

CITY OF CAPE TOWN ISIXEKO SASEKAPA STAD KAAPSTAD



State of Cape Town Report 2020

Policy and Strategy Department Research Branch

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Information is presented at the time of writing (June to December 2020), with updates where possible.

The overall approach to preparing this State of Cape Town report was to provide a focused and brief analysis and narrative. Accordingly, the information presented in the chapters of this summary focuses on key indicators and may not include all the theme-related urban indicators and full analytical context.

In this report, "City" refers to the City of Cape Town administration (organisation), including its elected councillors, responsible for the development and local administration of Cape Town. Lower-case "city", in turn, refers to the geographical area that is administered by the City of Cape Town, its physical elements, as well as all the people who live and are active in the area.

For readers' convenience, brief references are indicated in footnotes, with a full reference list following at the end of the report.

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List of abbreviations

ART	antiretroviral treatment
BioNet	Biodiversity Network
BRT	bus rapid transit
CBD	central business district
City	City of Cape Town (administration)
CoGTA	Department of Cooperative Governance and Traditional Affairs (national)
Covid-19	coronavirus disease 2019
DR-TB	drug-resistant tuberculosis
FDI	foreign direct investment
GDP	gross domestic product
GHG	greenhouse gas
GIN	green infrastructure network
GVA	gross value added
HIV/Aids	human immunodeficiency virus/acquired immune deficiency syndrome
ICT	information and communications technology
IDP	Integrated Development Plan
IUDF	Integrated Urban Development Framework
km	kilometre
ł	litre
MSDF	Municipal Spatial Development Framework
NIDS-CRAM	National Income Dynamics Study–Coronavirus Rapid Mobile survey
PM10/PM2.5	fine particulate matter with a diameter of less than 10/2.5 micrometres
PPU	Public Participation Unit
SDGs	sustainable development goals
Stats SA	Statistics South Africa
ТВ	tuberculosis
tCO ₂ e	tons of carbon-dioxide equivalent
TOD	transit-oriented development
µg/m	micrograms per metre
UM	Urban Management Directorate
UN	United Nations
WCWSS	Western Cape water supply system
WHO	World Health Organisation

Definitions

Biodiversity The variety in and between all species of plants, animals and micro-organisms, and the ecosystems within which they live and interact.

Biodiversity network The systematic, fine-scale conservation plan for the Cape Town municipal area, developed to meet national biodiversity targets.

Climate The average weather or, more rigorously defined, the statistical description of the mean and variability of relevant quantities (temperature, precipitation and wind) over a period of time, ranging from months to thousands or millions of years.

Climate change A shift in climate that is attributed directly or indirectly to human activity and that alters the composition of the global atmosphere in addition to natural climate variability observed over comparable time periods.

Climate change adaptation In human systems, the process of adjusting to actual or expected climate and its effects so as to moderate harm or harness opportunities. In natural systems, the process of adjusting to actual climate and its effects, while human intervention may facilitate adjustment to expected climate and its effects.

Climate change mitigation A human intervention to reduce emissions or enhance greenhouse gas sinks.

Covid-19 Coronavirus disease, which first emerged in 2019. Covid-19 belongs to the same family of viruses as severe acute respiratory syndrome (SARS) and certain common colds.

Ecosystem A dynamic system of plant, animal and micro-organism communities and their non-living environment, interacting as a functional unit.

Ecosystem goods and services The environmental benefits resulting from physical, chemical and biological functions of healthy ecosystems, including tangible goods produced from ecosystems (such as food, materials) and the material and non-material benefits provided by ecosystem processes (such as clean air and water).

Mean annual temperature/rainfall The average air temperature or precipitation for an entire year at any given location.

Resilience The capacity of individuals, communities, institutions, businesses and systems in a city to survive, adapt and thrive, no matter what kind of chronic stresses and acute shocks they experience.

Sustainability A dynamic process in which individuals, communities and society are enabled to reach their full potential, maximise quality of life and meet their economic, social and cultural needs, while simultaneously protecting, enhancing and managing the natural environment and optimising the economic benefits of ecosystem goods and services. This must occur through a framework of good governance and well-considered decision-making that ensures that these assets, their current functions and future potential are not undermined, and that no burden is imposed on future generations.

Introduction

This *State of Cape Town 2020* report is the eighth in a series produced biannually by the City of Cape Town. It seeks to provide information on, and evidence-based analysis of, the current urban setting, conditions and issues facing Cape Town, while also highlighting matters that need to be tracked and attended to as the city moves into the future. The purpose of the report is to outline the current context of Cape Town, providing a snapshot of its profile and the key issues, opportunities and challenges facing the city and its stakeholders.

The production of *State of Cape Town* is informed by key contextual factors. In 2020, these included a critical global health crisis, which soon escalated to an economic and social crisis and took on different forms in different countries, as well as Cape Town-specific urban development impacts, imperatives and needs.

The year 2020 is defined by the onset of the global coronavirus pandemic and its effect on health and mortality, as well the government effects of seeking to limit and manage the spread and impact of the virus. In March 2020, the World Health Organisation (WHO) declared Covid-19 a global pandemic after incidences had been reported in numerous Asian and European countries, as well as North America. Ever since, governments have prepared and published regulations, including various forms of lockdown regulations, to manage the effect of the spread of the novel coronavirus on their populations.

The South African government declared a national state of disaster on 15 March 2020 and announced a national lockdown on 23 March. As in many other countries, the regulatory response to the pandemic created (and still creates) an economic and social crisis across South Africa, which resulted in large-scale job losses, business failures, food insecurity, mental health challenges, and the effect of large-scale loss of life.¹

A group of South African economists and researchers sought to gain a better understanding of the socioeconomic effects of the coronavirus lockdown by implementing a rapid mobile survey, called the National Income Dynamics Study–Coronavirus Rapid Mobile (NIDS–CRAM) survey, in defined survey waves.² The high-level findings from wave 1 of the survey (April 2020)³ showed serious impacts on employment in South Africa relatively early on in the lockdown. These included the following:

- An 18% decline in employment between February and April 2020. According to the weighted NIDS-CRAM 2020 wave 1 data, three million fewer people were employed in April compared to February.4
- The drop in employment did not account for the large presence of furloughed workers and temporary layoffs. Even when accounted for, however, broadly similar trends prevailed, irrespective of how employment was calculated.
- By April, the proportion of adults who earned an income in February had declined by 33%, who were made up of a roughly equal share of those who had lost their jobs and those who had been furloughed.5
- Job losses were concentrated among the already disadvantaged.

A NIDS-CRAM wave 2 survey (June 2020) sought to determine whether any of the lost jobs had been regained, and whether hunger had decreased. The findings (September 2020)⁶ were as follows:

The three million jobs lost between February and April had not been recouped by June 2020.
 While most groups experienced some 'bounce-back' between April and June, employment levels remained well below the February 2020 levels. The lowest levels and slowest recoveries

¹ At the time of writing this report, the full effect of the pandemic was not yet known, especially as the pandemic continued manifesting in various strains and "waves".

² NIDS-CRAM was a short 20-minute telephone survey, so some relevant questions could not be asked. This means, for example, that it is not possible to estimate the change in unemployment between February and April using NIDS-CRAM. One can only estimate the fraction of the sample who had a job. For survey details and results, see http://nids.uct.ac.za/about/nids-cram/nids-cram.
³ Spaull et al., 2020a.

⁴ Based on a 95% confidence interval, the decline in the number of people employed from February to April was between 2,5 and 3,6 million.

⁵ Ranchold & Daniels 2020. Also see Jain et al., 2020, who report a 40% decline in "active employment", also split equally between those who were laid off and those who were either furloughed or put on paid leave.

⁶ See Spaull et al., 2020b.

were experienced by disadvantaged groups. Rural and peri-urban areas were hardest hit by unemployment.

- About 20% fewer households had run out of money to buy food by June 2020 compared to April 2020, although this measure of food insecurity was still at least double that of 2016.
- In urban areas, shack dwellers were most vulnerable to hunger. Approximately one in eight respondents (13%) indicated that they lived in "an informal house like a shack". Half of shack dwellers (51%) reported that they had run out of money to buy food by June, and 22% reported that someone in their household had gone hungry in the previous seven days.

Although there has been some economic recovery as lockdown levels have been eased, the economic impacts are expected to continue in 2021 and beyond, with further, potentially disproportionate social and environmental impacts to be expected for some years to come.

Against this backdrop, the *State of Cape Town 2020* report provides a review of the state of urban development in Cape Town and among its residents, using Census and General Household Survey data, economic data from the *Economic Performance Indicators for Cape Town* (EPIC) report, the City's planning, service and administrative data, supplemented by other relevant data sources. An attempt is made to provide the latest available data, namely data for 2018 and 2019. Where 2018 and 2019 data were not available, however, the most recent available data were used and referenced appropriately.

The report is aimed at policymakers and decision-makers, senior managers and other stakeholders, as well as researchers and ordinary residents who seek information on Cape Town and its diverse set of development opportunities and challenges.

This 2020 issue builds on the earlier editions and covers the five themes of social, the economy, natural wealth, urban growth and form (which focuses on infrastructure and services) and urban governance.

Each thematic chapter contains an overview of the current context and trends. Each chapter also provides an overview of the City's inputs in support of managing the impacts of the Covid-19 lockdown measures in Cape Town. These include providing financial support packages to poor and low-income households to assist with municipal service charges in the context of unfolding economic hardship, and monitoring the impact of Covid-19 and responding accordingly through the allocation of City resources (including human resources and municipal facilities) as well as through emerging recovery focus areas and plans.

This report does not purport to be a comprehensive overview of all the possible components and aspects that may shape Cape Town. Instead, it touches on the issues most pertinent to the City in 2020 and into the future, which include increasing economic growth and development, advancing social inclusion and cohesion, building the City's and Cape Town's resilience, and supporting sustainable development. A companion summary visual extract report was created in a shorter and more accessible format.

Chapter 1: Cape Town's economy

Key economic trends

Cape Town has one of the largest metropolitan (metro) economies in South Africa (see)

In 2019, it recorded R489 billion in gross domestic product (GDP) (in current prices), which accounted for 9,6% of the national GDP of R5 077 billion, and 71,1% of the Western Cape's GDP of R688 billion, and also contributed 11,1% to total formal employment in South Africa. Over the past five years, Cape Town recorded an average annual economic growth rate of 1,2% (constant 2010 prices), while the national economy recorded 0,8% over the same period.

Despite facing a severe drought in 2017/18, the city's economic performance proved resilient, and only temporarily fell to below national growth figures. The drought period aside, Figure 1.2 illustrates that Cape Town's economic performance mostly mirrors that of the national economy.

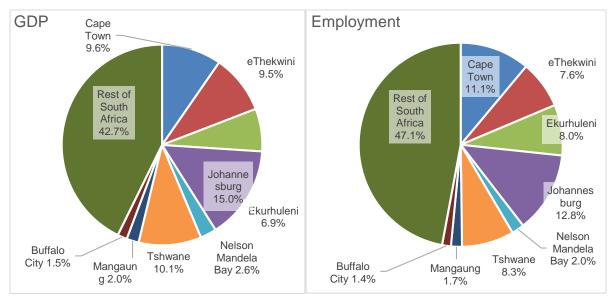


Figure 1.1: Cape Town metro GDP and contribution to South African employment, 2019 Source: IHS Markit, Regional eXplorer, 2020; Stats SA, Quarterly Labour Force Survey, 2019.

Cape Town's GDP per capita (current prices) is higher than that of the Western Cape and South Africa. In 2019, Cape Town recorded a per-capita GDP of R111 364, which was marginally higher than the Western Cape's R101 098, and notably higher than South Africa's R86 083. Despite the consistent difference in absolute terms, Cape Town's real GDP per-capita growth is on a par with the national rate. While both Cape Town and South Africa's real GDP per capita grew in the post-global financial crisis period (between 2009 and 2011), both have seen a decline in recent years (since 2015). This underscores the link between the performance of local and national economies.

As illustrated in Figure 1.2, Cape Town and South Africa were on a declining economic growth path up to 2019, with quarterly GDP data indicating that both the Western Cape and South Africa had entered a technical recession by the end of the fourth quarter of 2019. The contractions recorded for the Western Cape economy, coupled with the historical relationship between city and provincial annual GDP performances, suggest that Cape Town's economy likely mirrored that of the Western Cape during this period.

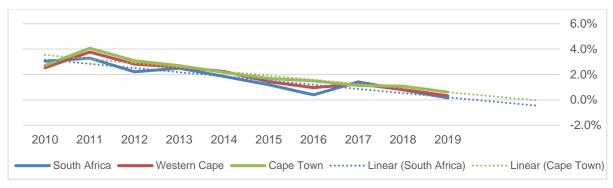


Figure 1.2: Average annual economic growth rate (constant 2010 prices), 2010–2019 Source: IHS Markit, Regional eXplorer, 2020.

With population growth rates remaining relatively stable (at 2,1% for Cape Town and 1,5% for South Africa over the past five years) (see Figure 1.3), lower real GDP growth as a result of a weakening domestic economic environment has contributed to a stagnation in real GDP per-capita growth. Despite its higher GDP per-capita levels, Cape Town's Gini coefficient⁷ remains relatively high, at 0,6, equal to that for South Africa. As a measure of income inequality, this indicates that a large portion of total income in Cape Town is skewed towards (usually a small percentage of) higher income earners.

