

City of Johannesburg
Joburg 2040
Growth and Development Strategy (GDS)

'A strategy for progressive change'



COMPREHENSIVE VERSION –
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Acronyms and Abbreviations

4IR	Fourth Industrial Revolution
BRICS	Brazil, Russia, India, China and South Africa
BRT	Bus Rapid Transit
CCC	Content Coordinating Committee
CER	Corporate Environmental Responsibility
CO2	Carbon Dioxide
CoJ	The City of Johannesburg
DED	Department of Economic Development
DHS	Department of Human Settlements
DWA	Department of Water Affairs
ECD	Early Childhood Development
EISD	Environment and Infrastructure Services
EMT	Executive Management Team
EPWP	Extended Public Works Programme
FDI	Foreign Direct Investment
G20	Group of Twenty Finance Ministers and Central Bank Governors
GCR	Gauteng City-region
GCRO	Gauteng City Region Observatory
GDP	Gross Domestic Product
GDS	Growth and Development Strategy
GEM	Global Entrepreneurship Monitor
GFIS	Group Forensics and Investigative Services
GHG	Greenhouse gas
GVA	Gross Value Added
HDS	Human Development Strategy
HSS	Household Satisfaction Survey
ICT	Information and Communication Technology
IDP	Integrated Development Plan
IoT	Internet of Things
IRP	International Resource Panel
JMPD	Johannesburg Metropolitan Police Department
Joburg	The City of Johannesburg
M&E	Monitoring and Evaluation
MDGs	Millennium Development Goals
Metros	Metropolitan municipalities
MFMA	Municipal Finance Act
MMCs	Members of the Mayoral Committee
MSA	Municipal Systems Act
MTSF	Medium Term Strategic Framework
NDP	National Development Plan
NEET	'not in education, employment or training'
NGO	Non-governmental organisation

NGP	New Growth Path
NPC	National Planning Commission
NSDP	National Spatial Development Perspective
OECD	Organisation for Economic Co-operation and Development
SADC	South African Development Community
SDGs	Sustainable Development Goals
Stats SA	Statistics South Africa
The City	The Metropolitan City of Johannesburg
The city	The geographic area that falls within the demarcated boundaries of Johannesburg – and the area for which the City of Johannesburg is responsible in its role as local government.
TMR	Transformation, Modernisation and Reindustrialisation
UFBS	Urban Food Security Baseline Survey
UJ	University of Johannesburg
UN	United Nations
UNIPCC	UN Intergovernmental Panel on Climate Change
WC/DM	Water conservation / water demand management

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Message from the Executive Mayor

Long-term strategy is vitally important for ensuring the prosperity of a city. Good strategy allows us to know what our situation is now; it gives us a framework for imagining what we would like our city to be tomorrow, and it enables us to plan how to get there by identifying what is required to be done.

The Joburg 2040 Growth and Development Strategy is a tool that will enable our City to develop a coordinated, institutional framework so that we can harness the potential of urbanisation and make the most of these opportunities.

This occasion for forward thinking allows the City to think differently and to put in place the stepping stones for real, transformative change that impacts the lives of our people in the most meaningful ways. Our communities have defined a goal-state for Joburg 2040 and the City will ensure that long-term planning and investment follows to achieve it.

Our long-term strategy is strong and robust, but also flexible. It is able to accommodate and adapt to changing contexts by giving shape and direction to short-term programmes and City targets. Additionally a major benefit of the long-term horizon is that it ensures continuity amidst the rapid change and uncertainties which all cities face. This stability inspires confidence in our city – making investors confident to invest and giving our communities confidence that they will see the future they want.

We want to see bold steps taken to move Johannesburg forward. This aspirational beacon will guide Johannesburg's strategic objectives and direction. Let us plan for better, brighter futures. Day by day and step by step, we are making real and lasting progress in the City of Johannesburg.

1. Introduction

1.1 Setting the scene

The City of Johannesburg is going through profound change. These changes are not unique, instead they mark a period of global volatility and massive change that cities all over the world in the 21st century, are experiencing. The City of Johannesburg is at the core of change globally, nationally and locally, as a global city connected to a web of mega-cities all over the world, as what happens globally interfaces with local events and dynamics. The current context of global volatility is typified by uncertainty in financial markets, global commodity constraints and political change, casting new light on the role and purpose of city strategies.

The role and purpose of strategies is therefore not only to capture change but to include various imperatives through a process of dialogue and engagement. The strategic decision making process must broaden out in order to source multiple opinions, divergent views and concepts of understanding change if it is to gain legitimacy. Furthermore, technology and urbanisation are creating a more interconnected, complex and global world than ever before. This interconnectedness creates opportunities for the viral spread of information and, a future where crises can also spread globally.

Johannesburg cannot ignore global shifts and changes. The City would have to shift focus outwards to be able to remain relevant and maintain a primary position within the constellation of global cities. It must address its resource scarcity constraints, pragmatically change its apartheid spatial design and be able to deepen interaction and participation with stakeholders.

The Joburg 2040 Growth and Development Strategy (GDS) was designed in answer to this dynamic global context. The 2018/19 review of the Joburg 2040 Growth and Development Strategy (GDS) prioritise five key outcomes to for Johannesburg's long term strategy:

1. A growing, diverse and competitive economy that creates jobs.
2. An inclusive society with enhanced quality of life that provides meaningful redress through pro-poor development.
3. Enhanced, quality services and sustainable environmental practices.
4. Caring, safe and secure communities.
5. An honest, transparent and responsive local government that prides itself on service excellence.

This GDS, based on the research and analysis of trends, is a path breaking attempt which points to some basic requirements for Johannesburg to achieve economic competitiveness, improved quality of life and environmental sustainability. There is no doubt that Johannesburg is going through profound change, and Joburg 2040 urges all with a vested interest in the future of Johannesburg to confront some difficult and complex choices.

1.2 What is the Joburg 2040 GDS?

Consider a Johannesburg in 2040 where freedom, fairness and opportunity are intertwined; a Johannesburg where access is in abundance and clean streets are littered only with opportunity; a Johannesburg where work, life and play are centred around a hive of activity and interconnectedness; a Johannesburg where growth implies gains for all – whether directly or indirectly; a Johannesburg where the legacy of Apartheid is but a faint and distant memory – nothing more than a historical preserve carved into our past - amidst a vision of a hopeful future. All belong in this inclusive, caring city; none go hungry; none grow cold.

The GDS provides a lens through which we can view this Johannesburg of the future. It is an aspirational document that defines the type of city we want to achieve by 2040. However, as cities evolve and the needs of citizens change, it has become more than just a 'wish list' of the hopes and dreams of Joburg's citizens. It has become a fundamental strategic decision-making instrument for the City, a long-term thinking model that has been incrementally shaped over time, precisely to ensure that these hopes and dreams are realised.

Johannesburg has always been at the centre of innovation, dynamism, cultural exchange and progressive political history. It has defined multiple social and economic interactions both locally and country-wide. The City itself has undergone remarkable transformation over the years, with the development and evolution of several ground-breaking strategies which have been produced over the past decade, aimed at addressing the challenges faced by its urban poor, (e.g. the Human Development Strategy; 'Joburg 2030'; City Safety Strategy; Economic Development Strategy; GDS 2006 and Joburg 2040 of 2011).

The GDS encapsulates the City's long-term perspective on urban development into succinct outcomes and outputs aimed specifically at achieving smart and inclusive growth by 2040, effectively establishing Joburg as world class in its development approach. The 2006 GDS sought to consolidate the aforementioned strategies into a single, comprehensive city-wide strategy, while the 2011 GDS provided a renewed focus on sustainability, liveability and resilience as key issues. Each version of the strategy has built on the last, adjusting to issues of the day and serving as a living document, able to respond to change as necessary. Each has framed both challenges and approaches to Joburg's future development path. The GDS lays the foundation for multi-level and integrated responses to Johannesburg's urban challenges.

As such, the GDS contains the following:

- The City's Vision – which serves as a mental picture of Joburg, the city, by 2040;
- Long-Term Outcomes and Outputs – our desired destination or reality envisaged for 2040, and the deliverables through which the City plans to achieve these outcomes.

1.3 Successful city strategies in context

Over time, urbanisation has evolved from simply being a by-product of development, to being a key driver thereof. Cities have become the primary vehicle through which socio-political and developmental agendas are driven. Additionally, cities are increasingly recognised as strategic enablers of national economic objectives. Today, 55% of the world's population lives in urban areas, a proportion that is expected to increase to 68% by 2050.¹ This means that another 2.5 billion people will be added to urban areas by 2050, with close to 90% of this increase taking place in Asia and Africa.² This unprecedented scale of urban growth means that the manner in which cities develop and deal with urban challenges will become more pressing, and as such, will feature more prominently on national policy agendas.

A successful city is defined by its ability to adequately align its priorities to development needs, and its capacity to make strategic planning and policy decisions that place its people at the centre. In the broader context of rapid urbanisation, cities have the complex task of dealing with unpredictability. Anticipating and identifying the core drivers of change while ensuring continuity in this context are not simply a technical process, but a process that requires a careful evaluation of achievements; critical reflection of weaknesses and gaps in past and present performance; and

¹ Population Division of the UN Department of Economic and Social Affairs (UN DESA). 2018. The 2018 Revision of World Urbanization Prospects. New York City: United Nations.

² Ibid.

a thorough analysis of trends and dynamics in the external city environment, including challenges and opportunities that lie ahead.

Successful cities have been carrying out long-term planning and developing city strategies for years, both as a mechanism to guide future development, and also to provide a foundation for:

- Confronting complex challenges and defining long-term strategic choices;
- Framing medium-term operational plans;
- Allowing for the timeous conceptualisation and initiation of projects that require extensive lead times and long-term development;
- Linking long-term city-wide outcomes with operational outputs; and
- Stimulating public interest in and action towards an agreed and commonly shared vision for the future.

The basis for successful city strategies is *positioning* and *timing*, both of which when strategically combined with the capacity to adapt to change, can enhance a city's development path and increase productivity. Given the nature and intensity of the uncertainty faced by growing cities, a certain level of discipline is required to guide the allocation of resources towards strategic interventions (the ability to do more with less). With the right strategy, at the right time, in the right context, a leading city has the potential to foster structural transformation at a national scale.

1.4 Rationale for the review of the GDS 2040

Generally, from an institutional point of view, organisations find it difficult to come to terms with long-term perspectives on what are often perceived and treated as short-term challenges. The City, as an organisation, took a period of up to two years to conceptualise the 2040 GDS and fully integrate it into its planning practices. The second iteration of the GDS was adopted in 2011, and was detailed as a long-term strategic plan in order to illustrate and ensure linkages with the City's five-year Integrated Development Plan (IDP), and to allow for medium-term interpretation of the long-term strategy. This approach was adopted on the premise that, towards the start of a new Mayoral term, the City would then undertake a five-year review of the current term; assess and re-orientate the GDS; and chart the way forward for the next term.

The review of the GDS is seen as a response to changing dynamics and shifts in the global, national and local context. The aim is to obtain a better understanding of these dynamics within and connections between a range of 'issues' that define the 'deep-structure' of the city system; to forecast likely developments within and across these issues; and to thoroughly evaluate the relative costs to benefits of targeted interventions to address these issues.

The period between 2011 and 2018 has seen significant changes in the socio-economic and political environments, both globally and at the local level. Changes in policy development across all levels and spheres of government have reshaped the strategic context within which the GDS operates. Some of these changes include the following:

- The adoption of the *Sustainable Development Goals (SDGs)* which were adopted in September 2015, and cover a range of sustainable development issues that will guide the future course of socio-economic development globally until 2030.
- The creation of a *New Urban Agenda* which serves as a roadmap to drive the implementation and achievement of the SDGs (particularly goal 11 - making cities and human settlements inclusive, safe, resilient and sustainable), through integration and

coordination at global, regional, national and local levels. The New Urban Agenda entails the formation of strategic partnerships by urban governments at all levels, focusing on key policy shifts, strategic and integrated planning, innovation and any other behavioural change necessary to attain sustainable development.

- The pursuit of an *African Agenda towards 2063* which outlines aspirations to advance the pan-African vision of an integrated, prosperous and peaceful continent driven by its own citizens; to promote accountability and enhance the capacity of state institutions on the continent; to promote regional economic integration and inclusivity; and to create an Africa that is ultimately responsible for its own development. Through Agenda 2063, the aim is to foster an African-centred approach to transformation, optimise the use of Africa's resources and consolidate collective efforts towards sustainable development.
- The formulation of a *National Development Plan (NDP)* which highlights the need to strengthen the ability of local government to fulfil its developmental role, by focusing attention on critical priorities that relate to the mandate of local government, such as spatial planning, infrastructure and basic services. The City has undertaken a rigorous process in the last few years to align and integrate its strategic plans to the development objectives outlined in the NDP, and has sought to reconfigure these plans to talk to these critical priorities.
- The development of a *Transformation, Modernisation and Reindustrialisation (TMR)* programme at a provincial level: the imperatives of which outline a strategic agenda to create more consolidated and capable municipalities focused on socio-economic transformation in order to address the triple challenges of poverty, inequality and unemployment.

To date the City has made significant progress in responding to urban challenges; however several constraints remain. Key among these issues is income inequality, the slow pace of spatial transformation and social exclusion. The 2011 GDS was prepared at a time when there was hope of a robust recovery from the global financial crisis. The recovery has been weaker and more erratic than expected. The position of emerging economies has also deteriorated, as new structural weaknesses in the global economy become more apparent. A GDS prepared in 2018 needs to profile socio-economic issues far more strongly than what has previously been done.³

While the 2011 GDS did not necessarily prescribe any institutional powers and functions that may be required to effectively implement a strategy of this magnitude, this GDS takes cognisance of the need for institutional systems and structures that enable and encourage innovation, enhance performance and improve efficiencies towards better delivery; as an outcome of long-term planning. There is also a need, from a governance perspective, to look at how to put in place processes that complement, rather than duplicate the efforts of other municipalities. This highlights the need for this updated GDS to pay particular attention to regional approaches to planning, and strengthening inter-municipal and intergovernmental relations through active participation in the advancement of a Gauteng City-Region (discussed in Chapter 3).

The implementation framework of the GDS (to be further discussed in Chapter 4) indicates that we are at a critical point in our long-term trajectory, and as such, it is imperative that the necessary assessments and evaluations are done to ensure that our city strategy is flexible enough to absorb shocks and adapt to change. It is important that this updated GDS reflects more critically and thoroughly on the nature of these shocks, changes and emerging challenges and the impact thereof on the future of Johannesburg towards 2040.

