CHAPTER SUMMARIES

There seems to be a trend towards smaller household units across all population groups: Cape Town's household size is below that of developing countries' average household size of five members, and is moving closer to the average of two to three members noted in many developed countries. Challenges associated with this trend include the increased demand for housing supply to accommodate the trend.

1. Social

Demographics

- Although South Africa's urbanisation is advancing at a slower rate compared to the African average, urban areas were home to 63% of the population in 2013, having increased from the urban tipping point reached in the early 1990s, when 50% of the population were urban. By 2030, it is projected that 71% of the population will have urbanised.
- In 1994, the urban divide in Cape Town between rich and poor as well as between white and non-white population groups was significant. In 2014, Cape Town is an international, culturally diverse and dynamic city, offering opportunities for people from all walks of life and nationalities.
- Cape Town is the tenth most-populous city in Africa.[1] The population grew by 45,9% between 1996 and 2011 from 2 563 095 to 3 740 026 people. Currently, the population of Cape Town is estimated to be 3 860 589, constituting 64,12% of the Western Cape's population, which makes the province predominantly urban.[2,3]
- The clearest trend that emerges is the steady growth in the number and proportion of black Africans in Cape Town between the period 1996 to 2011 (at a rate of 124,3%). The difference between the size of the black African and coloured population also decreased rapidly, from a 1996 variance of 23,3%, with the coloured population significantly larger, to 3,8% in 2011.
- The total number of households in Cape Town grew from 653 085 in 1996 to 1 068 572 in 2011, which represents an increase of 63,6%.[4] There seems to be a trend towards smaller household units across all population groups: In 1996, the average household size in Cape Town was 3,92 members; in 2011, it had declined to 3,50. Cape Town's household size is below that of developing countries' average household size of five members, and is moving closer to the average of two to three members noted in many developed countries. Challenges associated with this trend include the increased demand for housing supply to accommodate the trend, with the consequent increase in housing prices; the increased competition for scarce urban land for new housing developments, and the breakdown of the extended family, which is often considered as a powerful social support network.
- A ten-year trend analysis of migration into Cape Town between 2001 and 2011, drawing from Census data, highlights that the majority of new arrivals into Cape Town in the period under review were from outside the Western Cape, among the black African population group (57,9%) followed by the white population group (22,4%). New arrivals predominantly fell in the age category of 25 to 64 years, and their destinations in Cape Town were influenced by their places of origin. For example, the majority of new arrivals from the Eastern Cape tended to settle in destinations traditionally considered as black African townships.
- According to the United Nations (UN) classification, Cape Town's population is mature or of intermediate age. The proportion of children (0 to 14 years) in Cape Town decreased from 28,48% in 1996 to 24,80% in 2011. The economically active population (15 to 64 years) increased from 66,47% to 69,70%, while the elderly population (65 years and above) grew slightly from 5,05% to 5,50%.
- Of the economically active, 49,70% had been absorbed in the economy in 2011. This represents an increase

1. UNHABITAT. 2014. The State of African Cities 2014: Re-imagining sustainable urban transitions. UNHABITAT: Nairobi.
2. City of Cape Town, DI&GIS Department, using Stats SA, 2013, Mid-year Population Estimates 2013. Statistics South Africa: Pretoria.
3. This excludes the other urban areas within the province.
4. Stats SA defines a household as "a group of persons who live together and provide themselves jointly with food or other essentials for living, or a single person who lives alone".

compared to 2001, when the labour absorption rate was 47,41%, but a decrease compared to 1996, when the labour absorption rate stood at 53,94%. This reflects that Cape Town's economy is not growing fast enough to support the growing economically active population. The chapter on Cape Town's economy will discuss the longer-term trend in detail.

- The high ratio of potential workers in relation to dependants presents the so-called "window of opportunity" for accelerated economic development,[5] which could have possible positive effects on Cape Town's economy. If the population continues to age, however, there will be negative impacts not only on the economy, government and pension expenditure, but also on health care, social services, housing and the family.[6]
- Key developments in South Africa's health sector during the 20 years since 1994 include the shift from a curative, hospital-based approach to a primary healthcare approach, with an emphasis on prevention of disease and decentralised provision of health-care services.

Health

- The infant mortality rate (IMR)[7] is a key indicator of health and development in a society. In Cape Town, there is a clear decreasing trend in IMR over the ten-year period between 2003 and 2012 from 25,2 to 16,4 (per 1 000 live births). The significant reduction of IMRs, especially in areas with low socio-economic status, is attributed to the improvement of basic service delivery in these areas. Studies conducted in Cape Town, however, demonstrate that areas with low socio-economic status display higher IMRs compared to places with high socio-economic status.[8]
- Another key indicator of health and development is the mortality rate among under-five-year-olds. The ten-year trend in the causes of child mortality as recorded in 2001 and 2010 in Cape Town displays two distinct patterns, namely an increase in deaths due to diarrhoea and pneumonia, which is inconsistent with the national trend reflected in the 20-year review of the country. Possible reasons for this trend include colder winters as a result of climate change, growing informal settlements, migration of those needing medical care into Cape Town, and challenges in health services. There has been a significant improvement in HIV/Aids as a major cause of child mortality: While it accounted for 21% of deaths in 2001, it only accounted for 4% of deaths in 2010. This is attributed to the intensive programme for the prevention of mother-to-child transmission of HIV (PMTCT). TB as a cause of child mortality also improved, with a 1% reduction recorded during the ten-year period.
- There was a general increase in TB cases and incidence in Cape Town between 1997 and 2013. From 2010 to 2013, however, a downward trend began to emerge. Particular challenges occur in areas with high case loads and high dual infection rates, such as Khayelitsha and parts of Klipfontein, the Eastern district and Mitchells Plain. In Khayelitsha, the TB incidence is a relatively high 1 165 cases per 100 000 people. New challenges have also arisen in the TB programme with the emergence of drug-resistant TB (MDR and XDR-TB), which complex service delivery, clinical and ethical issues.

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5. Haldenwang, B.B. 2011. Projections of the South African population, 1985-2040 (With-Aids and No-Aids projections). Bellville: IFR, Stellenbosch University.
6. Roux, A. (ed). 2013. Business Futures 2013. Institute for Futures Research: Bellville.
7. Infant mortality rate (IMR) is defined as the probability of dying within the first year. It refers to the number of babies younger than 12 months who die in a year per 1 000 live births during the same year. See Nannan and Hall, 2014, available online at http://www.childrencount.ci.org.za/indicator.php?id=5&indicator=23.
8. Chetty, K.S. 2003. 'Urbanization and health: evidence from Cape Town', in The Apartheid City and Beyond: Urbanization and Social Change in South Africa. D.M. Smith (ed). Routledge.

In 2005, the Western Cape passed the early phase of the HIV epidemic, which had been characterised by an exponential growth in prevalence. Thereafter, prevalence rates began to stabilise, with a slight decrease in 2012 compared to 2011.

- Of the eight metropolitan areas in the country, Cape Town has the lowest HIV prevalence (5,2%). The black African population group displays the highest HIV prevalence compared to all other population groups, followed by the coloured population. Since 2008, women between the ages of 30 and 34 years have been most affected. In 2005, the Western Cape passed the early phase of the HIV epidemic, which had been characterised by an exponential growth in prevalence. Thereafter, prevalence rates began to stabilise, with a slight decrease in 2012 compared to 2011. The 2013 HIV prevalence rate for the province was even lower, at 17,1%,[9] which was lower than the 2010 rate of 17,3%. A downward trend is therefore beginning to emerge. The Khayelitsha health subdistrict remains the district with the highest HIV prevalence rates in Cape Town and the province.[10]
- Cardiovascular and metabolic diseases have remained the major cause of death in Cape Town over the ten-year period, with 341 deaths per 100 000 in the 2001-to-2004 aggregate and 279 deaths per 100 000 in 2010. This is consistent across most health subdistricts. There is however a general downward trend in this cause of death.
- The ranking of the major causes of death suggests that the majority of deaths in Cape Town are caused by lifestyle diseases. These are associated with a combination of factors, such as unhealthy and stressful living conditions, which are a factor of urban life, particularly affecting the most vulnerable of society.

Education

- The percentage of Cape Town's adult population who completed schooling (Grade 12) increased significantly from 19,6% in 1996 to 25,4% in 2001 and 30,2% in 2011. There was also an increase in the percentage of adults with higher education, from 10,9% in 1996 to 16,2% in 2011, although concerns have been raised about the quality of the education received.
- The first decade (12 years) of democracy witnessed an increasing drop-out rate. Only in 2007, drop-out rates[11] began to decrease, continuing into the second half of democracy. The 2014 figures seem to be closer to those witnessed at the beginning of democracy, which may point to a possible recovery period in terms of output numbers.
- From the latter part of the first decade of democracy, the number of Grade 10 learners was higher than the number who started out in Grade 7. For example, the 2003 Grade 10 group consisted of 14,50% more learners than those who started Grade 7 in 2000. This suggests an increase in either grade repeaters or migrants (and immigrants), or both. By 2012, however, this had decreased to 1,81%, indicating either fewer grade repeaters or migrants (and immigrants), or both.

9. Personal communication with Dr Vivien Essel, Western Cape Department of Health. The 2013 national survey results had not been released at the time of writing.
10. Ibid.
11. Drop-out rates should be treated with caution, however, as they may have multiple meanings. A drop-out figure does not necessarily mean that a learner has completely dropped out of school. It could mean that a learner left the school, only to continue schooling in another province or country, which may not be reflected in the statistics. Additionally, learners who drop out for a period of time may not always indicate the reason for doing so, especially in the case of teenage pregnancies, where the learner and parents may not disclose this information to the school. (Personal communication with Abdurahman Noordien, Western Cape Department of Education)

- Of great concern is the decrease in the number of adults with tertiary education.

Income poverty and food security

- The Gini coefficient for Cape Town consistently improved in the ten years from 2001 to 2010: In 2010, it stood at 0,60; in 2007, it was at 0,59, and in 2010, it was 0,57.[12] The Gini coefficient in 2011/12, however, had increased to 0,67, although this was still the lowest in South Africa.[13]
- The number of indigent households[14] in Cape Town increased from 250 000 in 2003 to 288 703 in 2013. For the City, households who qualify for an RDP (now BNG)[15] house form the proxy baseline for determining indigence: Any household earning R3 500 or less per month qualified for an RDP (or BNG) house in 2011. Since the Census data had a cut-off point at R3 200 per month only (and not R3 500), the City used this figure as the poverty line in 2011.
- South African society continues to be characterised by large-scale inequalities along various dimensions, such as population group and geographic location. Economic inequalities have a further negative impact on the creation of social cohesion.
- Food insecurity rather pertains to the inability to access nutritious and culturally acceptable food, than to the absolute amount of food available.[16] The percentage of food-secure households, both in terms of adults and children, was greater in 2012 than in 2005. In 2005, less than half (47% adults and 38% children) of the black African population group were food-secure; by 2012, slightly more than half (60% adults and 58% children) were food-secure.
- Food security is closely related to poverty. A study by the African Food Security Urban Network (AFSUN) found that food insecurity in the poor areas of Cape Town is both severe and chronic.

Crime

- Cape Town's crime statistics highlight a major challenge for the city and its residents.
- Cape Town had the highest overall crime rate in 2012/13, namely 8 514 per 100 000 people, which is more than double compared to the national crime rate for the same reporting period of 2003/4 to 2012/13.
- Crime continues to be largely concentrated in the poorer areas of the city.[17]
- There was an increase in the rate of drug-related crime in Cape Town over the period 2003/4 to 2012/13, from 306 to 1 495, which represents an increase of 479% in actual reported crimes over the nine-year period, and an average of 24% per annum. These figures for Cape Town are concerning when compared to the national figures over the same period. The higher incidence of drug-related crime is in part explained by an increase in law enforcement actions taken and rather

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12. Western Cape Government. 2011. Regional Development Profile: City of Cape Town. Western Cape Government: Cape Town.
13. UNHABITAT. 2012. State of the World's Cities: 2012/13. UNHABITAT: Nairobi.
14. These are ratepayers who own a single home and qualify for a 100% rates rebate when they register as indigent. To qualify, a household either has to be headed by a minor and be registered in the name of a deceased parent/parents, or must have a total monthly income of R3 301–R5 000 (2013 figures). This income bracket may change annually.
15. Low-cost housing (Breaking New Ground).
16. Frayne, B. et al. 2010. 'The State of Urban Food Insecurity in Southern Africa'. Urban Food Security Series No. 2. Queen's University and AFSUN: Kingston and Cape Town.
17. City of Cape Town. 2014. Comparison with other Metros 2012/2013. Factsheet compiled by Fraser, A. & Gie, J., DI&GIS Department.

cases opened by the police as a result. What should also be kept in mind is that Cape Town's drug challenge has gained more exposure over the past decade through various types of crime research, citizen accounts, public forums and social interactions.
- Fetal alcohol spectrum disorders (FASD) are becoming an increasingly urban problem, especially as a result of increased rural-to-urban migration.
- The importance of FASD within the urban (and specifically Cape Town's) context is being increasingly recognised.

Cultural events celebrating Cape Town's diversity

- Cultural events in Cape Town are one way of fostering social cohesion through the celebration of the diverse South African cultural heritage.
- There have been several annual social events in Cape Town that illustrate how the City supports the fostering of unity and social cohesion.
- In Cape Town alone, the City hosts and funds over 40 iconic and other events. All of these help to create social cohesion through celebrating cultural diversity and connecting people from diverse social and cultural backgrounds.