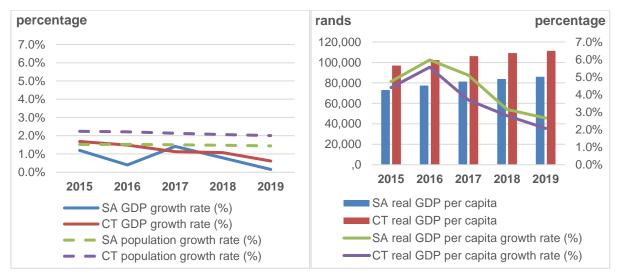


Figure 1.3: GDP growth and population growth, real GDP per capita (current prices), and real GDP per-capita growth, 2015–2019 Source: IHS Markit, Regional eXplorer, 2020; Stats SA, Mid-Year Estimates 2019.

Initial forecasts remained somewhat positive for a turnaround further into 2020 and beyond. However, with the WHO's declaration of the global Covid-19 pandemic in January 2020⁸ and subsequent lockdown measures implemented the world over, global growth forecasts swiftly deteriorated. In South Africa, a national state of disaster was declared on 15 March 2020,⁹ and the country has been under various levels of lockdown since 27 March 2020.¹⁰ This has limited economic activity to various degrees, but has also been accompanied by the introduction of a suite of fiscal and stimulus packages to buffer the economic shock.

⁷ The Gini coefficient ranges between 0 and 1. A lower score (closer to 0) indicates low levels of income inequality, while a higher score (closer to 1) points to high income inequality. ⁸ World Health Organization, 2020.

⁹ Ramaphosa, 2020a.

¹⁰ Ramaphosa, 2020b.

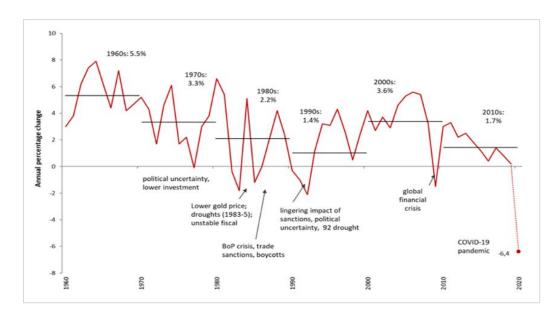


Figure 1.4: South Africa's historical economic performance, 1960–2020 Source: Department of National Treasury briefing on financial implications of Covid-19 on both the economy and budget, 30 April 2020.

The lockdown conditions and its extensive restrictions on economic activity were sufficient to revise forecasts. By April 2020, the Bureau for Economic Research (BER) had forecasted South Africa's economy to contract by 9,5% (real GDP) in 2020, and then recover to growth of 3,1% in 2021, and finally settle below 2% from 2022 to 2025. Upon drafting this report, forecasters were expecting 2020 to be the weakest period of economic growth in several decades, as illustrated in Figure 1.4.

Sectoral drivers of output and employment

Economic activity in Cape Town is dominated by the tertiary sector, which accounted for 80% of Cape Town's gross value added (GVA) in 2019. GVA growth of 0,6% in 2019 was supported by positive contributions by 13 of 34 subsectors, of which nine of the top ten were tertiary subsectors (see Figure 1.5). The shift from primary and secondary activities may affect the skills required from the local labour market. This is considered in more detail under "Labour market sociodemographics" below.

By contrast, the sectoral distribution of employment in Cape Town's economy (see Figure 1.6) reveals that only six of the top ten sectoral contributors to employment are from the tertiary sector, with two of the largest tertiary industries in terms of output (finance and real estate) not even featuring on this list. This illustrates a clear disparity between those sectors that drive output growth, and those that drive employment growth in Cape Town, and presents a challenge to reconcile the way in which the Cape Town economy is structured with what may be required to increase employment.

In terms of the impact of the Covid-19 pandemic on jobs in South Africa, job losses have mostly affected poorer households, and specifically also semi-skilled and unskilled workers. This will potentially reinforce existing structural imbalances in the Cape Town economy, and the further economic impact attributed to the pandemic may cause potentially deep and long-lasting economic damage in the metro and/or require reset(s) and structural changes.

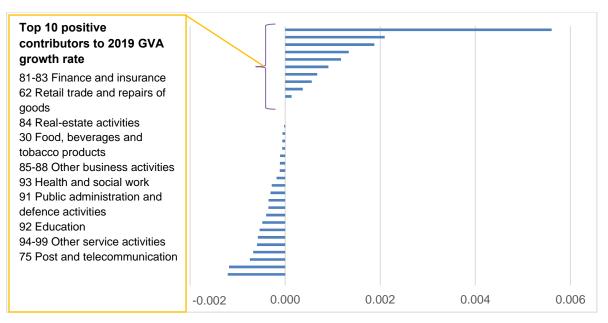


Figure 1.5: Sectoral contribution¹¹ (percentage points) to Cape Town's 2019 GVA growth rate

Source: IHS Markit, Regional eXplorer, 2020.

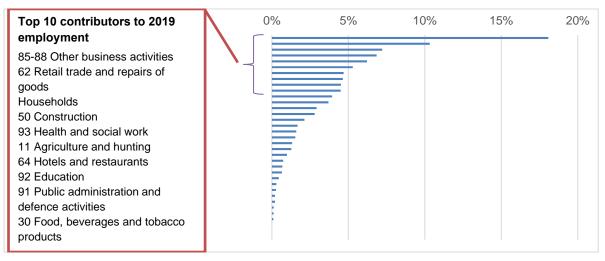


Figure 1.6: Sectoral distribution (percentage) of 2019 Cape Town employment Source: IHS Markit, Regional eXplorer, 2020.

Informal-sector contributions

Although an often-overlooked part of Cape Town's economy, the informal sector has been a relatively strong driver of employment and has gradually increased its contribution to total employment over the past five years. Historically, the City has almost exclusively focused on informal trading, but growing research has allowed for a broader view, encompassing all informal (limited or non-regulated) economic activity. According to Stats SA, employment in Cape Town's informal sector has increased from 5,0% of total employment in 2001¹² to 9,6% in 2014, and to 12,4% in 2019.¹³ Yet this remains low compared to other South African metros.14

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¹¹ This sectoral analysis is based on the 34 detailed standard industrial classification (SIC) codes, some of which are reflected in Figure 1.5 and Figure 1.6. ¹² Stats SA, 2001.

¹³ Stats SA, 2020 ¹⁴ Stats SA, 2020

Trade and investment trends in Cape Town

Driven by the City of Cape Town, the Invest Cape Town initiative aims to "strengthen and promote (Cape Town's) status as a high-performance, African business hub that supports big ideas and innovation". In addition, the city benefits from Wesgro, "the official tourism, trade and investment promotion agency for Cape Town and the Western Cape".¹⁵



Figure 1. 7: Foreign direct investment inflows into Cape Town, 2008–2020 Source: Wesgro, 2020.

According to data on foreign direct investment (FDI) markets,¹⁶ 98 FDI projects were recorded in Cape Town between 2016 and 2020, which represented a total capital investment of R2,3 billion. Despite the rand value of projects having declined since 2017, the average capital expenditure value during the past five years has remained fairly consistent, at R23,9–R24,4 million, only dipping to a low of R14,8 million in 2019 before it increased again in 2020. The notable decline in 2020 – in rand value, number of projects, and jobs created – can be attributed to the global pandemic, which posed a major disruption to economies and business (see Figure 1.7).

Figure 1.8 shows that Cape Town's export levels averaged at 19,7% of GDP between 2015 and 2019, mirroring national trends, though slightly lower than the national average of 25,5% in the same period. The international trade balance remains skewed towards greater import levels, which is a gap local economies can improve on. Between 2015 and 2019, Cape Town's export growth declined from 7,3% to 2,8%.

¹⁵ Wesgro, 2018.

¹⁶ Wesgro, 2020.

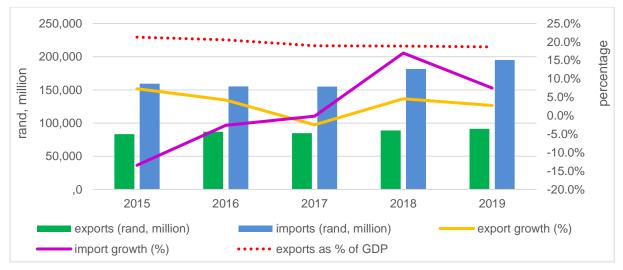


Figure 1.8: International trade in Cape Town, 2015–2019 Source: IHS Markit, Regional eXplorer, 2020.

Labour market socio-demographics

Cape Town's labour market is affected by many of the same constraints experienced in the national labour market, including high levels of unemployment, and a skills mismatch between labour demand and supply. Cape Town has consistently had the lowest broad unemployment rate¹⁷ of all the South African metros, and recorded relatively high rates of labour absorption and labour force participation. In 2019, Cape Town had a labour force of 2 million people, with a labour absorption rate of 53,9% and a labour force participation rate of 69,0%. Cape Town's strict unemployment rate in 2019 was 21,9% (447 327 unemployed individuals), and its broad unemployment rate only slightly higher at 24,1%.

Figure 1.9 illustrates the complex relationship between employment creation and the broad unemployment rate. While fluctuating from one year to the next, the overall downward trend in the unemployment rate (from 25,7% in 2014 to 24,1% in 2019) corresponds with an increasing trend in employment over this period.

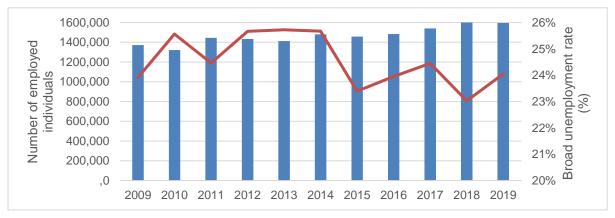


Figure 1.9: Employment creation versus broad unemployment rate, 2009–2019 Source: Stats SA, Quarterly Labour Force Survey, 2009-2019.

¹⁷ The broad unemployment rate differs from the strict or narrow unemployment rate, as the former includes non-job-seeking persons as well (Stats SA, 2019).

The demographic profile of Cape Town's labour market reveals three challenges that undermine efforts to develop a more inclusive economy. These are (i) that females are still struggling to enter and be successfully absorbed into the labour market,¹⁸ (ii) that youth unemployment is high, and (iii) the lack of tertiary skills or, rather, the skills mismatch between labour supply and demand.¹⁹

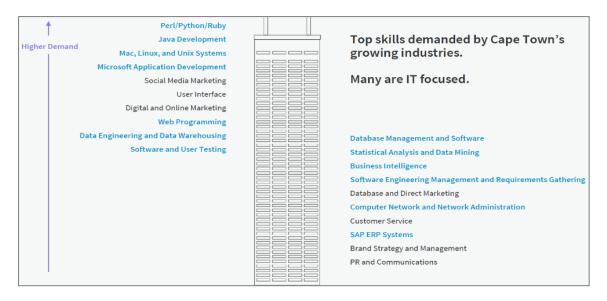


Figure 1.10: Skills demand from Cape Town's growing industries Source: LinkedIn, 2017.

One of the key issues that Cape Town's labour market faces is a growing skills gap. The type of industries that are shaping the city's economic landscape require tertiary-level skills, while the skills that are being provided at present largely feed into primary and secondary-level economic activities. LinkedIn data from 2017 (Figure 1.10) confirm the increasing demand for higher-skilled individuals.

The City's draft Inclusive Economic Growth Strategy²⁰ proposes a range of learner and training programmes, internships and skills development that are required to address this gap.

Conclusion

Robust and improved economic growth is a foremost goal of economic development strategies, whether at a national or city level. However, Cape Town's experience, as shown in the above analysis, shows that this goal cannot be pursued without due consideration of a number of other factors. Natural resource constraints – acutely evidenced by episodes of electricity load-shedding – compel businesses and policymakers in the city to take stock of the sustainability of their growth paths.

Similarly, the lop-sidedness of Cape Town's recent (and probably also future) economic growth towards high-skill/high-tech industries, along with the demographic profile of its labour market, necessitates significant investments in human capital to future-proof the city's economy and make it as inclusive as possible. Sectoral employment is also important, as many livelihoods are linked to tourism, hospitality, agriculture and retail trade. Under Covid-19 lockdown conditions, unprecedented restrictions on trade across economic sectors are likely to have a significant impact on business closures linked to the restriction of movement, as well as on individuals employed in the sector. The global pandemic has further highlighted inefficiencies that need to be addressed to build a more sustainable, resilient and inclusive economic environment.

¹⁸ See Campbell Collaborations, 2017, for recommended interventions to unlock female empowerment in the workforce, especially in low to middleincome households.

¹⁹ Stats SA, 2019. ²⁰ City of Cape Town, 202

²⁰ City of Cape Town, 2020.

Chapter 2: Society

Cities are more than mere urban infrastructure and hubs of economic activity, but are also social hubs of individuals, families and groups with different cultural backgrounds, needs and aspirations. South Africa's vision is for urban dwellers to have access to social and economic services, opportunities and choices,²¹ aligned with the global vision of sustainable and resilient cities pursued through the New Urban Agenda.²² The social dimension of South African cities is important in understanding some of the factors that affect their growth and development trends.

Cape Town's demographic, health, education, poverty, inequality and crime trends point to multiple social opportunities and challenges affecting the growth and development of the city.

Key population trends

Cape Town is the second-largest municipality in the country – after Johannesburg, which in 2019 had a population of around 5,7 million people. Projections put the total population of Cape Town at approximately 5,1 million by 2030.²³ In 2019, Cape Town's population figure was estimated at 4 488 546^{24} - 8,7% more than the 4 129 923 of 2015.

The population of Cape Town is estimated to have grown at an average annual rate of around 2% over the past five years, as indicated in Table 2.1.