³ Harrison, P et al, 2016. Strategic Planning in a Turbulent and Uncertain Context. Johannesburg: University of Witwatersrand (Commissioned Paper).

1.5 What to expect in the updated GDS

Long term growth and development strategies, in the context of uncertainty and extreme shocks that may completely alter and disrupt predetermined development paths, are arguably more complex and difficult to develop. Uncertainty fundamentally alters the context within which we operate, as we are forced to rethink the role of the GDS, not simply as a tool for improving global competitiveness or long term sustainability or even simply to improve the liveability of our city, but importantly as a catalyst to start the process of using long range plans to guide short-term operational planning towards building a more resilient Johannesburg. In order to get a fuller picture, we need to understand the relationship between shocks and their impact on future growth projections.

Despite considerable uncertainty, key strategic decisions must be made to build long term resilience in one of the largest economies on the African continent. We need to reposition and update the GDS such that, while the strategic intent remains the same, we ably respond however to a different context. This goal towards building Johannesburg as a resilient urban system means that we would have to build our capacity to absorb large shocks, manage crises effectively and 'bounce back'.

One of the central tasks of city governments is the creation of sustainable value for its stakeholders. And it is exactly in circumstances of uncertainty and turbulence that strategic and long-term planning become invaluable. At the core of value creation is the ability to innovate and to implement new solutions before, and faster than anybody else. The challenge, then, is to learn from change and complexity, to understand it, value it, manage it effectively and, ensure strategic certainty as a tool for continuity and growth.

The updated GDS offers fresh insights into our development paradigm, with an enhanced focus on the following:

- A more in-depth analysis into the city's economic outlook and various options to be pursued in attempts to perfect the balancing act of growth versus labour;
- Approaches towards addressing inequality from an income, spatial and gender perspective;
- A contextualisation on social cohesion and inclusivity that begins to outline the kind of culture and society that Johannesburg seeks to become, particularly given the cosmopolitan nature of the city;
- An increased awareness of the need to leverage on all elements of the city's social capital, with an increased focus on harnessing the potential of youth in this regard; and
- A narrative on the repositioning of the city as a key player on the global stage.

The structure of the document has been arranged as follows:

- **Chapter two** provides an overview of the City's development model that informs the strategic choices contained herein;
- **Chapter three** provides an overview of the current challenges facing the city, including updates on various global, national and local phenomena which have influenced the GDS trajectory;
- **Chapter four** presents clear outcomes and outputs as statements of intent for the long-term development path to be followed by the City to achieve its 2040 aspirations and provides a basis for how to operationalise and monitor GDS progress.

1.6 Linking Joburg 2040 with the Integrated Development Plan

Joburg 2040 will be aligned to the Integrated Development Plan (IDP) throughout the lifespan of the strategy. Linking long-term outputs with medium-term outcomes, this practice will remain ensuring that Joburg 2040 is translated effectively into medium term programmatic operational plans and budgets. Together, the IDP and GDS reviews will be undertaken every five years before or at the start of a new term of office or when required.

1.7 Joburg 2040 Methodology

A number of processes informed Joburg 2040. These included consultations with City departments, presentations and engagements with City governance structures, technical research and in-depth desktop analysis. The review was informed primarily by two main processes: technical research and focus group consultation.

The review process began with the City commissioning a number of position papers defining key strategic priorities and indicators across major sectors such as: basic services, housing, customer perceptions, economic growth, water, energy, social cohesion, environment, institutional development and governance, infrastructure, urban safety, spatial planning and urban uncertainty. The City also undertook an analysis of Quality of Life Survey's prepared by the Gauteng City Region Observatory and the City's own Customer Satisfaction Survey's. The data and research findings were analysed and captured internally and are incorporated in this review.

Focus groups were undertaken as a qualitative approach to provide an in-depth understanding and strategic insight of participants. Through conducting focus groups, the City was able to ascertain which long-term issues were important to participants and what the outcomes of these issues are. The rationale of the focus group discussions involved an understanding of the changing environment and particular consequences which were ultimately related to the value set(s) of a particular stakeholder group.

The following research audiences participated in the focus group discussions:

- Youth (14 to 35 years)
- Children (Primary School learners)
- Analysts (Financial analysts/ Economists)
- Resident associations, NGOs/CBOs/civil society
- Academics, environmentalists/activists/lobbyists
- Ordinary residents
- Organised labour
- Informal traders, small business owners
- City of Johannesburg (CoJ) employees

1.8 Conclusion

Joburg 2040 GDS is a refinement of our long-term outcomes and outputs. It is representative of the changes taking place nationally and globally, where strategies have shifted towards a more outcomes-based, impact-oriented approach. Joburg 2040 strikes the balance between defining, with relative certainty, a 'future development path' – while still accommodating for change. This

is particularly relevant in the current paradigm of uncertainty, within which long-term target-setting is particularly difficult, given the range of unknown variables. This GDS takes into account where we are, where we have been and where we want to go, and embarks on a journey to co-create that future with the City's key stakeholders – our citizens.

2. Joburg 2040 Development Model

2.1 Introduction

The development model emerging from an evolving urban trajectory is largely representative of changes taking place at a global, national and local scale. As such, it is worth describing some of the most powerful forces shaping the development paradigm – specifically the City's 2040 GDS model of development, as it serves to frame the City's approach to development.

When assessing the changing development trajectory, global, national and local changes and realities are considered. There are various elements shaping any paradigm – with these including, amongst others:

- Political and policy imperatives and priorities;
- Analysis of major trends and dynamics; and
- Any theories and concepts that may have an impact in this regard.

The 2011 GDS derived its strategic direction from a range of strategies and policy perspectives, including, amongst others; the New Growth Path; the work of the National Planning Commission (NPC); Government's Medium-Term Strategic Framework (MTSF); Millennium Development Goals (MDGs); etc. This practice continues here, in respect of new strategies and policies such as the NDP; the SDGs the 2014 – 2019 MTSF; Gauteng Province's Transformation, Modernisation and Reindustrialisation (TMR) programme; etc. The revised GDS considers these perspectives in the context of major policies, theories and events shaping the Joburg 2040 GDS model.

2.2 The changing development context: A global perspective – *a period of uncertainty*

The previous paragraph outlines – at a high-level – changes in development policy that have reshaped the strategic context within which the GDS operates. In the sections below, more detailed perspectives are provided as an assessment of where we currently are, in an effort to allow us to map our future path more deliberately and specifically. Cities are continually faced with the challenge of navigating through uncertain waters when planning for the future, and *"the combination of economic uncertainty in the contemporary period with political turbulence, global terrorism, and anxieties over climate change has created a 'perfect storm' of uncertainty... The legitimacy of planning depends on the extent to which [cities] can handle radical uncertainty."*⁴

At a global scale, some of the key contributors to uncertainty include the following:

⁴ Harrison, P et al, 2016. Strategic Planning in a Turbulent and Uncertain Context. Johannesburg: University of Witwatersrand (Commissioned Paper).

- Demography, particularly global population growth and the impact on sustainability;
- The state of the global economy;
- Shifting geo-politics;
- Rising activism and shifting socio-political relations;
- Climate change and related environmental threats;
- Sustainable development goals - and the emergence of a new urban agenda; and
- The advent of the Fourth Industrial Revolution.
-

Each contributing factor is addressed below.

Demography (global population growth and the impact on sustainability)

Demography is one of the most critical contributors to uncertainty, however, the effective use of this key trend in planning is yet to be optimised. The tendency is often to assume straight-line projections of current demographic trends, sometimes leading to serious miscalculations. While it is impossible to project trends into the far future, there are existing trends that will work out in terms of consequences over the next twenty to forty years at least. There may, perhaps, be less uncertainty around demographics than other areas, as demographic trends work through the population structure over a relatively long period, but the demographic future remains uncertain. The uncertainties include issues such as pandemics, attitudes to procreation, medical advances and/or setbacks, immigration policies, and shifts in the labour market.⁵

The world's population is currently estimated to be at 7.6 billion, with an annual growth rate of approximately 1.13%.⁶ Projections indicate that the world will have a population of over 9 billion people by 2050, with approximately 68% of that population living in cities. It is not possible for this rapid growth to continue without considerable consequences for future economic growth, ecological sustainability and human well-being.

Some of the current, inter-related emergent trends are.⁷

- Steadily declining fertility rates,
- Delayed age of reproduction,
- The ageing of the global population,
- The expansion of single person households,
- The decline of the '*traditional*' nuclear family,
- Lower marriage rates,
- Personal debt delaying retirement,
- Slowing rates of urbanisation,
- More racial and ethnic diversity in cities as a result of transnational migration, and
- Continued increase in women's role in the labour force, including in leadership positions.

The combination of these trends is likely to have a massive impact on life into this century in ways that are not easily predictable. It is also very possible that trends may reverse or shift in unexpected

⁵ Harrison, P et al, 2016. Strategic Planning in a Turbulent and Uncertain Context. Johannesburg: University of Witwatersrand (Commissioned Paper)

⁶ <https://www.un.org/development/desa/publications/world-population-prospects-the-2017-revision.html>

⁷ Harrison, P et al, 2016. Strategic Planning in a Turbulent and Uncertain Context. Johannesburg: University of Witwatersrand (Commissioned Paper)

ways. There are also some differences of opinion over trends. For example, whether or not the trend towards increased participation of women in the labour market will continue and what impact these changes will have on fertility rates.⁸ However, what is clear is that the impact on sustainability will be quite significant, and will require sufficient planning and futurology in order to 'ease the shock'.

The state of the global economy

The state of the economy is perhaps the single most powerful source of uncertainty, due to the impact of a volatile global economy in an increasingly inter-connected world. Global economic uncertainty makes medium-term forecasting almost impossible. There is also real danger that the world is trapped in a "low growth equilibrium" for the foreseeable future.⁹ Some of the key issues include the long-term decline in productivity, China's performance, the possibility of a systemic credit crisis, severe market volatility (the fall in oil and commodity prices) and geo-political tensions.

In 2019 global economic growth is slowing whilst the combined effects of policy uncertainty and financial volatility are increasing.¹⁰ In the United States inflationary pressures and policy tightening will begin to restrain growth by 2020. China's current growth will be slowed by US tariffs, deleveraging and excess capacity although government stimulus will provide some offsetting support. Europe's growth will be restrained by weakening global trade dynamics and political uncertainties, including the United Kingdom's Brexit path. Emerging economies that depend heavily on external finance such as South Africa will be vulnerable.

Among the reasons for this gloomy economic picture in emerging markets is the fact that both actual and potential growth have been rather thin on yielding the returns from several structural reforms. Technological advances have also not yielded higher productivity growth, while developing economies are also still withholding necessary capital spending. Additionally, unresolved economic policy tensions are hampering progress in terms of successfully restructuring the global economy.¹¹

South Africa's economic outlook also remains fairly bleak as steady declines in growth are forecast due to an array of domestic and global constraints. These include perceptions of weak governance and accountability mechanisms, water shortages, a serious drought and labour unrest. Economic growth has been held back by increased interest rates, tighter fiscal policy and policy uncertainties, which inhibit private investment. The risk of strikes remains elevated and the already high unemployment rate may further increase, thereby depressing aggregate demand.¹²

The current context is one in which future economic growth is uncertain and unpredictable, but is also one in which opportunities arise from the presenting crises. The financial fallout of 2009 exposed the structural weaknesses in the South African economy. As employment fell sharply, attention was drawn to the existing prolonged crisis of jobless growth and the urgent project of transforming the national economy. The Economic Intelligence Unit confirms that the main challenge facing policymakers in South Africa until 2020 will be to expedite faster growth by

⁸ Ibid

⁹ Harrison, P et al, 2016. Strategic Planning in a Turbulent and Uncertain Context. Johannesburg: University of Witwatersrand (Commissioned Paper)

¹⁰ Waelbroeck-Rocha, E. 2019. Global Economic Outlook: Multiple Challenges Ahead. IHS Markit Regional Economic Data Forum. Centurion.

¹¹ Roubini N, 2016. The New Abnormal State of the Global Economy is here to stay. Project Syndicate (Online Source).

¹² Kibuuka, "The State of Economic Growth and Development in the City of Johannesburg"

tackling long-standing structural constraints such as skills shortages, inadequate infrastructure, the lack of competition within certain sectors of the economy and high unemployment.¹³

Current global trends and projections indicate that patterns of volatility are likely to persist into the foreseeable future, hence the need for comprehensive strategies to build economic resilience in response to financial downturns.

Shifting geo-politics

A great dynamic for the 21st century is the emergence of a 'new world order', largely shaped by the rapid shift in the distribution of world economic power. The World Economic Forum's Global Risks Landscape 2018 delineates environmental risks (such as extreme weather events and temperatures, water crises and biodiversity loss) as the most prominent and potentially impactful global risks.¹⁴ Environmental worries, including water scarcity in the city has been at the forefront in recent years, reflecting a sense that climate change related risks have moved from hypothetical to certain because insufficient action has been undertaken to address them.

The fluctuation in food and energy prices as a result of climate change, the rise of religious fundamentalism, and the fragmentation of the political map, are also manifestations of the changes in the balance of power. The geo-political shift of power from the West to the East will continue to give rise to economic and territorial rivalries. Global economic power is shifting, but there is no guarantee that this shift will necessarily create more equal and shared growth.¹⁵

These changes are increasing redefining traditional geo-political patterns and principles. Progressive internationalism and multilateralism are gaining momentum as approaches to overcoming common challenges, as strategic regions such as the BRICS, G20, South African Development Community (SADC), etc. are increasingly being recognised as power blocs and influencers of policy. A further upshot of globalisation and urbanisation is that cities are increasing being seen as key global players as well as crucial spaces to effect global change. Cities and metropolitan governments have also adopted strategic developmental regionalism as a critical approach to achieving the goals of a common sustainability agenda.

