translate the vision for the province into practical policies, strategies, programmes and projects. Strategic Goal 4 represents the province's commitment to improving urban and rural areas through better land management, addressing climate change, and improving living conditions for all. The SoEOR is a key document in the province's commitment to creating a sustainable society.

> *"Maintaining a better quality of life for the citizens of the Western Cape depends on the sustainable use of the Province's natural resources. While some resource conservation and management improvements have been made, the resource base in the province is still under severe pressure. Water, energy, pollution and waste, transport and resource inefficiencies are leading to environmental degradation, poor air quality, loss of biodiversity and agricultural resources which result in deterioration of social and economic conditions, impacting on our ability to sustain a quality of life for the citizens of the Western Cape" (Provincial Strategic Plan: 2014 – 2019).*

The Western Cape SoEOR 2018 plays a critical role in informing the Provincial vision and developmental planning by highlighting key environmental trends, identifying existing State and private sector responses per theme, to guide interventions to encourage environmentally responsible and sustainable growth and development to secure the future of the province.

2 A SUSTAINABLE SOCIETY

As South Africans, we have a rich natural heritage, including an abundance of mineral resources, one of the most unique clusters of biodiversity on the planet, remarkable landscapes, and unrivalled solar power potential. However, current patterns of production and consumption, including environmentally unsustainable urban development models and rampant inequality, have the potential to harm some of our natural riches. We face the challenge of continuing to expand our developing economy in innovative ways that are not merely compatible with the long term health of our natural environment, but that can achieve improved results because of sustainable resource exploitation (DEA, 2016). The National Development Plan (NDP) (NPC, 2012) asserts that: *"The country must now find a way to use its environmental resources to support an economy that enables it to remain competitive, while also meeting the needs of society. Thus, sustainable development is not only economically and socially sustainable, but environmentally sustainable as well."*

2.1 Sustainable development goals

The Sustainable Development Goals (SDG) are a set of 17 "Global Goals" spearheaded by the United Nations (Figure 2-1).

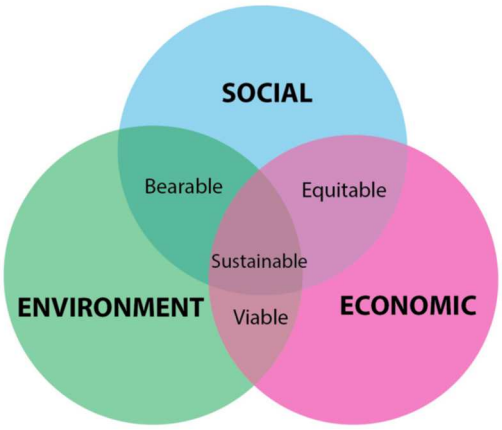
The goals define the 2030 Agenda for Sustainable Development and are contained in the United Nations resolution A/RES/70/1. In addition to meeting the requirements of the UN Resolution, clear alignment with the SDGs is important to leverage access to international funds which are specifically allocated to the delivery of the SDGs (DEA&DP, 2017). The themes reported on in this document align with a number of the SDGs, in recognition of these as provincial priorities.

Figure 2-1: The Sustainable Development Goals

Source: http://www.unic-ir.org

2.2 Sustainability decoded

At the heart of the concept of sustainability is the idea that natural ecosystems represent the basic foundation for both productive economic activity and social wellbeing. Conversely, how vigorously society treasures and protects the integrity of the natural environment is dependent on the inclusiveness and functionality of social and economic systems.



The National Strategy for Sustainable Development (NSSD) conceptualises sustainability as a nested model, with the natural environment, social context and economic activities as overlapping spheres, underpinned by a governance system (Figure 2-2) (DEA, 2011). This framework recognises the interdependence between the three main spheres, and importantly, that a compromise in any one sphere will impact on the others.

Figure 2-2: The Nested Model of sustainability

Source: DEA, 2011

> *"It implies that economies and societies are seen as embedded parts of the biosphere. This model changes the development paradigm; moving away from the current sectorial approach where social, economic and ecological development are seen as separate parts. Now, we must transition towards a world logic where the economy serves society so that it evolves within the safe operating space of the planet." Whole system approach to SDGs, Gaia education*

It is important that the three components of sustainability should not be seen as being in conflict over the same resources or spaces. Because of the interdependencies between the components – each sphere being dependent on the functionality of the others – trade-offs between the spheres are not possible. Trade-offs will result in compromised functionality of particular spheres, with subsequent detrimental knock-on effects in the other spheres. Instead, sustainability should

be seen as an operational space which does not exceed the capacities and capabilities of the natural environment, but which fully satisfies basic human needs at the same time (DEA&DP, 2013), better portrayed in Figure 2-3.

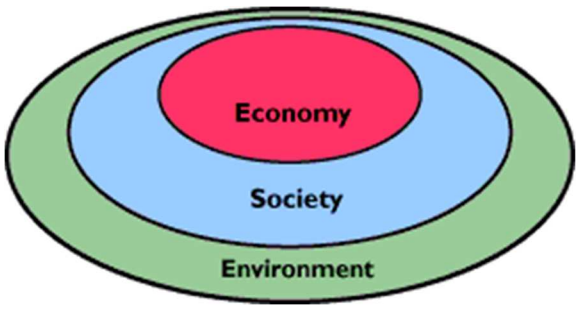


Figure 2-3: The Nested Dependencies Model on a better view of sustainability

Source: Sustainable Measures, 2017.

2.2.1 The sustainability doughnut and environmental planetary boundaries

Oxfam (Raworth, 2012) dubbed the ideal operational space the "sustainability doughnut" (depicted in Figure 2-4 below). The inner ring depicts the "social foundation", the premise being that each inner dimension needs to be fully attained before humanity can consider itself socially sustainable and in a position to protect and nurture the natural environment. The area between the social foundation and the "environmental ceiling" provides a safe and just space for humanity, characterised by inclusiveness and sustainable economic development. Once the dimensions that define the threshold of the environmental ceiling are crossed, sustainability is compromised from an environmental perspective (DEA, 2016). The dimensions listed as components of the environmental ceiling are derived from work done on environmental planetary boundaries at the Stockholm Resilience Centre (Rockström *et al.*, 2009). The studies contend that we have already exceeded the environmental ceiling for climate change, nitrogen cycles and biodiversity loss on a global scale (Figure 2-5).

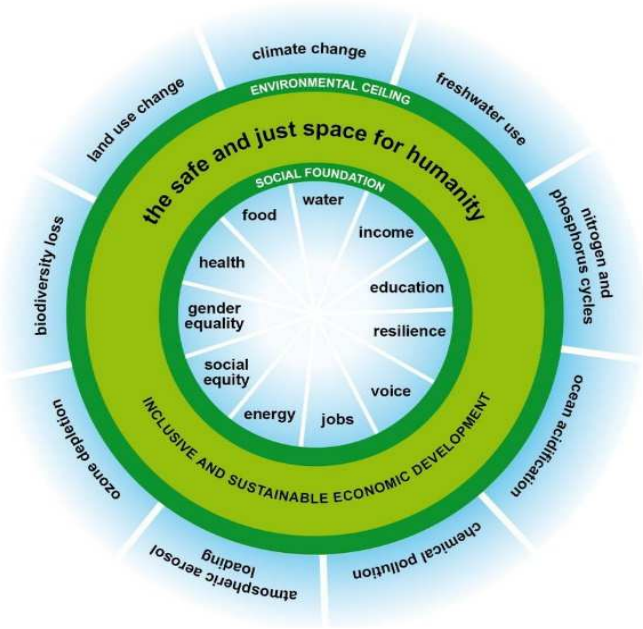


Figure 2-4: The Oxfam Sustainability Doughnut

Source: Raworth, 2012

To ensure that development remains within the "sustainability doughnut", environmental deterioration must be decoupled from economic activity and population growth. Typically, an increase in population numbers or an increase in economic output tends to result in an increase in environmental compromise. However, if per capita consumption or resource intensity can be reduced, then the overall effect on the environment will not be directly related to human needs and wants. What seems to be required is a change in how we do things rather than how much we do. Opportunities for decoupling require new technologies (e.g. renewable energy), new methods (micro generation of electricity), new consumption patterns (shift to public transport) and less residual pollution (closed loop production) (DEA, 2016).

Importantly, however, it must be recognised that economic development does not equate to or deliver social welfare and equity unless it is underpinned by environmental sustainability (DEA, 2016).