Table 2.1: Cape	Town	population	growth.	2014-	2019
	,	o op and a orr	g. o ,		

		2014	2015	2016	2017	2018	2019
Cape	Estimated population	4 039 386	4 129 923	4 221 419	4 311 386	4 400 240	4 488 546
Town	Annual increase		2,24%	2,22%	2,13%	2,06%	2,01%

Source: Compiled by Policy and Strategy Department, City of Cape Town Research Branch, from Statistics South Africa, Mid-Year Estimates 2019.

Cape Town had an estimated 1 402 671 households in 2019, compared to 1 243 953 in 2015, with the average household size estimated to have decreased slightly from 3,32 members in 2015 to 3,20 in 2019. This combination of an increasing population and smaller household sizes will likely mean a continued increased demand for low-income housing in the city.

State of health

With more than 100 healthcare facilities located in communities across the metropolitan area, and a number of mobile and satellite clinics, the City's Health Department focuses on delivering healthcare services to those most in need. In addition, the Western Cape Health Department's Metro District Health Services operate 47 community health centres and 24-hour emergency services at a primary care level, along with six district hospitals.²⁵

The average life expectancy at birth in the Western Cape, which can be used as a proxy for Cape Town, has increased steadily for both females and males – from 64,2 years for males and 70,3 years for females in the period 2011–2016, to 65,7 years for males and 71,0 years for females in the period

²¹ This is one of four strategic goals of CoGTA's Integrated Urban Development Framework (IUDF) (2016) to realise South Africa's urban vision for 2030.

²² Department of Human Settlements (DHS) (2018), for example, observed broad alignment between the IUDF and the New Urban Agenda.

 ²³ City of Cape Town, 2019a
 ²⁴ City of Cape Town 2019b, Policy and Strategy Department, using Stats SA Mid-Year Estimates 2019.

²⁵ City of Cape Town, City Health Department. 2020a.

2016–2021.²⁶ This indicates improved healthcare conditions. This trend is supported by movement in the infant mortality rate which for South Africa was 23,6% per 1 000 live births in 2020 (down from 38,2% in 2010).²⁷

HIV/Aids has been a major health concern for the country, including Cape Town, over recent decades, and large-scale resources have been channelled to preventing both mother-to-child transmission, and making antiretroviral treatment (ART) available to people diagnosed with HIV.

A total of 206 935 patients were receiving ARTs in Cape Town in 2019, compared to 139 419 in 2015,²⁸ representing an increase of 32,6% over five years. Access to health care and ARTs is important for HIV-positive people to maintain a healthy quality of life.

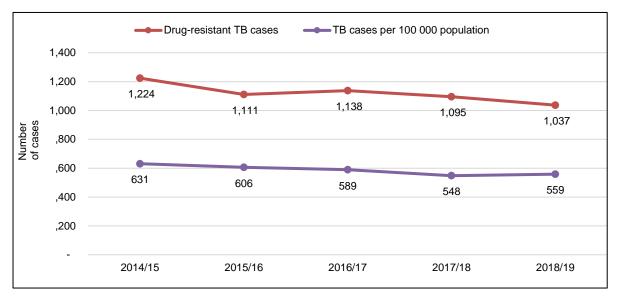


Figure 2.1: TB cases per 100 000 population in Cape Town, 2014/15–2018/19 Source: City of Cape Town, City Health Department, 2020a.

Tuberculosis (TB) is a communicable disease that affects HIV-positive people particularly negatively, and reduces individual, household and community resilience to unexpected stresses and shocks associated with sudden social and other challenges.

There has been a general downward trend in TB cases in Cape Town, having dropped from 631 cases (per 100 000 people) in 2014/15 to 559 cases (per 100 000 people) in 2018/19 (Figure 2.1). The number of Cape Town patients with drug-resistant TB (DR-TB) also declined from a high of 1 224 (per 100 000 people) in 2014/15 to 1 037 (per 100 000 people) in 2018/19.²⁹ The decline suggests that improvements in TB outcomes have been achieved in recent years, and that more patients are adhering to their TB treatment regimes.

Public health and health outcomes are the product of multidimensional and complex factors linked to the social determinants of health. There is a need in the health sector to ensure that preventative and useful primary healthcare services, including preventative mental health promotion and services,³⁰ are accessible to Cape Town residents so as to reduce the burden of disease.

In 2020, the Covid-19 global pandemic posed significant challenges to both Cape Town and the City. The pandemic called for an unprecedented global health response, and the City heeded the call. During the first wave of the pandemic, avoiding an overload of City and provincial healthcare facilities and

²⁶ City of Cape Town 2019b, Policy and Strategy Department, using StatsSA Mid-Year Estimates 2019.

²⁷ Statistics South Africa. 2020. Mid-year Population Estimates.

 ²⁸ City of Cape Town, City Health Department, 2020a.
 ²⁹ City of Cape Town, City Health Department. 2020a.

³⁰ Gray et al., 2017.

systems proved key to the local Covid-19 response to slow the rate of infection among residents and, hopefully, lessen the impact of the pandemic on both individuals and the healthcare system.

From March 2020, the City boosted its health resources to help curtail the Covid-19 crisis by allocating additional support to its health response and augmenting cleansing and sanitation services. The City's Health Department continues to work as part of a national multi-agency response to the Covid-19 outbreak. Despite a number of challenges posed to those on the front lines, City clinic staff have been assisting with client screening and testing as part of the Western Cape's COVID-19 strategy, and educating and raising awareness in this regard.

The City's Health Department has also continued to provide routine primary healthcare services at all primary care clinics, albeit in a Covid-19-cautious and safe manner. The approach has included screening of all clients attending clinics, testing when necessary, as well as working closely with case management teams across town to follow up and care for Covid-19 cases.

Research globally³¹ has shown that the fear of Covid-19 exposure has depressed health-seeking behaviour among people with chronic illnesses and those with acute illnesses.³² At the height of the pandemic towards the end of 2020, when many countries were already experiencing a second wave of infections, elective surgeries were postponed to free up healthcare resources to treat Covid-19 infected patients. The full impact of this is yet to be revealed in those Cape Town residents under chronic care and needing surgery.

Poverty and inequality

Cape Town is characterised by significant levels of inequality, vulnerability and poverty.³³ Poverty statistics for the period 2014 to 2018 (Figure 2.2) reveal the following:

- The percentage of households living in poverty reduced from 24,2% in 2017 to 16,3% in 2018.
- The number of poor households in the black African population group declined from 42,8% in 2014 to 20,5% in 2018.
- Poverty levels among coloured households increased from 23,8% to 27,7% between 2014 and 2016, and then reduced to 18,7% in 2018.
- Poverty among white households increased from 5,9% in 2015 to 6,1% in 2018.

It is not yet clear what the full and longer-term impact of Covid-19 will be on the poverty profile of people in South Africa and Cape Town. Anti-poverty gains are likely to be reversed to some degree when the full impact is measured.

In the course of 2020, several initiatives sought to cushion poor households and residents from the worst impacts of the unfolding health, economic and social crisis. Recipients of social grants obtained additional financial benefits from National Government, with increased disbursements.

³¹ Chudasama et al., 2020.

³² Smith, 2020.

³³ Poverty in this context refers to households earning R3 500 or less per month. This excludes households with an unspecified income. Poverty has multiple dimensions and comprises several aspects that contribute to deprivation, including inadequate and/or insecure income, poor health, a low living standard and disempowerment.

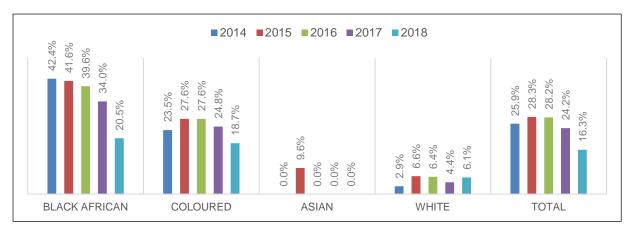


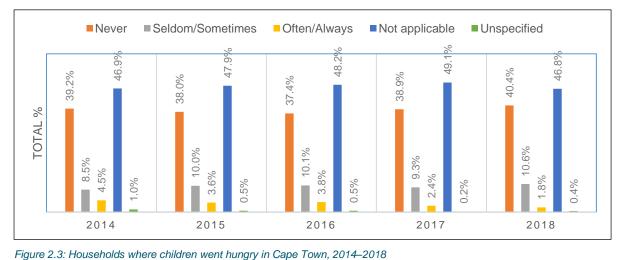
Figure 2.2: Cape Town households in poverty, 2014–2018

Source: Compiled by the Policy and Strategy Department, City of Cape Town, using Stats SA 2014–2018 General Household Survey.

In June 2020, the City approved a R3 billion social package to support indigent, disabled and pensioner residents of Cape Town. This included raising the indigent threshold to an income of R7 000 per month so that more people can qualify for relief, and increasing the rates discount for many in this category. The City further outlined a quicker and easier application process to access the indigent grant.³⁴

Food security

Food insecurity³⁵ among the urban poor is a public health challenge affected by resource insufficiency (such as food shortages due to drought) and spatial inaccessibility (such as food deserts), unaffordability, or a combination of these factors,³⁶ and has been linked to detrimental health outcomes.³⁷



Source: Compiled by the Policy and Strategy Department, City of Cape Town, using Stats SA 2014–2018 General Household Survey.

Robust indicators to monitor urban food security are limited, and data are difficult to source. For 2014 to 2018, data on hunger in Cape Town (Figure 2.3) show an increase in the proportion of children in

³⁴ Other measures taken included the extension of rates relief to all properties valued below R300 000, or where household monthly income was below R4 500, with the offer of 100% property rates and refuse removal rebate, 10,5 kl of free water, 7,35 kl of sanitation and 60 kWh of free electricity for low-consumption users. A range of interest-free payment options were also made available to residents who had fallen behind on their rates.

rates. ³⁵ Food security exists when all people, at all times, have physical and economic access to sufficient safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life. FAO, 2008.

³⁶ Van Breemen, 2014.

³⁷ FAO, 2008.

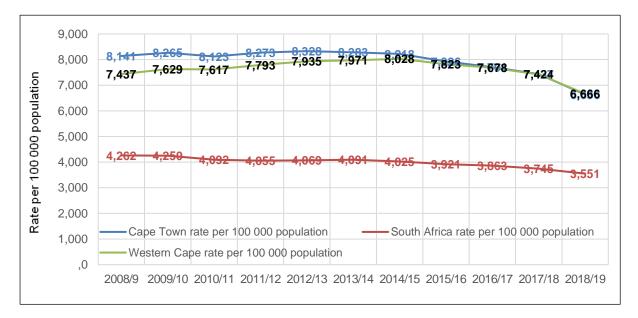
households which reported that they had *seldom/sometimes* gone hungry over the preceding 12 months due to food shortages. Encouragingly, the data show a drop in the proportion of children in households who reported that they had *often/always* gone hungry over the preceding 12 months due to food shortage.

Covid-19 has affected the food value chain in South Africa. Poor households remain most vulnerable to food disruptions, and most exposed to any increase in food prices. While food relief remains the direct responsibility of National Government through the South African Social Security Agency (SASSA), the City continues to work to fill the gap with food assistance to those who need it most.

Safe communities

Urban safety is recognised globally as a basic human right, a public good, and essential for urban development.³⁸ The rise in crime and violence is a critical urban development challenge – in South Africa, and specifically in Cape Town, where violent crime rates are well above global and national averages.

Cape Town's crime statistics continue to highlight a major challenge for the city and its residents, revealing the country's highest rate of contact crime (which includes murder, attempted murder, sexual crime and common assault crime), the highest rate of robbery with aggravated circumstances, and the highest murder rate. Crime statistics for 2018/19 (Figure 2.4) show that the overall reported crime rate (per 100 000 population) dropped between 2008/9 and 2018/19. However, Cape Town's crime rates remain nearly double those for the rest of the country. Organised crime and gang violence are major problems in Cape Town, and the city's high murder rate³⁹ negatively affects residents' quality of life as well as investment in the local economy.⁴⁰





Source: Compiled by the City of Cape Town Policy and Strategy Department, using data from SAPS, 2019. Crime statistics 2008/9–2018/19. as well as Cape Town and South African population estimates using StatsSA mid-year estimates 2008/2009 to 2018/2019.

⁴⁰ BusinessTech, 2017.

³⁸ The IUDF recognises that fear of violence and crime prevents residents from benefiting from the economic, social and cultural opportunities offered by cities, and calls for safety to be mainstreamed in the different sectoral plans and programmes (COGTA, 2016). Also see: http://unhabitat.org/urban-themes/safety/.

³⁹ Figure 2.4 shpws that South Africa's national murder rate is about 36 per 100 000 (2018/19). In 2018/19, Cape Town had a high murder rate of 72 per 100 000 population - up from 61 per 100 000 population in 2014/15. This is two times the country's average rate in 2018/19 (Policy and Strategy Department, City of Cape Town).

Safety and security is a continued City focus area. Together with the Western Cape government, the City has launched the Law Enforcement Advancement Plan (LEAP) programme to train, equip and deploy more law enforcement officials across town. This initiative is intended to support the crime-fighting efforts of the South African Police Service (SAPS). The LEAP was approved in November 2019 to guide the City's efforts in supporting the provincial safety plan.⁴¹

Conclusion

It is impossible to reflect on 2020 without putting the novel coronavirus and its social impact at the centre of the discussion.