Future social

- The future Cape Town will be characterised by a growing population, coupled with a continuous inflow of people from neighbouring provinces and countries. Cape Town's population is expected to grow to 4,20 million by 2022, and to 4, 6 million people by 2032.[18] The future Cape Town will witness decreasing fertility rates, increased mortality rates, and increased life expectancy at birth among all population groups. There will be a changing age structure, with increasing proportions of older persons and declining proportions of children, as well as rising median ages, which all point to an ageing population.
- Cape Town's IMR will continue to decrease into the future as vaccinations become more readily available and City health services improve, coupled with increase awareness among mothers. There will be increased life expectancy at birth among all population groups. The numbers of children dying from HIV/Aids will decrease further (with a target of zero) as the PMTCT programmes gain further momentum.
- As more foreign nationals from Africa migrate to the city, previous diseases that were no longer considered pandemics, such as yellow fever, may resurface. Diseases that are climatic in origin may also increase as an impact of climate change, particularly among the most vulnerable.
- There will however be increased adult mortality rates due to HIV/Aids, particularly among the black African and coloured populations.[19] MDR and XDR-TB will continue to pose a challenge for reducing TB rates, and will be exacerbated by growing informal settlements.
- There will be an increased burden of chronic diseases due to the ageing population, changing lifestyles, unhealthy diets (further exacerbated by urban food insecurity), obesity and alcohol abuse.[20] The poor may be most affected by lifestyle diseases, as they work longer hours, for example shift work, and therefore have less time for recreation or physical exercise, or are unable to afford it. They are also forced to purchase unhealthy foods, as the price of (especially healthy and organic) food is set to increase even further.
- Future scenarios will see local food production and distribution systems becoming increasingly critical as climate change affects weather patterns, and the rising cost of fuel further drives up food prices. Low-income and poor households will be most affected by food price hikes. The City has further commissioned a comprehensive study of the food systems and food security in Cape Town. The purpose of this study is to understand the nature of Cape Town's food systems in order to inform City interventions and policy decisions.
- While multidimensional poverty is a reality in many developing countries, poor households in South Africa are impacted more by income poverty (a result of high levels of unemployment) than lack of access to basic services (like health, housing, water and sanitation), – which constitutes a large component of multimimensional deprivation and poverty. The "Prosperity Index", prepared in 2012 by UNHABITAT, measures well-being, including both the tangible and intangible aspects of success. In this respect, the 2012 results indicate that Cape Town has the highest prosperity index in Africa, and is therefore the most equal city on the continent.[21]
- In future South Africa and Cape Town, drug-related crimes are expected to continue to increase as more people, especially youth, experiment with recreational drugs, and the average age of drug users is set to become ever lower. Numbers and proportions of contact and contact-related crimes are expected to decrease, as well as the incidence of murder, attempted murder, sexual offences, violent assault, violent robbery and common robbery. Corruption, bribery and fraud in the public sector will be reduced through more stringent legislation and intense corruption monitoring. Organised crime and cybercrime – a new form of major crime – will continue to increase, bolstered by globalisation and the communications revolution.[22]

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18. Western Cape Government & City of Cape Town. 2014. Western Cape Population Projections 2011–2040.
19. Haldenwang, B. 2013. South African demographic trends to 2035. Presentation to City of Cape Town on 31 October 2013. Institute for Futures Research, University of Stellenbosch.
20. Ibid.
21. UNHABITAT. 2012. State of the World's Cities: 2012/13. UNHABITAT: Nairobi.
22. This draws on the analysis of South African crime trends discussed in Roux (ed.), 2013.

2. Economy

Global competitiveness

- The success of cities, especially those in developing countries such as South Africa, hinges on the economy's ability to distribute the benefits of economic growth to all citizens. A city can only become a place of opportunity and inclusivity if the economy creates jobs and raises wage income, and if the returns on value-added production are re-invested in physical and social infrastructure.
- Cape Town – along with Johannesburg – could be described as a primary urban centre in terms of its population size, economic strength and influence in the broader region. However, in the global context, it can only be regarded as a mid-sized city.
- The projected economic growth rate of mid-sized cities, at 8,7% for the period 2010-2016, is expected to outstrip that of megacities, which are expected to grow at 6,3% over the same period. McKinsey Global Institute[23] further predicts that mid-sized (200 000-10 million inhabitants) emerging-market cities will contribute 40% of global economic growth between now and 2025. This reflects the shifting centre of economic gravity away from developed markets towards emerging economies – a pattern that has strongly characterised the last 20 years.
- While foreign direct investment (FDI) outflows from developed countries fell by $274 billion in 2012, FDI outflows from developing countries rose by $4 billion to a record share of 31% of total FDI flows.
- Sub-Saharan Africa is expected to be among the fastest-growing developing regions, with an average growth rate of 6,1% forecast for 2014.
- Currently, Cape Town is ranked 73rd on the *Economist* Intelligence Unit's ranking of city competitiveness – the second most-competitive city in Africa, and ranked just below Johannesburg, which is in 67th place.[24] Cape Town's highest rankings in the sub-indices of the competitiveness index are in the areas of institutional effectiveness and human capital. The institutional effectiveness category looks at South Africa as a whole, and takes into account elements such as electoral processes, fiscal autonomy and rule of law.

National policy response

- National developments in macro-economic policy fundamentally affect Cape Town, and shape the city's response to global economic trends.
- Strong economic growth in the period 1997-2008 did not, as had been expected, solve the unemployment or inequality challenges in South Africa. The National Planning Commission's Diagnostic Overview (2011) found that while the poverty rate dropped from 53% in 1995 to 48% in 2008, inequality, as measured by the Gini coefficient, remained largely unchanged and the unemployment rate hit its highest level (31%) in 2001. It is not that economic growth did not create employment in the 1997-2008 period, but rather that it created insufficient employment.

Cape Town's economic growth

- Cape Town's growth performance tracks that of the country, especially in the last five years. However, Cape Town has on average grown faster than South Africa as

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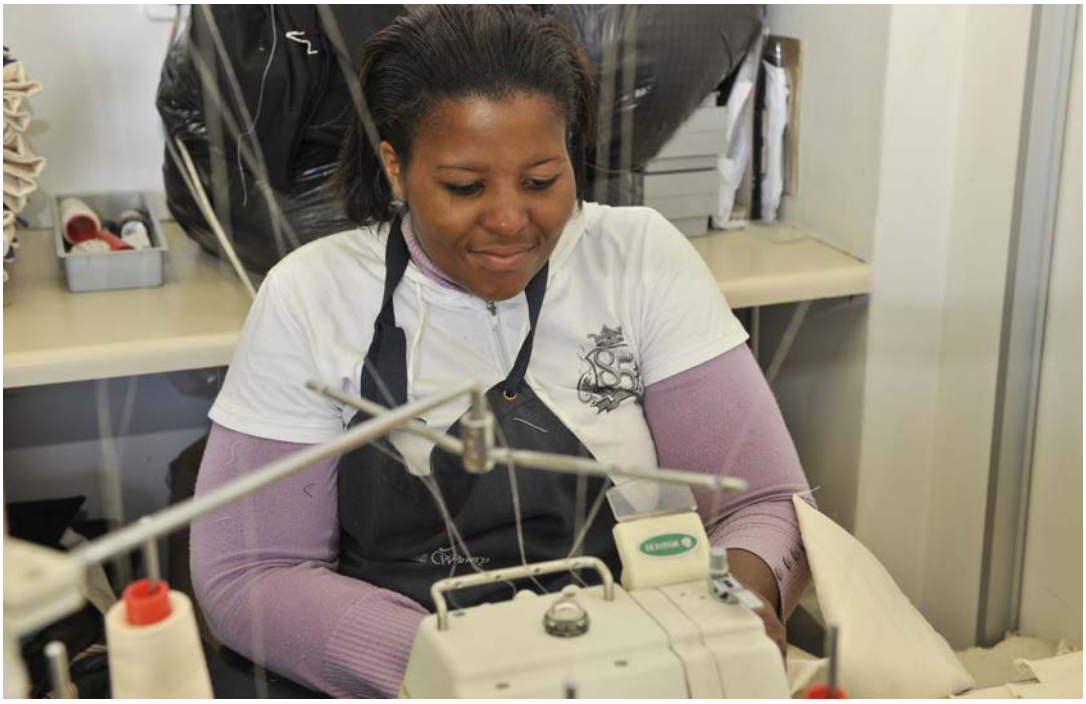
23. 2012. Urban world: Cities and the rise of the consuming class. p 5.
24. *Economist* Intelligence Unit. 2012. Hot spots: Benchmarking global city competitiveness. p 26.



The industries in which Cape Town has the most pronounced comparative advantage as compared to the country as a whole are fishing, clothing and textiles, wood product manufacturing, electronics, furniture, hospitality, finance and business services.

a whole (3,7% compared to 3,2%) during the period. Cape Town's period of fastest economic growth was 2001-2006, two years before the economic recession hit. During this period, the average annual growth rate of Cape Town's economy was 4,7% compared to a national average annual growth rate of 4,4%. The greatest divergence from the national growth rate, however, came in the period 2006-2012, when Cape Town recorded an average annual growth rate of 3,3%, while South Africa recorded a growth rate of 2,8%. This points to the greater resilience of Cape Town's economy during the recession period.

- The cumulative growth of Cape Town's economy between 1996 and 2012 was 78%, while South Africa's was 65%. Naturally, this has resulted in Cape Town contributing an increasing share of South Africa's gross domestic product.
- Cape Town's positive growth in GDP per capita indicates that economic growth over the period 1996 to 2012 was not only an outcome of population growth, but also of increased productivity as a result of scale and specialisation. That being said, Cape Town's GDP per capita average annual growth rate between 1996 and 2012 of 1,3% was lower than South Africa's metro average, which was 1,56%.

Sectoral drivers

- The sectoral distribution of economic activity differs from the national economy, predominantly in terms of the smaller relative size of the primary sector (agriculture and mining) and the greater relative size of the tertiary sector (particularly finance and insurance). The finance and business services sector is by far the city's largest economic sector, contributing 36,1% to Cape Town's gross value added (GVA), whereas it contributed only 23,9% nationally in 2012.
- The industries in which Cape Town has the most pronounced comparative advantage as compared to the country as a whole are fishing, clothing and textiles, wood product manufacturing, electronics, furniture, hospitality, finance and business services. These industries currently contribute relatively more to the city's economic output than they do at a national level to South Africa's economic output.
- Cape Town's economy has moved steadily away from the productive sectors – agriculture and manufacturing – towards specialised services sectors – finance and business services, and transport and logistics. In general, the primary and secondary sectors decreased their combined share of GDP from 26,0% in 1996 to 22,3% in 2012, while the tertiary sector increased its share from 73,1% in 1996 to 77,7% in 2012.
- In terms of GVA growth, manufacturing in Cape Town has grown at an average annual rate of 2,2% over the period 1996-2012, and at only 1,7% since 2006. This is significantly slower than the growth of the city's economy as a whole (3,7%), and also slower than the 2,6% average growth rate of the country's manufacturing sector in the 1996-2012 period. In contrast, the finance and business services sector in the city grew at 5,0% per annum, albeit also marginally slower than the national average of 5,2%. Although off a smaller base, transport and communications, at 5,5%, grew faster than finance and business services in the city, and faster than transport and communications nationally (5,1%).
- Cape Town's five largest contributors to economic growth in the period 1996-2012 were all industries located in the tertiary sector. Finance and insurance (excluding real-estate and other business activities) contributed a significant 31,9% of economic growth, despite only constituting 19,9% of the economy in

2012. This reveals both Cape Town's strengths and vulnerabilities. When consumer confidence is high and these industries are growing, Cape Town's economy flourishes. However, when consumer confidence dips as a result of deteriorating domestic or international conditions, these industries slow down and weaken Cape Town's economy in the process.

Cape Town's labour market

- Employment in Cape Town has grown steadily since 2005, when it was around 1,2 million, and peaked at 1,5 million in the fourth quarter of 2011. The average annual growth rate of employment during the 2005-2013 period was 2,4%, while the corresponding GDP growth rate was 3,7%. This is indicative of a certain capital intensity of growth as well as growth in labour productivity, necessitating fewer labour inputs to produce output units.
- On average in the period 2005-2013, employment growth was not sufficient to accommodate the growth in the number of new labour market entrants, which could be the reason for the relatively slow growth in GDP per capita.
- As labour force growth exceeded employment growth, the strict unemployment rate in Cape Town increased from 19,2% to 24,9%[25] between 2005 and 2013. The increase in the unemployment rate in this period must be seen against the backdrop of adverse global economic conditions, particularly in 2009, which caused millions of job losses around the world and a million job losses in South Africa.
- Encouragingly strong employment creation in 2013 absorbed more people than what the labour force increased by, thereby driving the decrease in the unemployment rate in this period. In order to ensure greater opportunities for people to actively participate in the local economy, Cape Town needs to exploit the employment creation potential of key strategic industries.
- Employment growth has been strongly driven by the tertiary sector, in particular finance and business services, retail and wholesale trade, and community services. Manufacturing has experienced huge job losses in both the 1996-2004 and 2004-2012 periods, declining at an average annual rate of 0,8%. This finding reflects not so much the diminishing importance of the manufacturing sector, as other sectors grow faster, but rather the de-industrialisation of Cape Town.
- The informal economy is a significant employer in Cape Town, and according to the City's calculations based on Census 2011 and the 2013 Quarterly Labour Force Survey, informal-economy employment constitutes between 9% and 11% of the total number of employed people in the city.[26]
- In Cape Town, the informal sector constitutes a smaller portion of total employment in the city, with only 8,7% of total employment being located in the informal sector in the fourth quarter of 2013. This was 9,8% lower than in the previous quarter. Although more formal jobs may be available in Cape Town than in other regions of the country, the city's high unemployment rate (compared to other emerging cities) means that the informal economy should be playing an important role as an employer in the local economy.
- This implies that informal-economy employment can be used as a tool to broaden economic inclusion and combat poverty.

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25. Annual average of the unemployment rate for the four quarters.
26. City of Cape Town. 2014. EPIC – Economic Performance Indicators for Cape Town, 4th Quarter 2013.