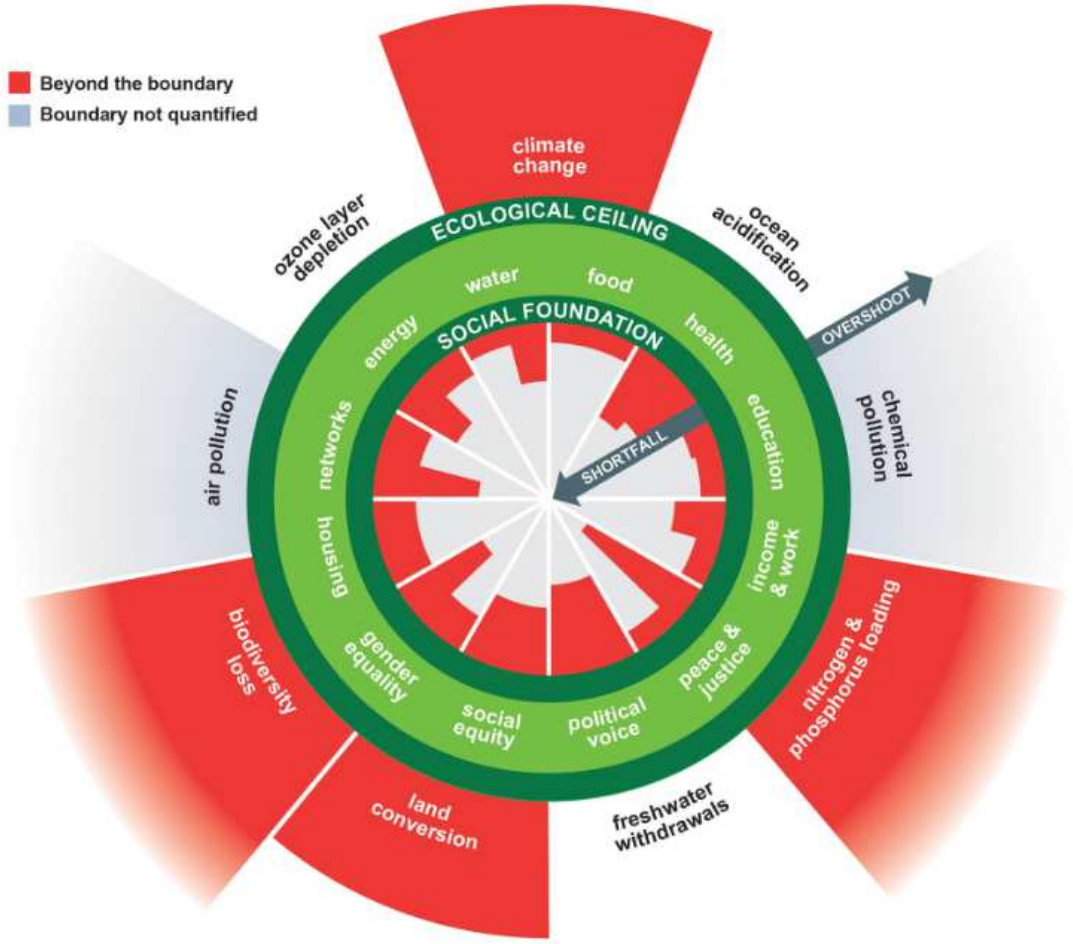


Figure 2-5: Global performance in terms of environmental planetary boundaries

Source: Raworth, 2017

2.3 How the State of Environment Outlook Report guides sustainability?

Our knowledge of changes and trends in the environment enable better management of the environment. Effective environmental governance is informed by these trends, as the trends show how well we are taking care of our environmental resources or how well the environment is coping with the pressures placed on it.

Sustainable development is a broad and encompassing framework that recognises the interdependency of economic growth, social equity and environmental integrity. Achieving the goals of sustainable development can be difficult without a set of measures to understand progress towards these targets. State of Environment reports play a critical role in providing measurable indicators with information and trends that allows us to measure progress on the path to sustainability. The Western Cape Government incorporates sustainable development targets and indicators in its strategic development planning and operational targets. At municipal level, Councils should include the indicators within their annual service delivery budget implementation plans which are linked to Integrated Development Plans (IDPs).

This report consequently provides a snapshot of the current state of the environment and analyses environmental trends in the Western Cape, and highlights where the province falls short in achieving the SDGs.

3 STATE OF ENVIRONMENT REPORTING

3.1 State of Environment reporting and audience

A State of Environment Outlook Report is designed to communicate credible, timely and accessible information about the conditions of the environment to decision-makers and society (DEA, 2016).

State of Environment Reporting provides information on changes to the environment within a region. This knowledge provides a baseline on current conditions, and assists decision makers to make more informed decisions for sustainable development and environmental management. State of Environment Reports are compiled at different scales, depending on the required resolution and level of application. South Africa, for example, features within a regional report, the Southern Africa Environment Outlook (a SADC publication), and then to a lesser extent in the Africa Environmental Outlook compiled by the United Nations Environment Programme (UNEP). State of Environment Reporting at a national scale is the responsibility of the National Department of Environmental Affairs (DEA). In 2016, DEA published the Second South Africa Environment Outlook Report, and the Western Cape State of Environment Outlook Report will tie into the National reporting scheme by providing a regional scale assessment and outlook.

The main objectives of the state of the environment outlook report are:

a) to provide objective, accurate and scientifically credible information about the condition and prospects of the environment;

b) to increase stakeholder awareness and understanding of trends and state of the environment, and their causes and consequences;

c) to facilitate the measurement of progress towards achieving environmental standard and targets;

d) to provide early warnings in terms of environmental degradation;

e) to make recommendations and influence the strengthening of policies and programmes aimed at remediation of environmental degradation; and

f) to provide a foundation for improved decision-making at all levels (DEA, 2015)

Section 16A (1) of the National Environmental Management Act 107 of 1998 (NEMA) warrants national Environment Outlook Reporting, while Section 16A (2) calls for the preparation of provincial Environmental Outlook Reports, making the compilation of four-yearly State of Environment Reports a mandatory obligation for national and provincial tiers of Government, while they remain voluntary at a district and local municipal level. The proposed regular reporting cycles are intended to support Environmental Implementation and Management Plans required in terms of Section 11 of NEMA, thereby facilitating integration between environmental reporting and management response actions.

In terms of Section 16A(4) of NEMA, the Draft Notice to Determine the Procedure for Compiling the Report, the format and the Content of the Report, defines an Environment Outlook Report as:

"*(a) a comprehensive and impartial assessment report that illustrates a picture of the condition of the environment in the country, province or a municipal area; and*

(b) a tool to be used to integrate and communicate information collected for various environmental indicators."

This State of Environment Outlook Report has been informed by the Draft Notice and aims to comply with the requirements for Environment Outlook reporting in terms of Section 16A (2) of NEMA. The report is referred to as a "State of the Environment Outlook Report" in order to be consistent with the Draft Notice, the National SoEOR and outlook reporting at the municipal level. Outlook, when used in this sense, focuses on trends and governance priorities, notably actions required of government at provincial level, instead of only reporting on the state of the environment.

The Western Cape State of Environment Outlook Report consolidates a large range of environmental datasets in order to measure the state of environmental resources in the province against a predetermined suite of indicators. The consolidated depiction of the state of the environment is presented in a concise, reader-friendly format that appeals to and is considered accessible to a wide range of audiences.

The target audience for this report includes local decision makers who need up to date information to guide development decisions, as well as investors across all sectors and the general public who are interested in environmental and developmental issues. Readers who seek more detailed information than provided for each theme are advised to use the information in the State of Environment Outlook Report as a guide to where further information can be sourced.

Every effort has been made to present a report that is free from bias and technical jargon.

3.2 Methodology

This SoEOR adopts the *Driver-Pressure-State-Impact-Response* (DPSIR) Reporting Framework (see section 3.4) in order to ensure uniformity and convergence to the structure and the content of the report and to comply with the Draft Notice issued by the DEA.

Research and reporting for the State of Environment Outlook Report focused on collecting and interpreting (existing) information on the current state of the environment in the Western Cape for the reporting period 2014 – 2017 (where available), and obtaining general consensus on trends and changes as reported against selected indicators. Nine specialist chapters were compiled by sector specialists, with each chapter largely informed by the nature and content of the corresponding chapter in the 2013 Report, to facilitate comparison of data and clear tracking of changes and trends over time.

3.2.1 Stakeholder Engagement

Key stakeholders consulted were mainly government institutions or forums with mandates that include data custodianship, as well as certain private or parastatal bodies that play important roles in particular economic, social or environmental sectors.

Stakeholders were invited to participate by contributing information and data for relevant sector (theme) chapters or by participating in specialist workshops aimed at:

- identifying and agreeing the most recent, applicable and relevant data to inform the SoEOR;
- evaluating the suitability of the key indicators required to track trends over time;
- identifying emerging issues and information gaps which may guide information needed to inform future iterations of the SoEOR; and
- identifying key responses to environmental issues and change.

Key stakeholders were also afforded the opportunity to review and provide early input into draft versions of each of the specialist chapters. Completed specialist chapters were subsequently analysed to extract common themes and improve report coherence. Wider stakeholder engagement followed, including advertising and releasing the draft SoEOR to stakeholders for a 30-day comment period, during which two stakeholder meetings in November 2017 were hosted in Cape Town and George respectively.

3.3 Report structure

The Western Cape SoEOR is presented in 12 chapters and a separate Executive Summary. The document is structured as follows:

	Chapter Name	Description
Introduction	Introduction	Introduction, background and methodology for State of Environment reporting.
	Drivers and Pressures	A description of the key drivers of environmental change and pressures on the environment in the Western Cape
Specialist Chapters	Land	Nine specialist chapters discuss the current environmental state in terms of specific themes, and identify drivers and pressures leading to environmental change. Theme-specific trends in environmental change are measured against a set of indicators.
	Biodiversity and Ecosystem Health	
	Inland Water	
	Oceans and Coasts	
	Human Settlements	
	Air Quality	
	Climate Change	
	Energy	
	Waste Management	
Conclusions	Conclusions	Integrates and links the information on environmental trends from the specialist chapters to possible future outcomes for the province in order to anticipate the strategic decisions and actions that need to be taken in order to avoid environmental degradation or radical negative change. Identifies information gaps and challenges in compiling the SoEOR and makes recommendations for future SoEORs.

3.4 Driver-Pressure-State-Impact-Response reporting framework

The Western Cape State of Environment Outlook Report is based on the internationally recognised and commonly accepted Driver-Pressure-State-Impact-Response (DPSIR) framework. This framework is adopted by organisations such as UNEP and the European Environment Agency (EEA) as a further development of the Pressure-State-Response framework originated by the Organisation for Economic Coordination and Development (OECD) (DEA, 2016). The DPSIR framework is also currently the preferred national framework for environmental reporting and is followed by all provinces and the National DEA for environmental reporting. However, the DPSIR framework is not exempt from criticism. Criticisms of the framework include that it oversimplifies environmental systems with numerous components and feedback systems, and that it excludes economic and social considerations.

The DPSIR framework is illustrated in Figure 3-1 which shows that the DPSIR components represent a cyclical process of causal links. Each component can be traced back to its precursor, and also to its effect in the overall scheme. Importantly though, societal responses have the potential to affect all other components of the framework, not just the component depicted immediately next to it in the framework.