The extent of a city's preparedness for the coronavirus outbreak depended on its capacity to prevent, detect, respond and care for patients. The ability to communicate and implement emergency response plans also remained essential, as was the availability, quality and accessibility of hospitals, clinics, care facilities and essential equipment.⁴² The key focus area for the City remained using the resources at its disposal to achieve effective redress and assist the most vulnerable members of Cape Town society.⁴³

The first-wave 2020 Covid-19 lockdown bought time for government to ready its health systems to cope with the virus spread in the population, and the expected demands on the healthcare system.⁴⁴ The projections of potentially extensive loss of life informed National Government's lockdown strategy. This approach severely curtailed economic activity, with a subsequent loss of profits for businesses. The knock-on effects of job losses and increased social hardship for families across the socioeconomic spectrum created a humanitarian crisis and required local, provincial and national government to distribute food parcels to households and families.

At the time of compiling this report toward the end of 2020, a second wave of infections was on its way. The Covid-19 crisis continued to affect communities and households, and economic recover was still a long way off. Social recovery – as a lag effect – will take even longer to manifest.

Chapter 3: Urban growth and form

The City's Integrated Development Plan (IDP) 2017–2022 embraces the principles underlying resilient urban form. The City actively promotes an urban form with higher densities and mixed land use patterns in a central development core, surrounded by transport zones and a bus rapid transit (BRT) and rail network. The IDP also emphasises the use of technology to advance development progress.

Urban form elements are among the most enduring components of cities, and elements such as street networks are likely to remain in place for decades and even centuries. Undesirable patterns have a significant socioeconomic and environmental impact and tend to trap cities on undesirable pathways for extensive periods. In South Africa, cities still struggle to undo the effects of deeply entrenched apartheid planning and patterns.

Key trends in the built environment

A revised spatial framework is intended to ensure that Cape Town's urban form has higher densities and mixed land use, with equitable green spaces and transit-oriented development (TOD).⁴⁵ The City's Transport Directorate is charged with ensuring that Cape Town has an efficient and integrated transport system. However, Cape Town remains challenged by the high use of private vehicles, resulting in ongoing traffic congestion problems.⁴⁶ Cape Town's integrated transport infrastructure network includes

⁴¹ City of Cape Town 2019d. The plan outlines the City's objective of boosting its law enforcement capacity as part of the provincial safety plan launched in September 2019.

⁴² Muggah & Katz, 2020.

⁴³ Cape Argus, 2020.

⁴⁴ City of Cape Town. 2020b. Available: https://www.capetownccid.org/news/covid-19-its-impact-cape-town-cbd.

⁴⁵ City of Cape Town, 2018b.

⁴⁶ City of Cape Town, 2015.

1 014 km of rail,⁴⁷ 32 km of dedicated red lanes for the City-owned BRT system, 450 km of cycling lanes⁴⁸ and 109 pedestrian bridges.⁴⁹ The City strives to deliver quality basic municipal services, and to maintain and expand its services, as is evident from the above 90% levels of access to all basic services recorded between 2015 and 2019. However, the number of informal dwellings increased slightly between 2014 and 2018.⁵⁰ The provision of housing located close to economic opportunities remains a challenge, but the City is responding to the call using an integrated approach.

With regard to infrastructure and connectivity, Cape Town is offering easy internet access. In the five years from 2014 to 2018, Cape Town residents' internet and cell phone access increased significantly. Through the City's broadband initiative, all the City's 104 public libraries in the metropolitan area offer users free internet and computer access.

Dense and transit-oriented development

The City's revised Municipal Spatial Development Framework (MSDF)⁵¹ was approved on 25 April 2018. The MSDF for Cape Town prioritises public expenditure on an urban inner core by focusing on inward growth instead of growth on the city's boundaries (Figure 3.1). The MSDF seeks to transform Cape Town's spatial form by bringing people closer to jobs, and jobs closer to people.⁵²

⁴⁷ Transport for Cape Town, 2018a.

⁴⁸ Transport for Cape Town, 2018b.

⁴⁹ City of Cape Town, 2017b.

⁵⁰ An increase of 2,3 percentage points – from 17,0% in 2014 to 19,3% in 2018. See Figure 3.3 below.

⁵¹ The MSDF guidelines depart from the Spatial Planning and Land Use Management Act, 2013 (SPLUMA) and the Western Cape Land Use Planning Act, 2014 (LUPA) to promote consistency and uniformity in procedures and decision-making. The guidelines serve to clarify the roles and responsibilities of government spheres in preparing spatial development frameworks at provincial, regional, municipal and local levels. See https://www.westerncape.gov.za/eadp/files/atoms/files/Annual%20Performance%20Plan%202019-2020.pdf. ⁵² City of Cape Town, 2018b.

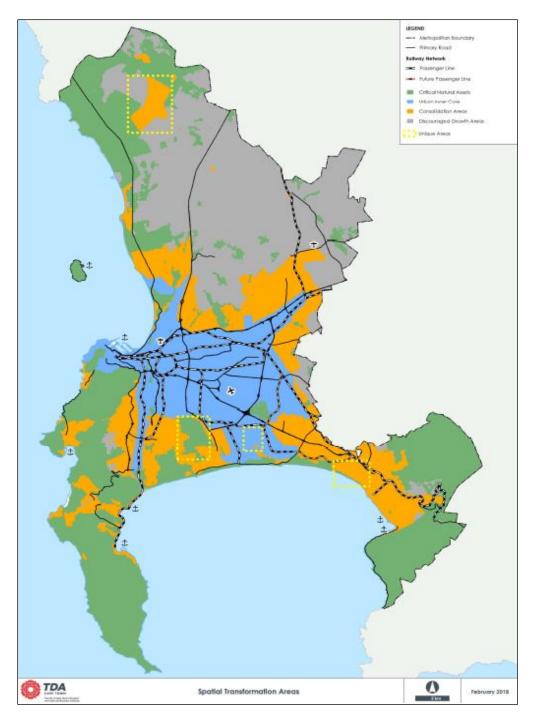


Figure 3.1: Spatial transformation area for Cape Town Source: City of Cape Town, 2018b.

In 2011, Cape Town had a gross (average) population density of 1 840 people/km^{2,53} In Cape Town, lower-income areas with larger household sizes display higher densities than more affluent areas, except where affluent areas are characterised by high-rise apartment buildings, such as in the Cape Town city centre (central business district and Atlantic coastline). Densities are highest in the poorer metro southeast (see Figure 3.2).

⁵³ City of Cape Town, 2018c.

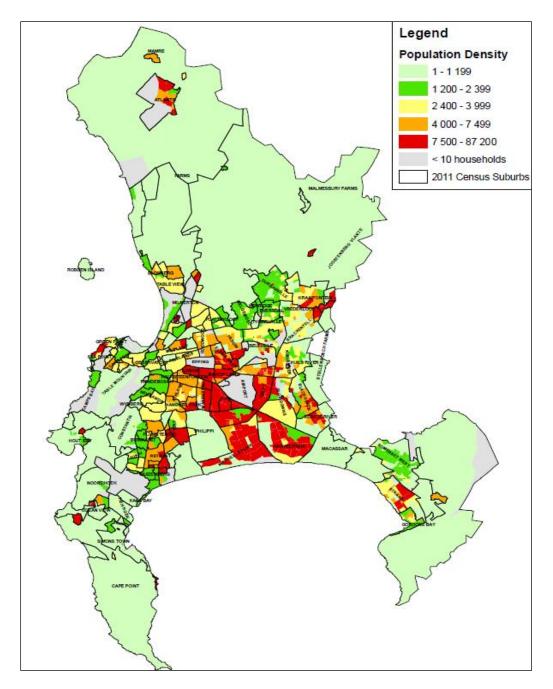


Figure 3.2: Cape Town gross population density per km2, 2011 Source: City of Cape Town, 2020. Policy and Strategy Department, using Census 2011 data from Statistics South Africa

Excellence in mainstreaming basic service delivery

Resilient cities have reliable infrastructure networks in place with built-in redundancies to ensure secure and uninterrupted provision of quality basic services.

Between 2014 and 2018, household access to piped water, sanitation and energy decreased slightly in Cape Town, though at generally high levels of access (Table 3.1). Household access to refuse removal improved over the same period. All formal households in Cape Town receive a basic weekly kerbside refuse removal service using the wheelie bin system. A total of 99,74% of informal settlements have

access to a door-to-door refuse collection service or ongoing area-cleaning services. The remaining 0,26% do not offer the access required to deliver these services.⁵⁴

The City provides access to water and sanitation services for all Cape Town households in compliance with national norms and service standards. However, some settlements or dwellings temporarily fall outside the national service standard when located on private property or on land that is difficult to service. Services to informal settlements and informal additional dwellings (so-called "backyarders") are continually being improved in line with the City's service standards. With regard to sanitation, the City continues to aim for a higher service standard, which specifies a maximum ratio of five households to one toilet for informal settlements.

Basic services/year	2014	2015	2016	2017	2018
Water	98,7%	96,3%	95,7%	95,4%	96,1%
Sanitation	93,5%	91,8%	92,4%	92,0%	92,4%
Refuse removal	92,2%	94,6%	96,5%	96,5%	95,5%
Energy source	98,3%	96,7%	91,7%	91,7%	93,3%

Table 3.1: Household access to basic services⁵⁵ in Cape Town, 2014–2018

Source: Stats SA, General Household Survey 2015–2018. Compiled by the Policy and Strategy Department, City of Cape Town.

The 2015–2017 drought in the Western Cape led to a number of initiatives to avert a water crisis in the short term, and to incrementally diversify water sources and reduce the city's reliance on surface water in the longer term. Cape Town's new Water Strategy, approved in 2019, aims to secure Cape Town's water future (including through alternative water supplies) by building new capacity of about 300 million litres per day over the next ten years.⁵⁶

In terms of energy, the City distributes electricity to residential and commercial/industrial customers in its supply area. The administration is committed to rapidly expand its sustainable-energy programmes and ramp up its climate action commitments by extending its Energy2040 goal to carbon neutrality by 2050. This led to the creation of a dedicated Energy and Climate Change Directorate as part of the City's restructuring process at the end of 2018.

Access to housing

Households living in informal dwellings⁵⁷ increased from 17,0% to 19,3% between 2014 and 2018 (Figure 3.3).

⁵⁴ See "Natural environment" for more detail on waste services. Data on access to basic services may differ between the Stats SA General Household Survey, which reflects household demand, and figures provided by the City, which reflect services supplied in line with service-level standards and regulations.

⁵⁵ Access to water refers to access to piped water, either on the property or within 200 m. Access to sanitation refers to access to a flush toilet, a chemical toilet or a pit toilet with ventilation. Access to refuse removal refers to a removal service at least once a week. Access to energy refers to the use of electricity from mains supply for lighting.

⁵⁶ City of Cape Town, 2019a:7.

⁵⁷ Informal dwellings include informal dwellings in settlements, in backyards as well as traditional dwellings.

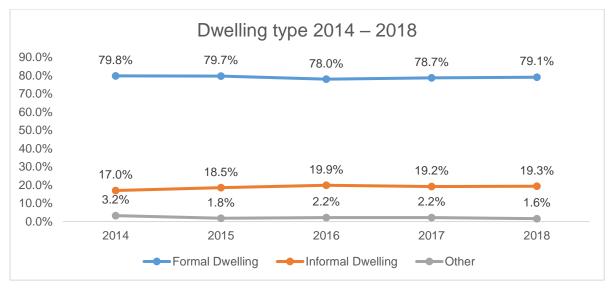


Figure 3.3: Household housing type in Cape Town, 2014–2018

Source: Stats SA, General Household Survey 2014–2018.

The City recognises that formal, state-subsidised housing delivery for poorer households occurs mainly through large-scale developments of freestanding units, mostly located on the urban edge, which reproduces spatial segregation of the poor.

For a more compact and inclusive city, social housing is required on better-located land, which is why the City is pursuing the provision of inclusionary housing through in-fill development. Certain townships (such as Joe Slovo Park in Milnerton) are already strategically well located relative to job opportunities and transport, having benefited from the MyCiTi bus service roll-out. The area is seeing an increase in residential density, particularly through the provision of informal additional (backyard) dwellings by private landlords.⁵⁸ Areas around the city centre have been identified for affordable and social housing opportunities, including the Salt River market, Woodstock hospital and Pine Road, as well as other areas across town.⁵⁹

A strategy identified in the draft Human Settlements Strategy⁶⁰ is for the City to facilitate densification of existing areas through changes in zoning regulations.⁶¹ This can potentially create better-integrated human settlements, accommodating a range of income groups and household types, while also creating affordable and inclusionary housing on well-located land close to public transport and job opportunities. This approach also recognises that private landowners may bring low-cost rental housing alternatives into the market at a faster rate than the public sector.

An efficient, integrated transport system

Figure 3.4 below shows the predominance of private cars on Cape Town roads, having increased from 39,31% in 2014 to 42,78% in 2018. It also illustrates the disastrous performance of the commuter rail system, with a drop in users of over 8 percentage points from 14,83% in 2014 to 6,15% in 2018, and the shift to minibus taxis, which has translated into even more vehicles on the road. People walking to work, those who use motorcycles or bicycles as well as those working from home also increased from 2014 to 2018. This may be the result of spatial plans that bring people closer to work, or the upswing in (mainly young) people seeking to live close to or in the city centre – a trend that is already increasing pressure on affordable housing in suburbs surrounding the CBD.

⁶⁰ This strategy was out for public participation at the time of writing.
⁶¹ The City of Cape Town: Municipal Planning By-Law, 2015, has already been amended to include, among others, secondary dwellings as additional uses under certain categories, such as rental.

⁵⁸ City of Cape Town, 2018a.