Rising activism and shifting socio-political relations

The nature of politics and social relations has changed substantially in the 21st century. As visible in news reports across the world, youth social movements and social media have overtaken traditional political parties and trade unions as the dominant forms of civil society activism. Although there is rapidly declining faith in traditional institutions, traditional institutional models are still dominant, leaving considerable socio-political uncertainty about the future forms of activism and political relationships. Widening global inequality, especially in cities, is fostering social unrest, as well as the increasing self-imposed isolation of the wealthy.¹⁶

In many countries, politics is becoming increasingly polarised, particularly through the rise of ethnic nationalism and extremist right-wing movements gaining ground. The growth in right-wing politics is also fuelled by the migrant crisis resulting from the Syrian war and the increased threat of terrorism from the Islamic State. These provide justifications for increased securitisation of cities, Islamophobia and racism. Hatred or fear of the 'other' has become a defining factor in contemporary social interactions and political discourse; especially in the global north. In the South

¹³ Economist Intelligence Unit. 2019. "EIU global forecast - market turmoil signals slowing growth."

¹⁴ World Economic Forum. 2018. "The Global Risks Report 2018" Geneva: World Economic Forum

¹⁵ Ibid.,

¹⁶ UN HABITAT. "World Cities Report 2016" (New York: United Nations, 2016)

African context, racially-driven politics is further deteriorating the cohesiveness of an already fractured society, and community activism, often in the form of violent protest, is becoming more commonplace.

Climate change and related environmental threats

Climate change has now become an inevitable part of our present history, as uncertainties around the environment and the effects of climate change remain significantly high. Cities are the economic engines of national economies, and while global compacts around emission targets are being debated, the responsibility for climate change mitigation and adaptation rests here. Du Toit¹⁷ suggests that a 'bottom-up' approach, i.e. starting at a local level and filtering up to national strategies, is likely to be the most effective means of formalising a culture of 'eco-awareness'. At a global scale, conflicts over carbon emission targets and reductions are likely to intensify. The impasse will continue unless resource use is decoupled from economic growth, which in itself is likely to present political and institutional trade-offs.

There is consensus on the following:

- Climate change will amplify existing risks and create new risks for natural and human systems.
- Risks are unevenly distributed and are generally greater for disadvantaged people and communities in countries at all levels of development.
- Many aspects of climate change and associated impacts will continue for centuries, even if anthropogenic emissions of greenhouse gases are stopped.
- Substantial emissions reductions over the next few decades can reduce climate risks in the 21st century and beyond, increase prospects for effective adaptation, and reduce the costs and challenges of mitigation in the longer term.
- There is high confidence that without additional mitigation efforts beyond those in place today, and even with adaptation, warming by the end of the 21st century will lead to high to very high risk of severe, widespread and irreversible impacts globally.
- Taking a longer-term perspective, in the context of sustainable development, increases the likelihood that more immediate adaptation actions will also enhance future options and preparedness.¹⁸

According to the World Economic Forum, cities are a crucial area for taking action on climate change.¹⁹ By 2050, over two thirds of mankind will live in cities. Cities generate roughly 80% of global GDP and account for more than 60% of all CO₂ emissions. The Intergovernmental Panel on Climate Change (IPCC) and COP24, conveyed the clear message that we need to limit temperature rise to 1.5°C. In order to do this cities' energy mix needs to be diversified. Renewable energy sources such as solar, wind, and energy from waste not only reduce greenhouse gases, but are becoming economically attractive.

In South Africa, city governments' role in providing services has been constrained to primarily satisfying immediate local demands. Yet, in the context of increased resource scarcity, South African cities are turning their focus away from using demand side management alone as a mechanism through which to address the scarcity challenge – and are instead considering different business models and new approaches to address demand. The Joburg 2040 GDS expresses this

¹⁷ Du Toit, C. 2011. Comment provided on the draft Joburg 2040 GDS. Submission to the City of Johannesburg: 5 October 2011

¹⁸ Intergovernmental Panel on Climate Change. 2015 "Climate Change 2014: Synthesis Report." Switzerland: 2015

¹⁹ Busch, 2017. "This is how cities can fight climate change," World Economic Forum, 7 April 2017
<https://www.weforum.org/agenda/2016/04/this-is-how-cities-can-fight-climate-change/>

new focus, but is also part of local government debates that are beginning to define a new role for South African cities. This brings resource sustainability and service delivery closer together, as cities look to create 'green infrastructure systems' that reduce overall demand and deal with some of the difficult supply-side constraints.

Sustainable development goals - and the emergence of a new urban agenda

On 25 September 2015, world leaders adopted the 2030 Agenda for Sustainable Development, which includes a set of 17 SDGs to end poverty, fight inequality and injustice, and tackle climate change by 2030. The SDGs build on the MDGs which is aimed at addressing an array of issues, including halving poverty, hunger, disease, gender inequality, and promoting access to water and sanitation by 2015. Enormous progress has been made on the MDGs, showing the value of a unifying agenda underpinned by goals and targets. However, in spite of this success, the indignity of poverty has not been ended for all. The post-2015 sustainability agenda goes much further than the MDGs, addressing the root causes of poverty and the universal need for development that works for all.²⁰ The MDGs were focused primarily on ending poverty and inequality, promoting health awareness, and the social inclusion of women and children. The SDGs on the other hand extend these by focusing on safe and peaceful societies, with a greater emphasis on environmental goals, and inclusive economic growth.

As the rate of urbanisation continues to intensify, the scope of development also begins to transcend beyond the traditional delivery mandate of cities. Hence, the need to mobilise for strategic and collective action among key urban actors. The emergence of a new urban agenda includes the establishment of strategic partnerships by these key urban actors, and is intended to serve as a roadmap to drive the implementation of the SDGs.

The advent of the Fourth Industrial Revolution

The Fourth Industrial Revolution (4IR), a term coined by Klaus Schwab, founder and executive chairman of the World Economic Forum, is understood as the fourth major industrial era that builds on the expansive computerisation of the Third Industrial Revolution by fusing technologies, processes, and physical bodies to blur the lines between tradition physical, digital, and biological spheres and transforming the way people live, work, and relate to each other.²¹ This era is characterised by advancements in technologies such as the Internet of Things (IoT), artificial intelligence, robotics, nanotechnology, biotechnology, quantum computing, autonomous vehicles, and 3D printing.

The way cities look, feel and operate will change inevitably with the advent of 4IR technologies. Leading researchers argue that the velocity, scope and systems impact of the 4IR breakthrough represents a distinct era that is predicted to herald the transformation of industries, governments, economies and communities.²² Cities, therefore, are required to address and mitigate the risks and challenges associated with the adoption of new technologies to ensure the 4IR is sustainable and inclusive process. This requires the disruption of the traditional, linear and business-as-usual attitudes of business and government leaders to mitigate risks and harness the full potential of 4IR for people, organisations, the environment, and society at large.

While 4IR technologies can contribute towards energy efficiency, their underlying consumption of energy cannot be ignored. The efficiency and competitive benefits from Fourth Industrial Revolution implementation in cities will likely act as a "pull factor" to attract more people to move

²⁰ UNDP, Sustainable Development Goals, 2015

²¹ Xu et al., 'The Fourth Industrial Revolution: Opportunities and Challenges' (Detroit: University of Detroit Mercy, 2018)

²² Schwab, 'The fourth industrial revolution: what it means, how to respond.' World Economic Forum, (2016)

to cities, placing additional pressure on the urban environment. As more data on city operations, service providers, businesses and citizens are generated and shared digitally, balancing security and privacy concerns is a key risk. Cities need to prepare for the Fourth Industrial Revolution by adapting the physical, digital and environmental elements of their cities to better respond to their residents' dynamic requirements and expectations. This agility will determine whether or not the ambitions set forth in SDGs, Paris Agreement and New Urban Agenda are met.

The inputs outlined above reflects some of the factors influencing the global reality – with a clear demonstration of a world in flux. The changes, challenges, opportunities and shifts in realities at a range of levels (e.g. social, community, institutional, policy, legislation) require a concerted local government response. Cities will have to assess quickly how to plan for change – and how to keep pace with the massive transformation emerging in their locales and regions.

While faced with a range of challenges, the realities experienced at a global, national and local level present Johannesburg with unique opportunities. Johannesburg's response to these realities will be a critical determinant of whether the City can realise the vision and mission articulated within this long-term strategy.

2.3 The Joburg 2040 development model

The assessment of various concepts and theories relating to cities, changes in national and provincial priorities, and political imperatives – together with the review of research and analysis undertaken – has resulted in the City's response to the emerging realities, as defined in the GDS model. This then serves as a lens through which the City aims to view, conceptualise and enhance its approach to development issues. Based on the review undertaken, and the realities noted above, including the challenges faced due to migration and urbanisation, globalisation and climate change, a number of key priorities have emerged to frame all actions.

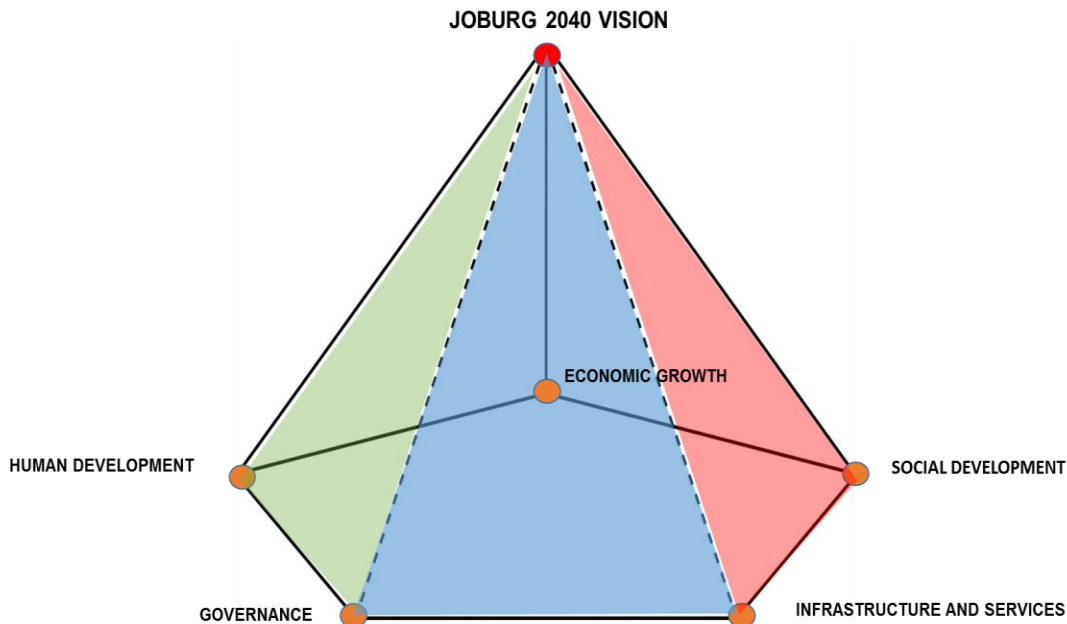


Figure 2.1: The Joburg 2040 GDS model

There are tensions between the five main drivers identified above, but these tensions simultaneously provide opportunities for change, innovation, and the introduction of new ways of managing complexity and uncertainty. Where cities of the past planned for efficiency, standardisation, predictability and social control – characteristics that came to typify city government bureaucracies – theories of liveability, resilience and sustainability have created a paradigm shift. To support and realise these objectives, metro governments such as the City of Johannesburg will need to develop a new set of strategic capacities and capabilities. These are recognised as the characteristics we would like to see in a future city. It is only through strengthening the capacity of the City of Johannesburg’s people to manage change that we can build resilience in communities, and effectively pursue sustainable development. This requires a new way of managing the city – and opens up a platform for further engagement.

RESILIENT, SUSTAINABLE, LIVEABLE

We will all aspire to take responsibility for the future of our city. To build a better Johannesburg we will ask: Will this make Johannesburg more resilient? Will this action make Johannesburg more sustainable? Will this action make Johannesburg more liveable? What do these ideas mean for the city?

Resilient city – In the future Johannesburg will face enormous changes, some that we can predict and others that are unexpected. If Johannesburg is resilient it will adapt to shifts such as climate change, the shifting world economy, geopolitics and new information technologies. As a resilient city Johannesburg will be able to withstand the shocks of unpredictable change while promoting sustainable development, inclusive growth and well-being

Sustainable city – In the future we will face water and energy shortages. If Johannesburg is sustainable it will build economic growth, promote social and human development, make sure that there is good governance and do no harm to the environment. Johannesburg will be able to provide a clean, healthy, safe environment to our children’s generation and for generations after that.

Liveable city – In the future Johannesburg will offer good quality of life to all its citizens. If Johannesburg is liveable, it will ensure investments in human and social capital, traditional and modern (ICT) communication, infrastructure, transport, sustainable economic development and offer a high quality of life, with a wise management of natural resources, through participatory action. Johannesburg will offer its diverse communities opportunities for rich public life and debate in smart, high-quality urban environments.

Changing the behaviour, changing the foundation

In our development model, quality of life becomes the measure of value and success. The purpose of Smart, inclusive growth is then not only about efficiencies and economies of scale, but is also about pursuing resilience, sustainability and liveability in the true sense. The aim behind our theory of change is to enhance and maintain the well-being of citizens, harness their creative potential, build collaborative partnerships and encourage the co-creation of our desired future.

Johannesburg’s ability to lead and drive this kind of institutional, organisational, business and citizen change towards a more sustainable, resilient and liveable city requires a paradigm shift and behavioural change in terms of the way in which we plan, produce and consume. In order to achieve this objective, the City will need to promote and emphasise the reality that joint responsibility amongst citizens, government, business and other stakeholders is key, and citizens will have to take responsibility for changing their behaviour in positive ways, effectively laying the foundation for a better Johannesburg of the future.

2.4 Joburg 2040 Vision and Mission

JOBURG 2040 VISION
Johannesburg - an economically vibrant and inclusive African city; strengthened through its diversity; a Smart City that provides high quality of life; a City that provides sustainable services for all its citizens; and a resilient society.

“A Johannesburg that works, is a South Africa that works”

JOBURG 2040 MISSION
We will collectively enable support that drives economic growth, optimal management of natural resources and the environment and we will develop an inclusive society that contributes to the development of a capable local government

Figure 2.2. City of Johannesburg Vision and Mission

2.5 Conclusion

The City has a principled commitment to achieving its constitutional mandate of deepening local democracy through effective participation. While the democratic process – together with active communication – supports more effective, targeted delivery of services to citizens, it also grows a more active, engaged citizenry, alongside a more responsive and proactive city government. The City will lead in delivery against the principles outlined above, forging and deepening cooperative governance with partners in other spheres of government, finding innovative ways of working in strategic partnerships, managing and overcoming conflict, and engaging honestly with citizens.