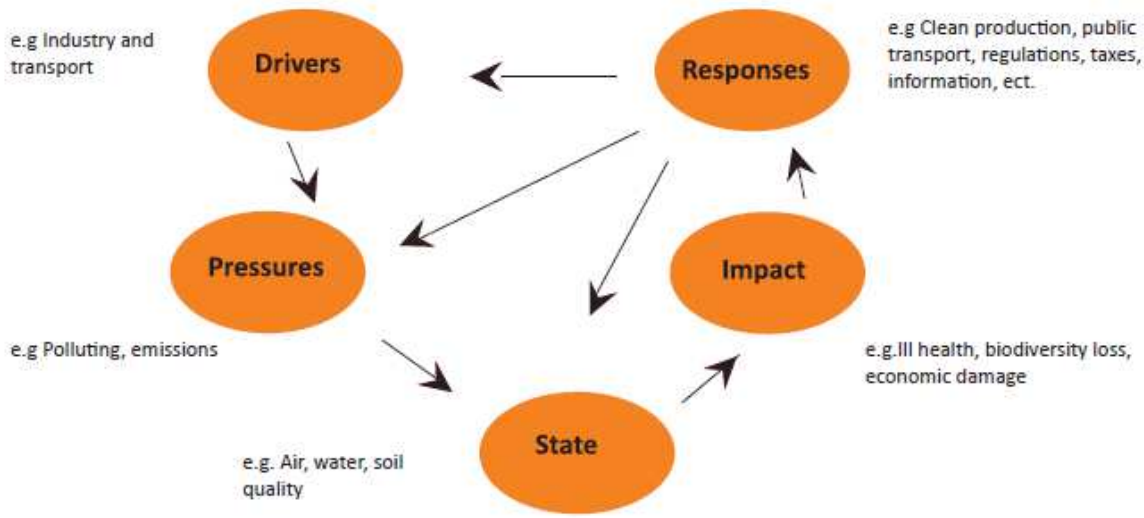


Figure 3-1: The DPSIR Framework

Source: EEA, 1997

The DPSIR framework uses the causal network to not only describe the state of a particular environmental feature, but also the causes of environmental change, the impacts of change and the societal responses to the changes. DPSIR framework definitions[3] and examples of each are provided in Table 3-1. Each SoEOR theme chapter is structured to address the key component of the framework. An overview of the key drivers and pressures in the Western Cape is provided in the following chapter.

Table 3-1: Definitions of Drivers, Pressures, State, Impacts and Responses

Element	Definition	Example
Drivers	***Drivers*** (human induced or natural) are defined as the primary agents driving change in the environment. These underlying socio-economic and political agents of change, determine where and how people use and consume natural resources. Driving forces emanating from natural processes (e.g. solar cycles) are possible, but are typically too infrequent or operate over scales that do not relate easily to the 5-yearly reporting framework of the Environmental Outlook process.	Patterns of productions and consumptions and population dynamics
Pressures	The human activities and processes that act on the environment and directly cause environmental change are considered to be "***Pressures***". They are distinct from the driving forces since they relate directly to the use and exploitation of natural resources, as opposed to the driving forces that determine the scope or extent of the pressures. Pressures can be divided into three main types: (i) use of environmental resources, (ii) changes in land use, and (iii) emissions (of chemicals, waste, radiation, noise) to air, water and/or soil.	Agricultural production
State	The "***State***" describes the actual condition of the environment resulting from the pressures outlined above. For example, air quality in terms of the level of air pollution, and the extent of degraded land. The "***State***" is described both in terms of current state and trends over time. A study of environmental trends will reveal whether the state of the environment is getting better or worse. It also gives an indication of how quickly changes are happening (the rate of change) and whether rates of change are increasing or decreasing.	Extent of cultivation
Impacts	"***Impacts***" describe the consequences of the good or bad state of elements of the environment for sustainability, specifically on humans, the economy, ecosystems, as well as other environmental systems, and could include regional or global effects. For example: high levels of	Fragmentation of natural habitat

[3] These definitions are in alignment with the 2nd South Africa State of Environment Outlook Report

	indoor air pollution may result in respiratory tracts infections, land degradation may lead to decreased food production, increased food imports, increased fertilizer use, malnutrition and siltation of aquatic systems.	
Responses	The societal actions taken collectively or individually to ease or prevent negative environmental impacts, correct damage or conserve natural resources can be seen as "***Responses***". Responses may include policy and regulatory action, environmental or research expenditures, public opinion and consumer preferences (i.e. behavioural responses), changes in management strategies and the provision of environmental information.	Improved monitoring and compliance within agricultural extension services

3.5 Indicators

Particular environmental aspects that serve as proxy indicators or representatives for a range of other features are used to measure the overall state of environmental resources. Representative "indicators" are therefore used to provide an overview of the state, as well as detail pertaining to drivers, pressures, impacts and responses. These indicators must be selected carefully in order to provide an accurate reflection of the state of the environment. By tracking indicators over time, state of environment reports can reflect trends in environmental change and also assess the effectiveness of responses to environmental challenges.

Each update of the State of Environment Outlook Report attempts to report consistently on the same set of indicators, making use of the same or similar data sources. However, contextual changes over time often necessitate ongoing adjustment to the set of indicators reported against. For the 2018 Western Cape State of Environment Outlook Report, most of the indicators from the 2013 report have been retained. Where a lack of consistent datasets over time has made direct comparison to the 2013 indicators impossible, new indicators and datasets have been introduced which aim to improve consistent reporting during subsequent updates of the Report.

For comparative purposes, the key indicators used for each theme in the 2013 Western Cape State of Environment Report and current the (2018) Western Cape State of Environment Outlook Report are presented in Annexure B along with reasons for amendments to indicators.

It was not always possible to adopt precisely the same indicators used by the National Environmental Outlook, as indicators have to be tracked over time in the Western Cape, and certain challenges (and their indictors) are unique to the Western Cape. The indicator sets are listed within each of the themed chapters.

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ANNEXURE A

1 Western Cape Province Profile

1.1 Location and climate

The Western Cape lies on the southern tip of Africa and represents 10.6% of South Africa's total land area, encompassing 129 462km². The Western Cape stretches from beyond Strandfontein on the West Coast, around the Cape Peninsula and Cape Point, to Nature's Valley along the Garden Route on the South Coast. The scenic Western Cape has a typical Mediterranean climate, due in part to the interaction between the cold Benguela current running up the west coast and the warmer Agulhas current flowing westwards along the southern coast, with oceanic, arid and semi-arid regions.

The Western Cape is blessed with picturesque mountain ranges, shorelines and a unique vegetation type known as fynbos, which is world renowned for its high levels of biodiversity and endemism (Manning, 2008). In addition to its natural beauty, the Western Cape is home to a culturally diverse population with a long and rich history. Due to the aforementioned features, and its internationally acclaimed wine and fruit industries, the Western Cape is a world class tourist destination.

1.2 Municipal profiles

The Western Cape Province comprises one Metropolitan Municipality - the City of Cape Town - and five district municipalities namely West Coast, Cape Winelands, Overberg, Eden and Central Karoo. The District Municipalities comprise 24 Local Municipalities.

1.2.1 City of Cape Town Metropolitan Municipality

Cape Town is the only metropolitan area within the Western Cape, contributing about 72% to the Gross Domestic Product per Region (GDPR) of the province (WCG, 2017a). The main contributors to the City of Cape Town's (CCT) economy are the manufacturing, wholesale and retail sector; the catering and accommodation sector; and the finance, insurance, real estate and business services sector. Between 2005 and 2015, the average GDPR growth rate in the City of Cape Town was 2.9%. In 2015, the City of Cape Town provided over 1.5 million jobs, comprising 65% of all jobs in the Western Cape. The mining industry contributes very little to the GDPR of the CCT, contributing a mere 0.1% between 2005 and 2015, mostly quarrying and sand mining to supply the construction sector. Manufacturing contributed an average of 1.6% to the CCT's GDPR between 2005 and 2015. In contrast to mining and manufacturing, agriculture, forestry and fisheries play a much larger role in the CCT, contributing an average of 3.7% to GDPR between 2005 and 2015. Agriculture in the metro includes grape production for wine making, chicken and pig farming, vegetables and grains (WCG, 2017b).

The Planning Districts within the CCT experiencing the highest annual average GDPR growth rates between 2005 and 2015 were the Blaauwberg, Helderberg and Khayelitsha/Mitchell's Plain districts, which reported growth of 4.2%, 3.3% and 3.1%, respectively. The Tygerberg and Cape Flats Planning Districts experienced the lowest GDPR growth during the same period (2.4% each) (WCG, 2017b).

Aerial view of Cape Town

Social challenges in the City of Cape Town include an increasing number of households with no income, income inequality, informal dwellers, an increasing number of patients on Anti-Retro Viral (ARV) medication, substance abuse and crime (WCG, 2016b).

1.2.2 West Coast District Municipality

The West Coast District Municipality (WCDM) comprises the Matzikama, Cederberg, Bergrivier, Saldanha Bay and Swartland Local Municipalities.

The WCDM is the third largest non-metropolitan district within the Western Cape in terms of economic contribution, contributing 5.1% to provincial GDPR in 2015, with an average GDPR growth rate of 2.7% between 2005 and 2015. The economic sectors contributing most to the WCDM's economy during 2015 were the agriculture, forestry and fisheries sector; the manufacturing, wholesale and retail trade sector and the catering and accommodation sector. In fact, the WCDM provides over 85% of the triticale (wheat and rye hybrid), 93% of the rooibos, and 82% of the oranges grown in the province. The manufacturing sector is closely linked to the agricultural sector due to the production of food and beverages, and contributed 2.2% to the GDPR of the district during the same time period, while mining contributed about 2.6% to GDPR between 2010 and 2015. Within the WCDM, the Cederberg Municipality experienced the highest average GDPR growth rate from 2005-2015 (4.2%), while the Saldanha Bay Municipality recorded the lowest rate (2.4%) (WCG, 2017b).

Major projects in the WCDM that will contribute to economic development, include the Saldanha Bay Industrial Development Zone (IDZ) and the N7 development corridor.

The Five Bay Trail between the West Coast fishing villages of Paternoster and Jacobsbaai.

1.2.3 Cape Winelands District Municipality

The Cape Winelands District Municipality (CWDM) comprises the Witzenberg, Drakenstein, Stellenbosch, Breede Valley and Langeberg Local Municipalities.