⁵⁹ City of Cape Town, 2019c, Media statement on "Affordable housing opportunities in Woodstock, Salt River precincts remain a priority"

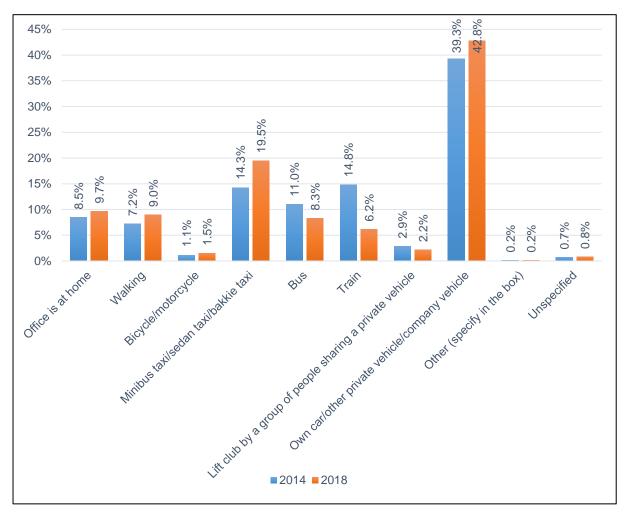


Figure 3.4: Mode of transport to work in Cape Town, 2014 and 2018 Source: Stats SA General Household Survey, 2014 and 2018.

In medium to large metros, a well-functioning mass urban public transport system is critical for improved mobility between residences and workplaces. In Cape Town, however, a large number of low and low-to-middle-income groups have to (and some prefer to) use public transport daily, while the majority of middle-to-high and high-income groups never use public transport. This is a significant departure from international trends where good public transport is available.

Rail and minibus taxis in Cape Town are rated poorly for (their lack of) comfort, security, safety, reliability, appearance, accessibility and convenience. The unreliability of the metro rail service also forces commuters to switch to more expensive alternatives, such as bus, taxi or private cars. This adds to residents' transport costs and increases traffic congestion.

More cars on the road have resulted in longer commutes between home and work. This is evident from the higher proportion of commuters spending 31 to 60 minutes and 61 to 90 minutes or more travelling to work in both 2014 and 2018 (Figure 3.5).

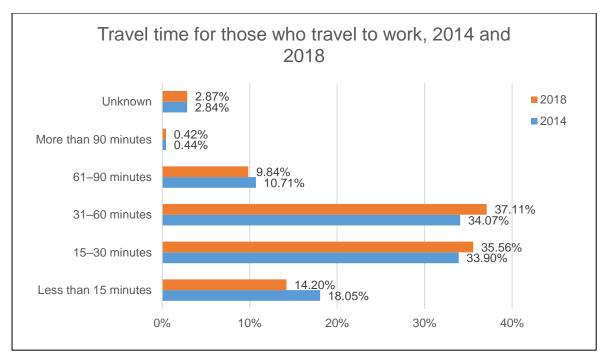


Figure 3.5: Travel time to work⁶² in Cape Town, 2014 and 2018 Source: Stats SA, General Household Survey, 2014 and 2018.

With a 2019 traffic congestion level⁶³ of 32% (up by 1% from 2018) Cape Town is ranked among the world's most congested cities and, according to the 2019 TomTom Traffic Index, 101st out of 416 cities globally.⁶⁴

During the various stages of the South African COVID-19 lockdown, regulations were put in place that affected public transport, particularly the minibus taxi industry. Measures taken included a 70% limit on capacity, and a mask mandate for commuters. The biggest impact, however, has been the exponential increase in those working from home. This trend is likely to persist in the long term. In Cape Town, this will likely lead to a decrease in the number of cars – and congestion – on the city's roads.

Access to ICT and internet services

The City is investing in digital infrastructure to help grow the digital economy, improve digital inclusion, enhance the City's digital governance capabilities, and create the conditions for Cape Town to become the preferred South African destination for technology start-ups.⁶⁵

By June 2018, the City had installed 968,9 km of broadband fibre-optic cables to connect the municipality's buildings (including libraries and service points), bus stations, cameras and other infrastructure vital for service delivery, and also made more public internet access points available.⁶⁶

⁶² Excludes those working from home.

⁶³ Increase in overall travel times when compared to a free-flow situation (no congestion). Traffic Index results, 2019.

⁶⁴ By comparison, Johannesburg, with a congestion level of 30%, was ranked 121st for the same year.

⁶⁵ IDP objective 1.2, "Leveraging technology for progress". City of Cape Town, 2017a.

⁶⁶ City of Cape Town, 2018d.

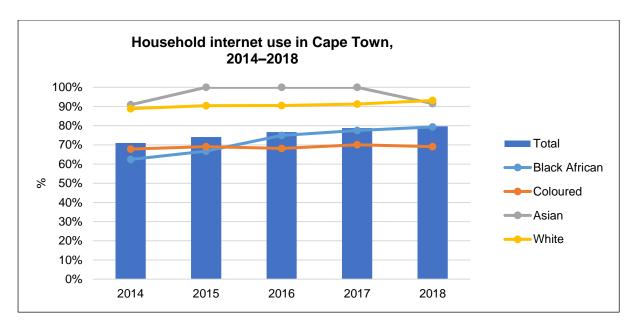


Figure 3.6: Household internet use in Cape Town, 2014–2018 Source: Stats SA, General Household Survey 2014–2018.

Cape Town has become a more connected city. Between 2014 and 2018, internet use by Cape Town households steadily increased from 71,03% to 79,71% (Figure 3.6). More Cape Town households accessed the internet predominantly via mobile devices, having increased from 60,30% in 2014 to 67,80% in 2018 (Figure 3.7). While the more expensive option,⁶⁷ mobile internet access is what poorer and low-to-middle-income areas (and households) are more likely to use, as DSL and fibre-optic roll-outs have been slow in less affluent neighbourhoods. However, following an intervention by the Competition Commission in 2019, which targeted the high cost of mobile data in South Africa, mobile data prices have started to drop.⁶⁸

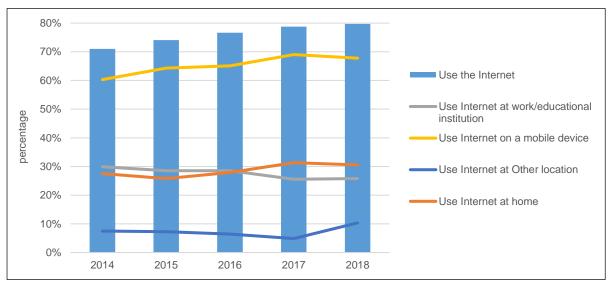


Figure 3.7: Cape Town households' mode of accessing the internet, 2014–2018

Source: Stats SA, General Household Survey 2014 - 2018.

⁶⁷ Ngo, 2016. Data costs in South Africa are particularly high and have led to various social-media campaigns (such as Twitter's #DataMustFall). The Independent Communications Authority of South Africa (ICASA) has also considered reducing data costs (see http://ewn.co.za/2018/05/17/data-must-fall-says-telecommunications-minister).

⁶⁸ South African,(The), 2020. "Data prices fall after Competition Commission, Vodacom reach agreement", available at https://www.thesouthafrican.com/news/data-prices-fall-vodacom-mtn-how-much-cost-2020/.

Cape Town has been named Africa's leading digital city and has emerged as a leading tech hub, with more people employed in the technology sector in Cape Town than anywhere else on the African continent.⁶⁹

With the imposition of movement restrictions, social distancing and the prohibition of large gatherings to curb the spread of COVID-19, internet access and use at home increased significantly as more people started to work remotely and/or sought to maintain contact with friends and family. Telecommunication companies, retailers and employers were challenged to improve the resilience of their information technology and telecommunications systems and networks in the face of increased demand from subscribers, consumers and employees. Data use also increased dramatically as different entities sought to track the impact of the pandemic. The impact of increased data use on mobile data and internet connectivity pricing is yet to be determined as the COVID-19 mutates and lingers, the need for social distancing persists and people continue to connect via digital means.

Conclusion

Globally, the novel coronavirus, and the global pandemic it had caused, left an indelible mark on 2020. Importantly, access to water became even more critical as public health advisories emphasised the importance of regular washing of hands, among other measures, to keep COVID-19 infections at bay. To help minimise the rapid spread of the virus in informal settlements, the City initiated a programme to deliver water to communities where the installation of standpipes was constrained. The City's emergency mitigation measures for these areas included trucking in water, installing water tanks in informal settlements, and enhancing janitorial services. The City continued to provide basic and essential services to about 200 000 households in informal settlements.

The challenge of informality and access to affordable housing will persist for some time, and the City recognises that diverse modalities for housing opportunities are required.

Previous public health crises often led to cities reinventing themselves and evaluating their unique obstacles to the containment of disease outbreaks. Cities with a high concentration of urban poor and deep inequalities are potentially more vulnerable than those that are better resourced, less crowded and more inclusive. Informal settlements in urban areas remain a challenge that will not be resolved easily, if at all. However, it is critical for cities to engage with the question of how spatial restructuring, urban service delivery and better data management could help mitigate the effects of future health crises.⁷⁰

⁶⁹ City of Cape Town, 2019b.

⁷⁰ Ratho, 2020.

Chapter 4: Natural environment

Cape Town's natural environment is a shared asset belonging to all residents of the city. This asset provides social benefits in the form of recreational, educational and tourism opportunities; direct and indirect job creation and skills development; a uniquely defined and widely recognised sense of place, identity and heritage, as well as a range of ecosystem goods and services. The ecosystem goods and services of Cape Town's natural assets include clean air and water, food security, climate regulation, and protection from natural disasters, such as floods, fire, sea-level rise and coastal erosion. A study undertaken in 2009 estimated the value of these goods and services at R4 billion per annum (within a range of R2–R6 billion).⁷¹

Yet Cape Town faces increasing and significant environmental challenges. These include rapid urbanisation⁷² and its associated pressure on land for development, which, in turn, puts pressure on natural resources and ecosystem goods. This is exacerbated by the potential of increased exposure to risk from natural hazards and climate change.

In 2017, the City adopted its Environmental Strategy, which contributes significantly to the environmental component of the sustainability triad. Along with the City strategies for economic growth and social development, the Environmental Strategy provides City decision-makers with a framework for decision-making and implementation on environmental issues.

Key environmental trends

Although the City is proclaiming more land for conservation, biodiversity remains under threat. The development of a green infrastructure network (GIN) will provide further support in improving access to well-managed natural public green space.

Energy demand and supply will continue to increase with a business-as-usual approach, unless serious energy efficiency measures are implemented, which the City is putting resources towards through its new Sustainable Energy Markets Department. One such example is the energy-efficiency retrofits in City operations since 2009, where energy consumption has been significantly reduced.

Alternative water sources will be equally critical for Cape Town's resilience as a city, and are central to the City's new Water Strategy of 2019. Solid waste management practices are being revitalised to promote recycling, including diverting organic and plastic waste from landfills, and to generate new energy options from waste.

This chapter outlines seven thematic areas relating to environmental sustainability, namely climate change, energy, air quality, biodiversity, green spaces, water and sanitation, and solid waste.⁷³

Thematic analysis

Climate change

Both the fifth assessment report of the Intergovernmental Panel on Climate Change (IPCC) (2014) and the IPCC's *Special Report: Global Warming of 1.5* °C (2019) state that warming of the climate system has become an undeniable fact. Over the past several decades, unprecedented changes to global climate systems have been observed⁷⁴. Anthropogenic greenhouse gas (GHG) emissions are higher than ever: Atmospheric concentrations of carbon dioxide, methane and nitrous oxide are at their highest levels in 800 000 years. The rate and extent of climatic change is greater than previously projected, as is the urgency with which society needs to reduce emissions and respond to climate impacts⁷⁵.

⁷¹ De Wit et al., 2009.

⁷² World Population Review, 2020.

⁷³ The City publishes, monitors and reports on a range of environmental indicators in its biennial *State of the Environment* reports. These provide a detailed assessment of the state of Cape Town's environment and highlight trends over time. The most recent edition was published in 2018. See City of Cape Town, 2018a.

⁷⁴ World Meteorological Organization, 2019.

⁷⁵ International Institute for Environment and Development (IIED), 2019a; International Institute for Environment and Development (IIED), 2019b.

A 2018/19 climate change hazard, vulnerability and risk study⁷⁶ for the City identified six key hazard categories that Cape Town must adapt to⁷⁷. These were a significant decrease in mean annual rainfall; a change in the seasonality of rainfall; a significant increase in mean annual temperature, and increased maximum temperatures; more high-heat days, and more frequent and intense heat waves; an increase in wind strength, and a rise in mean sea level and coastal erosion.

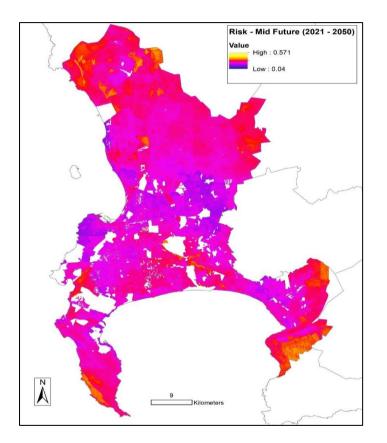


Figure 4.1: Climate change risk – mid-term future (2021-2050) Source: Petrie et al., 2019

Overall, the city areas most at risk are those that experience socioeconomic vulnerability⁷⁸ and have low resilience and capacity to adapt to climate change.⁷⁹ Figure 4.1 shows these high-risk areas.