The Joburg 2040 GDS is driven by the goal of capable and capacitated communities and individuals. With this realised, the City of Johannesburg will be able to transition to a more sustainable, inclusive future, in which communities and the individuals who live in them hold the potential and the means to imagine and grow their neighbourhoods, their communities and themselves.^{23*} A balanced focus on environmental management and services, good governance, economic growth and human and social development will assist in achieving a resilient and sustainable city – and a city in which all aspire to live.

3. Drivers of Development – An analysis of key trends

3.1 Introduction

The 2011 GDS included an analysis of the city’s status quo, which was used to formulate the GDS’s long-term goals and strategic interventions. This 2018 analysis is presented within the context of

²³ These means may include individual incomes, access to social packages, free basic services or a combination of social services that allow citizens to build capabilities over time

the following five drivers of development as seen below: economic development; human development; social development; physical development; and institutional development. This chapter serves to build on the analysis undertaken by presenting an updated perspective of challenges and opportunities faced by the city.

3.2 Population dynamics

Since 2001 the city population has more than doubled to 5.04 million people in 2017. The contribution of Joburg's population to Gauteng's population increased from about 23% in 2001 to about 36% in 2011 and remained the same for 2017. This means that in the years 2011 and 2017 about one in three people living in Gauteng resided in Johannesburg. The city's population contribution to the national population in 2001 was about 5%. This increased to about 9% in 2011 and remained at 9% for 2017. This implies that in 2017, about 1 in 10 persons living in South Africa resided in Johannesburg.

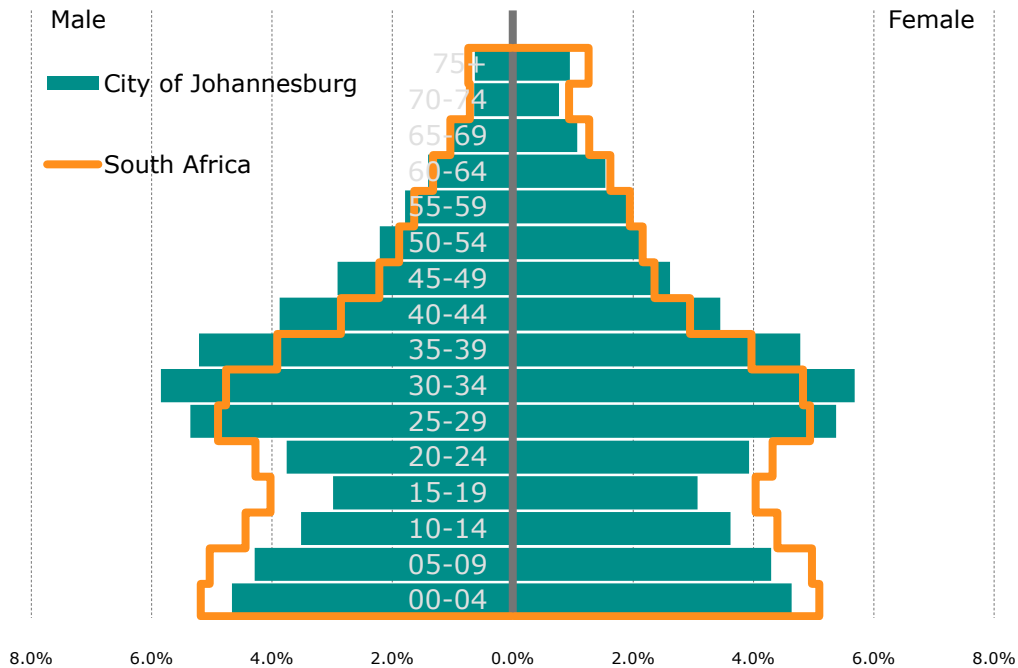
The increase in the absolute size of the population of the city implies a growth rate of about 7.3% per annum during the period 2001 and 2011. This growth rate was much higher than the average for Gauteng and South Africa for the same period. It is projected that the population of the city could increase to about 5.5 million in 2022.²⁴ The corresponding growth rates in the projection period range from about 2% per annum to about 2.3% per annum.

Furthermore, there is an important picture painted by the age structure of the city's population relative to provincial and national structures. Firstly, it is clear that very little change has occurred in the broad age structure of the Johannesburg population in the last 10 years. However, while the broad age structure of the city is similar to that of Gauteng, it is different from that of the national population in many respects. For example, the proportion of persons aged 0-14 years in the city in the last 10 years have been lower than the corresponding proportions in the national population.

Figure 3.1 City of Joburg population structure, 2017

²⁴ IHS Markit Regional eXplorer version 1479

Population structure
City of Johannesburg vs. South Africa, 2017



Source: IHS Markit Regional eXplorer version 1479

In 2017, there were 1.6 million households in the city.²⁵ The city’s projections indicate that if the assumptions underlying the projections hold, it is estimated that the population will grow at an average annual growth rate of 1.9% between 2017 and 2022.²⁶ Equally, the average household size in the city is by implication increasing. The average household size increased from approximately 3 individuals per household in 2006 to 3.1 persons per household in 2017.²⁷

The population dynamics in the city indicate that, although the future growth of the population may be lower than during the period 2001 and 2017, the probable future growth of the population of the city (in excess of 2% per annum) may still pose a challenge for planning and development in the city. The projected growth rates imply a doubling in the city’s population in less than 35 years if present trends continue with implications for provision of services as well as economic implications. The projections indicate that the rate of growth of the number of households would likely exceed the growth of the population in the city.

3.3 Human development

Johannesburg has done considerably well with respect to human development. Over the last decade, the region experienced 8% increase in the level of human development (currently rated 0.71 measured against the Human Development Index). This can be attributed to improvements in living standards. This implies that as people migrate to Johannesburg for better economic

²⁵ IHS Markit Regional eXplorer version 1479

²⁶ Ibid

²⁷ IHS Markit Regional eXplorer version 1277

opportunities, they often start with low paying jobs and then they develop themselves through attaining the necessary education and skills, and therefore experience higher levels of human development overtime.

3.3.1 Poverty and inequality

Two of the most commanding constraints on human development are poverty and inequality. In a city such as Johannesburg, they are inextricably interlinked. Internationally, urban poverty and inequality are viewed as complex phenomena with multiple dimensions. This is also the case in Johannesburg. Joburg, like most South African cities, demonstrates high levels of social, spatial and economic inequality. The magnitude of this inequality is often disguised through measures such as plotting average household income where a trend analysis shows an increase in the average household income in the city. Whilst this is the case overall, it masks the fact that many households in the city are struggling to cope and, even in some cases, to survive.

The relationship between poverty and inequality is neither clear nor direct. Poverty and inequality are analytically distinct concepts. A decrease in poverty is not always accompanied by a decrease in inequality. It may in fact be accompanied by a commensurate increase. For example, globally poverty is falling faster than ever before, but at the same time the gap between richest and poorest continues to widen. Conversely, an increase in poverty may be accompanied by a decrease in inequality overall, although examples of this may be difficult to find in the contemporary world. The divergence of views regarding the relationship between poverty and inequality is largely due to the fact that there are different conceptions of poverty and different kinds of inequality. High poverty levels are still a concern in the region. The latest statistics indicate that 2.37 million Joburg residents live below the poverty line using the upper bound poverty line definition.²⁸

In the last 20 years growth in GDP and its per capita has been accompanied by reduction in poverty. However an increase in GDP or its per capita has not had a positive effect on reducing inequality. In many instances, it has been accompanied by high inequality. Data further indicates that human development in the past 20 years had a positive direct impact in reducing poverty. Another striking finding is that economic growth in Joburg (at some point impressive) did not necessarily transform into high human development.

Inequalities in terms of incomes and opportunities have been persistent and the benefits of Johannesburg's economic success have not been shared equally. The City of Johannesburg has had the highest level of inequality relative to other regions. The Gini coefficient, a measurement of income inequality, is currently 0.63 in Johannesburg.²⁹

If individuals are stuck in employment with low income potential, this has long-term implications of perpetual poverty and inequality amongst some segments of the city population. An analysis of gender and race in the labour market shows that women are concentrated in lower earning employment sectors. This is significant because correlating job growth with industry type can provide a picture of where jobs are being shed and gained and which sectors of the population are likely to suffer as a result of job losses, as well as those that are likely to gain as a result of employment increases. These low income sectors apply to both the formal and informal economy.

The high levels of poverty and inequality in Johannesburg remain a concern. The City's primary focus related to the alleviation of poverty and inequality is to adopt a pro-poor approach depends primarily on human development, employment, sustainable economic growth and a distribution of the benefits of growth.

²⁸ Source: IHS Markit Regional eXplorer version 1479. According to StatsSA, the upper bound poverty line is the level of consumption at which individuals are able to purchase both sufficient food and non-food items without sacrificing one for the other.

²⁹ IHS Markit Regional eXplorer version 1479

3.3.2 Towards a healthy city

The demands that rapid urbanisation place on the provision of health services is huge. In addition to migration from other provinces, this is complicated by the added burden of cross-border migration as people seek opportunities provided by a city like Johannesburg. Of particular relevance to the health sector is the amplified risk of communicable diseases outbreaks (e.g. the outbreaks of H1N1 influenza, Rift Valley Fever, cholera, and measles despite the high immunisation coverage) and the social problems that come with unemployment: trauma and violence (xenophobia), alcohol related illnesses. It is difficult for mobile populations who are also at risk of acquiring diseases such as tuberculosis (TB), to comply with the long-term treatment it requires. Poor treatment compliance contributes to the problems of emerging and re-emerging diseases like multidrug resistant TB. Displaced persons also experience additional barriers to healthcare (including language)³⁰.

According to the World Health Organisation, non-communicable diseases (NCDs) including ischaemic heart disease, stroke etc. are now the leading cause of death in the world.³¹ "Each 10% rise in NCDs is associated with a 0.5% lower rate of annual economic growth. The cost of treatment for NCDs over the next two decades, as our populations grow larger and live longer, is estimated to be about USD \$30 trillion".³²

Policy developments in the global arena (e.g. avian and H1N1 influenza), SADC region (e.g. harmonisation of treatment protocols for example on STI and HIV/AIDS) and at national level (developments around the proposed National Health Insurance that will require facilities to be accredited) will have significant impact on the city level. Of particular significance are discussions regarding the governance model for the delivery of district health services (DHS), which has moved back and forth from local government to provincialisation.

Since health outcomes are the result of a number of complex and interrelated factors, many of which lie outside the domain of the health sector, the greatest health gains can only be achieved through inter-sectoral collaboration. Because of its structure, the services it is mandated to provide and its interface with local communities, local government is well positioned to institutionalise inter-sectoral collaboration. This is to ensure 'health in all policies' and to implement these in a way that promotes health in the daily lives of people by improving the circumstances in which people are born, grow, live, work, play and retire.

Attention to the burden of disease will improve life expectancy and thus reduce other indirect impacts such as the number of child headed households. Critical in improving the health of Johannesburg citizens is reducing the number of HIV/AIDS cases, managing TB, ensuring healthy lifestyles and dealing with crime. The number of AIDS-related deaths in Johannesburg is expected to decrease over the next five years, from about 16,438 in 2013 to 11,071 in 2022.³³ However, these figures should be regarded as indicative and treated as the lower limit of the expected number of AIDS-related deaths in the city as the proportion of AIDS-related deaths of total deaths used in the estimates, are likely to be higher than indicated in the death records.

The complicated institutional arrangements between provincial and local governments affects the City of Johannesburg's ability to respond effectively to a range of health care issues including the high burden of disease which are effectively outside its functional and budgetary control.

³⁰ Human Rights Commission Inquiry into Access to Healthcare

³¹ <http://www.who.int/news-room/fact-sheets/detail/the-top-10-causes-of-death>

³² Oxford Martin's *Now for the Long-Term* Report (Oxford University)

³³ IHS Markit Regional Explorer version 1479

There is a growing demand for the provision of health services in Johannesburg. A key focus of the City's thrust towards a healthy city is to adopt a "health in all portfolios" (HIAP) approach that institutionalises inter-sectoral collaboration and ensures that all residents have access to adequate primary healthcare including access to safe and affordable medications and environmental health, and to introduce pro-active interventions that reinforce networks of social support and develop a sense of personal empowerment amongst residents and communities.

3.4 Economic development

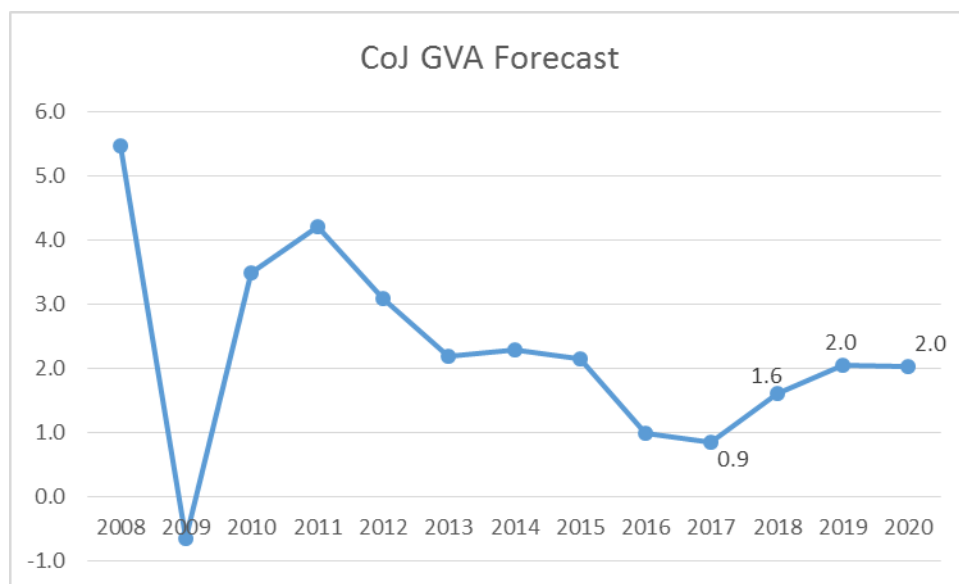
The ability of the City of Johannesburg to drive a pro-poor agenda depends primarily on sustainable economic growth and a distribution of the benefits of growth. Given the rate of population growth and high structural unemployment, stronger economic growth is required to deal with the challenges of poverty and inequality. To this end, Johannesburg has to grow at a minimum of 5% annually in order for the effects of economic growth to have meaningful impacts on poverty and inequality. The pattern of economic activity will also have to support a higher aggregate rate of labour absorption than is currently the case. This implies that a multi-dimensional strategy which targets the support, development and growth of the entire spectrum of business enterprise in the city ranging from the informal sector and micro enterprise to multi-national corporations will have to be implemented.