The CWDM, home to a renowned wine route, is the largest non-metropolitan district within the Western Cape Province in terms of GDPR, and contributed 11.4% to provincial GDPR in 2015. In addition, the CWDM contributed 15.2% to employment in the Western Cape. The following sectors contributed the most to the district's economy: the finance, insurance, real estate and business services sector; the manufacturing, wholesale and retail sector; and the catering and accommodation sector. The agriculture, forestry and fisheries sector was projected to decline by 9.2% in 2016. However, the CWDM economy benefits in other ways from agro-processing activity in the district, e.g. wine tourism. The main agricultural activity in the CWDM is viniculture, although, increasingly, table grapes are being planted. Cereals and fruit, both pome (mainly apples and pears) and stone, are other dominant sectors (WCG, 2017b).

The Cape Winelands

Within the CWDM, the Witzenberg Municipality had the highest average GDPR growth rate between 2005 and 2015 (5%), while the Stellenbosch and Drakenstein Municipalities recorded the lowest rate (2.8% each) (WCG, 2017b).

1.2.4 Overberg District Municipality

The Overberg District Municipality (ODM) comprises the Theewaterskloof, Overstrand, Cape Agulhas and Swellendam Local Municipalities.

The ODM has the second smallest economy in the Western Cape, contributing 3.5% to provincial GDPR in 2015. The economic sectors with the highest contributions to the GDPR are the finance, insurance, real estate and business services sector; the wholesale and retail trade sector; the catering and accommodation sector; and the transport, storage and communications sector. The mining and the agricultural sectors were the only two sectors to contract between 2004-2015 (-0.1% and -7.1%, respectively). The consistent decline in the agricultural sector is likely due to drought conditions since 2015. However, overall, the GDPR of the Overberg District Municipality grew by an average of 3.6% between 2005 and 2015 (WCG, 2017b).

Swellendam and Theewaterskloof Municipalities delivered the highest average GDPR growth rates between 2005 and 2015 (4.4% and 4.1%, respectively), while the Overstrand Municipality recorded the lowest growth rate (3%) (WCG, 2017b).

Canola fields in the Overberg

1.2.5 Eden District Municipality

The Eden District Municipality (EDM) comprises the Kannaland, Hessequa, Mossel Bay, George, Oudtshoorn, Bitou and Knysna Local Municipalities.

The EDM, home to the core of the world famous Garden Route, is the second largest non-metropolitan district (in terms of GDPR) within the Western Cape, and contributed 7.6% to provincial GDPR in 2015.

Wilderness National Park

The EDM generated an average GDPR growth rate of 3.2% between 2005 and 2015. The economic sectors contributing most to the GDPR of the district are the finance, insurance, real estate and business services sector; the wholesale and retail trade sector; the catering and accommodation sector; and the general government sector. George and Kannaland municipalities recorded the highest average GDPR growth between 2005 and 2015 (3.7% and 2.3%, respectively), while Knysna Municipality had the lowest GDPR growth during the same period (2.3%). Between 2005-2015, the mining sectors within the Eden District contracted by 0.1%, while the manufacturing sector grew by an average of 4.8% between 2005 and 2015 (WCG, 2017b).

1.2.6 Central Karoo District Municipality

The Central Karoo District Municipality (CKDM) comprises the Laingsburg, Prince Albert and Beaufort West Local Municipalities.

A sizeable proportion of the CKDM's economic inputs are derived from agriculture, mostly stone fruit and livestock (goats and sheep). The GDPR of the district grew by an average of 3% between 2005 and 2015, with the general government sector contributing the most. Agriculture accounted for 18.4% of the district's economic outputs. In the district, the Prince Albert Municipality recorded the highest average GDPR growth between 2004 and 2015 (4.1%), with the Laingsburg and Beaufort West economies also experiencing high growth rates (3.3% and 2.7%, respectively). Mining and quarrying grew by an average of 0.8% between 2005 and 2015, with most mining activities in the district taking place near Prince Albert. Manufacturing grew by an average of 1.1% over the same period (WCG, 2017b).

Gamkaskloof, near Prince Albert

1.3 Population demographics

The Western Cape has an estimated population of 6.51 million, accounting for just over 11% of South Africa's population (StatsSA, 2017).

For historical reasons, the Western Cape's population composition is dissimilar from that of most other provinces. The Coloured population group constitutes about half (48%) of the provincial population, Black Africans just over a third (36%) and Whites about one-sixth (16%) (StatsSA CS, 2016). About 64% of the province's population resides in or around the City of Cape Town (WCG, 2017a).

Principal languages spoken are Afrikaans (47%), isiXhosa (31%) and English (20%) (StatsSA CS, 2016). Cape Town is the capital of the province and other major towns include George, Knysna, Paarl, Swellendam, Oudtshoorn, Stellenbosch, Worcester, Mossel Bay and Saldanha Bay. The majority of the population is concentrated in the Cape Metro region. High population densities are located along the coastal belt.

The Western Cape's growing population is largely attributable to in-migration from other provinces and immigration. The population is projected to grow from 5.82 million people in 2011 to 7.36 million people in 2040) at an average annual increase of approximately 0.81% (compounded growth) (WCG, 2014a). Learner enrolment in Western Cape schools increased in line with population growth, increasing from 998 925 in 2016 to 1 020 642 in 2017 (WCG, 2017a).

The Western Cape Department of Social Development (DSD) (2014) projected population growth in the province indicated continued growth across the districts, with average population growth percentages between 2011 and 2015 calculated as 1.5% in the WCDM, 1.4% in the ODM and CWDM, 1.2% in the CCT, 1.1% in the EDM and 0.9% in the CKDM.

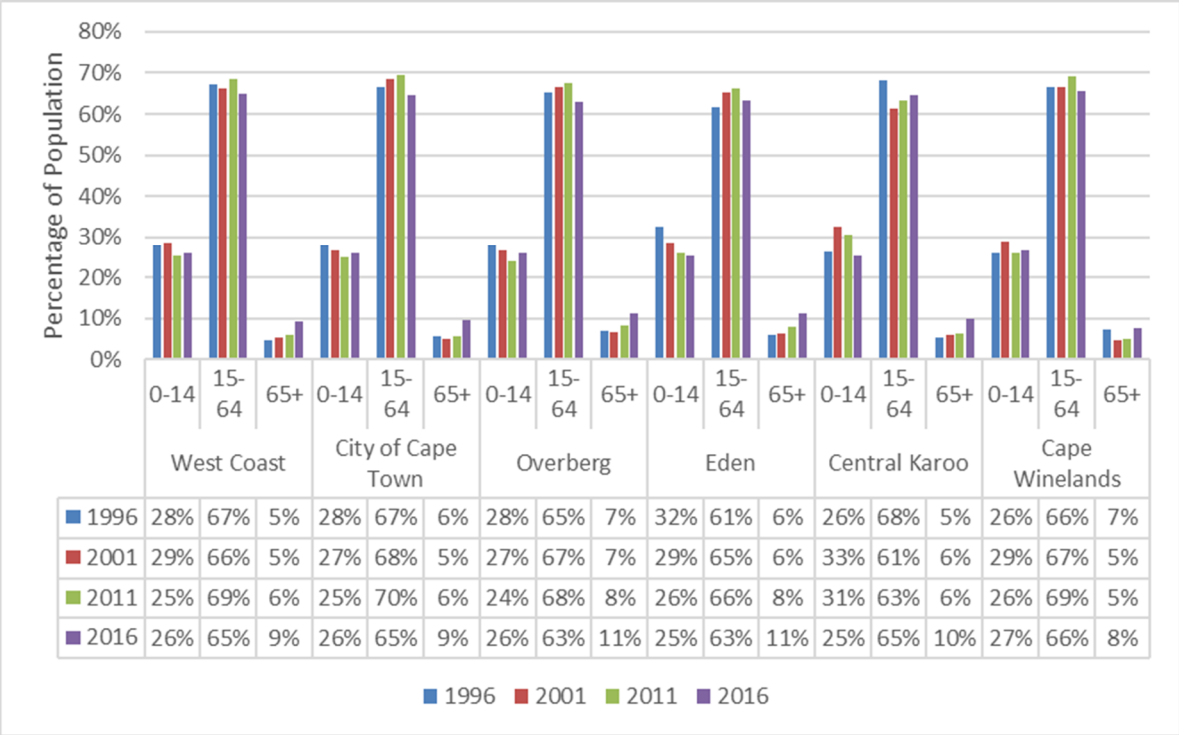
Figure 1-1: Age structure of the South African and Western Cape populations

Source: WCG, 2016

Population statistics show that the Western Cape's population is relatively old compared to the national population, as depicted in Figure 1-1 by the comparatively smaller proportion of the Western Cape population at the lower end of the age distribution. Those of working-age account for 69% of the provincial population compared to 65% nationwide, while those aged 65+ represent 6% and 5% cent of the provincial and national population, respectively.

The dependency ratio is a useful construct to compare the size of the dependent population - children below 15 years and the elderly aged 65 years or more - to the size of the working-age population, with a higher ratio indicating greater dependence on the working-age population. In 2017, the dependency ratio for the Province was estimated to be 45.9 compared to 53.6 nationally, meaning that there are about 46 dependents for every 100 working-age adults in the Western Cape, approximately 14% less than in South Africa as a whole (WCG, 2017a). However, it should be noted that the dependency ratio is not a perfect measure, as not all working-age adults are employed and able to support dependents (WCG, 2016a).

A municipal comparison of functional age categories, i.e. 0-14, 15-64 and 65+, shows that the population is aging in all districts, with the percentage of the 65+ age group increasing in all districts between 1996 and 2016 (refer to Figure 1-2 below).