The City's first Climate Change Policy was adopted in 2017, following more than 20 years of programming aimed at addressing the causes and impacts of climate change. The policy has since been converted into a Climate Change Strategy, which is expected to be approved in 2021. The City is also in the process of drafting a Climate Change Action Plan, which will set out the programmes of action to address both climate change adaptation and mitigation.⁸⁰

Energy

To keep global mean temperature increases below 2 °C, and, if possible, below 1,5 °C, as mandated by the Paris Agreement, urgent action is needed to reduce GHG emissions and achieve carbon neutrality by 2050.⁸¹

⁷⁸ Vulnerability is due to several factors, including physical and geographic vulnerability (proximity to high-risk areas, such as the coast or wetlands), social vulnerability (low levels of resilience and adaptive capacity), the legacy of poor planning decisions (infrastructure or services located in high-risk areas) and the adaptive capacity of local (and other spheres of) government.

⁷⁶ Petrie et al., 2019

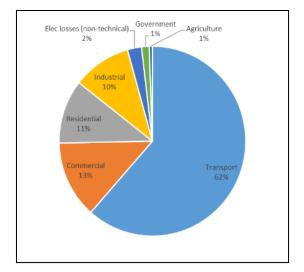
⁷⁷ The study built on a significant body of research on predicted climate change impacts and risks for Cape Town. See Jack et al., 2016.

risk areas) and the adaptive capacity of local (and other spheres of) government. ⁷⁹ Many of the climate impacts that Cape Town currently experiences, and will continue to experience into the future, are due to high levels of vulnerability and low levels of resilience, and not necessarily the result of particularly extreme climate hazards or events.

⁸⁰ This will be accompanied by a monitoring and evaluation framework. See City of Cape Town, 2018a: 71.

⁸¹ UNEP, 2019a; UNEP, 2019b; ; UNEP, 2019c

Cape Town's per-capita carbon footprint, including waste emissions, was estimated at 5 tons of carbondioxide equivalent (tCO₂e) for 2017.⁸² Figures 4.2 and 4.3 respectively illustrate Cape Town's energy consumption and carbon emissions by sector.⁸³ Over half of the city's emissions arise from electricity use, mainly due to the high carbon intensity of South Africa's coal-based grid electricity (compared to the relatively lower carbon intensity of transport fuels such as petrol and diesel).



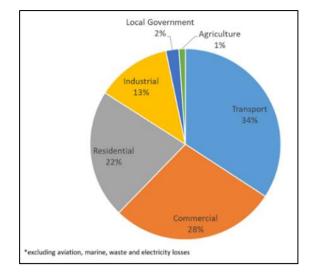


Figure 4.2: Energy consumption by sector in Cape Town, 2017 Source: City of Cape Town, 2018a



The transport sector accounts for almost two thirds (64%) of all energy consumed in Cape Town. People using private cars, in turn, account for almost two thirds (61%) of *transport* energy consumed, and 39% of *total* energy use in Cape Town.⁸⁴

In 2015, the City adopted citywide GHG emission reduction targets across all sectors under its Energy2040 goal.⁸⁵ These targets are now superseded by a mitigation target of citywide carbon neutrality by 2050, as part of the City's commitment to the global C40 Deadline 2020 programme. A parallel commitment in Deadline 2020 is to attain net-zero carbon emissions from the City's existing and new buildings by 2030, from all new buildings in Cape Town by 2030, and from all existing buildings in Cape Town by 2050.⁸⁶

The new emission reductions scenarios represent a significant ramp-up in ambition from Energy2040.⁸⁷ City support for sustainable energy programmes and enhanced climate mitigation action commitments include:

- SmartFacility, an integrated and automated resource data management system for City facilities, with approximately 847 smart electricity meters having been installed in 557 facilities;
- investigating new technologies and fuel options (such as electric vehicles); and
- a net-zero carbon buildings programme.88

In 2017, the City established its Sustainable Energy Markets Department to support the administration's energy transition.⁸⁹

⁸⁶ These targets are reiterated in the draft Climate Change Strategy.

⁸² The City annually reports its climate change-related data (for both adaptation and mitigation) to the global Carbon Disclosure Project and has received recognition for meeting the newly established leadership category criteria over the past two years. More information available online at:

 ⁸³ City of Cape Town, 2018a:71.
 ⁸⁴ City of Cape Town, 2015.

⁸⁵ Target of 37% reduction in emissions by 2040 from a business-as-usual trajectory. See City of Cape Town, 2016.

⁸⁷ While the City is best placed to lead and enable a local carbon-neutral transition, achieving city-wide carbon neutrality is not wholly within the administration's locus of control. The transition requires action from other stakeholders as well, most notably National Government, national utilities (such as Eskom and PRASA), the private sector and residents.

⁸⁸ As part of the City's participation in the C40 Cities South Africa Buildings Programme.

⁸⁹ City of Cape Town, 2020a.

Air quality

Air quality can become a significant risk to health, well-being and quality of life⁹⁰ if not managed appropriately. Notably, air pollution-related⁹¹ illnesses are considered the fifth leading risk factor for worldwide mortality.⁹² In Cape Town, poor air quality results from various social, economic and environmental factors, including unpaved roads and pavements (contributing to high concentrations of particulate matter), burning of wood or paraffin for heating and cooling (contributing to localised exceedances), and veld fires. These conditions prevail mainly in low-income areas occupied by historically disadvantaged communities, who show a higher prevalence of respiratory illness.⁹³ The City developed an Air Quality Management Plan (2005) and promulgated its Air Quality Management Bylaw (2010, amended in 2016) to promote better air quality standards. 94

The main types of air pollutants are measured⁹⁵ and reported on, namely nitrogen dioxide (NO₂), sulphur dioxide (SO₂) and particulate matter (PM₁₀ and PM_{2.5}).⁹⁶ The City's Scientific Services air quality monitoring labs provide the averages of various pollutants.⁹⁷ Table 4.1 shows that the annual average concentrations of the three main pollutants in Cape Town were well below the prescribed annual averages for the 2019 calendar year.

Ambient air quality standard	Index level	Risk	SO ₂ concentration range [µg/m3]	PM _{2.5} concentration range [µg/m3]	PM ₁₀ concentration range [µg/m3]	NO₂ concentration range [µg/m3]
	Good	Low	5 µg/m³	8 µg/m³	19 µg/m³	13 µg/m³
Prescribed annual average			50 μg/m³	20 µg/m³	40 µg/m³	40 µg/m³

Table 4.1: City of Ca	pe Town air quality	/ index and annual	l average concentrations, 2	2019
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Source: City of Cape Town Scientific Services, 2019.

Biodiversity

Altogether 21 national vegetation types naturally occur in Cape Town. Of these, one is locally extinct, ten are listed as "critically endangered", and six as "endangered". At least 32 km² of the city's natural vegetation - an area cumulatively bigger than Table Mountain national park - has been lost in ten years (2008–2018). The Biodiversity Network (BioNet)⁹⁸ is a fine-scale systematic biodiversity plan for Cape Town. It indicates which parcels of land are classified as critical biodiversity areas and need to be conserved to meet national conservation targets (see Figure 4.4).

The 2009 BioNet covered approximately 85 000 ha, or 34,18% of the municipality. As at July 2020, a total of 55 426 ha, or 65,21%, of the BioNet was being conserved. Protected-area expansion targets for the BioNet follow the IDP timelines: The 2022 target of 65% (55 250 ha) was achieved in December 2019 already.⁹⁹ The target for 2027 is to conserve and manage 67% (56 950 ha) of the 2009 BioNet.

⁹⁰ City of Cape Town, 2018b.

⁹¹ Air pollution is broadly defined as any change in the environment that is caused by substances emitted into the atmosphere from any activity. ⁹² Health Effects Institute & the Institute for Health Metrics and Evaluations, 2019:3.

⁹³ See City of Cape Town, 2018b, Figure 13.

⁹⁴ The Air Quality Management Plan includes a number of goals to improve air quality in Cape Town, including formulating an air quality management system, specifying air quality standards, prioritising specific pollutants, improving air quality in informal areas, and enforcing the Air Quality Management By-law, 2010. ⁹⁵ City of Cape Town, 2018a:77.

⁹⁶ The indicator the City uses in relation to air quality is percentage compliance with the national ambient air quality standards, promulgated in terms of the National Environmental Management: Air Quality Act, 2004.

As part of a global disclosure system where countries, regions and cities disclose to the Carbon Disclosure Project on an annual basis.

⁹⁸ The BioNet and its management guidelines were consolidated into the Bioregional Plan, which Council approved as City policy in July 2015. 99 About 15 000 ha of City land is formally proclaimed under the Protected Areas Act, 2003, and 18 conservation stewardship agreements have been entered into with private landowners

Green spaces

International studies confirm the benefits of urban green space for promoting physical activity, mental health, well-being, and improved air and water quality.¹⁰⁰ Cape Town's green spaces include the BioNet, coastline, public parks and greenbelts. The City currently manages 20 nature reserves, 14 district parks¹⁰¹ and 354 greenbelts across Cape Town, which add up to more than 1 349 ha of natural public green space.¹⁰² There is also a further 307 km of coastline and over 45 000 ha of accessible protected areas (nature reserves).

Access to public spaces in Cape Town is generally good, with the most accessible natural public green spaces located in the southwest of the city due to its proximity to Table Mountain national park and large greenbelts along river corridors. Residents in the central and northern areas have limited access to natural public green spaces larger than 2 ha.¹⁰³ Overall, access to public green space remains spatially and socioeconomically uneven for Cape Town residents (see Figure 4.5).

¹⁰⁰ Rigolon et al., 2018:67. ; World Health Organization (WHO), 2017a; World Health Organization (WHO), 2017b

¹⁰¹ City of Cape Town, n.d.

¹⁰² Note that not all green space is recreational space, and not all recreational space is green.

¹⁰³ The City monitors and aims to improve the average distance to travel to natural public green spaces, and uses the guidelines of English Nature (now known as Natural England) to plot the distribution of natural public green spaces in Cape Town.

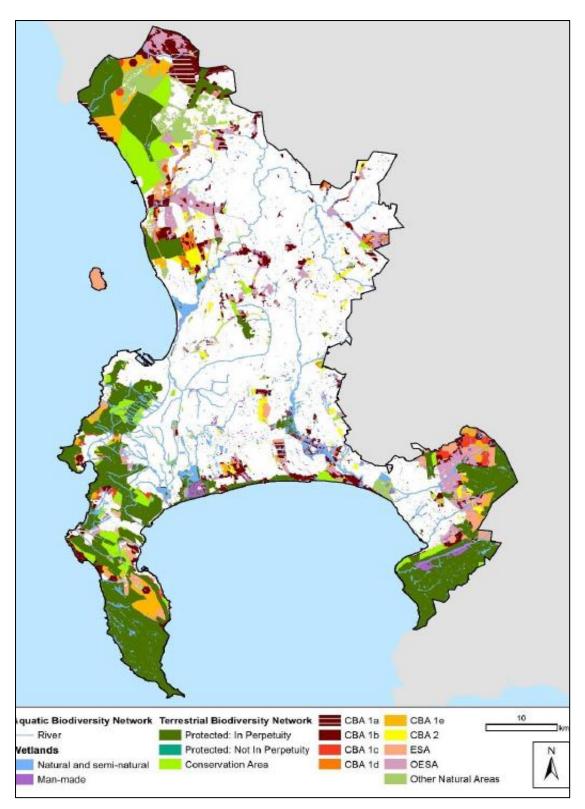


Figure 4.4: The City's Biodiversity Network (BioNet) Source: City of Cape Town, 2018d

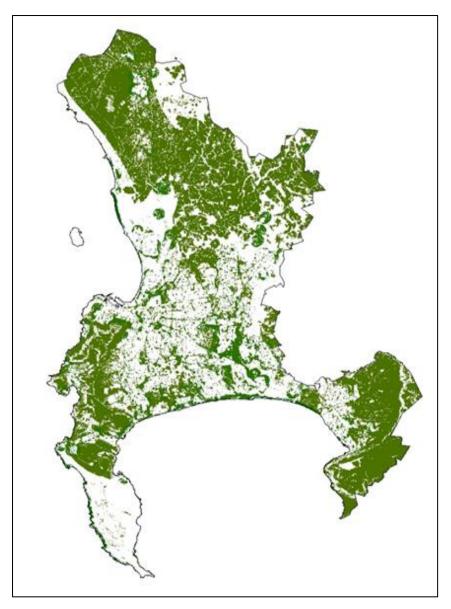


Figure 4.5: Green infrastructure network Source: CSIR, 2019.

The City's Green Infrastructure Programme (GIP) is intended to improve access to well-managed natural public green space in Cape Town. To this end, the green infrastructure network (GIN) identifies ecosystem services provided by natural and green open spaces in Cape Town.¹⁰⁴ It also informs planning and management interventions, including by identifying priority programmes and actions, such as the restoration of the Asanda Village wetlands.

Water and sanitation

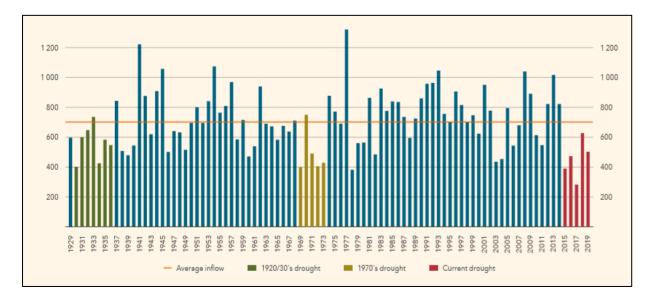
Water availability

Cape Town's water is supplied from a system of dams¹⁰⁵ located around Cape Town. The water supply system currently depends on rainfall, although alternative supplies are being developed in line with the City's 2019 Water Strategy.

¹⁰⁵ The system is known as the Western Cape water supply system (WCWSS) and is managed by the national Department of Water and Sanitation. About a third of the water in the WCWSS is used by agricultural customers outside the City's borders, and 7% by other urban areas (smaller towns).