3.4.1 Economic growth

The city's Gross Value Added (GVA) growth rates have been largely uninspiring since 2013 with growth rates below 3% on average. The GVA focuses attention on economic value added by activity in the economy before consideration of taxes paid and subsidies received. The forecast indicates growth rates oscillating around 2%. Despite this lethargic forecasted growth rates, the City is determined to grow the economy by 5% per annum. To do this, the City will need to ensure that Johannesburg is an attractive location for business which will in turn drive up enterprise investment and foreign direct investment.

The data provided below showcases economic growth rates for Johannesburg using the GVA from 2008 to 2016 and a forecast to 2020.

Figure 3.2 City of Joburg GVA forecast, 2017-2020



Source: Quantec Forecasting Model, 2016

It is evident from the data in figure above that eight years after the global recession, the city is yet to return to its pre-recession growth levels. Consistent with broader international dynamics, the recovery has remained relatively protracted. After experiencing what appeared to be a modest recovery post-2009, the forecast for the next few years remains fairly subdued. The city will not be spared the economic consequences of downgrade to junk status by the international rating. Going ahead, Municipal IQ points to the following possible impact: swelling of indigent lists, higher operational costs, higher costs of borrowing, fewer investors and greater pressure on debt.³⁴

Although the City has been successful in creating a conducive environment which attracts investments, concentration of the city's economy poses a challenge. The city's Tress index is currently 54.78 points which renders the economy to be highly concentrated.³⁵

The dominance of trade and finance in Johannesburg growth sectors arise from the central location in South Africa's geography, amongst other factors. This advantage can be contrasted to the lower concentration in agriculture and mining which is largely driven by the lack of natural factor endowments. Thus, Johannesburg needs to continue boosting manufacturing production, both in terms of higher value-added production and expansion into new emerging neighbouring markets.

Table 3.1 Growth Sectors in CoJ towards 2020

CoJ: GVA at basic prices (2010 Rm)	2010-2015	2015-2020
Total GVA	3.1%	1.5%
Primary sector [SIC: 1-2]	1.2%	1.2%

³⁴ Municipal IQ is a web-based data and intelligence service specialising in the monitoring and assessment of all of South Africa's 257 municipalities. The data can be accessed at: <http://www.municipaliq.co.za/>

³⁵ The Tress index measures the degree of concentration of an area's economy on a sector basis. A Tress index value of 0 means that all economic sectors in the region contribute equally to GVA, whereas a Tress index of 100 means that only one economic sector makes up the whole GVA of the region.

Agriculture, forestry and fishing [SIC: 1]	0.0%	0.1%
Mining and quarrying [SIC: 2]	1.4%	1.4%
Secondary sector [SIC: 3-5]	2.3%	-0.2%
Manufacturing [SIC: 3]	2.7%	-0.4%
Electricity, gas and water [SIC: 4]	1.1%	-0.9%
Construction [SIC: 5]	1.6%	0.9%
Tertiary sector [SIC: 6-9]	3.3%	1.9%
Wholesale and retail trade, catering and accommodation [SIC: 6]	3.6%	1.1%
Transport, storage and communication [SIC: 7]	2.9%	2.2%
Finance, insurance, real estate and business services [SIC: 8]	3.3%	2.3%
Community, social and personal services [SIC: 93-96, 98]	1.9%	2.2%
General government [SIC: 99]	3.7%	1.7%

Source: Quantec Forecasting Model: 2016

Growth projections indicate that growth in the tertiary, wholesale and retail trade, catering and accommodation sectors which has been dominating in the last five years is likely to be skewed in favour of transport, storage and communication; finance, insurance and real estate; community; and social and personal services.³⁶

Higher levels of education and skills as well as creativity, innovation, and competition will be necessary. These would not only promote higher growth but also inclusive growth which will help reduce the persistent high income inequality in Johannesburg.

It is important to also note that growth alone will not be the panacea. Despite increased growth over the last 10 years, and Johannesburg's status as a motor of the national economy contributing to 15.2% of South Africa's GDP in 2017, the Johannesburg economy remains one of the most unequal city economies in the world.³⁷ Formal employment opportunities have not kept pace with GDP growth. Only 12% of formal employment opportunities were located in the metro.³⁸ Combined with low formal job growth, the low level of education in the city and low skills base is incompatible with the current economic structure of the city weighted towards high end financial services that require highly skilled persons. 40% of Johannesburg's formally employed are unskilled or semi-skilled, 45% are classified as skilled and only 14% of the total working population are highly skilled. The skills deficit in Johannesburg remains a critical challenge. Thus, other rafts of approaches are also needed in addition to simply growing the economy at a minimum of 5%.

Although the city's employment rate is better than other South African cities, unemployment remains the major structural economic challenge (currently at 29.2% narrow definition; 31.5% expanded definition).³⁹ As a result, the apartheid era legacies of inequality and poverty persist well into the democratic era. The employment challenge is steepened by the influx of work seekers from across the country and abroad, contributing to the average rate of population growth over the past 10 years. Population growth in the city has more than doubled that of the country at 3.01% per annum compared with 1.56% per annum respectively. Two fundamental but practical outcomes are proposed for the City's economic development strategy: faster growth of the city economy, leading to higher employment, output and incomes; higher city revenues in order to

³⁶ IHS Markit Regional eXplorer version 1479

³⁷ IHS Markit Regional eXplorer version 1479

³⁸ Ibid

³⁹ StatsSA. 2018. Quarterly Labour Force Survey Q3

fund on-going city service delivery and socio-economic transformation and development initiatives; economic empowerment of the poor and disadvantaged which supports further transformation towards a fully inclusive society and economy.

Unfavourable global economic conditions and complex domestic factors have adversely impacted the city's economic growth and employment rates. The City's focus on promoting economic development therefore is based on a multi-dimensional strategy that promotes an enabling environment for the entire spectrum of business enterprise in the city and is conducive to sustainable job creation, competitiveness and economic growth.

3.4.2 Employment outlook

The City of Johannesburg continues to fight unemployment, which is one of the major problems facing South Africa as a whole. The definition of unemployment that is utilised in the GDS is the *expanded definition*. According to this definition, unemployed persons include discouraged job seekers. StatsSA defines a discouraged job seeker as a person who, during the reference period, wants to work, was available to work/start a business but did not take active steps to find work during the last four weeks, provided that the main reason given for not seeking work was any of the following: no jobs available in the area; unable to find work requiring his/her skills; lost hope of finding any kind of work.⁴⁰ Youth unemployment is of particular concern and is estimated to be approximately 42%.⁴¹

In 2017, the finance sector was the biggest employer in the city accounting for 22.2% of total employment, followed by the trade sector which makes up 21.3% of total employment. The agricultural sector employs the least share of the formal sector workers with only 0.8%.⁴² The informal sector made up 14.3% of the total employment in Johannesburg. The biggest number of informal economy jobs is generated in trade (42.3%).⁴³

Productive employment is the primary route for the realisation of sustainable economic development in the city. The City's focus on enhancing its employment outlook is to counter 'jobless growth' through the creation of an enabling environment that promotes job-intensive sectors, promotes skills development and encourages sustainable employment.

3.4.3 Youth unemployment

Youth unemployment is a critical challenge. Low education levels and slow formal sector growth are but two of the major causes of youth unemployment. Due to low skill levels, the majority of youth are employed in the wholesale, retail and trade and private households sectors. Only 5% are employed in the highly skilled manufacturing sector, thus pointing to a need for education and skills development targeting the youth.

Analysis of data from the StatsSA Quarterly Labour Force Survey released in September 2018 indicate the unemployment rate among youth (ages 15 to 34) in Johannesburg was 41.2%. Young people continue to flock to Johannesburg, and the broader GCR that surrounds it, in search of economic opportunities. But the city-region has only created jobs at a 1.3% annual rate since 2000, far lower than peer global regions like Shenzhen (8.2 %), Istanbul (2.8%), and Santiago (2.4%), limiting its ability to absorb young workers. At the same time, the skills demands of the labour market have shifted as the region's economy has transitioned from mining to more advanced

⁴⁰ StatsSA. 2018. Quarterly Labour Force Survey Q3

⁴¹ StatsSA. 2018. Quarterly Labour Force Survey Q3

⁴² IHS Markit Regional eXplorer version 1479

⁴³ Ibid

services, creating a mismatch between what education and training systems are providing and what the labour market demands.

In addition, the youth are significantly more likely to be unemployed than age groups above 34 years.⁴⁴ In terms of labour force participation, the youth in Johannesburg whether employed or not, want to participate in the economy to a greater extent than youth in the rest of the country. This creates an opportunity for youth unemployment reduction, since the willingness to participate in the economy already exists.⁴⁵

3.4.4 Education and unemployment

Education is a critical driver for new forms of growth, yet higher education outcomes for the majority of young people in the city are low.⁴⁶ A growing youthful population, combined with low job prospects, has exacerbated the youth unemployment challenge. Education also is a key determinant in improving the quality of life of citizens. In Johannesburg, the vast majority (41%) of the youthful population aged between 15-34 years have not completed secondary education and cannot access the labour market.⁴⁷ The labour market is not creating enough jobs, and the supply of educated skilled professionals is lagging. The quality of education in many public schools is inadequate, while private education is often expensive and inaccessible to the vast majority of Johannesburg learners. The poor foundation skills provided by many public schools, in respect of maths and science, further debilitate learners when entering university. According to a report released by the South African Institute of Race Relations on the education crisis in the country, South Africa ranked 75th out of 76 countries from around the world. The rankings were determined by examining how well students did in maths and science tests.⁴⁸

A further area of analysis when considering education and the link with unemployment relates to the shifts that have taken place, over time, in respect of differing levels of education held by the city's population. While illiteracy rates have decreased over the last 10 years in Johannesburg, and substantial progress has been made with regards to the number of matriculants, the total share of persons with matric, bachelors' degrees, and postgraduate degrees, is extremely low. In 2017, the number of people with a matric and a postgraduate degree in Johannesburg constituted 40.7% of the province and 16.3% of the national total.⁴⁹ The schooling system is producing matriculants with low numeracy and reading skills. Johannesburg's functional literacy level (when measured in terms of 'those above 20 years, who have completed grade 7 or higher') is 92.2%, higher than the national figure of 84.1%. This improved from 81.5% in 2011. When considered in terms of race, the greatest proportion of the population with no schooling is among Africans (4.3%), while the smallest proportion is among whites (0.4%). Analogically, the greatest proportion of the population with a degree or higher is among whites (30.5%) and the least among Africans (4.1%).⁵⁰

Historical legacies contribute significantly to the poor education outcomes in Johannesburg. The City's response in this regard is to strengthen its current role in education and learning, by making a number of critical investments in educating and skilling its workforce, but also by opening up the economy to ensure that even those who hold lower levels of skill can participate in the economy.

⁴⁴ StatsSA. 2018. Quarterly Labour Force Survey Q3

⁴⁵ Chitiga-Mabugu *et al.*, 2017

⁴⁶ IHS Markit Regional eXplorer version 1479

⁴⁷ StatsSA. 2018. Quarterly Labour Force Survey Q3

⁴⁸ <https://irr.org.za/reports/occasional-reports/files/the-south-african-education-crisis-31-05-2018.pdf>

⁴⁹ IHS Markit Regional eXplorer version 1479

⁵⁰ Ibid

3.4.5 Joburg's growing middle class

An understanding of the middle class in any city is of the utmost importance, as the middle class is a source of economic and political stability, tax revenue, fixed capital formation, entrepreneurship, job creation, human and social capital within a city.

Evidence from a study conducted by the African Development Bank indicates that during the period 2000 to 2010, the size of the middle class in Africa increased by 59.8%.⁵¹ During the same period, the Johannesburg middle class increased by 81.8% which compares at first glance very favourable with the figure for Africa as a whole.⁵² However, it should be kept in mind that Johannesburg has the most advanced economy in Africa from which much higher middle class growth could have been expected.

It is clear from the drivers of middle class that educational attainment (secondary and tertiary) as well as educational enrolment are a strong prediction of middle class growth in Africa.⁵³ However, according to the Global Competitiveness report 2017-2018, South Africa ranks 116th out of 137 countries worldwide with respect to quality of primary education, 99th with respect to tertiary education enrolment, and 128th with respect to mathematics and science education.⁵⁴ However, in Johannesburg, there is strong attraction of skilled labour from other parts of the country and abroad which could be driving the growth of the middle class.

Relative to the rest of the country, a strong correlation between education and employment is evident in Johannesburg, thus driving up the growth of the middle class. Apart from education, research conducted by UNISA's Bureau of Market Research recommend a number of ways in which the CoJ can strengthen and broaden middle class growth. These include, *inter alia*, the following:

- Create an economic environment facilitative towards economic growth;
- Remove barriers to business growth in the city;
- Create a stable political and economic policy (pro-business) environment in the city;
- Remove as far as possible restrictive labour and business regulations on a local level to ensure that economic growth translates into job growth;
- Improve the quality of local government by improved skills development and local leadership;
- Addressing crime and theft head-on;
- Instituting further checks and balances at local government level to improve governance and to root out corruption;
- Improve urban infrastructure on a continuous basis;
- Lower the financial and opportunity cost for people associated with secondary and tertiary education to ensure that the maximum number of people complete their school and university education;
- Remove barriers to on-the-job training;
- Stabilise rapidly rising house prices because home ownership is an important source of middle class wealth; and
- Stimulate the creation of middle class jobs by creating a business friendly environment in Johannesburg.

⁵¹ African Development Bank, 2011. Annual report.

www.afdb.org/fileadmin/uploads/afdb/Documents/Publications/AfDB%20Group%20Annual%20Report%202011.pdf

⁵² van Aardt, 2016

⁵³ World Economic Forum. 2018. Global Competitiveness report 2017-2018. <http://www3.weforum.org/docs/GCR2017-2018/05FullReport/TheGlobalCompetitivenessReport2017%E2%80%932018.pdf>

⁵⁴ Ibid

Building a strong middle class base is an important way for cities to ensure stability, financial sustainability, and a cosmopolitan nature. Johannesburg has a relatively large middle class base but the City should drive the growth of this class so that people and the City can enjoy the benefits of economic security. Middle class growth can be promoted by supporting a culture of learning and opening up business opportunities.