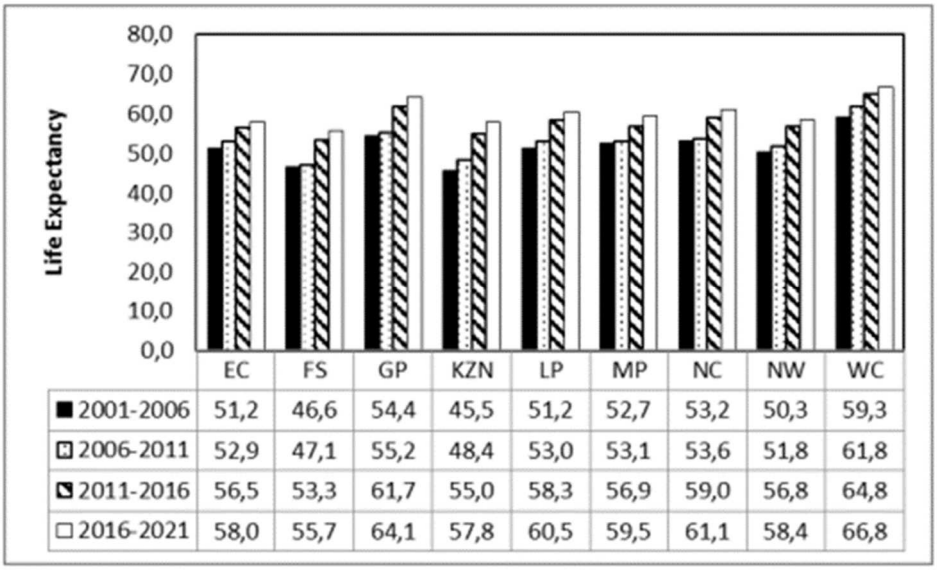


	West Coast			City of Cape Town			Overberg			Eden			Central Karoo			Cape Winelands		
	0-14	15-64	65+	0-14	15-64	65+	0-14	15-64	65+	0-14	15-64	65+	0-14	15-64	65+	0-14	15-64	65+
1996	28%	67%	5%	28%	67%	6%	28%	65%	7%	32%	61%	6%	26%	68%	5%	26%	66%	7%
2001	29%	66%	5%	27%	68%	5%	27%	67%	7%	29%	65%	6%	33%	61%	6%	29%	67%	5%
2011	25%	69%	6%	25%	70%	6%	24%	68%	8%	26%	66%	8%	31%	63%	6%	26%	69%	5%
2016	26%	65%	9%	26%	65%	9%	26%	63%	11%	25%	63%	11%	25%	65%	10%	27%	66%	8%

Figure 1-2: Population distribution by age groups and district municipality as percentage of total population

Source: Stats SA, 2016

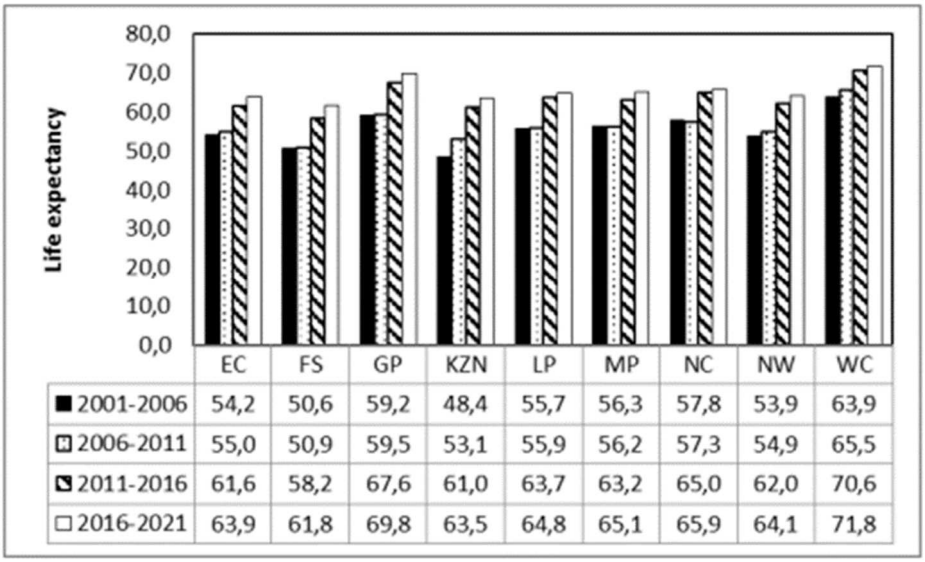
Although mortality rates in the Western Cape are affected by a combination of diseases associated with both affluence and poverty, as well as HIV/AIDS, homicides and traffic accidents, the province's life expectancy is consistently the highest in the country for both males (64.8 in 2016) and females (70.6 in 2016) (refer to Figure 1-3 and Figure 1-4 below). Life expectancy in South Africa increased incrementally for each period across all provinces, with a significant increase in 2011–2016, ascribed to the uptake of ARV therapy over time in South Africa (StatsSA, 2017).



	EC	FS	GP	KZN	LP	MP	NC	NW	WC
2001-2006	51,2	46,6	54,4	45,5	51,2	52,7	53,2	50,3	59,3
2006-2011	52,9	47,1	55,2	48,4	53,0	53,1	53,6	51,8	61,8
2011-2016	56,5	53,3	61,7	55,0	58,3	56,9	59,0	56,8	64,8
2016-2021	58,0	55,7	64,1	57,8	60,5	59,5	61,1	58,4	66,8

Figure 1-3: South African average life expectancy at birth for males

Source: Stats SA, 2017



	EC	FS	GP	KZN	LP	MP	NC	NW	WC
2001-2006	54,2	50,6	59,2	48,4	55,7	56,3	57,8	53,9	63,9
2006-2011	55,0	50,9	59,5	53,1	55,9	56,2	57,3	54,9	65,5
2011-2016	61,6	58,2	67,6	61,0	63,7	63,2	65,0	62,0	70,6
2016-2021	63,9	61,8	69,8	63,5	64,8	65,1	65,9	64,1	71,8

Figure 1-4: South African average life expectancy at birth for females

Source: Stats SA, 2016

Cause of death and premature mortality profiles for the Western Cape in 2015, by gender, are depicted in Figure 1-5. The leading cause of natural death in females is diabetes mellitus, while amongst males the leading cause is tuberculosis. Infant and child (under 5 years) mortality rates in the province remain below the national target of 23 per 1000 live births, despite an increase between 2014 and 2016 (WCG, 2017a).

The Western Cape has the highest proportion of non-natural deaths in South Africa. Injuries, assault and transport accidents accounted for 90.8% of non-natural deaths in 2015 (WCG, 2017a).

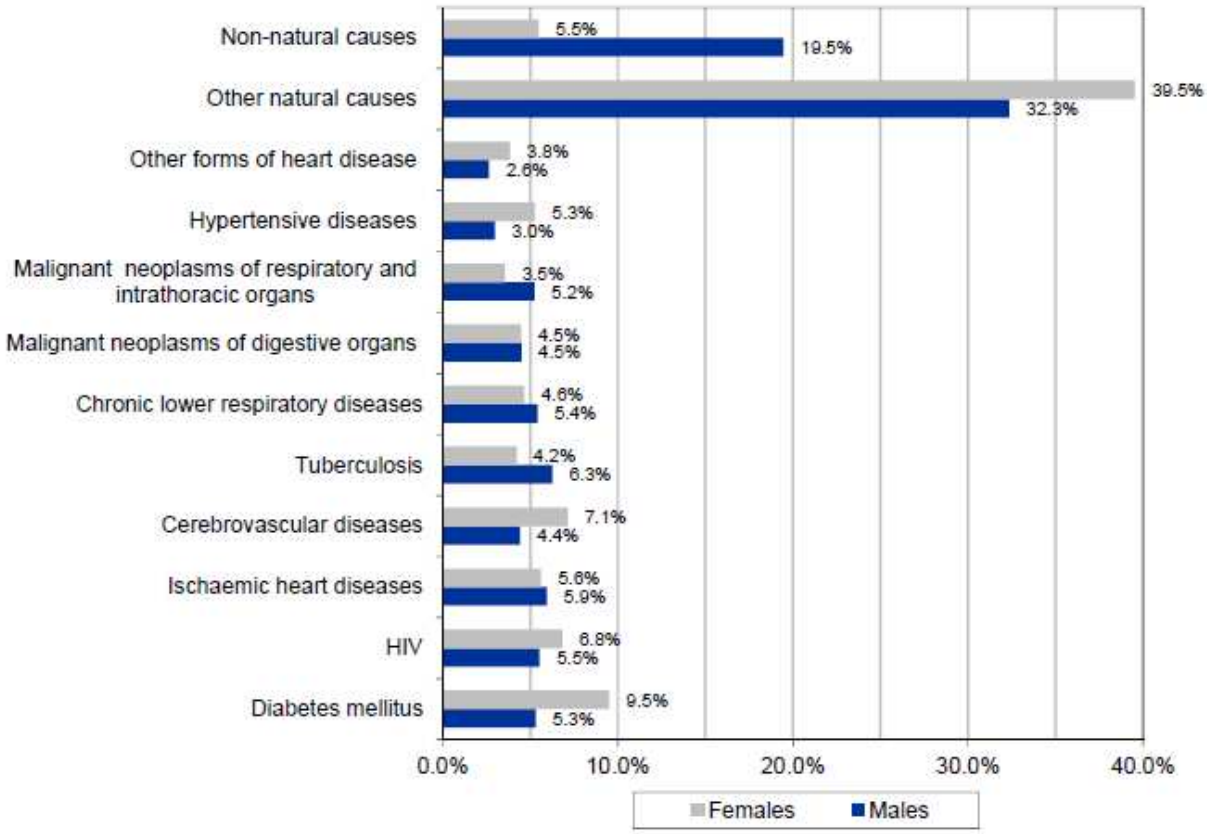


Figure 1-5: Cause of non-natural death in the Western Cape by gender, 2015

Source: WCG, 2017a

1.4 Socio-economic indicators

1.4.1 Social conditions

Socio-economic conditions in the Western Cape are considered to be marginally better than in other provinces, as is evidenced by the rate of in-migration from other provinces, and the self-perceptions reported by residents of the Western Cape in the 2016 StatsSA Community Survey (StatsSA CS, 2016). Especially notable is the performance in terms of basic service delivery and the relatively higher levels of education and lower levels of unemployment compared to other provinces.

Like to the rest of South Africa, the Western Cape experiences social ills, and several socio-economic problems remain pervasive, especially in historically marginalised communities. These include substance abuse (with methamphetamine/tik the most common primary drug) and crime (reported cases of murder and common assault continue to increase, while household burglary and driving under the influence are decreasing) (WCG, 2016a).