¹⁰⁴ These include water purification and infiltration, flood attenuation, coastal zone protection, and recreational and cultural opportunities.

As can be seen from Figure 4.6, which shows dam inflow records dating back to 1929, 2017 was Cape Town's driest year on record. Dam inflows in 2015 and 2017 were the lowest recorded, and belowaverage inflows persisted until at least 2019.¹⁰⁶ Figure 4.7 shows that dam levels are recovering well, partly thanks to continued water demand management and suppressed reliance on municipal water supply, as well as reduced consumption by the agricultural sector beyond the easing of water restrictions (also see Figure 4.8). For 2019, average daily water use per capita was around 140 litres, compared to over 200 litres prior to the drought.¹⁰⁷





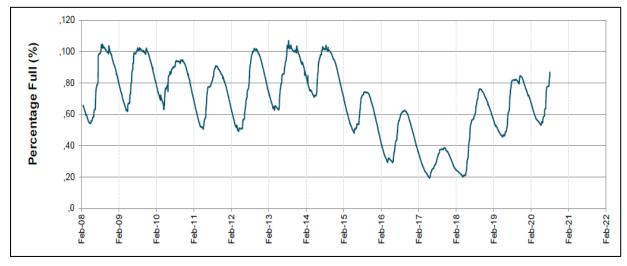


Figure 4.7: Western Cape water supply system storage record, 2008-present

 ¹⁰⁶ The 2020 rainy season had not ended by the time of drafting this section of the report.
 ¹⁰⁷ Details of water restrictions to be applied at various levels of water scarcity are available at www.capetown.gov.za/thinkwater. At the time of reporting, water restrictions were set at level 1, which had been calibrated for a savings requirement of approximately 10% compared to expected unrestricted consumption. This was being significantly exceeded.

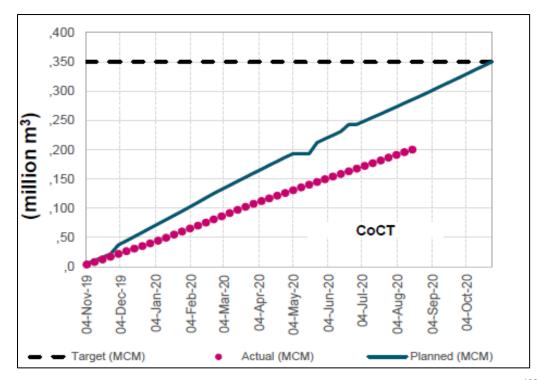


Figure 4.8: Cumulative weekly water usage in Cape Town, November 2019–September 2020 (million m3/a)¹⁰⁸ Source: CCT Water and Sanitation Department 2020 (internal communications)

Wastewater treatment and reuse

The production of treated effluent from wastewater as well as wastewater reuse is being progressively scaled up. For the 12 months up to June 2020, a total of 157 070,56 kl of treated effluent was supplied to customers, which is close to an average of 50 Ml per day for the year. The development of alternative water sources is projected to reduce the City's reliance on surface water (dams) from 96% to 75%.¹⁰⁹ In addition to wastewater reuse, water augmentation schemes include groundwater abstraction as well as desalination.

The rehabilitation of urban waterways has been prioritised in the City's Water Strategy, and budgets for these capital infrastructure projects have been significantly increased¹¹⁰. Approximately R11 billion has been budgeted for upgrades to both capacity and treatment processes at wastewater treatment plants over the next ten years. This should also result in further improvements on the July 2020 wastewater plant compliance rating of 81,66%.

Solid waste

All formal properties and 99,74% of recognised informal settlements receive a basic refuse collection service.111 Cape Town continues to face challenges relating to littering, illegal dumping and waste in informal settlements as well as other parts of the city. Nevertheless, annual waste generated was less in 2019 (1,6 million tons) than the year before (2,14 million tons). This is partly due to the City's efforts to encourage recycling at source, and the provision of waste drop-off sites.¹¹²

¹⁰⁸ See City of Cape Town, 2018c for more information on Cape Town's water outlook

¹⁰⁹ More information on the City's water augmentation schemes is available at www.capetown.gov.za/cape-town-water-strategy

¹¹⁰ More information on City's water quality available at: https://www.capetown.gov.za/Family%20and%20home/residential-utility-

services/residential-water-and-sanitation-services/water-quality ¹¹¹ The City's solid waste management services include cleansing, waste collection and disposal, waste minimisation, education and awareness, and regulatory services.

¹¹² Waste management facilities include 27 drop-off sites, two landfill sites (with drop-offs), three waste transfer stations (with drop-offs), one composting plant, and two integrated waste management facilities (with drop-offs).

Several projects are under way to divert waste from the City's landfills, which are nearing capacity, and support the City's climate change mitigation actions. These include flaring and waste-to-energy implementation,¹¹³ and removing organic waste from the waste stream.¹¹⁴ Key solid waste statistics for Cape Town are shown in Table 4.2.

Number of wheelie bins	±850 000	
Number of wheelie bins collected per day, including multiple removal frequencies	±190 000	
Waste generated per year	±1,6 million tons	
Waste diverted (from landfill) per year	±242 000 tons	
Waste disposed per year	±1,2 million tons	
Builder's rubble stockpiled for future use	260 000 tons	
Organic waste diverted from landfill per year	±55 000 tons	
Kerbside recycling programme offered to households	±190 000 tons	
Free composting containers distributed	22 000	

Table 4.2: Cape Town solid waste statistics, 2019/20

Source: City of Cape Town Solid Waste Management Department, 2020b.

Conclusion: Impact of Covid-19 on the climate change response

Many leaders have called for the Covid-19 economic recovery stimulus to be a "green recovery as a bridge to a more resilient future",¹¹⁵ or a programme to "build back better",¹¹⁶ or even a "great reset" that transitions us to stakeholder capitalism.

In planning a future beyond the pandemic, it is critical to recognise that climate change poses a similar future risk to economic stability, lives and livelihoods, but will be far harder to mitigate and adapt to once the full effect of its projected impact is experienced. Leading policy researchers have identified five areas where climate impact and economic stimulus could be combined, namely green infrastructure, building-efficiency retrofits, investment in education and training, natural capital investment, and clean research and development.

The positive impact of the Covid-19 lockdown on GHG emissions is likely to be temporary in most cases. However, in Cape Town, there is a reasonable probability of a permanent drop in peak commuter travel as working from home becomes more prevalent, which will reduce transport GHG emissions, local air pollution and congestion.

However, one of the enduring elements that remains to be addressed for its potential impact on GHG emissions is urban form and, more specifically, urban sprawl. The City is promoting a more compact urban form, which may have significant implications for achieving global goals such as building sustainable and resilient cities. This remains an ongoing challenge, but is being addressed through spatial transformation efforts.

¹¹³ An extraction and flaring facility is being constructed at the Vissershok landfill. Electricity generation design capacities for Vissershok are 7 MW, and 2 MW for Coastal Park. The contract for the installation of electricity generation equipment at Coastal Park commenced in June 2020. ¹¹⁴ To help divert organic waste from landfill, the City distributed an additional 2 040 free composting containers to residents in 2019/20 to compost their organic food waste at home. To date, 22 000 of these containers have been distributed. In the six months from October 2019 to March 2020, the City also carried out a trial of the separate collection or drop-off of organic food waste in the two low-income communities of Langa and Wolwerivier, which saw a total of 20,5 tons of organic food waste diverted from landfill. ¹¹⁵ WEF, 2020.

¹¹⁶ Mohamed, 2020.

Chapter 5: Urban governance

Approaches to urban governance are changing rapidly as it becomes more urgent for cities to adapt to the challenges of the 21st century. The Covid-19 pandemic, climate change, urban migration, safety and security as well as a more fragile global economy are all driving urban change, including changes in governance. In many cities, urban governance is itself being shaped by the consequences of the pandemic and will continue to result in new norms as cities stabilise and recover.

In 2020, the pandemic highlighted the crucial role of different levels of government working together.¹¹⁷ It has shown how important systematic and unified responses are for mobilising resources as well as developing and upholding regulations.¹¹⁸

Urban governance had already come under the spotlight in 2015 with the United Nations' adoption of the sustainable development goals (SDGs). A number of SDGs assume strong urban governments with the requisite powers and financial capacities to restructure regional economies and establish transition pathways to more sustainable societies.¹¹⁹ Information for integrated decision-making and participation is a critical sustainable development theme and straddles a number of SDGs. The emphasis is on strengthening the means of implementing and revitalising the global partnership for sustainable development, data collection, and SDG monitoring and accountability.¹²⁰

Key concepts, and the South African landscape

Urban governance is about the formulation and pursuit of collective goals at the local level of the political ecosystem. It involves a continuous process of negotiation and deliberation over the allocation of social and material resources and political power. In the process, it shapes how partners bring their influence to bear, and determines whether political and institutional systems, processes and mechanisms facilitate inclusive and pro-poor decisions and outcomes.¹²¹ Ideally, urban governance processes provide a means for social groups to negotiate, debate and form coalitions of interest that, if supported, can promote developmental activities in the city.¹²² However, urban governance is often neither inclusive nor participatory, which means that opportunities to benefit from diverse perspectives and experiences are missed.

The national urban development policy, also known as the Integrated Urban Development Framework (IUDF),¹²³ identifies urban governance as a key policy lever. The IUDF places urban management at the centre of urban governance. Urban management constitutes:

- the practice of managing all public activities required to ensure the effective day-to-day functioning of an urban community, as well as the quality of urban public spaces;
- the provision of localised solutions required to manage areas; and
- an integrated approach to strategic management, and a vehicle for maintaining guality urban environments.124

Urban management helps to support the objectives of South Africa's National Development Plan and IUDF, both of which seek to tackle spatial development patterns and coordinate the use of planning, regulatory and investment tools and strategies. In short, urban management is the practical implementation of urban governance decisions and processes.¹²⁵

¹²⁴ RebelGroup South Africa, 2016.

private sector, and local communities - assume an active role in mobilisation, management and coordination of resources to support a healthy, safe, sustainable and prosperous urban environment for all". See RSA, 2014.

¹¹⁷ Governance is a useful analytical lens because it does not require a priori assumptions about the various actors' roles in terms of goal setting, steering and implementation. See Pierre, 2014.

¹¹⁸ Frug & Barron, 2008.

¹¹⁹ United Nations, 2020. ¹²⁰ United Nations, 2020.

¹²¹ GSDRC, 2016. ¹²² GSDRC, 2016.

¹²³ Adopted in 2016 under the purview of the Department of Cooperative Governance and Traditional Affairs (CoGTA).

¹²⁵ Urban management occurs when "all departments making up the city government together with other urban stakeholders – civil society,

Local government in practice

The King IV Report on Corporate Governance for South Africa ("King IV") defines corporate governance as the application of ethical and effective leadership by a governing body, including municipalities. One of the key objectives of King IV is to promote corporate governance as integral to effectively running an organisation so as to achieve governance outcomes such as an ethical culture.¹²⁶ Council adopted King IV on 5 December 2017. On 30 May 2019, Council resolved to make an integrated governance report available to the public to affirm the City's commitment to good corporate and ethical governance, and help achieve the strategic objective of being a well-run city.

Internal structures, partnerships and ways of working: Urban management in the City of Cape Town

The City's Urban Management (UM) Directorate evolved out of an initial format of four area-based service delivery management structures established in 2016, each with its own executive director and Mayoral Committee member assigned. Following a 2018 review of urban management and service delivery, the function was redesigned and the UM Directorate established in December 2018 under a single executive director and Mayoral Committee member to facilitate a consistent approach and better integration across the four areas.¹²⁷ The paragraphs below outline the City's key urban management interventions.

Combating complex urban challenges

Rapid urbanisation places enormous pressure on city managers and urban institutions, structures and human capacities. UM guides where the City's urban management services should be locally tailored and/or scaled up in response to an area-specific need or a complex set of risks such as climate change.

Driving precinct management

Precinct management refers to the strategic coordination of the day-to-day operational management of a small, specific portion of the urban environment. Planning for precinct development relates to spatial planning. Instead of each line department responding only to the challenges affecting its own functions, precinct management relies on transversal or integrated service delivery at the local level. The introduction of a transversal function enables holistic planning and decision-making, and a bird's-eye view of urban management challenges and opportunities.

Public Participation Unit (PPU)

The public participation function forms part of the UM Directorate. The process of public participation not only involves soliciting input on legislated processes of the municipal administration, but also entails any opportunity to meaningfully interact with the public to improve service delivery. Consultations and engagements often occur via the City's 24 sub-councils.¹²⁸ Throughout the years, the PPU has been involved in various facilitation engagements with Cape Town communities across various platforms and through various mechanisms, including social media, in-person meetings and information sessions.

Under Covid-19 lockdown conditions, the PPU swiftly needed to adjust its approach of engaging communities. In soliciting comments on the draft 2020/21 budget, several media platforms were used to communicate with residents, and an estimated 952 335 were eventually reached.

The Executive Mayor's ward councillor outreach programme

This programme aims to ensure a continuous presence of councillors in all wards across town, constantly engaging with communities on their needs and the manner in which these are being

¹²⁶ City of Cape Town, n.d.(a).

¹²⁷ City of Cape Town, 2020a.

¹²⁸ Subcouncils serve residents by engaging with them on municipal issues. They have the power to act on behalf of Council through the system of delegations and have the authority to make decisions on a range of municipal matters. These include receiving and responding to residents' complaints and enquiries, making recommendations to Council on matters affecting their area, monitoring the City's service delivery, and maintaining an up-to-date database of community organisations in the area.

addressed by Council. To further facilitate engagement between the City and communities, 144 community development and engagement officers are deployed as facilitators with regard to service delivery issues in their respective areas. This was achieved through Council's adoption of the Continuous Engagement Strategy for Public Participation in April 2019.