3.5 Social development

Improving social development involves the enhancement of the population's well-being in terms of health, nutrition, education, social capital and safety. It also involves promoting pro-poor development that addresses inequality and poverty and provides meaningful redress. In efforts to live up to the vision of an inclusive Johannesburg with enhanced quality of life, a social safety net is critical to provide alleviation to the poor, vulnerable and socially excluded. Through social assistance programmes the City aims to achieve a more equitable and cohesive society.

3.5.1 Food security

The 2016 Global Food Security Index by the Economist Intelligence Unit indicates that “almost 800 million people, just over 1 in 9 people still remain hungry and food security continues to be one of the major global challenges for the future”.

The concept of food (in)security is inextricably linked to poverty and unemployment. The United Nations Development Programme (UNDP) report of 2006⁵⁵ reveals that poverty and unemployment have a strong relationship with food insecurity and in most cases food insecurity manifests in multiple deprivations. The report further explains that food insecurity begins with the loss of employment, which in turns leads to a significant degradation in living standards. Poverty creates additional challenges which limit the ability for people to search for employment thereby contributing to a long term unemployment trap. Lack of income due to unemployment, contribute to food insecurity and leads to social exclusion problems.

This creates a deprivational trap of powerlessness, vulnerability to both internal and external stressors, physical weakness through the lack of food and isolation due to lack of assets which individuals or households can employ to accumulate additional assets and acquire access to different resources. The combination of the factors associated with the deprivation cycle further limits peoples’ ability to search for other livelihood alternatives, that may not only contribute to food security, but also to building their adaptive capacity and resilience against external and internal stressors.

In the City of Johannesburg, food insecurity has remained a developmental challenge that the City’s plans to eradicate in the future. Food insecurity affects millions of city dwellers. This contributes to massive social costs in the form of healthcare, loss of productivity and earnings, social tension and compromised educational attainment. The General Household Survey reported that an estimated 17.5% of city dwellers have inadequate or severely inadequate food access.⁵⁶

The health of those living within the City of Johannesburg is also compromised by lifestyle diseases that frequently emerge alongside rapid urbanisation, with these contributing significantly to mortality rates among both the poor and middle class. This challenge is further exacerbated by the fact that the majority of the urban poor live far from the city centre. Much of their income is spent on transport and food.

⁵⁵ UNDP 2006 Human Development Report

⁵⁶ StatsSA. 2018. General Household Survey 2017.

The City currently supports a number of food security programmes which include: direct support to micro-farmers, the provision of temporary food relief through food parcels co-ordinated by agri-resource centres, and healthy lifestyles programmes designed to promote health-seeking behaviour.

In the plight to eliminate hunger and malnutrition cities should implement strategies that sustainably remove the poor out of depreviational trap. The Food and Agriculture Organisation (FAO)⁵⁷ recommends the following strategies to alleviate food security in Cities;

- The social and economic integration of women, urban newcomers and people living with HIV/Aids and the youth through enterprise development, access to finance, markets and key natural resources such as land and water;
- The maintenance of open green spaces and the enhancement of vegetation and water infiltration;
- The engagement in city-to-city co-operations and to form partnerships with other local governments, civil society and non-governmental organisations and the private sector to improve urban infrastructure, living conditions and health.
- The coordination and establishment of profitable and sustainable agricultural projects on land owned by the City and private land owners in the southern areas of Johannesburg with a focus on addressing food security and unemployment.⁵⁸

3.5.2 Social cohesion

Johannesburg remains the largest metropolitan city in South Africa, and has become increasingly diverse and cosmopolitan. Migrants (both national and cross-border) are making Johannesburg their home, adding to the already culturally diverse and plural city. The total migrant population in Johannesburg is as follows:⁵⁹

- Born in Gauteng: 58%
- Migrated into Gauteng from a province in South Africa: 32%
- Migrated into Gauteng from another country: 10%

In a multi-cultural Johannesburg, social inclusion transcends beyond just issues of migrants and xenophobia. As it grows, a city of this nature is likely to remain a contested space that is characterised by issues such as the lack of integration and cohesion. The 2017/18 Quality of Life survey demonstrates that while tolerance is increasing, deep-rooted issues with regards to social cohesion still exist in the city. 67% of the respondents expressed the need to exercise caution when dealing with people in their community. The amount of people (6%) who believe it is acceptable to be violent to gays and lesbians has nearly halved since 2015. 17% believe that foreigners should be sent home and 7% believe that it is acceptable to be violent towards foreigners, while 66% believe legal foreigners are "okay". A startling 55% believe that blacks and whites will never trust each other, despite the fact that that 75% believe that inter-racial dating or marriage is acceptable.

The issue at hand is about addressing the wrongs of the past and dealing with institutional prejudices and cultural bias, in order to pave the way for a new urban culture that is characterised by integrated, multi-faceted, cross-cultural environments where residents not only co-exist, but also trust and care about one another. True '*inclusivity*' not only requires a mind-set shift, but also requires active advocacy for the marginalised. Closely linked to this is the notion of a common 'city identity', which involves residents taking 'ownership' of initiatives, as well as having a concrete sense of belonging in the city. But defining a single urban identity that makes all citizens

⁵⁷ FAO. 2009. Food for the Cities.

⁵⁸ Barker. 2017. Input received from GDS Focus Group Discussion.

⁵⁹ GCRO. 2018. Quality of Life Survey V 2017/18.

feel comfortable has become increasingly difficult in the face of rapid changes such as increasing population movement, increasing diversity and increasing inequality.

It is equally important to be mindful of the additional strain that urbanisation and migration places on the City's infrastructure, both in terms of current demand as well as future growth. At present the city's population grows by a rate of about 3% every year.⁶⁰ The effect of this rapid urbanisation means that more people live in overcrowded and unsafe conditions in informal dwellings. Illegal connections coupled with the expanding demand ramps up the backlogs that the City is busy attending to. Addressing urbanisation, migration and diversity effectively therefore also involves deepening and strengthening our respect for human rights as well as our common respect for the rule of law to ensure that both are safeguarded.

In a report commissioned by the City of Johannesburg on Social Cohesion in the City of Johannesburg⁶¹ Ballard *et al* (2017) note that social cohesion is sometimes regarded as an answer to social intolerance. However social intolerance has complex causes which cannot only be fixed by appealing to people to be more cohesive, or by appealing to people's better nature, or by telling them that intolerance is wrong. Such actions may be helpful for setting the right norm and tone but cannot bring about social cohesion by themselves.

Social cohesion cannot be achieved only by social cohesion programmes. The work of government in general is vital for reducing violence, intolerance and exclusion because this kind of progress is only possible when poverty and inequality are reduced.

The report further adds that social cohesion is multi-faceted rather than singular. In other words, it is not possible to improve social cohesion in its entirety with a single programme. It is a battle across many fronts. While we might state that our general objective is to 'improve social cohesion', government programmes should also articulate their objectives in more specific terms such as prejudice reduction, violence reduction, alleviating distress and trauma, or overcoming inequality and systemic exclusion. Given what the numbers illustrate in terms of the city's growth rate and the challenges presented by in-migration; issues of exclusion – and by extension, inequality – are likely to persist going forward. It is clear that a comprehensive policy response is needed to enable the City to effectively address these challenges.

Building social cohesion across diverse communities, with different cultures, ways of being, and ways of living in the city, is a task for all cities. Growing our city is, beyond the bricks and mortar, but it is also about building a shared sense of belonging. As is evident from the experiences of other successful cities, Johannesburg's future success is directly related to the extent to which all believe they belong. The promotion of an environment where everyone holds an equal opportunity to contribute is viewed as critical for long-term sustainability. The City of Johannesburg has a responsibility to help build a new appreciation of the 'identity' of all communities, including migrants – thereby enabling all to contribute to the city, with a strong sense of their own value and security. Towards this end, the City's focus on social cohesion encompasses a multidimensional approach that ensures the promotion of social inclusion at all levels of society, through addressing key obstacles, including those that relate to access to service infrastructure and social infrastructure to support vulnerable and marginalised groups, providing platforms for meaningful and representative participation, and promoting diversity awareness and tolerance.

⁶⁰ IHS Markit 2018 Q3

⁶¹ Ballard et al. 2017. Social Cohesion in the City of Johannesburg. Gauteng City-Region Observatory

3.5.3 Safety

Urban safety is the state achieved when all those within an urban space feel and are safe, individually and collectively, from real or perceived forms of threat, harm or risk – whether these are chronic vulnerabilities and threats to basic human needs (e.g. food, lighting, health and shelter), contextual vulnerabilities arising from individual, inter-personal, socio-economic, political or spatial dynamics, or extreme event vulnerabilities (e.g. linked with human-made hazards or natural disasters).⁶²

The citizens of Johannesburg suffer from high levels of insecurity, with historical geographical, social and economic engineering and inequities, together with current stresses and poor economic opportunities, impacting significantly the quality of life experienced – and manifesting in high levels of crime and violence. The City of Johannesburg’s role in crime prevention is limited, but the City interprets its mandate to include investment in public safety through community development, urban design and management, the protection of vulnerable groups, infrastructure upgrades, improvements to by-law compliance and enforcement, and responding to emergency and disaster situations. Safety issues cannot be separated from other necessary social conditions, such as health care and poverty alleviation, education and skills development, an economy that is responsive to available skills and capacities, safe and reliable transport, food security and affective management of natural resources. Recent trends in urban safety highlight that systemic challenges, such as those associated with sanitation and waste disposal, raise the risk of crime and violence and are contributing substantively to poor levels of public safety.⁶³ Conversations about safety cannot ignore the need for trusted and accountable policing and improved respect for the rule of law, with faith in the delivery of criminal and social justice – and trust in service providers such as the City.

Ensuring safety in Johannesburg is a key challenge, but it is often perceived as only being about crime and violence. Insufficient attention is given to a number of other dimensions of safety, at the level of individuals and the community. The other set of concerns with respect to safety concern injury or death due to road traffic accidents, ignored safety codes, and environmental risks. Unmaintained infrastructure and derelict buildings, can pose a significant safety risk to many people if they collapse or catch on fire. In recent years, Johannesburg has witnessed an increase in injury or death from fire, especially in crowded inner city slums and informal settlements. Another trend that has become discernible in recent years is drowning at streams due to flash floods in both suburban and township areas, coupled with flooding of houses due to inadequate storm water drainage systems.

The NDP articulates a human-rights informed vision for urban safety that recognises the influence of broader socio-economic issues on citizen safety and security (in addition to issues of crime and violence). The NDP however, seems to emphasise a narrow view of community safety – arguing that the “safety of communities should ... be measured by the extent to which the most vulnerable in society, women in particular, feel and are safe from crime and the conditions that breed it.”⁶⁴ Its vision for 2030 is a South Africa in which “people ... feel safe at home, at school and at work, and ...enjoy a community life free of fear. Women walk freely in the streets and children play safely outside.”⁶⁵

⁶² Developed by Indlela Growth Strategies as part of the research commissioned by GSPCR on a “Future Urban Safety Agenda for Johannesburg”.

⁶³ SACN.2016. State of Urban Safety in South Africa Report 2016. A report of the Urban Safety Reference Group. South African Cities Network: Johannesburg

⁶⁴ National Planning Commission Department of the Presidency. 2012. NDP. Pretoria: Republic of South Africa National Government. p386

⁶⁵ *ibid.* p. 387

The White Paper on Safety and Security, as released in March 2015 by the Civilian Secretariat for Police, builds on the NDP's vision and stresses the importance of reducing the risk factors for violence. The White Paper highlights the need for both an effective criminal justice system that is able to respond to crime, and a longer term, developmental approach to building safer communities. It argues that the achievement of safe communities requires "inter-sectoral consultation, cooperation and collaboration using integrated digitised systems; effective and integrated service delivery; and community engagement and accountability," with efforts focused on safety to target: ⁶⁶

- "An effective criminal justice system...
- Early intervention to prevent crime and violence, and promote safety...
- Victim support...
- Effective and integrated service delivery ...
- Safety through environmental design...
- Active public and community safety"

The White Paper sets out a range of risk factors at individual, relationship, community and structural levels, and stresses the importance of increasing the resilience of individuals, families and communities. Further input on safety in relation to urban development is included in South Africa's draft Integrated Urban Development Framework (IUDF).⁶⁷ The IUDF reflects on the concepts of 'urban safety' and 'disaster risk reduction and climate change' as two cross-cutting issues of critical importance to the development of urban spaces.

Efforts focused on targeting urban safety must address both the experience and perception of safety. The most widely used measure for 'fear of crime' relates to the extent to which members of households feel unsafe walking alone in their area during the day or when it is dark. Another variable indicator is the percentage of households who were prevented from engaging in daily activities when alone, as a result of crime in their area. Building on the above, the CoJ's 2017 Household Satisfaction Survey (HSS) states that one of the negative findings emanating from the survey is the increased lack of perceived safety and security among [Johannesburg] residents – with this reflected in worsening perceptions across a number of measures. A few are mentioned below:⁶⁸

- An increase in the percentage of respondents who perceive living in Johannesburg to be unsafe or very unsafe (from 39.7% in 2011, to 42%% in 2017)
- An increase in the percentage of respondents who perceive the city to be unsafe or very unsafe after dark (from 50.5% in 2011, to 65% in 2017)
- Crime has been cited as the major concern among households for feeling unsafe in 2017. Home and street robberies and vehicle hijacking were cited as the major crimes that households are afraid of.

The city's *reputation* as an unsafe city, is a major challenge. While Johannesburg is far from a safe city, the State of Urban Safety report indicated that, experience of crime is lower in Johannesburg

⁶⁶ Department of Civilian Secretariat for the Police. 2015. White Paper on Safety and Security. Pretoria: Republic of South Africa National Government. pp. 33-35

⁶⁷ Department of Cooperative Governance and Traditional Affairs. 2016. Integrated Urban Development Framework. Pretoria: Republic of South Africa National Government.

⁶⁸ Bureau of Market Research. 2017. City of Johannesburg Household Satisfaction Survey: 2017. UNISA: Pretoria

than in Cape Town. Additionally fear of crime is also lower in Johannesburg than it is in Cape Town and Buffalo City.⁶⁹

Fear of crime is often linked to trust in safety and security services.⁷⁰ The CoJ's HSS provides further detail in this regard, reflecting an overview of satisfaction levels specifically in respect of services provided by the Johannesburg Metropolitan Police Department. These are important, as trust and satisfaction impacts heavily on residents' cooperation with and support of the City's safety efforts.