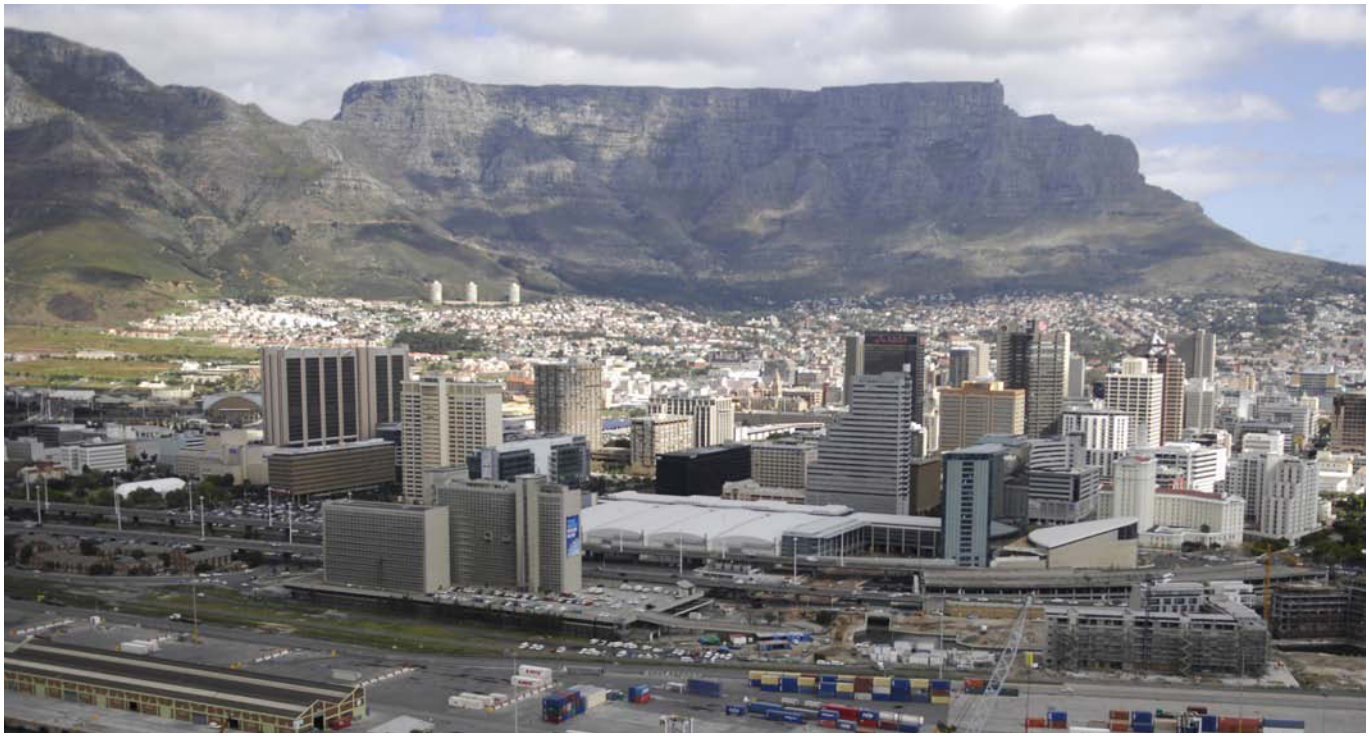
Since 1994, key economic assets such as the Cape Town International Convention Centre (CTICC), the film studio and an extensive broadband network have been developed in collaboration with strategic partners. These economic assets have underpinned growth in some of the city's key sectors, and enhanced its ability to attract investment.

- The challenge for Cape Town lies in the fact that although its labour market is more inclusive than South Africa's, the city still has a high unemployment rate (especially among the youth) by developing-country standards, as well as a high proportion of people with relatively low skills in its labour force.
- Cape Town needs growth in sectors with high absorption of low-skilled labour. The fastest-growing sectors in Cape Town's economy, however, are more capital-intensive than labour-intensive and, for the most part, require workers who are highly skilled.
- According to FDI Intelligence,[27] the Cape Town industry with the largest number of projects receiving FDI from 2003 to 2013 was business services, with 34 projects, while the communications industry recorded the highest value of FDI (R8 billion) in that period. This attests to the attractiveness of these industries, and accounts for their above-average growth rates.
- There is a need to revitalise the manufacturing sector in Cape Town through strategic investments in infrastructure and through direct incentivisation. With regard to the latter, and in line with the Economic Growth Strategy, the City of Cape Town formulated an Investment Incentives Policy in 2013.

Leveraging infrastructure assets

- Since 1994, key economic assets such as the Cape Town International Convention Centre (CTICC), the Cape Town Film Studios and an extensive broadband network have been developed in collaboration with strategic partners. These economic assets have underpinned growth in some of the city's key sectors, and enhanced its ability to attract investment.
- As a large, relatively new and purpose-built port, Ngqura may overtake the Port of Cape Town with regard to container handling in the near future due to capacity constraints in the latter. This may in turn lead to a shifting of manufacturing industries to the Port Elizabeth area. The City needs to engage with Transnet to ensure that capacity constraints in the Port of Cape Town do not become prohibitive to growth in the manufacturing sector within the city and its region.
- A number of oil and gas companies have their administrative offices in Cape Town, and a second integrated development zone (IDZ) focused on the development of green technology is being established in Atlantis.
- Cape Town International Airport, voted the best airport in Africa in 2013,[28] is South Africa's second-busiest airport, and recorded 2,25 million total passenger movements in the fourth quarter of 2013, compared to 4,89 million passenger movements at OR Tambo (Johannesburg) and 1,14 million at King Shaka International (Durban) during the same period. The disparity between OR Tambo and Cape Town international airports is a result of Airports Company South Africa's (ACSA) strategy of using OR Tambo as the international hub airport for South Africa.
- International arrivals to OR Tambo constituted 49% of its total passenger arrivals. In contrast, the relative lack of international connections at Cape Town International affects the city's ability to be truly globally fluent. In particular, Cape Town's two labour-intensive comparative advantages, tourism and business process outsourcing, require excellent international connec-

27. Financial Times. 2014. Foreign Direct Investment [FDI] Intelligence. London. Available at www.fdimarkets.com.
28. Airports Company International. 2013. Available at http://www.aci.aero/Airport-Service-Quality/ASQ-Awards/2013-Winners/Best-Airport-By-Region/Africa.



tivity. Other sectors that are important in the economy of Cape Town's rural hinterland, such as agriculture, also require well-functioning air links, particularly with regard to time-sensitive export products.

Submetro economic dynamics

- Submetro economic dynamics are another important consideration when reflecting on how the city's economy has grown, changed and developed since 1994.
- There are 59 business precincts in the City's area of jurisdiction, 23 of which are exclusively commercial, 18 are exclusively industrial, and 18 exhibit a combination of industrial and commercial activities. Approximately 90% of non-residential building development has occurred in these business precincts since 2005.
- In the 1900s, industry in Cape Town clustered around the central business district (CBD) and, thereafter, in Woodstock and Salt River. With the increasing scale of manufacturing plants in the mid-century, the search for larger, cheaper erven led to the opening up of specialised industrial areas in Maitland and Paarden Eiland, followed by Epping, and later also the eastern edge of the city in Brackenfell and Blackheath Industria. Due to the largely industrial nature of this development, rail access was an important determinant of location. The Atlantis area was also developed in the 1970s, which was a social engineering intervention that provided residential and industrial opportunities for the coloured population. The 1980s were dominated by rapid growth in Montague Gardens, followed by development of smaller industrial hives, such as Blackheath and Elsies River Industria.
- The 1990s saw continued yet slow growth in demand for larger manufacturing sites in specialised peripheral estates, such as Brackenfell and Blackheath, which were characterised by cheaper land and good road access.
- Growth in warehousing and storage facilities took place near the international airport, and built on rapid light-industrial growth in nearby industrial areas with a high level of road access, such as Montague Gardens and Killarney Gardens. Meanwhile, the northern part of the metropolitan region attracted high-tech, specialised and niche industries requiring specialised premises.
- Between 2000 and 2011, Cape Town's industrial GVA grew by R9,3 billion,[29] of which R5,6 billion was manufacturing-related and R3,672 billion pertained to transport and storage. This growth in industrial activity corresponded with the completion of an additional 3,6 million m^2 of gross internal floor space. This increase in internal floor space is roughly equivalent to the addition of an industrial area three times the size of Montague Gardens.
- During the same period, economic sectors that are largely office-based, including finance, insurance, real-estate and business services; personal services, and general government grew by a total of R36,9 billion. This growth corresponded with the completion of 1,82 million m^2 of new office and banking space since 2000. This increase is roughly equivalent to the addition of three Bellville CBDs to the city's urban fabric. As highlighted earlier, this attests to the growing importance of the tertiary sector in Cape Town's economy.
- Two thirds of the more than 2 million m^2 of industrial space added in Cape Town since 2005 are concen-

Economic sectors that are largely office-based, including finance, insurance, real-estate and business services; personal services, and general government grew, attesting to the growing importance of the tertiary sector in Cape Town's economy.

29. Constant 2005 prices.

trated in nine of the 36 industrial and mixed-use nodes. More than one third (36%) of overall industrial development occurred in only three nodes: Blackheath (16%), Brackenfell (13%) and Airport Industria (7%). It may be said that these fast-growing nodes are challenged by their own success, in that further growth along the eastern periphery of the metropolitan region and around the airport is increasingly constrained by mounting infrastructure challenges. There is limited private-sector investment in industrial areas perceived as inaccessible (Atlantis) or dangerous (Philippi).

- On the back of technological improvements in logistics, consolidation and vertical integration of distribution networks, the modal shift from rail to road, as well as transport cost factors, the restructuring of the regional freight logistics system since 1994 has led to the proliferation of warehousing and transport-related development, coupled with the displacement of productive industrial activities. This is also reflected in the rapid GVA growth for the transport, storage and communications sector (5,5%) between 1996 and 2012. In Cape Town, warehousing has driven employment density as low as 80 m^2 per employee, whereas mechanisation in light manufacturing has lowered densities from 32 m^2 to 47 m^2 between 2001 and 2010. There is concern that well-located industrial areas, which are seen as the drivers of blue-collar employment creation, are in fact growing whilst shedding jobs.
- Since 2005, two thirds (65%) of new office developments[30] have been concentrated in only four of the 41 office nodes across the city: Century City (25,5%), Tygervalley (21,8%), Salt River (10,7%) and the CBD (6,8%).

Future economy

- It is recognised that a knowledge transition is necessary in order to provide the high-quality education and skills as well as the innovation capacity required by firms to compete in the global and national economy.
- An economic-access transition is also required to enable the development of an innovation-driven economy with high levels of productivity and entrepreneurial activity. Progress in both these areas remains a challenge, although the City's Economic Growth Strategy provides a solid basis for growth to take place.
- There has beeen a recent shift towards a developmental approach, which sees the informal economy as a non-transient and important source of employment within the city. This approach may radically change the way local government interacts with and perceives the informal economy in the near future.
- In order to harness the full employment-creation potential of Cape Town's growth sectors, Cape Town needs to broaden its skills base, investing in skills and targeting fast-growing and labour-intensive tertiary industries.
- Challenges relating to the Port of Cape Town and Cape Town International Airport will require ongoing engagement and discussion with the respective national departments and agencies.
- It is too soon to assess whether a combination of cheap and extensive vacant land, coupled with area-based City initiatives aimed at stimulating investor interest in these areas, will translate into a more spatially balanced pattern of industrial development.
- A dampened level of consumer confidence, as forecast by the Bureau of Economic Research[31] is likely to have a negative effect on Cape Town's economy, which is heavily invested in tertiary-sector industries, in the short to medium term. However, achieving a suitably higher future growth trajectory for Cape Town will depend on the city's ability to increasingly realise the opportunities associated with the industries where it has some comparative advantages – namely tourism, finance and business services, agro-processing, creative industries, and oil and gas – and effectively attract new investment to these industries.
- The City also needs to be mindful of the gap between a large and increasing low-skilled pool of excess labour and the demands of skills-intensive, fast-growing services industries. Two labour-intensive yet fast-growing industries within Cape Town are business process outsourcing and tourism. Both are externally focused, and can thus potentially benefit from improving global conditions and a weak rand. The City of Cape Town needs to implement supportive strategies that help to create an enabling environment for the growth of these as well as other comparative-advantage industries in the city.
- The analysis of submetro economic dynamics in Cape Town reveals a growing spatial divergence between dispersive public-sector investment and agglomerative private-sector investment. In other words, whereas private-sector investment and concomitant employment growth are becoming increasingly concentrated in a handful of existing nodes, the public sector's attempts to duplicate the conditions for similar investment have had limited success and have been at the expense of maintaining and managing existing assets. This phenomenon suggests that the future of large cities such as Cape Town is bound up with the fortunes of existing business precincts. The challenge for the City is to identify and leverage private-sector investment off existing location potential, whilst ensuring that new employment opportunities are accessible to job seekers through universal services (quality education, basic services) and affordable public transport that connects thriving business nodes with the rest of the city.

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30. Measured by internal floor area.

31. 2014, 2013Q4 GDP Growth.

3. Natural wealth

- Successful cities provide stimulating environments for their inhabitants, without imposing unsustainable demands on natural resources and ecosystems. Such cities meet multiple goals, including living and working environments that promote health and well-being, and support a prosperous economic base. These cities also work to ensure a sustainable relationship between the demands of consumers and businesses, and the resources and ecosystems on which they depend.
- Cape Town currently has several significant environmental challenges, including climate change, waste and pollution, resource depletion and biodiversity loss. Urban environmental problems should be understood as a threat to present and future human well-being, resulting from human-induced damage to the physical environment that originates or is experienced in urban areas.
- Cape Town's natural assets and biological diversity are part of what makes the city a unique and desirable place in which to live, work and play.[32] However, wetlands, watercourses, beaches, high-potential agricultural areas, cultural landscapes and scenic views are all being degraded by rapid and uncontrolled urbanisation.[33]
- Climate change effects pose further challenges through the risk of rising sea levels and associated impacts on low-lying urban and coastal environments. Climate change further contributes to changing rainfall patterns and temperature extremes, negatively affecting water resources and biodiversity, as well as food security.[34] The frequency and intensity of extreme weather events are driven by climate change, and cause significant storm damage in both the province and the city, resulting in significant infrastructural damage and economic losses.[35,36]
- Historical challenges facing Cape Town's natural environment include the following:
  - Rapid urbanisation, with a growing number of households who need access to basic municipal services amid growing resource constraints
  - Encroachment on natural environments, and biodiversity loss
  - Development pressure and the threat this poses to unique cultural landscapes and productive land (for urban agriculture)
  - Increased environmental pollution through, among others, carbon emissions from the increasing number of vehicles on the city's road network, and water pollutants from industrial waste, wastewater, human settlements and stormwater discharge
  - Water insecurity arising from changing rain patterns and, in some cases, droughts
  - Energy insecurity arising from global energy price shocks and the potential for electricity shortages
  - The looming prospect of food insecurity as climate change affects agricultural output, coupled with the inevitable rise in food (and other commodity) prices as the cost of transport increases together with the oil price.