Customer relations/service delivery

Residents' perceptions are annually monitored and assessed via a sample representative of Cape Town's demographics. While findings are based on perceptions, and may not necessarily reflect the reality of service delivery on the ground, they do give an important and valuable indication of resident's satisfaction with the City and its services (see Figure 5.1).

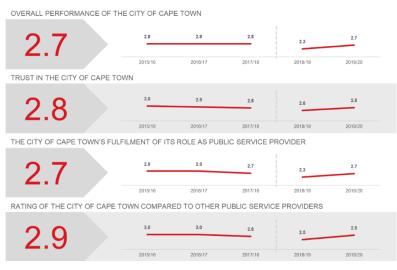


Figure 5.1: City of Cape Town customer satisfaction results, 2019/20 Source: City of Cape Town's 2019/20 customer satisfaction survey results for residents¹²⁹

In 2019/20, the City had a particularly dynamic set of circumstances to contend with, including the water, electricity and transport system crises, as well as the start of the Covid-19 pandemic and lockdown. Each of these put strain on the City's service delivery capacity, especially in poorer areas, where the costs associated with utility and mobility disruptions were felt most strongly, and would have likely influenced how residents perceive and react to the City. Moreover, residents' expectations may have risen in the past few years, making them more critical of the services they had received up until 2018/2019.

In the past year, however, there has been an increase in residents' satisfaction with the City across all four surveyed areas, as Figure 5.1 shows. This is testament to the City's ongoing efforts to maintain services and respond to residents' needs.

Local government planning, policies and implementation tools

In 2020, all City departments concentrated on developing and implementing business continuity plans to limit the impact of the pandemic on the City's services, and minimise service disruptions. At the time of writing this report, Covid-19 infections were still at crisis levels, which limits the ability to report and reflect on the City's response at length. Nonetheless, the contribution of essential services and frontline workers cannot be overstated.

Below are some of the specific processes and strategies that the City has developed to enable continuous improvement of decision-making, planning and actions.

¹²⁹ Shared via internal CCT email with the CCT Organisational Effectiveness and Innovation Department, 16 December 2020.

Integrated development planning and related tools

The City's implementation of service delivery plans involves a variety of programmes and projects. which are often transversal, cutting across a range of sectors and departments. These are organised under the five pillars of the IDP. In addition to the sector strategies, several primary City strategies such as the Resilience Strategy and the (draft) Climate Change Strategy – also support the IDP and constitute some of the key supports for its implementation.

Technical and administrative planning for the new IDP 2022-2027 will start in 2020/21 to lay the groundwork for the new leadership to be elected in the 2021 municipal elections. The new IDP will likely need to include components of the Covid-19 recovery planning, focusing on the municipality as well as Cape Town's economy and residents.

Spatial planning and transformation

The City is in the process of reviewing its MSDF, which was approved in 2018. Public engagement on the draft district spatial plans also got under way in 2020,¹³⁰ but had to be suspended and postponed due to the pandemic. The interim focus is on internal engagements to improve integration of crosssectoral views and plans.

Improving the City's effectiveness and responsiveness

The City's effectiveness and responsiveness is constantly being reviewed to enhance service delivery across all its functions. Evidence-based decision-making is essential to ensure that the City's service delivery decisions are sound and to drive ongoing improvement. A number of interventions have occurred to support this.

Data Strategy¹³¹

Through its Data Strategy, which was launched in 2020, the City seeks to improve its ability to leverage its data assets. The City's data are a collection of public assets that are managed in a way that maximises public benefit and organisational growth by enabling a better understanding of people's needs. The Data Strategy is important for transforming data into meaningful and relevant business information, which can effectively support decision-making at strategic and operational levels. The strategy is further supported through the establishment of a Data Coordinating Committee (DCC) and associated workstreams,¹³² as well as the installation of additional data engineering capacity.¹³³

Efficient and effective decision-making also relies on support from data tools and technology. The City's innovative Development Application Management System (DAMS) is an example of such a tool, enhancing the efficiency of the process to consider and approve development applications.¹³⁴

Capital projects programme management (CPPM) and the gateway analysis

A second example of evidence-based decision-making in the City is its capital projects programme management. The purpose is to ensure that large capital projects are properly planned, and executed in ways that build efficiencies and synergies in project implementation. The pipeline of capital projects go through a stage-gate process to ensure that they are implementation-ready, aligned with the City's strategies, designed to maximise economic benefits, and cost-effective.

The emphasis of the 2020/21 capital budget is on the development of essential water, waste and energy services infrastructure, as well as transport and human settlements. In addition, a significant allocation has been made to meet the need for broadband and reliable internet access.

¹³⁰ SALGA, 2011.

¹³¹ City of Cape Town, 2018a.

¹³² The Data Strategy workstreams include data governance, architecture, capabilities, collaboration and culture. Additional support is obtained from the United Kingdom's Foreign, Commonwealth and Development Office, which provides technical assistance to the City's Data Strategy

implementation team. ¹³³ A data science team located in the Organisational Performance Management Directorate has provided central support for the data analytics requirements for the City's Covid-19 response. ¹³⁴ Ahmad, 2020.

In a constrained fiscal environment, the City ensures that every rand spent will help stabilise the local economy and support its growth. To this end – and as part of the City's Covid-19 recovery programme – an infrastructure investment approach and plan has been developed.

Building resilience

City resilience is a critical topic across urban centres worldwide as the number of shocks and stresses cities experience increase and change. Resilience is one of six principles that underpin the City's current IDP.

Institutional resilience

The City's 2018 Resilience Strategy¹³⁵ benefited from the inputs and perspectives of a cross-range of stakeholders in different spheres of government, the private sector, academia, industry and the non-governmental sector on what they regard as Cape Town's key potential shocks and stresses (summarised in Table 5.1 below).

Prioritised Shocks Acute shocks are sudden sharp events that threaten a city.	Prioritised stresses Chronic stresses weaken the fabric of a city on a day-to-day or cyclical basis.
Drought	Traffic congestion
Flooding	Crime and violence
Rail failure	Unemployment
Load shedding	Poverty and inequality
Informal settlement fires	Illegal land occupation
Heat wave	Informal settlement
Black-out	Climate change
Storm surge	Rapid urbanisation
Xenophobic attacks	Insecure municipal finances

Table 5.1: Cape Town shocks and stresses, for 2020¹³⁶

Source: CCT Resilience Department, Internal communication

Building a resilient institution is a key component of good governance practice. On approval of the City's Resilience Strategy, a Resilience Department was created to lead the implementation of core resilience programmes in the organisation, in collaboration with partners both inside and outside the City. The transversal Resilience Strategy is built around five pillars and comprises 20 goals and 75 actions identified for short to longer-term implementation.¹³⁷

In 2020, the Resilience Strategy and Department played a critical role in the rapid implementation of the City's Covid-19 response, including through supporting disaster risk management capabilities in the administration.¹³⁸

Financial resilience

An independent agency is appointed annually to give the City a credit rating. The rating is determined through analysis of the City's key financial, operational and organisational data, and conducting interviews with the Executive Mayor, the City Manager and senior City officials. The City's current long-term debt rating is AAA.za.¹³⁹

¹³⁵ City of Cape Town, 2018b.

¹³⁶ Shared via CCT internal email communication with Resilience Department.

¹³⁷ See City of Cape Town, 2018b:142-151, for the alignment between the Resilience Strategy, the 2030 Agenda for Sustainable Development and the SDCs.

¹³⁸ Prevention Web, 2020.

¹³⁹ City of Cape Town, n.d.(b).

The City's credit profile reflects its strong financial performance, which is supported by prudent financial management, a large and diversified economic base, and the ability to generate and collect own revenue, including predictable revenue from property taxes and service charges. However, the City's credit profile is constrained by capital spending pressure due to water shortages from the multiyear drought, infrastructure backlogs, and the effects of population growth. Debt is expected to rise over the next three years as the City invests in alternative water sources to increase water infrastructure resilience. It is also anticipated that the coronavirus outbreak and associated deterioration in the global and national economic outlook will likely further constrain the City's financial performance through lower revenue collections as a result of higher unemployment.¹⁴⁰

Budget resilience¹⁴¹

The global Covid-19 pandemic called for an unprecedented worldwide health response. The City has risen to this call, having allocated resources to support its health response, augment its cleansing and sanitation services, and strengthen law enforcement. The administration has a budget of R54,4 billion, comprised of a capital budget of R9,6 billion and an operating budget of R44,8 billion. For 2019/20, the budget had to be adjusted to deal with the pandemic. Total capital expenditure reflected in the adjustment budget¹⁴² is R6,709 billion, with the balance redirected to operational costs incurred for the City's Covid-19 response.

The proposed 2020/21 budget was developed in unique circumstances. Going forward, debt impairment and possible municipal revenue shortfalls will likely result from the global and national economic contraction. This will probably be intensified by the impact of the pandemic on the local economy and jobs, resulting in a drop in the City's revenue and collection rates projections.

Conclusion

Prior to the onset of the Covid-19 pandemic, economic challenges of a sluggish national GDP growth rate and high unemployment had already prevailed. South Africa's downgrade to junk status at the start of the pandemic response exacerbated pre-existing socioeconomic challenges.

While the requirements to deal with the pandemic have been unprecedented, citizens have demonstrated an equally unprecedented willingness to do civic duty and ameliorate some of the effects of the pandemic by aiding with day-to-day needs, food security and other forms of support within and across communities. This civic-mindedness to enhance vulnerable communities' resilience is a resource that the City can further build on going forward. One example of how residents can be part of the solution to build community resilience in the face of crises was the establishment of community action networks (CANS) between better-resourced and vulnerable communities in 2020.

The usual way of doing business has been impacted, interrupted or brought to a halt over the past year. Yet the City demonstrated extraordinary agility and resilience in getting systems and processes in place to keep the organisation operational, and to respond to the dynamic and evolving national Covid-19 disaster risk management guidelines, and continue with and in some instances enhance service delivery.

Importantly, however, Covid-19 is a single threat in a landscape fraught with risks, which have all severely challenged city life, but never at this scale, speed, intensity and duration. It is critical to review and adapt urban planning and management principles and approaches now and into the future. Urban governance and it's varying components has a continued vital role in a city context.

¹⁴⁰ Moody's Investors Service, 2020.

¹⁴¹ City of Cape Town, 2020b.

¹⁴² The municipal budget is routinely adjusted at specific intervals to ensure that expenditure allocations match organisational operational, capital and service delivery requirements.

Chapter 6: Conclusion

At the time of drafting this report (December 2020), South Africa was at the start of its second wave of the coronavirus pandemic, and experts had warned that the second wave could be even more destructive than the first.¹⁴³ A new strain of the virus in South Africa had made the virus more transmissible, which heightened the probability of infection in a context of diminished community adherence to Covid-19 protocols. This was the case in the national as well as the Western Cape and Cape Town metro contexts.

Even as the first phase of vaccinations are being rolled out in the global north, the pandemic shows no sign of dissipating soon. The first Covid-19 vaccinations have been projected to be available in South Africa by mid-2021, and will reach an estimated 10% of the total population, mainly those over 60 years of age and frontline healthcare workers. By the end of December 2020, no announcements had been made on how the remainder of the population would gain access to vaccines and build immunity and/or whether and how South African scientists and laboratories would be able to locally manufacture any of the approved vaccines for access by South Africans. The virus could realistically still affect the South African economy and service delivery for much of 2021and well into 2022.

The lockdown effects on the economy and access to social assistance – partly brought on by temporary workplace shutdowns or business closures, and the resultant income losses, as well as constrained mobility for poor residents to solicit donations – have serious consequences for the physical health and well-being of large numbers of households. To mitigate the worst impacts on household well-being, National Government has made available social assistance disbursements as well as food parcels to the most vulnerable households and individuals.¹⁴⁴ The City has put together its own package of financial support for low-income and poor households (especially households on the indigent list), as well as additional access to water and sanitation services for residents in informal settlements (and structures), as detailed in chapters 1–3 of this report.

In the short to medium term, the City's financial sustainability may be adversely affected. This report has been somewhat constrained in its ability to provide up-to-date data on existing indicators across all thematic areas. While the 2019 General Household Survey results were issued in December 2020, the underlying data were yet to be officially released.

However, South Africa was fortunate to have access to the NIDS-CRAM survey,¹⁴⁵ which investigated the socioeconomic impacts of the global coronavirus pandemic and the national lockdown. Data from wave 1 of the survey assisted government, including the City, with a better understanding of the lockdown impacts, and with service delivery and social support planning. However, the indicator data do not reflect the full effect of the pandemic – especially since the pandemic has not ended. This will only become clearer in 2021 and beyond.

Overall, reflections on the five themes of the economy, society, urban growth and form, the natural environment and urban governance are encouraging, suggesting that there have been positive developments in the City and its service delivery. However, the full impact of the pandemic on Cape Town and the country is still unfolding. Resilience and sustainability remain important for the City and its residents, and will provide the platform for future opportunities, alternatives and responses to ensure that Cape Town survives further crises, and continues to thrive.

¹⁴³ Farber, 2020.

¹⁴⁴ Bhorat & Kohler, 2020.

¹⁴⁵ Unlike the core NIDS panel study, NIDS-CRAM uses a much shorter questionnaire focused on the coronavirus pandemic and the national lockdown. The mode of the survey was also changed from face-to-face to computer-assisted telephone interviewing, which will be repeated over several months. See http://nids.uct.ac.za/about/nids-cram/nids-cram.

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Conclusion

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