1.4.2 Education

The Western Cape government is committed to closing the skills gap to align with skills required by the labour market, and has endeavoured to expand the skills base in the province through initiatives to develop youth in mathematics, language and physical science (WCG, 2016a). In the Western Cape, most (96%) children aged between 7- 14 go to school. The Western Cape boasts the highest number of persons older than 20 years who have had some form of schooling (98%), and 15% of adults in the province have post-school qualifications, higher than the national

average (13%), but lower than Gauteng (17%) (StatsSA CS, 2016).

Increased enrolment (partly due to in-migration) and improved retention between Grades 10 and 12 has contributed to increasing learner numbers in the province. Retention rates in the province increased from 63% between 2011-2013 to 68% between 2013 -2015. Mathematics test scores improved consistently between 2011 and 2016 for all grades. Except for 2014, the National Senior Certificate (NSC) results for the Western Cape have improved every year since 2011. In 2016, the Province achieved a NSC (also known as matric) pass rate of 86.0 per cent, 1.3% higher than the 2015 results (WCG, 2017a).

1.4.3 Living conditions

A total of 535 802 households were registered in the Western Cape Housing Demand Database as of 2017. While all district municipalities report a housing backlog, the spread of registered demand is uneven, with CCT reporting 60% of the Western Cape's registered demand, largely due to the population concentration in CCT. The type of dwelling (e.g. formal or informal) affects quality of life. An estimated 18.2% of households in the Western Cape lived in informal dwellings in 2011, a proportion which has remained relatively stable in the Province at 18.3 in 2016 (WCG, 2017a).

The Western Cape is ahead of all other provinces in providing municipal services, viz. sanitation, electricity and refuse removal. In 2016, municipalities in the Western Cape and Gauteng were equally effective in terms of provision of water to households, whereas previously (in 2011) Gauteng and the Free State were ahead of the Western Cape in this regard (StatsSA, 2012 and StatsSA CS, 2016).

1.4.4 Poverty

Poverty is typically measured using financial metrics, e.g. income or expenditure. According to StatsSA (2016), the proportion of households in the Western Cape considered to be poor decreased from 4% in 2011 to 3% in 2016. The Poverty Gap Index measures the intensity of poverty, by looking at how far, on average, the poor are from that poverty line. The intensity of poverty amongst households in the Western Cape declined from 43% to 40% between 2011 and 2016 (WCG, 2016a).

Khayelitsha, Western Cape

Food insecurity examines the proportion of households with unreliable access to or insufficient food. Poverty is a key driver of household food insecurity, which is, therefore, a useful measure when examining poverty (WCG, 2016a).

Table 1-1 shows that the percentage of households in the Western Cape reporting adequate access to food decreased from 2010 to 2015. Households with inadequate access to food increased from 12% in 2010 to 17% in 2015, while the percentage of households with severely inadequate access to food remained constant at 7%. These figures depict an overall decline in food security in the Western Cape (WCG, 2016a).

Table 1-1: Western Cape food insecurity between 2010 and 2015

	2010	2015
Food access adequate	81%	76%
Food access inadequate	12%	17%
Food access severely inadequate	7%	7%

Source: WCG, 2016a

Another measure of poverty is the Gini coefficient, which measures the distribution of income across a population and, by implication, relative income inequality. The coefficient ranges from 0 (complete equality) to 1 (complete inequality). The Gini coefficients for all districts and the Province deteriorated between 2010 and 2016. The City of Cape Town consistently experienced the highest Gini coefficient, increasing from 0.608 in 2010 to 0.614 in 2016. The deterioration in the Gini coefficient for the Western Cape coincides with the decline in GDPR per capita growth rates for the Province. The low growth rates have been accompanied by increasing unemployment, affecting incomes and thus likely a key contributor to the increased Gini coefficient (WCG, 2017a).

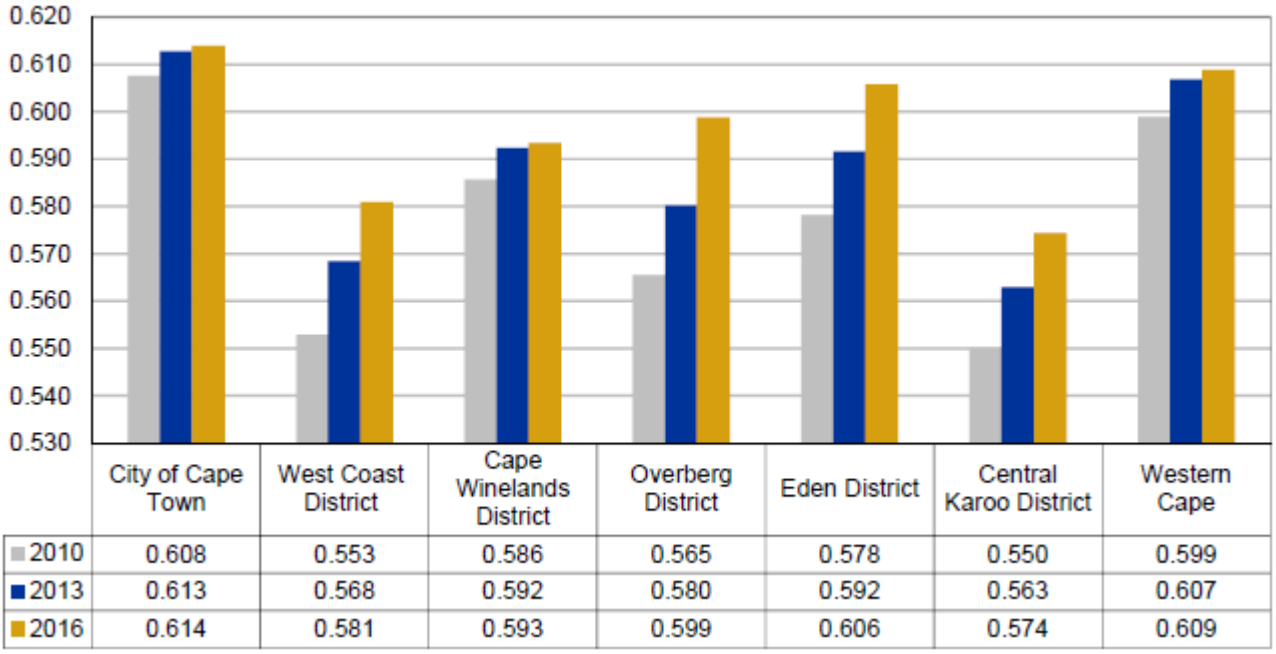
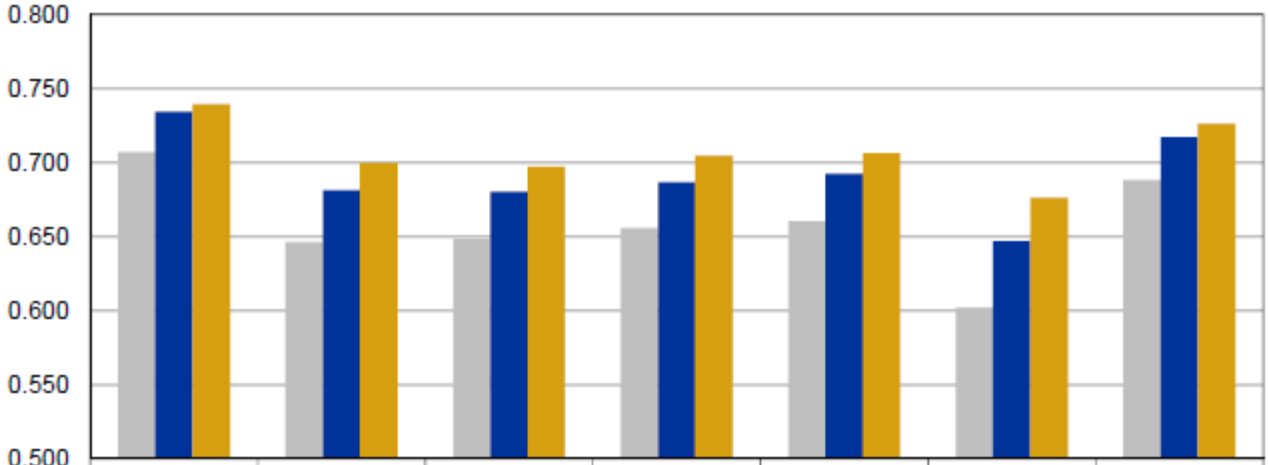


Figure 1-6: Western Cape Gini coefficients by district and for the province

Source: WCG, 2017a

The Human Development Index (HDI) is a composite statistic of life expectancy, education, and per capita income indicators, used to rank countries into four tiers of human development. Figure 1-7 depicts the HDI in the Western Cape, by district between 2010 and 2016. The HDI for the Province and all districts increased over time with the largest increase in Central Karoo from 0.602 in 2010 to 0.676 in 2016. The HDI is highest for the City of Cape Town and has been increasing consistently over time.



	City of Cape Town	West Coast District	Cape Winelands District	Overberg District	Eden District	Central Karoo District	Western Cape
2010	0.707	0.646	0.648	0.655	0.660	0.602	0.688
2013	0.734	0.681	0.680	0.687	0.692	0.647	0.717
2016	0.739	0.699	0.697	0.705	0.706	0.676	0.726

Figure 1-7: The Human Development Index (HDI) in the Western Cape Districts

Source: WCG, 2017a

1.4.5 Employment

Between 2012 and 2017, South African employment increased at a moderate pace, averaging 2.6% per annum (WCG, 2017a). In South Africa, the official narrow unemployment rate was estimated at 28% for the first quarter of 2017. If discouraged workseekers are factored in, the unemployment rate rises to 41%, about 13 percentage points higher than the narrow unemployment rate. In the Western Cape, the unemployment rate is estimated at 22% and 26% using the narrow and broad definitions, respectively. The small difference suggests that there are very few individuals in the Western Cape who are not actively seeking employment (WCG, 2017a).

Between 2008 and 2013, government accounted for the largest increase in employment creation in the Western Cape, followed by the finance, retail and services sectors. This is indicative of the strength of the service sector in the Western Cape economy. An increase in employment within the service sector indicates a stronger economic base with more high-skilled and high-paid labour, and a corresponding demand for goods and services (Wesgro, 2015). It is estimated that 75% of the province's labour force is employed within the informal sector accounting for 11% of the provincial employment (DEA&DP, 2017).