3.6 Infrastructural Development

Under-investment in the maintenance of infrastructure is understood to lead to service interruptions and breakdowns. The city's total infrastructure backlog currently stands at R170 billion. Finding effective solutions to these compounding problems, like the poor condition of roads, burst water pipes and ailing electric substations, is crucial, particularly if the City is to cater to the needs of its poorest and most vulnerable citizens and show increased economic growth.

Economic growth is strongly interrelated with the demand for water, electricity and liquid fuel. Managing limited natural resources and delinking economic growth from natural resource extraction is important. In working to address the challenges currently faced by the city and those who live in it, in relation to the critical resources addressed below, it is important to note that successful outcomes will only emerge with full participation by all, in a real programme of change. These are all areas in which citizens and residents can practice behaviour change on a daily basis, and contribute to resource sustainability, one person at a time.

These are also areas in which bold action is needed, for real impact to be felt. Investing appropriately and timeously in the right projects, without locking the City into options that are suboptimal (and thereby denying the city the right to better outcomes) will be important.

Johannesburg is characterised by high levels of real and perceived unsafety. The City's focus on managing urban safety challenges therefore is through a tailored multi-disciplinary and multi-agency approach. Central to this is the City's recognition that safety is not only about crime and violence, but it is about a multitude of factors at the level of the individual and the community that contribute to the well-being of the city's people. The City will enhance its capacity to fulfil its mandate in terms of delivering public safety that includes crime prevention, policing, by law enforcement, disaster management and emergency medical, fire and rescue services. Additionally, the City will support inter-agency initiatives and strengthen relationships to encourage joint action by all role-players in tackling the underlying causes of unsafety.

The City has to contend with a substantial infrastructure backlog in addition to aging infrastructure and natural resource scarcity. The City's approach in dealing with this issues require appropriate and timeous investment in the right projects, without locking the City into options that are suboptimal (and thereby denying the city the right to better outcomes) will be important. The City will continue to allocate resources in strategic areas such as proactive repairs and maintenance, managing technical losses, and reduction of revenue leakages. But action also has to be taken quickly – without endless deliberation. There is a limited timeframe for the city's landfills; for the energy inefficient economy that characterises South Africa; for the water security we need to achieve; for responding deftly in directing limited resources to the most important priorities – understanding lead times, risks, best options, and looking to technologies that have been put in place elsewhere, while also remaining open to new innovations is essential.

⁶⁹ SACN.2016. State of Urban Safety in South Africa Report 2016. A report of the Urban Safety Reference Group. South African Cities Network: Johannesburg

⁷⁰ Luengas & Ruprah. 2008. "Fear Of Crime: Does Trust and Community Participation Matter?" OVE Working Paper 0808, Inter-American Development Bank, Office of Evaluation and Oversight (OVE).

3.6.1 Water

Johannesburg is one of the few major cities not located on a major water source, with water scarcity and the increasing cost of water presenting a significant challenge. The city has become the motor of South African economy, accounting for more than a third of the GDP. Water is central to economic production and the well-being of our residents, yet most of the city's water is imported from outside of the metro. Johannesburg's water comes primarily from the Vaal River System, with the establishment of mechanisms for complex Inter Basin Transfers (IBTs) over time, allowing more water to be introduced into the Vaal Dam. The majority of the water that is supplied to the three metros within the GCR is part of a much larger hydrological system that is connected across international borders, and includes countries in the SADC – including South Africa, Botswana, Namibia and Zimbabwe. This means that every river basin in South Africa is now hydrologically connected to every river basin across all these Southern African countries.

98% of the water in the city is already allocated impacting on future economic growth, manufacturing and production systems. The reality of water scarcity makes optimising our water management system and revising our water practices a necessary part of ensuring sustainable development. This includes multiple approaches to protecting our existing water quality and preventing water pollution. The high cost of using water supplies for coal fired power stations and for water borne sanitation will not be sustainable in the future. The City would have to rigorously implement its demand side and water conservation strategy in light of increasing water demand.

Water resources security in the future is dependent on planned augmented supply. Yet the City has no control over supply. Johannesburg's major source of water the Vaal River System needs to be augmented to meet growing demand for water in Johannesburg and the GCR. Current estimates are that demand exceeds supply capacities. In the interim the system will remain in deficit until 2019 unless water requirements are decreased through a water conservation/water demand management (WC/DM) programme in urban areas. Joburg Water's current WC/DM strategy aimed to reduce demand in 2018 by 90 000 Mℓ, primarily through the retrofitting and removal of wasteful devices.⁷¹

An assessment of potential WC/DM savings found that a further 15% saving could be achieved through the introduction of water efficiency measures, such as the use of water efficient appliances (washing machines, toilet cisterns, etc.) as well as low flow shower heads and water efficient gardens. The WC/DM potential savings study suggested that approximately half of water savings required could be achieved in Joburg due to the very high levels of Real Water Losses in the Joburg system.

To address water scarcity effectively the water management system must be optimised. Key to this is the issue of unaccounted for water. Water conservation can be achieved through reducing technical losses as a result of under maintained infrastructure. Small improvements in water infrastructure can achieve considerable savings.

Notwithstanding the complexities of supply and demand, the City of Johannesburg must conserve its water resources. Water conservation and demand-side management are strategic choices. With Johannesburg's population growth slowing, this provides some relief for managing demand. But demand must be substantially decreased through the City' existing demand-side management programme. One of the critical factors that impact on demand is unaccounted for water. This category refers to water that is lost to the infrastructure system, through leaks in the reticulation system or through unbilled, unrecorded consumption. Over 30% of water in the city is unaccounted for. In London, a city with infrastructure that is considerably older than that of the

⁷¹ JW and CoJ, 2012

A water crisis on the horizon

The current water crisis also poses considerable uncertainty. While economic and physical scarcity of water is projected for most of Africa in the coming decades, South Africa presents its own unsustainable path to severe water problems, as a result of:

- the inability to match investment in maintenance and new infrastructure with the rate of demand increase;
- urban, industrial, mining, and irrigation expansion driving demand; coupled with low levels of water systems management ability;
- a general scarcity of water; wastewater treatment plants operating beyond their design capacity;
- excessive pollution of surface and groundwater, meaning also a lack of control over effluent;
- poor operational management of dams;
- illegal water abstraction; and
- the declining water quality in rivers (Harrison *et al*, 2016).

City of Johannesburg, the rate of unaccounted for water is astonishingly high (25%). While most cities struggle with unaccounted for water, there are cases of success.

Effective water demand management could restrict growth further. Approximately 92% of water is supplied to municipal customers, for on-supply to domestic, industrial, commercial and other end users. The importance of demand side management is to curb water demand and save water. Water conservation is dependent on: reducing wastage, repairing and maintaining existing infrastructure, introducing water efficiency measures (washing machines, toilet cisterns, etc.) and introducing water recycling and harvesting.

The City would have to optimise its water conservation and demand side management to reduce overall demand. Rand Water can augment supply through the second phase of the

Lesotho Highlands Project in 2019 however, average growth in water demand over the last years has been lower than expected and this is positive for demand side management. Demand size can also be managed through step tariffs, where households or businesses that use too much water can be charged at a higher rate for their high water usage. The improvement of storm water drainage can bolster conservation efforts by ensuring that less rain water is lost, but rather used in grey-water systems.

Water scarcity is a reality for Johannesburg. The City's focus on safeguarding water-security entails effective demand-side management processes and sustainable water-catchment management practices, as well as investments in smart infrastructure and alternative supplies to increase levels of net water savings.

3.6.2 Energy

Johannesburg's economy is dependent on coal powered generation. Johannesburg is a carbon intense economy delivering 66.7% of total Green House Gas Emissions (GHGs) from electricity. The City purchases 80% of its electricity from Eskom. Notwithstanding the current bulk supply challenges of electricity there are important reasons why Johannesburg should look to renewables to diversify its current electricity supply. Energy efficiency is important as a demand side management strategy but localised generation provides tremendous opportunities.

Electricity is an important enabler of development and economic growth. Evidence shows that reliable, cost effective energy can increase employment opportunities and attract private sector business.⁷²

Access to electricity in the city has increased from 2011 (90.8%) to 2018 (95%).⁷³ However, energy consumption has increased in absolute terms due to the increase in the city's population. Although, access to electricity in the city is relatively as high (>90%), the City has not managed to achieve its universal access target of 97%. The lack of electricity in the city continues to be most prevalent in informal dwellings (households living on formal dwellings in backyard shacks) and informal settlements (households residing on un-proclaimed land zoned for development). These households do not always have formal access to Eskom or municipal distributed electricity. According to the StatsSA's 2016 Community Survey, there are 335 000 people that reside in informal settlements in city. Many of these households are often forced to use dirty fuels such as paraffin, candles and firewood which are harmful to the residents as well as the environment.

The city's energy mix currently consists of electricity (94.4%), solar (0.5%), gas (0.4%) and other forms of energy (4.7%).⁷⁴ There are opportunities to define our energy mix by 2040. While the role of the City as a provider of electricity infrastructure has been strengthened over the last decade, we will build on previous experience, developing incentives and regulation for renewable energy uptake. The policy and regulatory environment is moving quickly to introduce a range of incentives for uptake of renewable energies. This provides an important opportunity for the City of Johannesburg to play a leading role in adopting cleaner energy production and efficiency systems.

Global energy consumption is predicted to double by 2060.⁷⁵ A significant share of this increased requirement will be independent of the habits of existing consumers, but rather as a result of the energy needs of a growing population who currently do not have any or only limited access to electricity moving towards technology-enabled urban lifestyles that demand more electricity. Several opinions and aspirations have been formulated on what an energy solution of this magnitude should look like to ensure a diverse, sustainable (10 000 years), stable and secure energy supply for 10 billion people.

Solar and wind energy accounted for only 4% of power generation globally in 2014, but by 2060 the World Energy Council suggest, it will account for 20% to 39% of power generation. This requires the energy mix to shift significantly – from oil and coal, towards renewables – by 2040. In the past 10 years, South Africa's energy sector has transitioned from excess energy demand which led to Eskom implementing nation-wide load shedding in 2008. Load shedding continues but the frequency has declined since then due to Eskom's interventions⁷⁶ which include the commercialisation of Medupi's Unit 6 in August 2016, the implementation of the Utility's generation maintenance strategy, lower than expected demand due to demand side initiatives as well as increased supply by Independent Power Producers (IPPs).

As the metro with the highest energy consumption⁷⁷ in the country, load shedding has had detrimental effects for the city. However, the complexities faced by the city in respect of energy are not just about supply. One of the critical challenges the City faces is the cost and demands of constant maintenance and upgrading of the energy infrastructure within the city, to enable

⁷² Menyah & Wolde-Rufael. 2010. Energy consumption, pollutant emissions and economic growth in South Africa. Energy Economics. 32.

⁷³ StatsSA. 2018. General Household Survey 2017. Data portal: Quantec.

⁷⁴ GCRO. Quality of Life Survey V 2017/18 data.

⁷⁵ World Energy Council. 2016. World Energy Scenarios 2016 - The Grand Transition.

⁷⁶ Eskom's Annual Report 2016, p 51

⁷⁷ Sustainable Energy Africa. 2015. State of Energy in South African Cities. p30

appropriate, secure and reliable distribution. This challenge is worsened by illegal connections, cable theft and vandalism. A proactive approach is needed, supported by citizen involvement with clear platforms established and advertised for raising events of theft or vandalism, and education provided in terms of the negative effects of the above on all members of the community.

Johannesburg's reliance on coal-generated energy is exacerbated by electricity supply challenges and the high cost of ongoing maintenance in the face of aging infrastructure, illegal connections, cable theft and vandalism. The City's mitigation in this regard is to diversify energy sources for the city, and to identify approaches through which to minimise loss (e.g. securing sub-stations, to prevent easy access to cables; using smart technologies). Incorporating new technologies into future developments may also go some way to address energy management challenges. In addition, the implementation of smart grids, as a way of managing energy use, is viewed as a critical area for consideration.

3.6.3 Waste

Johannesburg's resource use intensity is represented here – in the volume of waste it generates. The City collects 1.8 million tons of garbage each year, with approximately 244,200 tons reflected in the form of illegal dumping, and 1,779 tons collected as litter from the streets. With an increasing population and a few primary sites, the city is running out of landfill space. An aggregate of 8 years' of landfill space remains, but this varies considerably across the city's regions.

About 93% of the Joburg households have their refuse removed on a weekly basis. These refuse removal services include a cost, with the City introducing changes in refuse removal charges, to reflect property values within scaled tariffs.

It is noted that the general levels of satisfaction with refuse removal has improved over the years. However, discussions with community members during the GDS Focus Groups led to the identification of a range of other waste-related concerns. These included concerns relating to illegal dumping which, together with poor sanitation and poor drainage systems, has resulted in a scourge of rats, flies and other pests in parts of the city. A further difficulty noted relates to the lack of awareness many have, in terms of the consequences of their behaviour (e.g. littering). As with the management of all other resource forms, success will in part depend on education.

Addressing waste from an integrated perspective is best. Recommendations include the development of integrated waste disposal and treatment systems, and solutions that simultaneously address waste issues and the city's need for reliable, affordable energy (e.g. solutions such as mining of methane, and the use of waste-to-energy plants). Revenue generation benefits are also associated with many of these technologies, with waste being both a hazard, and a commodity with an attached value. The City has already initiated some work in this area, investing in the development of its landfill sites, for stored methane gas to be tapped, and used in generating renewable power for the City's grid.⁷⁸ While a step in the right direction, there is still much more that can be done.

Actions that relate to a focus on waste management through addressing the waste hierarchy (through both reduction and recycling) will go a long way, particularly when supported by education (with emphasis placed on support in respect of separation at source, and similar interventions). Suggestions from the outreach also include the provision of greater support and guidance (with increased control, where needed) to assist the informal recycling industry, and an elevated prioritisation of engagement with various role players in respect of waste (e.g. business, the community and others), to raise the issue and encourage the adoption of different approaches. While the management of hazardous waste is a national competency, it is also been argued that there should be greater involvement in this area by local government, at the least in

⁷⁸ City of Johannesburg. 2018. Pikitup Business Plan 2018/19. Johannesburg: City of Johannesburg

respect of monitoring and enforcement, given the pollution caused by this form of waste within the local context.