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32. City of Cape Town. 2012. Spatial Development Framework.
33. City of Cape Town. 2011. State of Cape Town Report 2010. DI&GIS Department.
34. Oxfam. 2014. Hot and hungry – how to stop climate change derailing the fight against hunger. Oxfam media briefing, 25 March.
35. Midgely, G.F., Chapman, R.A., Hewitson, B., Johnston, P., De Wit, M., Ziervogel, G., Mukheibir, P., Van Niekerk, L., Tadross, M., Van Wilgen, B.W., Kgope, B., Morant, P.D., Theron, A., Scholes, R.J. & Forsyth, G.G. 2005. A Status Quo, Vulnerability and Adaptation Assessment of the Physical and Socio-Economic Effects of Climate Change in the Western Cape, CSIR Report No. ENV-S-C 2005-073. CSIR Environmentek: Stellenbosch.
36. For a more detailed account of extreme weather impacts in the Western Cape province, see Disaster Mitigation for Sustainable Livelihoods Programme (DiMP), 2010, RADAR Western Cape 2010: Risk and Development Annual Review, PeriPeri Publications: Cape Town.

In 2005, the City adopted the Air Quality Management Plan for the City of Cape Town, and in 2010, adopted the City of Cape Town Air Quality Management Bylaw. Among other provisions, this bylaw regulates emissions of atmospheric pollutants within Cape Town, and puts in place licensing and penalty systems.

Air quality

- Key pollutants termed "criteria pollutants" are often chosen as indicators of general air pollution. Criteria pollutants relate to certain activities (such as fuel emissions and wood burning) that produce other pollutants, which makes the presence of one an excellent indicator of the presence of the other. The South African National Environmental Management: Air Quality Act 39 of 2004 stipulates that three main criteria pollutants need to be measured and reported. These are particulate matter smaller than ten microns in size (PM_{10}), sulphur dioxide (SO_2) and nitrogen dioxide (NO_2). This report will focus on PM_{10} due to its significant impact on human health.
- In Cape Town, the most common sources of PM_{10} pollution are diesel vehicle emissions, wood and fuel burning, and dust from construction activities, unpaved roads and verges. Due to their microscopic size (one tenth of the diameter of a human hair), PM_{10} particles are inhaled easily. PM_{10} can cause lung irritation and aggravate existing lung disorders and diseases, such as asthma and tuberculosis (TB). It is also linked to cardiovascular problems.
- The City monitors and reports against both United Kingdom and South African national standards for PM_{10}, as these provide a useful basis for both international comparison and comparison with levels of previous years. The World Health Organisation (WHO) guideline for PM_{10} is also presented in this report to enable comparison. The WHO guideline is based on the level of pollution at which it has been determined that the health effects of PM_{10} become negligible or immeasurable.
- In 2005, the City adopted the Air Quality Management Plan for the City of Cape Town. In 2009, the South African National Ambient Air Quality Standards were released by the Department of Environmental Affairs as a schedule to the Air Quality Act. These standards provide specific levels with which local authorities must comply. In some cases, most notably PM_{10}, interim standards (2009-2014) were provided in order to give local authorities sufficient time to put in place monitoring and control measures before the introduction of stricter standards in 2015. In 2010, the City adopted the City of Cape Town Air Quality Management Bylaw. Among other provisions, this bylaw regulates emissions of atmospheric pollutants within Cape Town, and puts in place licensing and penalty systems.
- It is difficult to determine general air quality trends for the city, as air pollution is often seasonal and localised, and can fluctuate significantly at each site. Generally, most sites in Cape Town meet the South African national standard for PM_{10} levels, with only Khayelitsha exceeding it in some years. However, almost all sites exceeded the WHO guideline in almost all years since 1995, showing that there is significant room for improvement. The WHO guideline should be seen as a value to strive for, as most large cities around the world struggle to achieve it.
- In terms of the number of days on which the daily PM_{10} South African standard is exceeded, Cape Town generally performs well. Since 2011, no station failed to comply with the limit of no more than four exceedances of the 120µg/m^3 daily standard. This is down from a high of nine exceedances in 2010.
- The relatively high level of TB infection in poorer areas is a significant public health concern. Although PM_{10} does not cause TB, it can aggravate the condition in infected individuals. In the summer months, PM_{10} pollution in Khayelitsha primarily consists of dust, which is exacerbated by the presence of unpaved roads and verges as well as unvegetated open spaces. In the winter months, vehicle emissions and smoke from cooking and heating fires are the primary source of PM_{10}.

The Khayelitsha Air Pollution Strategy (2007) was established to address specific challenges in this area. Urban renewal interventions and infrastructure upgrades appear to be having a positive impact, which may become more evident over time.

- The minimum emissions standards for listed activities, as stipulated in the section 21 notice (Notice 893 dated 22 November 2013) promulgated in terms of the Air Quality Act, have significant implications for existing and new listed activities. Existing activities need to comply with the minimum emissions standards for existing plant by 31 March 2015, and must meet the new plant standards by 31 March 2020. New listed activities need to comply with the new plant standards with immediate effect. These emissions standards will result in an improvement in ambient air quality for Cape Town; however, getting industry to meet these limits will be fairly challenging. Some major players such as Eskom have already applied to the national air quality officer for postponement.
- Successful implementation of the minimum emissions standards will result in an improvement in ambient air quality in Cape Town, but will require good compliance and enforcement measures to ensure that industry complies.

Energy

- In response to the global challenge of climate change, cities around the world are starting to realise the importance of reducing their carbon dioxide (CO_2) emissions. Local governments have an important role to play in supporting this commitment through local policies and action plans. In order to gauge the effects of any mitigation actions, it is important to understand the carbon emissions profile and carbon footprint of the city – how big it is and which sectors contribute to it. This informs strategic planning and appropriate responses.
- Cape Town's total annual energy use, calculated in 2007, was around 128 million GJ (gigajoule), which constitutes approximately 5% of South Africa's total energy demand. Cape Town's energy-use profile, which has prominent residential and commercial sectors, differs significantly from South Africa's total-use profile, where industry and mining account for a greater share of total energy use.
- In the 2007 baseline year, Cape Town's per-capita emissions were 7,8 tonnes CO_2. This indicator is not updated annually, as data are onerous to obtain. The City is currently updating its datasets using the 2012/13 base years.
- Cape Town's CO_2 footprint, although lower than the national average, is high compared to those of developing cities with similar economies, and is even higher compared to many developed cities, primarily due to the fact that almost all electricity used in the city is derived from national coal-generated power.
- Cape Town's electricity use accounts for 64% of its carbon footprint. The city's residential and commercial sectors are jointly responsible for the largest share of its carbon emissions, accounting for 83% of electricity use and 54% of carbon emissions. Although the transport sector consumes 50% of Cape Town's energy, it is responsible for only 27% of the associated carbon emissions.
- As with the rest of South Africa, all sectors of Cape Town's society have been very energy-inefficient in their practices due to a history of cheap and abundant electricity. The above challenges have created an urgent need to improve energy efficiency, diversify energy supply, and work with National and the Western Cape Government on projects to improve Cape Town's energy security.
- In 2011, the City of Cape Town published the Moving Mountains report, which demonstrated the City's com-

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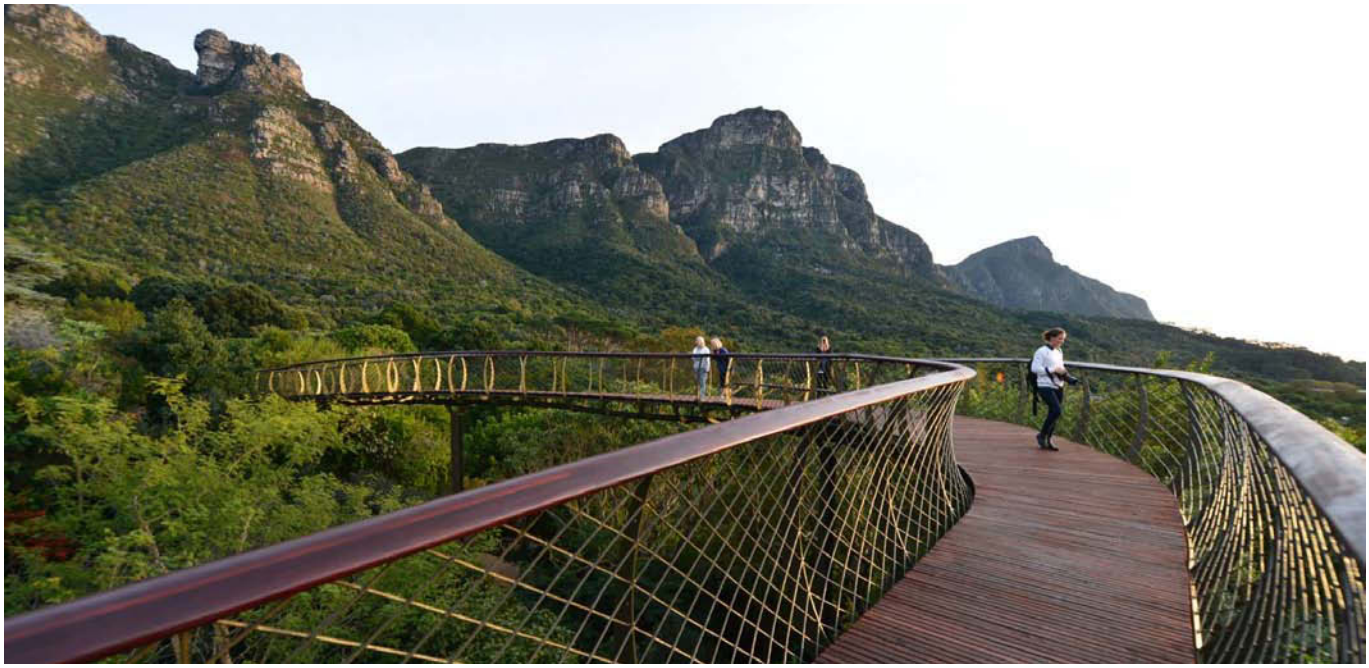
Proposed City mechanisms to address the revenue impacts stemming from reduced electricity consumption include increased national grants, decoupling electricity sales from municipal revenue, and modifying electricity department business models.

mitment to meeting these challenges through its comprehensive Energy and Climate Change Action Plan. In 2014, Cape Town beat 163 other cities to win the Global Earth Hour Capital award for its energy and climate efforts.

- The national energy policy environment has been very active and has generated a number of frameworks and legislation over the last 20 years (or close). The earliest of these, the White Paper on Energy Policy of 1998, was intended to provide the framework for the Integrated National Electrification Programme and Free Basic Electricity Policy, and connected millions of poor households in cities and rural areas alike. Since then, the following strategies, policies, acts and plans have seen the light: the Energy-Efficiency Strategy (2005, updated 2013); the National Climate Change Response Strategy (2012); the National Carbon Policy Paper (2013); the Policy for Energy-Efficiency and Demand-Side Management; the National Energy Act 34 of 2008; the Electricity Regulation Act 4 of 2006; the National Environmental Management: Air Quality Act 39 of 2004; the Integrated Energy Plan (2013); the Integrated Resource Plan for Electricity 2010-2030; the National Energy Regulator Act 40 of 2004; the National Building Regulations Amendment Act (Part XA); the Renewable-Energy Independent Power Producer Programme, and the document Energy Usage in Buildings, which details the energy-efficiency building regulation and associated standards (SANS 204 and SANS 10400).
- Cape Town's electricity use increased steadily between 2001 and 2007 along with the city's population and economy, and reached a high of approximately 12 250 GWh in 2007 (3 430 kWh per capita). Since 2007, there has been a marked decrease in electricity consumption, with total consumption having declined year on year since 2010. In 2010, total annual electricity consumption was 10 556 GWh. Electricity use since then has reduced to 10 488 GWh in 2011, 10 431 GWh in 2012 and 10 200 GWh in 2013. Over the period April 2013 to April 2014, consumption remained consistently 20% (2 446 GWh) below the business-as-usual baseline (projected at a 3,3% annual increase in 2006), and is now even below 2007 consumption. Although these figures do not include Eskom distribution areas due to the unavailability of Eskom data, they do provide a sound indication of electricity use trends in Cape Town.
- Policy debates relating to national energy policy are wide-ranging. These include the desirability of nuclear power; the price of carbon emissions and revenue recycling of the proposed national carbon tax; the establishment of an independent systems and market operator; means to rationalise the electricity distribution sector; the supply expansion planned in the Integrated Resource Plan for Electricity, and associated overprojection of demand and reliance on fossil fuel power generation; the quantum of renewable energy to be included in the grid; means of facilitating distributed energy generation, and the funding and mechanisms of energy-efficiency and demand-side management. There have also been a number of energy policy instruments, including white papers, legislation, national strategies and plans – from the White Paper on Energy Policy (1998) to the more recent publication of the National Carbon Policy Paper (2013).
- There is widespread debate on the role and mandate of local governments in energy generation, energy planning, energy efficiency and energy demand management. Specific to Cape Town, the energy debates have included the following:
  - The determination of an appropriate feed-in tariff to facilitate the export of excess generation from small-scale renewable-energy systems to the distribution network



- The determination of free basic electricity (FBE) amounts. In this case, the City has determined that, due to increased efficiency and behaviour change, consumption of 400 units per month is too high to work as a consistent indicator of FBE need.
- Addressing the revenue impacts stemming from reduced electricity consumption. Proposed mechanisms to address revenue impacts include increased national grants, decoupling electricity sales from municipal revenue, and modifying electricity department business models.
- The potential for local governments to play an increasing role in electricity supply through entering into power purchase agreements with independent power producers, or becoming power generators themselves
- Local government's mandate in electricity tariff-setting. The debate is about whether the National Energy Regulator or local government has the final authority in tariff-setting.
- Debate on smart-grids, the roll-out of smart meters and the operation of ripple control systems
- The enforcement of national energy-efficiency building standards

- The City has taken pioneering steps in confronting Cape Town's energy-related challenges. In 2010, Council adopted a comprehensive Energy and Climate Change Action Plan, which is a programme that links energy and climate to Cape Town's development strategy. Forty programme areas comprising over 120 projects are coordinated through the plan. The City's commitments include a 10% reduction in greenhouse gas emissions off a business-as-usual baseline by 2014; a 10% reduction in municipal electricity consumption by 2012; a 10% reduction in city-wide electricity consumption by 2012, and a 10% supply of renewable and cleaner electricity by 2020. The municipal and city-wide consumption reduction targets have been achieved and exceeded. A range of programmes and projects implemented in terms of the Energy and Climate Change Action Plan have contributed to this success.