Figure 1-8 depicts the change in the employment composition of and sectoral contributions to the Western Cape between 2008 and 2013.

The 2008/09 global economic downturn gave rise to widespread unemployment in South Africa, especially amongst the youth. StatsSA data shows that the 2013 employment levels in the Western Cape are slightly lower than in 2008. This can be attributed to the 2008/2009 recession, the effects of which are still felt in 2017. Young adults in the province are more likely to be unemployed, accounting for more than two thirds of the unemployed workforce. Of these young adults, 51% have not completed secondary education and 29% have not completed matric. Overall unemployment is more prevalent amongst females and Africans (DEA&DP, 2017).

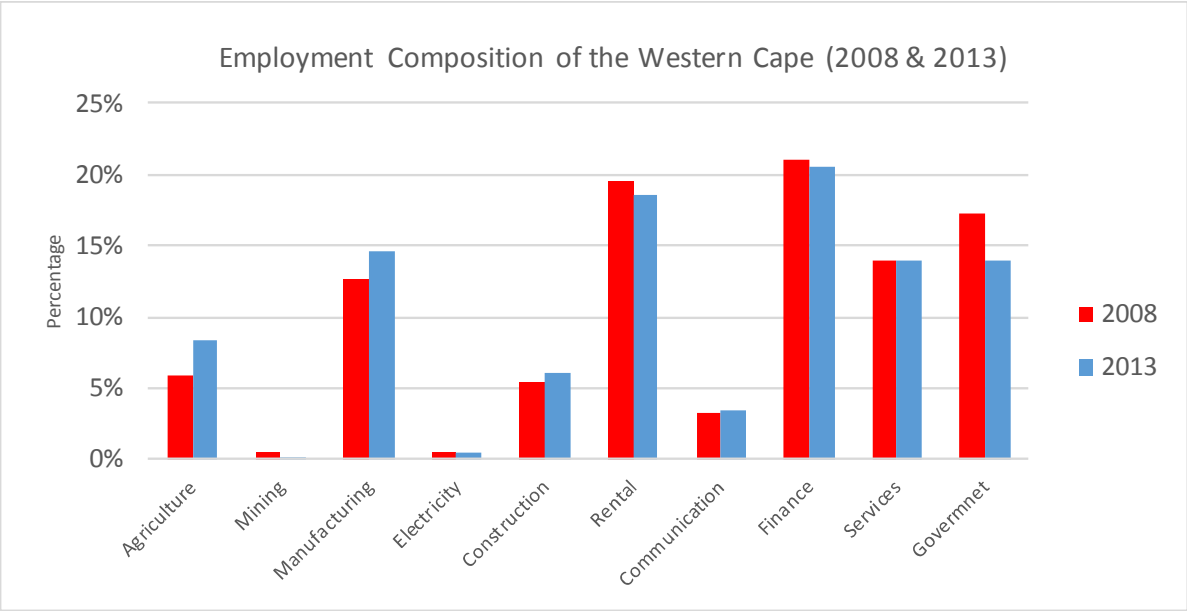


Figure 1-8: Employment composition in the Western Cape: 2008 – 2013

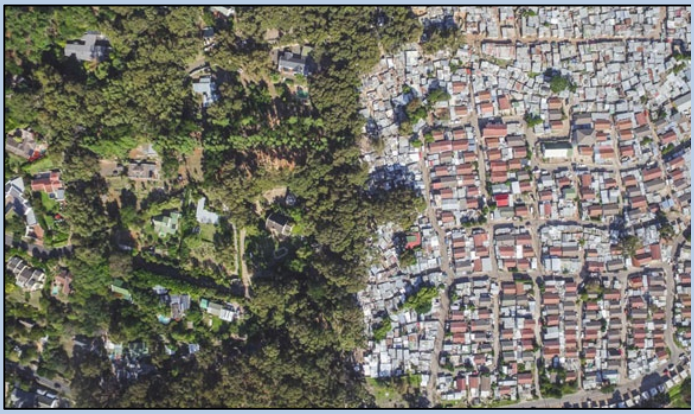
Source: Wesgro, 2015

1.4.6 Social equality in the Cape Town Metropolitan area

According to the State of the World's Cities 2012/2013 report of the UN Human Settlements Programme (UN Habitat), Cape Town is South Africa's "least unequal" metropolitan city (UN Habitat, 2012) across five indices, namely productivity, infrastructure development, quality of life, environmental sustainability and equity. Although both Cape Town and Johannesburg rate alongside peers such as Manila (Philippines), Jakarta (Indonesia) and Beijing (China) in terms of four dimensions, their performance rating for equity is particularly poor, placing Cape Town on a par with cities such as Nairobi (Kenya), Kampala (Uganda) and Kathmandu (Nepal). Equity refers to disparity in income and access to infrastructure and services. In comparison to other South African cities, Cape Town is the best performer of South African metros but its progress in reducing its Gini Coefficient is slower than in other local cities. (UN Habitat, 2010)

"Unequal Scenes" in Cape Town

Cape Town photographer Johnny Miller embarked on a project to depict the drastic inequality of wealth in many parts of Cape Town. Miller used a drone to capture aerial footage of wealthy areas next to, but separated from, impoverished areas, with the aim to provide a new perspective. Miller's project has drawn attention to spatial inequality in the Western Cape, a tragic legacy of South Africa's divisive past. During Apartheid, spatial segregation was instituted as a policy, and roads, rivers, empty land and other barriers were used to separate communities. It has been over two decades since the end of Apartheid, but many of these barriers still remain.



Hout Bay (left) and Imizamo Yethu (right)

Source: Johnny Miller: johnny@millefoto.com © 2016

www.unequalscenes.com

1.5 Economy

The Western Cape is a major agricultural export area, the centre for the fisheries industry and the most valuable tourist destination in South Africa, and contributes approximately 14% to South Africa's GDP. Cape Town remains the economic hub of the province, contributing to 72% of the GDPR (WCG, 2017b).

Over the past few years, the Western Cape's economic growth has consistently outperformed that of the rest of the country. This is due mostly to the expanding tertiary sector (especially finance, insurance, real estate and business services), as well as the small mining sector in the Western Cape which decreases the province's exposure to changes in global commodity prices (WCG, 2017a).

1.5.1 Economic growth

Although growth in the Western Cape is intricately linked to growth of the national economy, over the last few years, the Western Cape outperformed the national economy (refer to Figure 1-9).

In 2015, economic output in the Western Cape rose by 1.5% compared to 1.3% for the rest of the country. The finance, insurance, real estate and business services sector led growth in the province, representing 23% of economic activity in the province. The construction industry followed, with 5% of the province's economic output. The agricultural sector contracted by 2% in 2015, contrasting with 8% growth in 2014. Growth in the transport, storage and communication, personal services and government services sectors also slowed (WCG, 2017a).

A longer-term analysis shows that growth in the Western Cape has largely been enhanced by three sectors namely: construction (average growth of 6% between 2006 and 2015); finance, insurance, real estate and business services (average growth of 4%) and general government (average growth of 4%). These were the only sectors where the average growth exceeded that of the Province (at 3%). The mining and quarrying sector (which has a regional GDP share of only 0.2%) and the electricity, gas and water sector decreased the province's overall growth (refer to Figure 1-10)(WCG, 2017a) .

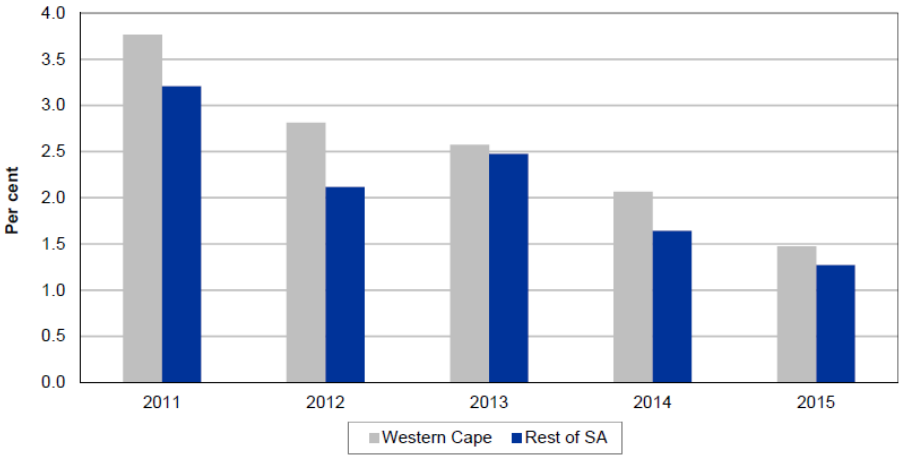


Figure 1-9: Economic growth in South Africa (excluding Western Cape) and the Western Cape between 2011 and 2015

Source: WCG, 2017a

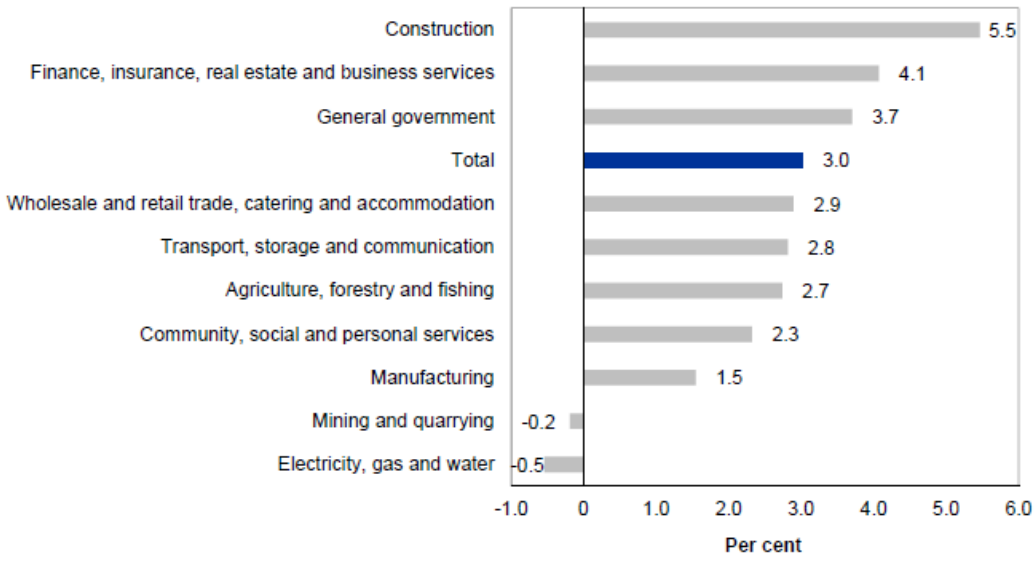


Figure 1-10: Growth rate of various sectors in the Western Cape between 2006-2015

Source: WCG, 2017a

1.5.2 Growth potential of urban areas outside Cape Town

In support of the Provincial Spatial Development Framework (PSDF), the Province commissioned the first Growth Potential study in 2004, followed by updated studies in 2010 and 2014 (DEA&DP, 2014). This study looks at the growth potential and socio-economic needs of the 131 towns in the province (excluding Cape Town), in order to identify potential initiatives that might unlock latent potential within regions. There is great diversity in the character and potential of Western Cape towns, with some delivering strong growth whilst others stagnate, and some being primarily residential with others strongly focused on a particular industry.