Biodiversity

- Cape Town has enormously rich biological diversity, and is known for its incredible natural beauty. The city is located within one of the world's six plant kingdoms – the Cape Floristic Region (CFR). The CFR, a recognised UNESCO world heritage site, is the smallest yet most biologically diverse of all the plant kingdoms. The CFR has one of the highest proportions of endemic species in the world, with over 70% of its approximately 9 600 plant species found nowhere else, and has been officially identified as a "global biodiversity hot spot". This designation recognises the region as one of the planet's 25 most threatened ecosystems, and places an international responsibility on all spheres of government to ensure its adequate conservation.
- Over two thirds of the natural vegetation types are classified as "endangered" or "critically endangered", and over 300 of Cape Town's plant species are threatened with global extinction.
- Cape Town has six endemic vegetation types, which means that they can be conserved only within the boundaries of the city. Some of these vegetation types are critically endangered and remnants will need to be conserved both within and outside the urban edge. Cape Town is a unique example of a city where biodiversity must be conserved as part of the urban fabric, and be fully integrated with present and future spatial planning.
- Managing threatened biodiversity in an urban context is a complex task. Although the City manages a number of nature reserves, these do not necessarily cover

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a representative proportion of the various components of Cape Town's biodiversity.

- Since 1994, significant progress has been made in terms of the biodiversity policy and legal environment. The promulgation of the National Environmental Management Act (NEMA) 107 of 1998, as well as the subsequent Protected Areas Act and Biodiversity Act in 2003 and 2004 respectively, has set the stage for an increased focus on biodiversity management as a formal requirement within the City of Cape Town.
- In 2003, the City's own biodiversity strategy was approved by Council as an implementation strategy of the larger Integrated Metropolitan Environmental Policy (IMEP). This strategy laid out the City's conservation goals and targets, which are aligned with the national targets and are used to determine the minimum set of areas in the biodiversity network. This strategy was updated in 2009 with the addition of the Local Biodiversity Strategy and Action Plan 2009-2019. In 2008, the Framework for a Strategy and Action Plan for the Management of Invasive Alien Species in the City of Cape Town was also completed and adopted.
- The biodiversity network (BioNet) is a fine-scale, systematic biodiversity plan that identifies sites that need to be prioritised for conservation, and protected from development and inappropriate management. The fine-scale biodiversity planning analysis was first done in 2002, and is regularly updated to include the latest local and national biodiversity information. The BioNet is a key informant in the City's medium-term to long-term spatial planning, such as the Cape Town Spatial Development Framework, district plans and environmental management frameworks. The BioNet forms part of the city's life-support system, as natural ecosystems provide many goods and services, as well as space for healthy recreation and both spiritual and social upliftment.
- Levels of biodiversity loss as well as conservation vary considerably from one vegetation type to the next. Over 60% of the original extent of Cape Town's natural vegetation has been lost, mostly in the lowlands. Lowland vegetation types are also least likely to be well protected, and face significant pressure from urban development. Mountainous vegetation types are most likely to be well protected, and cover significant portions of Table Mountain National Park.
- Of the 24 vegetation types or subtypes present in the city, ten are classified as critically endangered. For eight of these ten, it is impossible to meet the national conservation targets, as less than the target extent of each remains. Five vegetation types are classified as endangered, five as vulnerable, while the remaining types are classified as least threatened. Of the 21 South African critically endangered vegetation types, 52% are found in Cape Town. Cape Town also has a high incidence of threatened species – 18% of South Africa's threatened species are found in the city, which comprises only 0,1% of the country's total area, and 13 plant species are already extinct .
- Urban and agricultural expansion has been responsible for much of the biodiversity loss over the past century, with urban growth being the main contributing factor since 1994. Although the total area of biodiversity loss has increased, the total area under formal protection has also expanded over the past century, with significant increases since the mid-1990s.
- Without these natural resources, and the ecosystem services and benefits that they provide, Cape Town will be increasingly exposed to significant risks, and will become more vulnerable to climate change and other natural hazards. Additionally, as the natural environment is one of the key factors that make Cape Town an attractive place to visit, live and work, and thus attracts many tourists, residents and businesses, loss of – or significant

damage to – this natural environment will have a very negative impact on the City's competitive advantage.

Water quality

- Water quality issues mostly pertain to challenges and achievements in maintaining the quality of coastal water, inland water bodies and drinking water.

Coastal water quality

- Urban development brings with it certain environmental consequences, including increased stormwater runoff and the need to provide water, wastewater and refuse services to new areas. Environmental water pollution is unfortunately a common impact with which cities must deal. Cape Town's landscapes, rivers, wetlands and beaches are natural assets that, if managed correctly, can provide huge economic benefits. It is thus critically important that development does not cause degradation of these green assets.
- Point-source discharges to the coast can potentially be addressed by implementing best practices at the source. However, stormwater runoff that may discharge into the sea cannot be easily managed from a water quality perspective, as stormwater often transports contaminants picked up throughout the contributing catchment area from many diffuse sources.
- Coastal municipalities must respond to the National Environmental Management: Integrated Coastal Management Act 24 of 2008 by preparing municipal coastal management programmes, including estuary management plans, which should tie in with provincial and national coastal management plans. Such municipalities must also respond to a new set of recreational guidelines for coastal water quality developed by the Department of Environment Affairs (DEA) in 2012, which have now replaced those of the Department of Water Affairs (DWA) dating back to 1996.
- The City of Cape Town has taken measures with a view to protecting coastal water quality, including the adoption of the City's IMEP in 2001, which included coastal management as one of its key focus areas; the incorporation of the concept of water-sensitive urban design (WSUD) into the Cape Town Spatial Development Framework (2012);[37] the inclusion of, and reference to, the Corporate Inland and Coastal Water Quality Improvement Strategy and Implementation Plan in the City's Integrated Development Plan (IDP) 2012-2017, as well as the inclusion of the Council-approved policy on the management of urban stormwater impacts (2009) in the 2013/14 IDP review; the promulgation of bylaws on stormwater management (2005) and the Wastewater and Industrial Effluent Bylaw (2013), and, in 2014, the compilation of a first draft municipal coastal management programme (CMP) as required by the Integrated Coastal Management Act. The CMP will undergo public participation before it is finalised.
- With regard to the percentage compliance of beach water samples with DWA's stringent 80th percentile measurement, the long-term trend for the sites along the False Bay and Atlantic coastlines seems to be a fluctuating one, without there being any single reason for these variations. Samples along the False Bay coastline declined significantly in 2007, but have since then gradually improved, probably due to concerted efforts to address persistently problematic sites by integrated teams in terms of the Corporate Inland and Coastal Water Quality Improvement Strategy and Implementation Plan. The percentage compliance of sites along

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37. WSUD minimises disruption of the natural water cycle by reducing run-off, attenuating flooding and treating run-off before discharge into the receiving waters, whilst also increasing the amenity value of water systems and reducing the cost of water infrastructure.

Water quality compliance has constantly exceeded the City's own internal annual target, which was 96% in 2009, and has been increased to a very high 98% since July 2012. Compliance is measured against prescribed chemical and microbiological components.

the Atlantic coastline has been relatively stable over the past several years.

- The new DEA coastal water quality guidelines are more stringent than the previous, long-standing DWA guidelines. Therefore, beaches that may have satisfied the old guidelines in terms of the required statistical data analysis, now fail to meet the target guideline level under the new set of guidelines.[38]

Inland water quality

- The primary sources of pollution of the city's freshwater systems are unsatisfactorily treated wastewater effluent (although not throughout the city), overflows from blocked or leaking sewer systems and malfunctioning pump stations, and contaminated stormwater. Moreover, the illegal and inappropriate disposal of human waste in the form of toilet buckets from informal settlements and backyard dwellers directly into rivers and drains, as well as generally polluted run-off from informal settlements, adds to the organic loading of the city's aquatic ecosystems. Illegal dumping and careless disposal of household waste and builder's rubble in open-space areas and into rivers, wetlands and the stormwater system are additional problems.[39]
- The water quality of Cape Town's freshwater ecosystems can be summarised by evaluating the data from a public health and an ecosystem health perspective, each requiring different indicators derived from DWA recommendations and guidelines. Polluted freshwater systems may put public health in danger and pose significant risks to aquatic life and freshwater ecosystems.
- The city's freshwater ecosystems fluctuated between improvement and deterioration during the period 1998 to 2013. Although overall, phosphorus enrichment levels show a slight improvement, nutrient enrichment remains a concern, particularly within catchments that are intensively developed, receive wastewater effluent discharges and have many informal settlements. Bacterial contamination levels declined between 2000 and 2008, but steadily recovered thereafter. The drop in percentage compliance in 2013 is thought to have been due to a number of storm events, which resulted in the wash-off of contaminants, and cases of overflowing sewers due to rainwater ingress.
- The City is prioritising the upgrade and expansion of wastewater treatment works in terms of both capacity and technology. The provision of effective sewerage infrastructure in informal areas, along with the repair and replacement of ageing sewer systems, is another key priority. As these measures are costly and take long to accomplish, measurable improvements in the state of receiving waters may take many years to achieve.

Drinking water quality

- The City complies with strict water quality checks, as prescribed by DWA. Water quality is closely monitored, with many water samples being analysed on a monthly basis according to the stringent South African National Standard (SANS) 241 requirements. Water quality compliance has constantly exceeded the City's own internal annual target, which was 96% in 2009, and has been increased to a very high 98% since July 2012. Compliance is measured against prescribed chemical and microbiological components.
- The City of Cape Town has been awarded Blue Drop certification every year since the launch of this programme in 2009. At the latest awards ceremony in 2012, the City obtained 98,14% – the highest score in the Western Cape, and the sixth best nationwide. It was also one of only ten municipalities in the Western

38 The new guidelines are at this stage merely target guidelines and not standards, and have not yet been gazetted or officially legislated.

39 City of Cape Town. 2012. State of the Environment Report 2012. Environmental Resource Management Department: Cape Town.

Cape to achieve Blue Drop status. In addition, the City received a Platinum Blue Drop award for its consistent excellent performance over the four years from 2009 to 2012, and remains in the top-performing group of water service authorities in South Africa.

Water use

- South Africa is a water-scarce country, and Cape Town is no exception. Although supply-side programmes have expanded the City's capacity to supply drinking water to a growing population, the City also recognises that water resources are limited. As such, programmes to address water demand management form a key component of the City's approach to dealing with water resource scarcity in the future.
- The City of Cape Town's water allocation from the Western Cape water supply system (WCWSS), with the additional yield of the Berg River scheme, is 398 million kℓ per annum. Including the Berg River scheme, the City obtains 73% of its allocated water from DWA-owned sources, with the balance of 27% coming from the City's own sources.[40]
- As the City obtains most of its raw water for treatment to potable standards from mountainous catchments outside the municipal area, most of the City's treated wastewater effluent is not returned to the raw water resource. A percentage of the effluent produced at the Westfleur treatment works in Atlantis is used to artificially recharge the aquifer from which water is abstracted for potable supply as part of the Atlantis water supply scheme.[41]
- The Water Services Act 108 of 1997 and the National Water Act 36 of 1998 provide the national legislative framework. In addition, the City promulgated three water-related bylaws: the Water Services Bylaw (2003), which empowers Council to limit, discontinue or restrict the use of water for the purposes of water conservation; the Wastewater and Industrial Effluent Bylaw (2006), which protects the sewer system by governing private and industrial sewer disposal and usage, and a new Water Bylaw (2010), which has incorporated water conservation and demand management into its provisions. In 2001, the City also adopted a Water Demand Management (WDM) Policy. This policy sets out a framework for the establishment of water demand management mechanisms in the City, including a goal to reduce water demand by specific target dates.
- Overall, annual water usage increased from approximately 250 000 megalitres (Mℓ) in 1996 to approximately 284 000 Mℓ in 2013, with highs of around 305 000 Mℓ in 1999 and 2009. However, over the same time period, per-capita water use steadily declined from a high of approximately 312 ℓ per capita per day in 1999 to just over 200 ℓ per capita per day in 2013. These achievements are in line with the City's Environmental Agenda 2009-2014 target to reduce overall water use to 290 000 Mℓ per year and cut per-capita use to 180 ℓ per day.
- Efforts are also under way to investigate opportunities for the sustainable harvesting of new water sources – such as underground reservoirs (a non-renewable resource) and desalination plants – alongside upgrading water reticulation systems to minimise leaks and water losses. The City has also recently embarked on a programme of reusing treated wastewater effluent for various applications, including the watering of sports fields and golf-courses and certain industrial uses. In 2013, just over 12 000 Mℓ of water (about 4%) was reused.
- Due to continued urbanisation and migration, service delivery in especially informal settlements remains a constantly moving target. Thus, efforts to provide in-

The impacts of climate change are not yet fully understood, but have significant potential to affect already scarce water resources in the Cape Town area. Water scarcity will continue to present a problem for Cape Town into the future.

40 Ibid.

41 Ibid.

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creasing and improved access to basic services in informal settlements are continuing unabated, as is the phasing-in of on-site services provision to backyarders. Certain localised service delivery challenges exist where informal settlements are for example not situated on City property, are located beneath power lines, on landfill sites, in a road or railway buffer or on flood plains. However, challenges like these are persistently addressed while aiming for service delivery provision that is consistent with City of Cape Town internal standards, which are higher than the national norm.

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Solid waste management

- Over the past two decades, solid waste management has increasingly become a priority on the global environmental agenda. Recent estimates suggest that, globally, as much as ten million tonnes of industrial and municipal waste are generated per day. More sustainable and integrated waste management practices are vital in order to mitigate further environmental degradation and harm to human health. Waste materials are also increasingly being regarded as potentially valuable resources, which should not simply be thrown away.
- The 1999 draft National Waste Management Strategy, followed by the White Paper on Integrated Pollution and Waste Management for Southern Africa (2000), kick-started the waste management policy framework for the democratic South Africa. In 2008, the National Environmental Management: Waste Act 59 of 2008 was developed to reform and consolidate previously fragmented legislation regulating waste management. This act for the first time provided a coherent and integrated framework for the management of waste. The current National Waste Management Strategy, which gives effect to the Waste Act, was developed and approved by Cabinet in 2011 and needs to be updated every five years. In 2006, the City of Cape Town's Integrated Waste Management Policy was adopted, and in 2009, the City became the first municipality in South Africa to introduce a bylaw regulating and enforcing integrated waste management within Cape Town.
- Disposal of Cape Town's domestic as well as the majority of its commercial and industrial waste at the City's three waste disposal sites reached a high of approximately 2,5 million tonnes, or some 730 kg of waste per person, in 2007, followed by a sharp drop in waste disposal from 2007 to 2012. During this same period, the percentage of waste minimised (i.e. diverted before landfill) by the City's own waste minimisation programmes alone (i.e. excluding the tonnages minimised directly by the private sector) increased from 4% to between 12% and 14% of total waste entering the municipal system.[42] Although it is

42. Waste data are available from 2006 only, when consolidated reporting began. In addition, due to challenges with the City's weighbridges, which are currently being addressed, data for 2013 are only currently available as an estimate, and are therefore not included in this report. It should also be noted that waste disposal data from 2006 and 2007 may include some double-counting, which may partially account for the dramatic decrease in 2008. Procedures were subsequently put in place to ensure that double-counting does not occur.

difficult to identify the reasons for these significant changes, possible causes may be the impact of the 2008 financial crisis on consumption patterns, the separation and recycling of builder's rubble and garden waste, a two-bag household recycling pilot programme, as well as the increase in waste drop-off sites.

- Around 12% of the municipal waste stream is diverted from landfill through the City of Cape Town's waste minimisation programmes. Furthermore, the City of Cape Town's study to assess alternative service delivery options – conducted in terms of section 78.3 of the Municipal Systems Act 32 of 2000 and completed in February 2011 – found that approximately 18% of the total waste stream, expressed in tonnes, is diverted through private-sector waste-minimisation programmes every year. Continuous improvements in these private-sector waste minimisation and recycling programmes may also account for a reduction in waste disposed of at landfills.
- The City has committed to working with the private sector to reduce waste sent to landfill, through initiatives such as the Integrated Waste Exchange (IWEX). Operating on the principle that "one person's garbage is another person's gold", IWEX is a free online system that enables waste generators and users to exchange waste materials. In 2013, the City of Cape Town collaborated with the Western Cape Government's pilot programme, the Western Cape Industrial Symbiosis Programme (WISP), which is delivered by the sector development agency GreenCape. WISP is aimed at building networks of business by identifying mutually profitable links or synergies for one enterprise's underutilised and undervalued resources – whether materials, energy, water, logistics, assets or expert knowledge – to be used by another. WISP is provided as a free facilitation service, using an industrial symbiosis approach to enhance business profitability and sustainability.
- While recycling has increased significantly in recent years, landfills are still Cape Town's primary method of waste disposal. Cape Town's available landfill volume is fast approaching capacity. Although waste minimisation efforts do lengthen the remaining site life, this is estimated at only four to seven years if Vissershok North and the regional landfill site do not become operational as planned. The construction of new landfill sites is a complex and expensive process, but remains an essential service that the City is mandated to deliver. On the one hand, locating new landfill sites too far out of the city would result in increased transport costs for the municipality; on the other, there is insufficient land to locate them closer to waste generation areas. Sites must be engineered and properly operated to prevent any ground or other pollution from occurring.
- The City recently completed a supplementary environmental impact assessment for environmental authority and a waste licence to construct and operate a proposed new regional landfill site to serve Cape Town. If approved, this site will assist the City in carrying out its constitutional mandate to provide essential services to its residents in terms of adequate and legal disposal of solid waste. Essentially, it will form part of an integrated approach in order to achieve minimisation targets, as well as to reduce the amount of waste requiring final landfill disposal.

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New arrivals into Cape Town from different destinations have located in different areas of Cape Town: New arrivals from the Eastern Cape, who make up 35% of all new arrivals, have largely settled in Khayelitsha and surrounding areas.

4. Urban growth and form

Demographic patterns

- Urban growth trends indicate that across the world over the past two decades, a significant proportion of the urban population growth has occurred in developing countries. Across the world "almost 400 cities contain a million people or more, and about seventy percent of them are found in the developing world; by 2017 the developing world is likely to have become more urban in character than rural".[43]
- In many emerging-economy countries, the fast pace of urban migration outstrips local governments' capacity to respond to urbanisation, and has resulted in urban environments that reflect poor urban development management.
- In line with trends in other developing countries, South Africa's population has seen increased levels of urbanisation in the last two decades. The South African urban population grew from 54,5% of the country's population in 1995 (22,5 million out of a total population of 41,4 million) to 62,0% in 2011 (31,2 million out of a total population of 50,4 million), and is projected to increase to 63,8% (32,7 million) in 2015.
- In line with South Africa's urban population growth trends, the population of Cape Town has also grown over the past decades: from 2 563 095 in 1996 to 3 740 026 in 2011. The city's population grew by 46 % in the 15-year period between 1996 and 2011.
- Census 2011 data for Cape Town indicate that over 39% of the population growth in Cape Town between 2001 and 2011 comprised new arrivals into Cape Town from outside the Western Cape. The analysis also indicates that new arrivals into Cape Town from different destinations have located in different areas of Cape Town: New arrivals from the Eastern Cape, for example, who make up 35% of all new arrivals, have largely settled in Khayelitsha and surrounding areas.[44]

Urban development policy and strategy

- At the national level, development policies and strategies pertaining to urban growth and form include the discussion document "Urban Development Strategy – Remaking South Africa's Cities and Towns" (1996) released by the then Government of National Unity for comment; the 1997 Urban Development Framework released by the National Housing Department; the 2001 national policy promoting basic services for all; the 2009 working draft of the National Urban Development Framework, called "Harnessing a Common Vision for Growth and Development of South Africa's Towns, Cities and City-Regions" and released by the Department of Cooperative Governance and Traditional Affairs (COGTA) and the Presidency, together with the South African Cities Network (SACN), and the 2013 draft urban development framework document titled "Towards an Integrated Urban Development Framework" released by National Government for discussion.
- City of Cape Town strategies give expression to the urban development goals for Cape Town. The City has in place a number of responses to Cape Town's urban growth challenges and the specific challenges around the unfolding urban form – or sprawl. The City has approved a number of medium-term to long-term strategies and plans in order to guide urban development

43 Cohen, B. 2006. Urbanization in developing countries: Current trends, future projections, and key challenges for sustainability. Technology in Society. p 28.

44 City of Cape Town. 2014 (forthcoming). Census 2011 – Cape Town Migration – New Arrivals.

in the municipal area. Besides the sector-specific ones, the key plans are the City of Cape Town's City Development Strategy 2040 (approved in 2012), the IDP 2012-2017, the Cape Town Spatial Development Framework (CTSDF, approved in 2012), and a 15-year growth management strategy, which is currently being developed and would assist in breaking the CTSDF down into shorter-term implementation plans.

- In 2013, the Western Cape Government in partnership with the City developed the Integrated Human Settlements Framework with a view to facilitating expedited delivery of housing in the city in the short, medium and longer term by the two spheres of government as well as the private sector, and coordinating and aligning the various City and Western cape Government's initiatives, plans, programmes and budgets in support of housing delivery.

Urban growth in Cape Town, and its implications for urban form

- Urban population growth has implications for the municipality's capacity to provide new infrastructure and services, including the maintenance of existing stock such as roads, water and wastewater facilities, as well as other public infrastructure, facilities and services to cater for the growing population.
- The City must proactively manage its long-term future urban growth, while at the same time facilitating and ensuring well-coordinated, effective and equitable provision of essential services to its growing number of residents, including access to telecommunications as well as to social facilities and amenities, informality and public housing, and transport.

Access to services

- Access to, and coverage of, basic services such as water, electricity, waste removal and sanitation has improved over the last two decades, as reflected in Census data. Census data for Cape Town for 1996, 2001 and 2011 suggest that between 1996 and 2011 – with the exception of sanitation – households' access to basic services in Cape Town consistently increased. Between 1996 and 2011, access to water increased from 97,8% to 99,3%, access to electricity increased from 86,8% to 94,0%, access to refuse removal increased from 93,3% to 96,7%, and access to sanitation increased from 94,8% to 97,3%.
- Since the first World Summit on the Information Society in 2003, a range of stakeholders – national and local governments, civil society actors and the private sector – have all agreed on the correlation between access to information and communications technologies (ICTs) and economic and human development. Information and communications technology for development (ICT4D) has become an established development area, and research continues to investigate the linkages between ICTs and poverty reduction.[45] Globally, more countries are responding positively to calls for universal access to ICTs. In Cape Town, access to telephony (landlines and/or cellphones) increased from 61,24% in 1996 to 86,08% in 2007, and to 91,30% in 2011. Census 2011 results show that 83% of black Africans in Cape Town use cellphones as their sole means of communication. It cannot be assumed that increased mobile phone access is synonymous with access to mobile internet. Census 2011 showed that more than 50% of all Cape Town households still do not have access to the internet; among black African households in particular,

Urban population growth has implications for the municipality's capacity to provide new infrastructure and services, including the maintenance of existing stock such as roads, water and wastewater facilities, as well as other public infrastructure, facilities and services to cater for the growing population.

45 May, Julian. 2010. Digital and other poverties: Exploring the connection in four East African countries. Available at http://www.chronicpoverty.org/publications/details/digital-and-other-poverties/ss.

Easily accessible social amenities within neighbourhoods have been linked to higher residential satisfaction and quality of life. Research shows that the ability to experience meaning in a public space can be limited by issues of access, mobility and the quality of social resources.

those without internet access are estimated at 63,2%.

- Easily accessible social amenities within neighbourhoods have been linked to higher residential satisfaction and quality of life. Research shows that the ability to experience meaning in a public space can be limited by issues of access, mobility and the quality of social resources.[46] It is therefore important for amenities, services and recreational facilities to be accessible and socially inclusive. There are up to 446 sports and recreational amenities across Cape Town, including 165 community centres, 207 sports facilities, 38 recreational hubs and 36 swimming pools. In addition, the City of Cape Town maintains about 5 423 public open spaces, consisting of 1 404 undeveloped public open spaces, 3 348 community parks, 13 district parks and 604 greenbelt open spaces.
- A 2010 study commissioned by the City investigated Cape Town residents' participation levels in sport and recreation. The study found that almost 90% of Capetonians regarded sport and recreation as important for Cape Town communities. According to the findings of the study, most Cape Town residents were more interested in recreational programmes such as health and fitness, arts, crafts and games than in formal sporting codes such as soccer and cricket. However, the same study showed that only 24,6% of adult residents in Cape Town participated in physical activities in their spare time. The evaluation study noted that only 29,7% of the total population of the Mitchells Plain/Khayelitsha district were being served in terms of access to public open space – the lowest figure in Cape Town. Altogether 67,61% of the population in the Mitchells Plain/Khayelitsha district and 19% of Cape Town's total population were underserved in this regard.[47]
- According to 2014 figures, there are 137 clinics in Cape Town, comprising community health centres (CHCs), satellite clinics and mobile clinics.[48] These facilities ensure the provision of comprehensive primary health care (PHC) and maternal and child health services, including preventive and promotional programmes.
- Also in terms of 2014 figures, there are 61 police stations across Cape Town, with various policing precincts within the area of jurisdiction of each police station. However, to foster a safe and secure environment for all in Cape Town, the City has three policing departments: Metro Police, Traffic Services, and Law Enforcement and Specialised Services. The objectives and priorities of these departments are set out in the City's overarching Law Enforcement Plan, which includes the Metro Police's legally required Annual Police Plan. The plan aims to ensure the integrated delivery of efficient policing services.

46. Lloyd, K. & Auld, C. 2003. Leisure, public space and quality of life in the urban environment. Urban Policy and Research, 21(4):339–356.
47. CSIR. 2010. Evaluation of community social facilities and recreational space in City of Cape Town. CSIR: Stellenbosch.
48. Data drawn from the City's corporate geographic information database.

Informality and public housing

- Fuelled by rapid urbanisation, informal housing and settlements have become a regular feature of urban environments in developing-country contexts, including South African cities. One of Cape Town's biggest growth challenges is the increase in informal settlements and the escalating number of households living in backyard structures. There has been a marked increase in informal dwellings in Cape Town over the last decade. As such, a substantial proportion of new households live in informal housing for shelter, either in informal settlements or in backyard dwellings in formal townships. The emerging human settlement pattern suggests that Cape Town's population of poor households are increasing, and that proportionately more households depend on public housing delivery.
- The increase in informal housing is in line with the increase in the population of Cape Town between 1996 and 2011, and is a manifestation of the rate of population growth outstripping the supply of housing: In 1996, 19,2% of Cape Town households lived in informal dwellings; in 2011, this figure had increased to 20,5%. Over the same period, the proportion of households living in formal housing declined gradually from 79,3% in 1996 to 78,4% in 2011. The percentage of those with no housing access decreased slightly from 1,5% in 1996 to 1,1% in 2011. There are currently approximately 376 informal settlements, consisting of 146 488 dwellings. The official number for service delivery is therefore 149 860 service points.
- The existence of informal settlements and the growth of informal structures in backyards of formal township houses suggest a growing demand for low-cost housing. The proportion of households in informal dwellings in backyards increased from 3,3% in 1996 to 7,0% in 2011.[49] During the same period, households in informal dwellings in informal settlements declined slightly from 15,9% in 1996 to 13,5% in 2011. Growth in informal dwellings mainly occurs in the metro south-east, and the establishment of backyard dwellings is largely prevalent in areas where subsidised housing has been delivered. Large numbers of backyard dwellings also occur in older, low-income areas of the city.
- The City's five-year housing plan for 2010/11 to 2014/15 sets out a range of strategies for upgrading the living conditions of people in informal settlements as well as those in backyard structures. The plan outlines initiatives to increase access to shelter by providing incremental housing. During the 2012/13 financial year, the City of Cape Town spent a total of 93,6% of its Urban Settlements Development Grant (USDG) and delivered a total of 6 394 sites, 4 353 top structures and 1 727 other housing opportunities (upgrade of rental stock, land restitution and re-blocking).[50] The City prioritised increased allocation of resources to improve living conditions in informal settlements, especially for the provision of basic services such as refuse removal, water, sanitation and electricity.

One of Cape Town's biggest growth challenges is the increase in informal settlements and the escalating number of households living in backyard structures.

49. City of Cape Town DI&GIS Department, compiled from Stats SA Census 1996, 2001 and 2011 data.

50. City of Cape Town. 2013. City of Cape Town Annual Report 2012/13. Cape Town.

A backyarder service programme is aimed at improving the living conditions of families living in backyards by providing individual connections as well as water and sanitation installations, including the installation of an enclosed toilet with a tap and wash trough.