The 2014 Growth Potential study categorises nine settlements as having very high development potential, viz. George, Knysna, Paarl, Stellenbosch, Mossel Bay, Betty's Bay, Hermanus, Malmesbury and Vredenburg. Fifteen towns have high development potential, and 45 are in the medium development potential category (stable settlements). Thirty one of the remaining settlements have low development potential and 17 very low potential (struggling settlements) (Figure 1-11).

Proposed initiatives suggested in the Growth Potential study to unlock latent development potential in each of the district municipalities include the following:

- WCDM: algae growth for energy production, Cape West Coast Biosphere trail and airport developments;
- CWDM: medical and wellness tourism, windfarms and a bullet train linking Worcester with Cape Town;
- CKDM: Swartberg pass and tourism route, agro-processing/industry, and a correctional facility;
- EDM: Wilderness Beach front as waterfront development, miniature "Kruger National Park", and increased international visibility for the "Klein Karoo" tourism brand; and
- ODM: Bredasdorp/Caledon/Pearly Beach as local airport, upgrade of coastal route between Gansbaai and Agulhas, and tertiary education facilities.

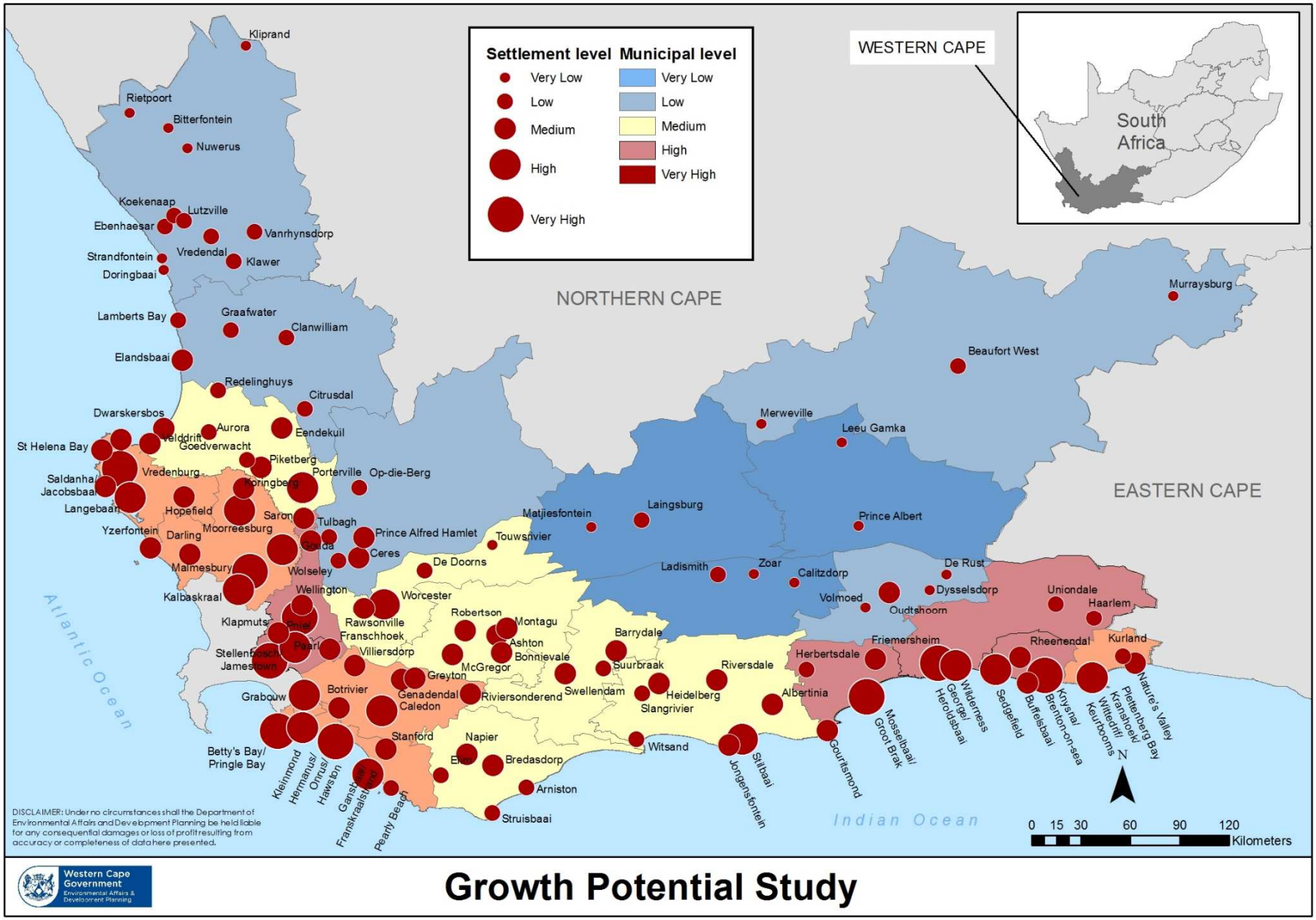


Figure 1-11: Spatial representation of the Growth Potential Index at settlement and municipal level

Annexure B

Table B1: Comparison of indicators used in 2013 and 2018 Western Cape reports

Theme	Indicators		
	WC 2013	**WC 2018**	**Comments**
Land	Land Cover	Land Cover	No changes were considered necessary.
	Land Capability	Land Capability	
	Land Transformation	Land Transformation	
Biodiversity and Ecosystem Health	Centres of Endemism	-	Contextual information, not a suitable indicator of change and has therefore been removed. Reflected in the State of Biodiversity.
	Vegetation Types	-	Contextual information, not a suitable indicator of change. Addressed via Ecosystem Threat Status as the accepted national measure for loss of ecosystems (vegetation types).
	Species Threat Status	Species Threat Status	No changes were considered necessary.
	Ecosystem Threat Status	Ecosystem Threat Status	
	Biodiversity Priority Areas	Biodiversity Priority Areas	
	Protected Areas	Ecosystem Protection Level	Ecosystem protection level is the accepted national measure for this indicator.
	Habitat Fragmentation and Degradation	Habitat Degradation	Insufficient provincial data to evaluate change in habitat fragmentation for the reporting period.
	Alien Invasive Species	Alien Invasive Species	No changes were considered necessary
Inland Water	Water Availability: • Supply • Demand -	Water Availability: • Supply • Demand • Loss due to alien vegetation	Additional indicator added due to sufficient data is available to quantify the effect of alien vegetation on water availability.
	Fitness for Use	Fitness for Use	No changes were considered necessary.
	Freshwater Ecosystem Health	Freshwater Ecosystem Health	
Oceans and Coasts	Coastal Water Quality	Coastal Water Quality	No changes were considered necessary.
	Estuary Health	Estuary Health	
	Conservation and protected Areas	Conservation and protected Areas	
	Marine Ecosystem Threat System	Marine Ecosystem Threat System	
	Transformation of threatened ecosystems in the coastal belt	Transformation of threatened ecosystems in the coastal belt	
	-	Number of buildings in high risk coastal areas	Additional key indicators identified through (ongoing) State of the Coast project.
	-	Exploitation of fish species	
Human Settlements	Housing	Housing	No changes were considered necessary.
	Access to basic services	Access to basic services	
	Access to transportation	Access to transportation	
	Open space provision	Open space provision	

Theme	Indicators		
	WC 2013	**WC 2018**	**Comments**
Air Quality	Atmospheric Pollutants • Particulate matter • Oxides of Nitrogen • Sulphur Dioxide • Greenhouse Gas Emissions	Atmospheric Pollutants: • Particulate matter • Oxides of Nitrogen • Sulphur Dioxide • Greenhouse Gas Emissions	No changes were considered necessary.
	District Municipality Indicators	District Municipality Indicators • Complaints registers • Air Quality Management Plan updates • Air Quality Forums • By-laws • Appointment of Air Quality officers	The indicator was amended to record and allow tracking of District Municipality responses.
Climate Change	Projected climate change patterns	Projected changes to climate variables	Name change to better describe what the indicator is tracking.
	Carbon footprint	Emissions profile	Name change to better describe what the indicator is tracking (includes profile of all Green House Gas (GHG) emissions over time.
	-	Extreme weather events	New indicator to better understand the occurrence, frequency and intensity of extreme weather events.
Energy	Energy generation	Energy supply	Amended as a wide range of energy sources are available.
	Energy use	Energy use	No changes were considered necessary.
	Energy intensity	Energy intensity	
	Domestic energy use	Domestic energy use	
	-	Reliability of Energy Supply	Additional indicator as unreliable energy supply drives the search for alternative energy sources.
Waste Management	Waste Generation	Volume of Waste Generation	Amended to be more specific.
	Municipal Waste Collection Services	Waste Collection Services	Includes private waste collection.
	Waste Management Facilities	Waste Management Facilities	No changes were considered necessary.
	-	Types of Waste Generated	Information to track this additional indicator available through the Integrated Pollutant and Waste Information System (IPWIS).
	-	Volume of waste Diversion away from Landfill	Information to track this additional indicator available through IPWIS.

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