- The City's Integrated Human Settlements Strategy advances an integrated approach to respond to the multitude of challenges associated with the growth of informal settlements and backyarders, and the inadequate supply of housing in Cape Town. Part of this approach is the upgrade of informal settlements. The initial focus is on areas in the south-east of the city, including Khayelitsha, Mitchells Plain and surrounds. This approach is in line with national housing policy, which – through the Upgrading of Informal Settlements Programme (UISP) – provides for phased, formal, in-situ upgrades to informal settlements. This includes the City of Cape Town's programme for re-blocking informal settlements to allow for in-situ and formal upgrades by effectively reconfiguring the settlement to create firebreaks and allow better access for services and vehicular access, especially emergency vehicles. It also entails a backyarder service programme aimed at improving the living conditions of families living in backyards by providing individual connections as well as water and sanitation installations, including the installation of an enclosed toilet with a tap and wash trough, as well as a bin per backyard. An electricity supply that can service up to three backyard structures will be installed per backyard. The programme is being rolled out at various sites across Cape Town.
- In 2014, the mandate for public housing provision was devolved from the provincial to the local government housing sphere – specifically to the six metropolitan governments with the requisite capacity, including the City of Cape Town. Devolution of the mandate is accompanied by the transfer of human resources, projects and assets. This shift will aid attempts to reduce the housing backlog, which continues to trigger violent protests in the local government sphere.

Urban mobility – transport in Cape Town

- Much of the concern about transport in cities has to do with an observed increase in private car use, and the associated increase in air pollution. Private car use also fuels urban sprawl, as the availability of private transport allows for urban development to locate further from the centre and off the main public transport routes. The push for cities to develop in more sustainable ways has inevitably also meant a renewed emphasis on public transport and more compact forms of urban development that closely track the key transport corridors within cities. It has been proven that sustainable cities make greater provision for public and non-motorised transport infrastructure, both demanding and yielding a more compact city form. Both of these elements form a core component of the City's Integrated Transport Plan (ITP) for 2012-2017.
- The City's Integrated Public Transport Network Plan 2013-18 includes provision for rail, bus rapid transit

(BRT) services, non-motorised transport (NMT) as well as road-based public transport improvements.

- Travel modes used include buses, trains, cars and bicycles, as well as walking. Statistics reveal that between 2009 and 2012, private/company cars have been the most dominant or preferred mode of transport among commuters in Cape Town. Between 2001 and 2011, most commuter transport trips entering the Cape Town CBD on a daily basis were by private/company car, followed by train, minibus/metered taxi and, finally, bus.
- With regard to modal split, the use of private/company vehicles in Cape Town increased from 37,8% in 2009 to 42,0% in 2012. Over the same period, minibus/metered taxis were the second most-used mode of transport, followed by trains and buses.
- With regard to travel time between home and work, commuters in the Asian (35,76%) and white (28,68%) population groups had the shortest commute, of less than 15 minutes on average, compared to 13,33% and 15,63% of commuters in the black African and coloured population groups respectively.
- In turn, those commuters who travel an average of 61 to 90 minutes are predominantly from the black African (14,32%) and coloured (10,21%) population groups. The majority of low-income black African and coloured households live further away from the city centre and other major economic nodes around Cape Town, and have to commute longer distances and times using public transport modes. A small percentage of commuters from these population groups took more than 90 minutes to travel to and from work, and predominantly use public transport.
- Almost 40,0% of black African commuters use public transport (buses and trains) between home and work – compared to 27% of coloured commuters and 3,11% of white commuters. The use of private transport amounts to 59,16% of Asian and 80,28% white commuters, compared to 17,37% black African and 37,19% coloured commuters.[51]
- In the 2010/11 financial year, the MyCiTi service was launched, providing dedicated bus lanes in places to help cut travelling time by half during peak hours, reduce traffic congestion, and save on overall travel costs.
- The MyCiTi service commenced in the inner city, and then expanded along the R27 towards Table View and within the Table View area. It has also launched routes towards the northern and West Coast suburbs, where there is high passenger demand, yet no rail service. Early in the 2013/14 financial year, MyCiTi extended to Hout Bay, Dunoon, Atlantis, Mamre, Melkbosstrand, Montague Gardens, Joe Slovo, Century City and other areas within the phase 1A area. In July 2014, MyCiTi

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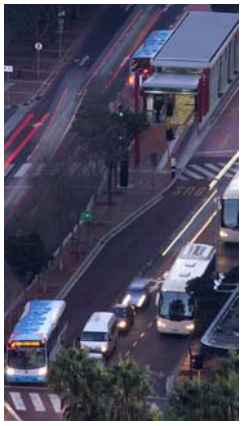
51 DI&GIS, compiled from Census data.



The City's transit-oriented urban development, alongside the implementation of integrated human settlements, is a key component towards realising the vision contained in the administration's medium-to-long-term strategies.

launched an express service between Khayelitsha and Mitchells Plain, and the city centre.
- The new services complement the rail service of the Passenger Rail Agency of South Africa (PRASA), and serve to meet the needs of commuters on high-demand corridors. PRASA will also be rolling out plans for modernisation of the Khayelitsha-to-CBD service.
- In 2012, Council approved proposals for the City of Cape Town to apply to National Government to be allocated contracting authority functions. Transport for Cape Town (TCT) was established as a local government entity in October 2012 with a view to transforming Cape Town's current fragmented transport system into an integrated, multi-modal system that provides more efficient, affordable and safer public transport.

Implications for urban form

- Cape Town is a growing metropolitan city faced with a number of developmental challenges and trends, which inform the city's growth, form and functions. According to the Cape Town Spatial Development Framework, the spatial extent of the city has increased rapidly by an estimated 650 ha per annum.[52] The biggest component of current and past growth in Cape Town has been new residential development, predominantly on the periphery of the city.
- A major challenge is to promote transformation of the city's growth into a more compact and integrated spatial and social form. The sprawling, inequitable and inefficient city growth form of the former apartheid regime is still entrenched. As new developments are located on the outskirts of the city, the sprawl contributes to loss of valuable land. Urban sprawl also increases the cost of providing services to outlying areas, because as the city grows spatially, transport costs and commuting times increase.
- A second key challenge regarding urban growth and form in Cape Town includes dealing with the legacy of segregated development, which means that poor communities are located on the periphery of the city, away from the opportunities that the city offers. The geography of old "group areas" still largely corresponds with a division between predominantly middle-class neighbourhoods in the west and north of the city, and predominantly working-class neighbourhoods in the south-east. The highest concentrations of new subsidised housing have also been in peripheral areas. The growth of informal settlements is concentrated around these areas on the periphery of the city, particularly in the south-east region. With increased urbanisation, a key challenge facing the city is to deliver equitable social and economic development and provide infrastructure and services for the growing population, while at the same time addressing social integration at the neighbourhood level.

Future Cape Town

- In October 2012, the City of Cape Town approved the City Development Strategy (CDS) 2040, which has opportunity, inclusiveness and resilience as important underlying themes, in order to meet and address the city's challenges. The CDS is aligned and operates in tandem with the City's other medium-to-long-term strategies, namely the Economic Growth Strategy, the Social Development Strategy, the Cape Town Spatial Development Framework and the IDP.
- Current short-to-medium-term growth management strategies that guide spatial planning in the city are informed by two key approaches, namely transit-oriented planning and the redress of the historically spatially-segregated settlement patterns of South African cities. In terms of transit-oriented planning, urban growth is directed along the main transit corridors and economic growth nodes of Cape Town, for which two corridors have been prioritised with a view to the next Medium-Term Revenue and Expenditure Framework (MTREF) cycle – the Voortrekker Road corridor and the Metro South East Corridor.
- The social cost of apartheid and segregated human settlements manifests in a disconnected urban population in Cape Town (and other cities in South Africa), who have little opportunity to interact across racial, cultural and/or class divides. In a complex environment, the uneven access to social amenities for low-income communities and neighbourhoods has helped fuel the emergence of a plethora of social ills in informal settlements and low-income areas. The current frameworks, strategies and plans for a future Cape Town are all informed by the imperatives to build sustainable, connected and resilient communities. These goals demand a new approach to the planning of human settlements to develop integrated human settlements that are living, working, playing and learning spaces; maximise social interaction between community members, both within neighbourhoods as well as in transit between neighbourhoods, and have the potential to build trust and social capital, thereby increasing the resilience of individuals, families, households and entire communities.
- The City's transit-oriented urban development, alongside the implementation of integrated human settlements, is a key component towards realising the vision contained in the administration's medium-to-long-term strategies.
- The City's urban network strategy outlines plans for the spatial integration of nodes (e.g. the Bellville and Cape Town CBDs) and emerging township hubs (e.g. underserved townships like Phillipi East) along "integration zones such as the Voortrekker Road Corridor and the Metro South East Corridor. These integration zones become the focus areas for public transport, investment opportunities and densification in the city.

52. City of Cape Town. 2012. Cape Town Spatial Development Framework.

5. Urban governance

- Since the 1990s – and specifically since the transition to democracy – South Africa has been journeying towards reconstruction, planning and development in the post-apartheid era. Local government has been instrumental in bringing about change, especially as the South African Constitution, 1996, highlights the developmental role of local authorities,[53] which required the strengthening of capacity in areas that, for decades, had been neglected under the apartheid government.
- After the 2000 local government elections, the new national Demarcation Board recognised the six largest urban areas as "metropolitan" areas[54] in terms of the Municipal Structures Act 117 of 1998, which were subsequently governed by "unicity" local government bodies. These urban areas included Johannesburg, Cape Town, eThekwini/Durban, Tshwane/Pretoria, Ekurhuleni/East Rand, and Nelson Mandela/Port Elizabeth.[55]
- The predominant focus was on attaining a single city government, which would take on a predominantly redistributive role and be responsible for the provision of services to all, specifically public services to the poor. Local government had to close the gap between "spaces of opportunity" and those marginal spaces where the poor lived – and consequently took on the mission to dismantle the apartheid city and its myriad fragmented structures.
- The work to build developmental local government started in earnest during the first Mbeki presidency, when the legislative framework was completed. The second Mbeki presidency (2004 to 2009) continued to build local government capacity in order to link the poor with economic opportunity through increased capital expenditure in the built environment, and deploy and build technical expertise within the local government sphere.
- In the late 1990s, fiscal discipline – alongside the pursuit of investment and economic growth – became a primary strategy, and replaced an overtly redistributive agenda within cities. In time, the growing understanding of the complexity of cities, and the acknowledgement that city administrations cannot transform cities on their own, led to the realisation of the importance of partnerships.
- As local government mandates evolved, so did those of the provincial and national spheres of government. In 2014, the key mandates of public housing as well as public transport provision were devolved from the provincial to the local government sphere, specifically to the six metropolitan governments with the requisite capacity, including the City of Cape Town.

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53. See s 152 and 153 of the 1996 Constitution.
54. The White Paper on Local Government (1998) defined metropolitan areas as "… large urban settlements with high population densities, complex and diversified economies, and a high degree of functional integration across a larger geographic area than the normal jurisdiction of a municipality. Economic and social activities transcend municipal boundaries, and metropolitan residents may live in one locality, work in another, and utilise recreational facilities across the metropolitan area". Department of Provincial Affairs and Constitutional Development. 1998. Available at http://www.polity.org.za/polity/govdocs/white_papers/localgov/wp0.html.
55. The SACN also included in its programmes the three non-metro members Mangaung/Bloemfontein, Buffalo City/East London, and Msunduzi/Pietermaritzburg, which were characterised as large municipalities that included large rural areas.

In 2000, the new Unicity had more than 27 000 staff and a budget of R8,9 billion (a capital budget of R2,1 billion and an operating budget of R6,8 billion). Currently, the City of Cape Town has a staff complement of just over 25 000 employees and a total budget of R31,59 billion (a capital budget of R5,45 billion and an operating budget of R26,14 billion).

Implementing local government – from the Cape Town Unicity, 2000, to the current City of Cape Town

- By 1994 – prior to the first democratic local government elections held in May 1996 – greater Cape Town had 39 local authorities and 19 separate administrations.[56] On the eve of the 1996 local government elections, the 58 municipalities that constituted metropolitan Cape Town were merged and replaced by a two-tier local government system comprising seven councils: the municipalities of Blaauwberg, Cape Town, Helderberg, Oos-tenberg, South Peninsula, Tygerberg and the umbrella Cape Metropolitan Council. After the local government elections in November 2000, the seven councils were dissolved and their employees, assets and commitments transferred to the new Unicity Council.[57]
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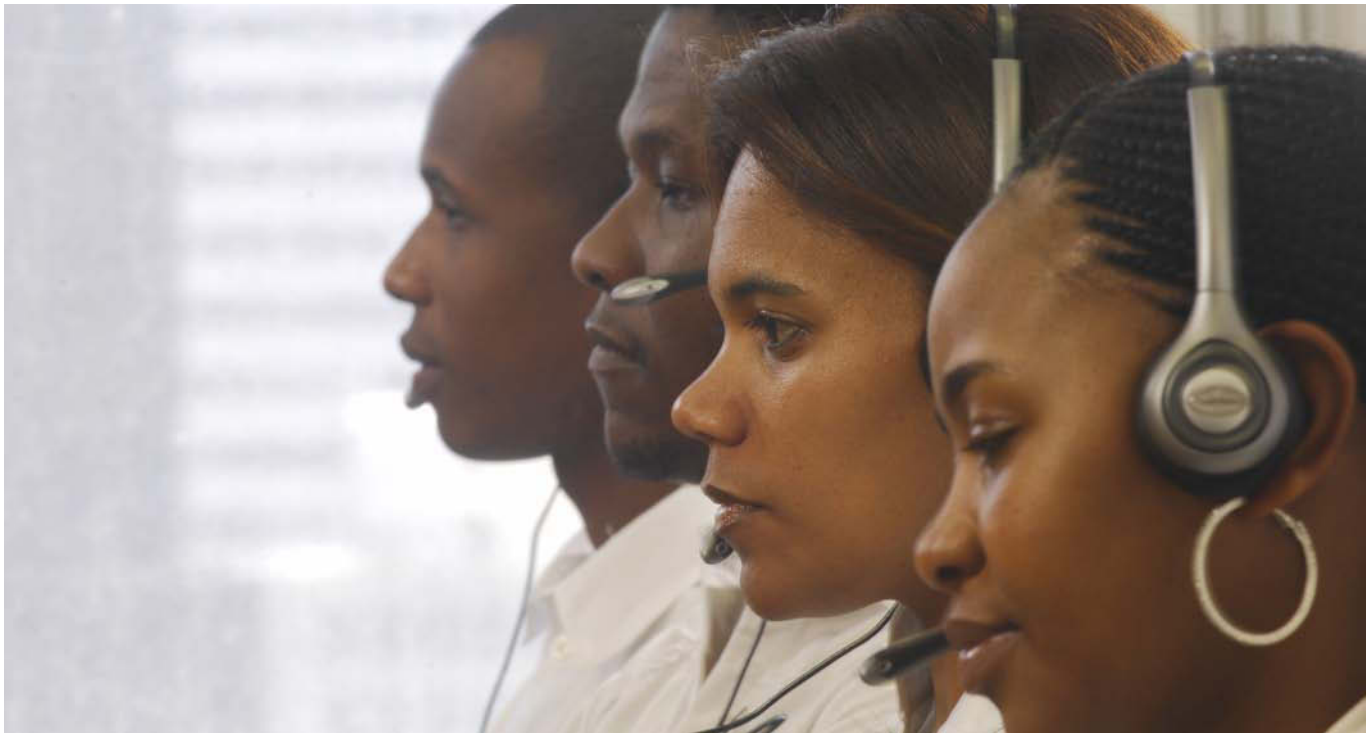
Local government in transition – City of Cape Town structures and partnerships

- The City of Cape Town is currently in its third term following municipal elections held in November 2000, March 2006 and May 2011. Across three terms of office since 2000, Cape Town has had six executive mayors and six City managers, having had a leadership change approximately every two years.
- Following the 2011 local government elections, the size of Council increased from 210 to 221 councillors, 111 of whom are ward councillors and 110 proportional (party list) councillors.

Local government planning, policies and implementation tools

- As the City of Cape Town evolved, its systems and processes also started to mature. This is evident from the production processes for the IDP – the key implementation tool for local government – and the annual IDP reviews, the processes for consulting with local stakeholders, and the rationalisation and development of the planning tools available.
- Additional examples of this development are the CTSDF, long-term strategies such as the CDS and the strategies for economic growth and social development, and – from an organisational perspective – the City's SAP implementation in 1997/8 and projects to prove its responsiveness to Capetonians' needs.
- The foundational IDP – the term-of-office plan for the first Unicity Council – was developed with a view to the period 2000/1. Between 2000 and 2014, the City produced 13 IDP annual reviews. The information and analyses provided in the chapters of this State of Cape Town report indicate that, while there have been considerable achievements in the past 14 years in particular, many of the challenges identified by the Unicity Commission in 2000 continue to prevail, and point to the imperviousness to change and the length of time needed to address some of the complex and deep underlying social and economic challenges.
- The first CTSDF was approved in 2012 as part of the

56. This was already a consolidation of structures from the pre-1994 arrangements where 61 entities existed, including 19 white local authorities, 6 local councils, 29 coloured management committees, and 7 black local authorities.
57. City of Cape Town 2011, City of Cape Town Council Overview, p4.



2012-2017 IDP. The CTSDF is a long-term plan to manage growth and change in Cape Town, and to ensure that it becomes a more sustainable, integrated and equitable city. It seeks to ensure that Cape Town remains a quality place in which to live, work and invest, as well as to visit, and won the South African Planning Institute's planning award for best municipal project in 2012.

- In October 2012, the City approved the long-term CDS 2040. The CDS is aligned with the National Development Plan 2030 as well as the Western Cape Government's long-term strategy for the province, ONECAPE2040.
- At an organisational level, the CDS is supported by the medium-term Economic Growth Strategy and Social Development Strategy (both approved in 2013), as well as the statutory IDP with its five strategic focus areas of the opportunity city, the safe city, the caring city, the inclusive city and the well-run city.
- The City of Cape Town has been running the SAP enterprise resource planning (ERP) system for more than 10 years. Development started in 2000 and the SAP system went live in 2003. The City's SAP implementation is considered one of the world's largest in local government. In 2013, the system encapsulated 420 business processes and handled 1,2 million consolidated invoices per month. The SAP system provides a single record of citizens, with a unique identity allocated to each person, against which all their interactions with the City are recorded. SAP's core value is that it provides a set of procedures for Council and its employees to follow in order to run the city.
- The City continuously seeks to improve and add to the mechanisms available to residents to provide the administration with input on service delivery concerns. It has launched a number of platforms to facilitate engagement with City stakeholders, including specific measures targeted at poorer residents in Cape Town. These include the following:
  - Since the first City call centre opened in 2000, the number of calls has levelled out from 8 000 to 4 200 calls per day. The call centre has consistently been able to exceed the target of 80% first-time call resolution.
  - The City has installed more than 80 FreeCall customer service lines in outlying areas and disadvantaged communities, with a view to encouraging reporting and facilitating the resolution of service delivery issues. The pilot phase of this project was launched in July 2009, when four FreeCall lines were installed in City facilities. The FreeCall lines are located in municipal housing offices, cash offices, libraries and community halls. Many informal settlements, including some where there is no Telkom infrastructure, benefit from these new lines.
  - The C3 notification system is part of a larger notification system operated by the City, and was created to revolutionise local government service delivery. A C3 notification is created every time a service request is received, either by phone to the City's centralised call centre, via SMS, e-mail, over the counter or through written correspondence. Complainants are given a reference number, allowing them to follow up on the complaint, and as soon as it has been resolved, the notification is closed. Responding to all citizens' service needs, the City's corporate call centre answered a total of 1 059 378 calls in the period 1 July 2012 to 30 June 2013. These calls were answered in customers' preferred language (English, Afrikaans or Xhosa) and were recorded. Calls are directed to the relevant departments in the tracking system. Response times from the opening to the

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completion of the service request is tracked and reported in the City's service delivery and budget implementation plan (SDBIP).

- The City's Information Services and Technology Department started to develop and test the City's eServices platform in 2010, which was subsequently launched in 2012. The online eServices platform allows residents and businesses to transact with the City from the comfort of their own homes or offices, saving them time and money.
- In 2002, the Smart Cape access initiative was piloted in five City libraries. The project's initial success quickly led to the introduction of a Smart Cape corner in each of the 98 libraries in the city. Soon thereafter, the initiative was recognised for its innovation in providing residents with free public access to computers, when the City received the Access to Learning award from the Bill and Melinda Gates Foundation.
- Since 2007/8, the City of Cape Town has undertaken an annual Community Satisfaction Survey (CSS) to gather detailed feedback from Cape Town's residents and businesses regarding the services it renders. Strict sampling rules are applied when selecting the respondents for the residents' survey to ensure that the respondents represent the entire city population. To date, the City has conducted seven annual surveys. The results of the CSS for the last five years reflect a consistent and increasing level of satisfaction with the City's service delivery efforts by both residents and business. The average rating of the City's overall performance by residents increased to 2,9 (on a five-point Likert scale) in 2013/14, from 2,6 in 2009/10. The average rating of the City's overall performance by businesses increased from 3,1 in 2009/10 to 3,5 in 2013/14.

From government to urban governance

- There is a discernable trend among cities from different sociocultural, economic and political contexts to engage with their citizens and stakeholders in order to devise effective ways and means of improving living conditions and sustainability for all. Thus, as city governments review their performance in relation to developmental goals – amidst rapid urbanisation and growing complexity – improved urban governance is increasingly proposed as an appropriate foundation from which to address the massive urban challenges cities face.
- Urban governance refers to both the processes and structures that emerge from the relationship between civil society and local government. Judged by inclusivity, transparency, participation as well as long-term planning, there is evidence that the City's strategies for fostering good urban governance are deepening.
- State capacity is another key ingredient and support mechanism for the exercise of urban governance. The City is strengthening its capacity to work in a transversal manner, with greater horizontal coordination of service delivery across directorates and departments, alongside attempts at vertical integration across different spheres of government. The strengthening of internal collaboration systems through transversal committees and work groups comprising elected representatives and appointed officials is geared towards improved delivery on the City's five-year IDP. City departments and directorates are pursuing new ways of working, including testing an area-based model for planning and project implementation. A pilot phase for testing area-based transversal planning and programming will be undertaken.
- Recently, the City changed its logo and byline to signal its intent to approach urban development in partner-

ship with residents and business – in their communities and social formations. In line with this approach, the City may need to consider ways of how best to work together and actively measure the extent and quality of that cooperative relationship. This would broaden and deepen the quality of urban governance, and establish the basis for measuring and tracking the quality of the relationship with the intended beneficiaries of the City's programmes and projects.

Conclusion

- More than half of the world population now live in urban settings. As many as 27 of the 33 urban agglomerations that are predicted to dominate the global urban space are located in the global South.[58]
- Rapid urbanisation in the global South has highlighted the sharp increase in informality in the expanding urban centres of the world.
- As is the case in other parts of the global South, South African cities are increasingly at the forefront of efforts to meet the social and developmental needs of the country's population as more South Africans urbanise. The national development agenda is increasingly devolved to cities and to the broad local government sphere, as is evidenced by the recent devolution of public transport and public housing mandates. At the same time, urban development priorities are expanding to include new, evolving concerns, such as what constitutes basic human rights and the elements of quality of life. This may lead to additional demands being made on cities and city administrations, for example regarding improved access to connectivity and recreational space.
- Twenty years after the democratic transition, South African cities have made relatively little progress in changing racially based urban settlement spatial patterns, which has now led to the introduction of national grant-based incentives to support and bring about the required urban transformation.
- The challenge to manage urban growth and form in Cape Town – and bring about a more compact and spatially transformed city – is being addressed by the implementation of the approved CTSDF and progress with rolling out the integrated public transport system.
- The City's urban network strategy seeks to connect economic nodes and emerging township hubs through integration zones or corridors – which provides focus areas for public transport, investment opportunities and densification in the city.
- Key challenges remaining include the following:
  - As with other urban areas in South Africa, Africa and the developing world, informality in Cape Town seems to be a given part of the urban landscape for at least the short to medium term. This corresponds with urbanisation trends across the globe, where the bulk of new urban residents are from the ranks of the poor, with limited resources to meet their housing and other development needs, largely depending on public-sector assistance.
  - A further key issue in the Cape Town economy is the mismatch in the labour market between skills demand and supply, and the growth in the number and proportion of unemployed in the city. Cape Town has an oversupply of unskilled and semi-skilled workers, which is further boosted by new labour-market entrants – male and female high-

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59. See Gandy, M., 2005, Learning from Lagos. New Left Review, (33):37-52, quoted in Zeidermann, A., 2008, 'Cities of the Future: Megacities and the Space/Time of Urban Modernity', Critical Planning Summer: 22-39.

school dropouts and high-school graduates – with similar skills deficits. The link between education and employment – and therefore, poverty and inequality – is significant. An equally big concern is the relatively low number of adults with tertiary education, which requires special attention, the unlocking of opportunity, as well as closer connections between policy intention and operational reality.[59]

- In the short to medium term, the challenge for Cape Town is to create opportunities for income earning and job creation among low-income and poor households. This is currently being addressed through strategies that seek to make informal trading more accessible and sustainable, and efforts to connect these households with economic development nodes across the city through public transport.
- The City has taken pioneering steps to address Cape Town's multiple and interconnected energy challenges, which include a comparatively high carbon footprint, national electricity supply insecurity, rising energy costs, widespread energy poverty and energy service access challenges. Although the municipal and city-wide consumption reduction targets have been achieved and exceeded, there is more to be done in future. As Cape Town's urban footprint densifies, the city's natural resources will need to be protected as providers of ecosystem services and benefits. Water scarcity will continue to present a challenge for Cape Town into the future, including balancing the growth in urban demand with maintaining water supply for agriculture and food production. As such, programmes that address water demand management form a key component of the City's approach to dealing with water resource scarcity in the future. Although the impacts of climate change are not yet fully understood, they have significant potential to affect the already scarce water resources in the Cape Town area. Changes in seasonality of rainfall or the intensity of rainfall events may disrupt agricultural activities in the region, and increase the risk of floods and severe weather impacts on residents of the city. In addition, waste minimisation efforts and the sustainable provision of new landfill sites will be key in the future.
- In the global policy space, there is growing consensus on the importance of cities in finding solutions to the challenges of sustainable development. By 2050, the world's cities will be home to six billion people, while past models of development have generated a range of complexities, including peak energy, global water scarcities and climate change. In this complex global environment, complex and nuanced solutions are required. Eliciting them and evaluating their feasibility will require partnerships and participation across a wide range of stakeholders across sectors, including the people who inhabit these urban spaces. The development and application of fine-grained processes of co-design and co-production of an inclusive sustainable urban environment will demand innovative partnership approaches and commitment, involving local government, the private sector and residents in our cities, including Cape Town. Globally, emerging notions of good urban governance increasingly recognise the complexity of cities as systems, and are integrating more collaborative governance and implementation approaches. More than anything, cities must be guided by the growing notion of urban governance as both government responsibility and civic engagement.[60]
- Generally, inclusive urban development policies and practices sit within one of two predominant approaches – the mobility or the place-making paradigm. A mobility paradigm is centred on the physical movement of people from one place to another in order to meet specific social goals.[61] The place-making approach refers to "the construction (or making) of more 'good' (i.e. socially and economically healthy) places in metropolitan spaces".[62] Both are evident in the current City of Cape Town policies and strategies, though they take a very different form.
- In Cape Town, the mobility paradigm is seen in strategies to address the marginal location of poor communities by linking them to economic opportunity. The strategy is first and foremost about getting working-age individuals in poor communities and households closer to jobs, which are largely seen to be located in the CBD and other economic nodes across the city.
- Place-making in the South African and Cape Town context is predominantly concerned with the faster delivery of affordable housing opportunities and access to basic services across the city, as well as improved quality of life for growing numbers of poor and low-income households. In addition, the 14 officially sanctioned urban renewal projects under way under the championship of Executive Mayor Patricia de Lille are further evidence of place-making in Cape Town, and are important learning opportunities to inform future approaches to the design of communities and communal spaces in Cape Town.

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59. Wilson, F. & Cornell, V. (eds). 2014. Guide to Carnegie 3: Strategies to Overcome Poverty and Inequality – Conference Report. Conference held at University of Cape Town, 3-7 September 2012.
60. UNFPA. 2007. State of the World Population 2007. Available at http://www.unfpa.org/swp/2007/english/chapter_6/.
61. See, for example, Imbroscio, C., 2011, "Beyond Mobility: The limits of Liberal Policy", Journal of Urban Affairs, 34(1):1-20. The article provides insight into the American implementation of a mobility paradigm, and the potential outcomes in relation to the intended goals of connecting low-income families to opportunity. The basic principles of such programmes have been criticised – in the American context – for the potential negative impact on residential stability, underestimating the attachment to place and mutual aid relationships, and the impact of excessive mobility on child and adolescent development. This is separate from the expression of choice by individuals and families or households.
62. Idem, p. 11.