The City's current waste disposal practices are decidedly unsustainable. The City therefore, is required to address waste from an integrated perspective that includes multiple role-players and consider alternative waste management practices that support waste minimisation and optimisation, resource sustainability, and resilience.

3.6.4 Climate change

Moving to a low carbon economy means more than just becoming energy efficient. It means producing goods and services that are not resource intensive. To do this we need to change consumer and production culture, and make new items from existing materials instead of depleting our natural resources. The net impact would reduce carbon emissions. When we reduce carbon emissions, we mitigate climate change, but we also become more resource-secure, as we save scarce natural resources.

Climate change discussions require consideration of how to both mitigate and how to adapt to change. There are no easy answers. Climate change is driving multiple crises across the globe. Environmental refugees now occupy an increasing share of global migration. Coastal flooding, desertification, melting permafrost are the causes of major population movements, with an estimated 25 million people globally acknowledged as climate refugees. Global temperature increases will give rise to increasing frequency and intensity of extreme weather events. The Mozambican floods of 2000, 2001 and 2007 displaced thousands of people, resulting in approximately 2000 environmental refugees entering South Africa every day during that period. Assessment reports project that, by 2050, approximately 75 million to 250 million people in Africa will be exposed to increased water stress, due to climate change. Environmental stresses resulting from climate change have already created the conditions for conflict to emerge. Scarcity of fresh water increases the propensity for conflict and urban instability, but may also be a catalyst for cooperation. Coastal cities, where most of the world's population are located, face extreme vulnerabilities due to significant weather events; flooding and rises in sea levels. Increasing urbanisation also raises vulnerability to disasters, as many mega-cities are located in extremely seismic areas, and on low elevation coastal zones that are prone to flooding.

Highlights from COP 24 in Katowice, December 2018

Acknowledgement of the Intergovernmental Panel on Climate Change (IPCC)'s Special Report on Pathways to 1.5°C which aims to limit global warming to 1.5 degrees.

Adoption of the Paris Agreement Rule Book, which sets out clear steps to realise the 2015 Paris Agreement.

This includes:

- An agreement on how to uniformly count greenhouse gas emissions by all countries.
- Agreement on how to collectively assess the effectiveness of climate action in 2023, and how to monitor and report progress.
- Acknowledgment that countries have different capabilities and economic and social realities at home.

Johannesburg, itself, has remained largely exempt from natural disasters, given a range of geographic factors. The city is not located on a coastline, nor is it in an area heavily affected by major weather-related natural disasters, such as hurricanes or typhoons.

However, scientific evidence suggests that the country, and Johannesburg specifically will face increasing changes to weather patterns in the future. Rainfall patterns over Johannesburg have shifted significantly over the last 50 years,

with increased risk of flash flooding.⁷⁹ Mechanisms that could be implemented at the level of the City to reduce climate change and to mitigate the risk include the following:

- A focus on the reduction of greenhouse gases, by means of specific measures to improve energy efficiency, to make increased use of renewable energy sources, to promote agreements with industry in respect of changes in this regard, and to drive energy savings;
- Improving local food self-sufficiency through urban agriculture schemes, that make use of resource-efficient methods;
- The development of a new system for the evaluation and the risk management of climate change;
- The development of emergency strategies for dealing with the aftermath of severe storms (e.g. flooding, structural damage to houses and infrastructure because of wind and hail), while ensuring these strategies are backed up with resources; and
- Introducing local renewable energy networks in new (and where feasible, existing) residential developments, to reduce reliance on electricity from coal.

Climate change responses require the inclusion of robust organisational components in the City to support climate change action and ensure a secure a resilient, liveable and adaptive society that provides sustainability for all its citizens. In this regard the City is committed to mainstreaming and institutionalising climate change actions empower the City in realising its increased ambitions with regard to responding to climate change.

3.6.5 Spatial justice

Johannesburg's urban form is a consequence of its history. The city grew with the automobile, extending its edges with the new found joys of motorised mobility. Apartheid planning contributed further to the urban sprawl, with race-based townships deliberately developed on the periphery of the city, away from opportunity and resources. The legacy of Apartheid planning, the era of the automobile and capital flight to suburban neighbourhoods in the 1970s are all historical conditions that, over-time, have given rise to a sprawling city. Our sprawling city is also a divided city, with places of work that are far from where the vast majority of our population lives. The historical north-south divide has contributed considerably to increased travel times given the reality that a large number of people live in the south of the city, commuting to jobs that are located predominantly in the north. The inner city is centrally located, closer to economic activity in the north, with demand for affordable, quality housing steadily increasing and now outpacing supply.

Using urban density as a proxy for compactness, Johannesburg has some of the lowest urban densities when compared to global cities. Average densities within the metropolitan region indicate 521 persons per square kilometre. There are large volumes of people within the inner city with considerable overcrowding in particular neighbourhoods. Average densities in the inner city are estimated to be 2,270 within a 10 kilometre radius, but this is likely to be an underestimation. With overcrowding comes a range of other stresses – related to safety, resources, livelihoods, and other factors that are stretched beyond capacity. Decisions relating to densification – managed in the context of a national, regional and local spatial plan- with due consideration of services, infrastructure and other fundamentals – becomes key. The map below provides a depiction of the GCR's population density – clearly demonstrating the focused areas of density, surrounded by large areas of low density. Careful planning is needed to address this reality appropriately, in the context of a growing population and the challenges distance creates when occurring alongside a poor transport network that would otherwise be able to connect areas and drive accessibility.

⁷⁹ Department of Agriculture and Rural Development, Gauteng Province. 2017. Report on the updated climate change projections and broad risk and vulnerability assessment of selected sectors. Gauteng Province

The development model below (Figure 3.4) is a diagram of a traditional polycentric city with a strong core, connected to economic sub centres by efficient public transit, with high housing densities surrounding cores and gradually lower densities further from cores.

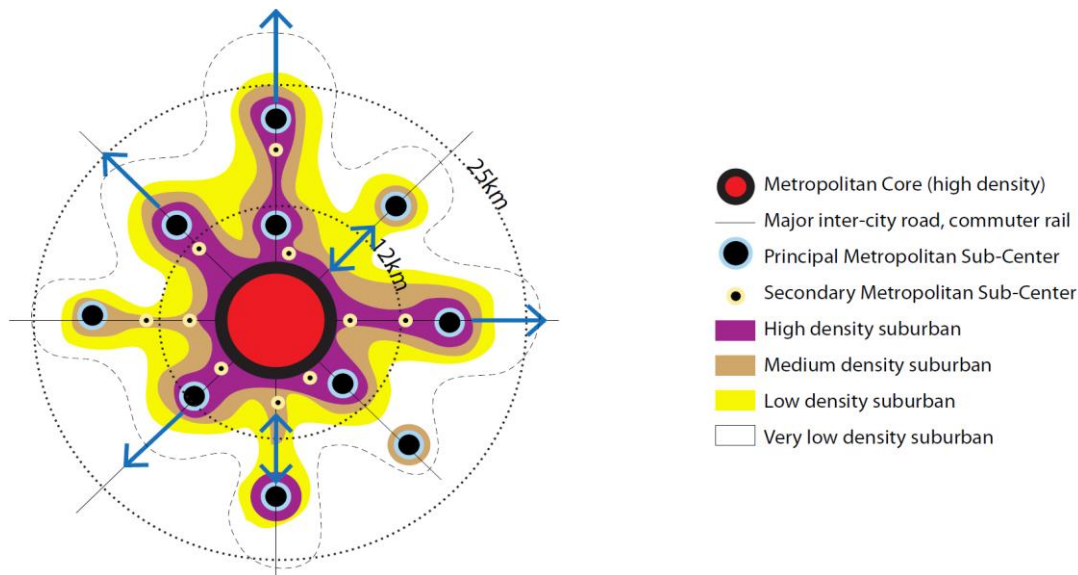


Figure 3.4 Traditional Polycentric City Model (Source: Urban Morphology Institute)

The City of Johannesburg presently displays the inverse of this polycentric urban model with separated land uses and people living far from work opportunities. The metropolitan core does not perform as the strong, structuring centre it should be. High density residential areas (the ‘townships’) are separated from urban economic centres and movement structures of the city. This pattern of development results in high social, economic and environmental costs.

Improved economic performance, greater human and social development and enhanced services are more difficult to achieve in the context of urban spread. However, in the absence of a changed urban form, one of the mechanisms through which distance can be addressed is transport. Multi-modal transport infrastructure will be critical for the goals of greater inclusivity and access to be realised.

But for planning to be more people-centric, the City should strive to reduce the need for transport and travel in the way it plans areas and approves developments. The “transect approach” takes account of a logical density gradient from urban to rural – high to low – aiming to minimise high densities developments on the outskirts of the city and promote development in well-located parts of the city.⁸⁰ For this, more land will be made available for re-development in well located core areas of the city. These areas will be walkable, have good access to public transit and encourage high intensity, mixed use development. Being more pro-active in the development of mixed-use nodes, appropriately located across the city and the GCR, will encourage the creation of environments where people can live, work and play – with all activities undertaken in close proximity. Transport nodes should be regarded as key areas for local economic development, with planning taking into consideration economic development factors, and the interests of prospective investors. Planning may include the development of nodes that can address transport needs, while simultaneously promoting reading, learning, access to technology and access to other aspects of the city – including arts, culture, and heritage.

⁸⁰ City of Johannesburg. 2018. Annexure 1: Nodal Review Policy 2018/19: City Transformation and Spatial Planning. Johannesburg: City of Johannesburg

The City's Transit Oriented Development attempts to address urban planning within the context of a greater focus on alternative modes of non-motorised transport. Furthermore, planning should take into consideration possible shifts to the form of the inner city and other central business districts. One route may include a process of ensuring that the inner city is a pedestrian and public transport friendly area, through the implementation of policies that exclude cars at certain times, with parking restricted to the edges, and traders managed in a way that acknowledges their contribution but also enables pedestrian accessibility to the sidewalks.

Spatial inequality remains a defining characteristic of the settlement pattern in Johannesburg. The location and concentration of economic opportunities does not match that of where people live which contributes significantly to inequality. This is exacerbated by inadequate housing delivery and the prevalence of car-oriented developments in the city that exacerbate existing socio-economic disparities. The City's response to spatial inequality is to reconfigure its spatial DNA by creating a compact, polycentric city, ensuring increased mobility through the development of effective and reliable transport services, and focusing on land use diversity.

3.6.6 Housing

The spatial DNA of a city plays an important role in creating liveability. The design of the city – including elements like streets, buildings and spaces of work and play, are powerful determinants of liveability. Liveability is also created through the access citizens have to a range of cultural and social services and facilities. All of these issues require consideration when addressing the concepts incorporated into the national shift towards 'sustainable human settlements'.

The policy framework on sustainable human settlements supports the creation of liveable places of work and rest that address spaces in a holistic manner – focusing on issues of accommodation, services, the built environment and the natural environment, alongside issues of cultural identity. In this area, the City has faced many challenges. The City of Johannesburg has achieved high levels of service infrastructure coverage, with over 90% of its residents holding access to basic service infrastructure. The challenge, however, is still how to transform the apartheid city, to build liveable communities and create a more humane city for all. Effective restructuring of the inefficient urban form of the city will require more than the simple management of city growth. There is a need to define, in clear and unambiguous terms, a series of spatial reconfiguration projects that pay careful attention to the form, morphology and structure of the city.

Many of the realities faced within the city are influenced, however, by the housing process – which up until now has been led by infrastructure development, which is in turn dictated through provincial government arrangements and the availability of cheap land. This model has continued the realities of urban sprawl and lead to a low cost housing ownership model that has not erased economic marginalisation. This model also places further pressure on new bulk infrastructure development. Strategic land-banking and release is a critical tool for the restructuring and integration of the city, and must be strategically approached. Addressing new developments and encouraging a shift in urban form therein, will also be a key part of this – with it anticipated that greater densification in already-existing residential areas will be a slow process, given the city's footprint. Housing planning should also consider different forms of accommodation, including rental and ownership, with delivery close to places of work and transport nodes and corridors. Low-cost rental options are a priority, in the context of the economic conditions accompanying many who enter the city in search of work while mixed densification and site & service models can also help to ease economic pressures associated with housing.⁸¹

According to UN-Habitat, adequate housing must, at a minimum, meet the following criteria: ⁸²

⁸¹ Todes, A., Weakley, D. & Harrison, P. 2018. Densifying Johannesburg: context, policy and diversity, *Journal of Housing and the Built Environment* 33: 281.

⁸² U.N Habitat, 2009. "The right to adequate housing." *Fact Sheet No 21*.

- Tenure security: occupants of housing have to have some degree of tenure security that guarantees legal protection against forced evictions, harassment and other threats. Protection against forced evictions is considered an integral part of the adequate housing concept;
- Availability of services, materials, facilities and infrastructure: access to safe drinking water, adequate sanitation, energy for cooking, heating, lighting, food storage or refuse disposal are considered an integral part of the concept of adequate housing;
- Affordability: housing is not considered adequate if it is so expensive that it compromises the occupants' ability to enjoy other human rights;
- Habitability: housing is not adequate if it does not guarantee physical safety and protect against cold, damp, heat, rain, wind, other threats to health and structural hazards. Neither is it considered adequate if it does not provide enough space;
- Accessibility: accessible housing refers options provided by the state and/or private enterprises and considers the needs of disadvantaged and marginalised groups;
- Location: housing is not adequate if it does not provide easy access to employment opportunities, health-care services, schools, childcare centres and other social facilities, or if it is located in polluted or dangerous areas; and
- Cultural adequacy: housing is adequate if it respects and takes into account the expression of cultural identity.

The table below indicates the main dwelling that household live in. According to StatsSA 244,958 households live in informal dwellings/shack in backyard, whilst 130,206 households live in informal settlements – a total of 375,164 households.⁸³ Moreover the number of informal settlements in Johannesburg is growing.

Main dwelling that household currently lives in	
Formal dwelling/house	
House	2,192,413
Flat or apartment in a block of flats	162,860
Cluster house in complex	24,904
Townhouse (semi-detached house in a complex)	102,154
Semi-detached house	4,450
Formal dwelling/house/flat/room in backyard	236,871
Room/flatlet on a property or larger dwelling/servants quarters	38,961
Traditional	
Traditional dwelling/hut/structure made of traditional mater	2,658
Informal	
Informal dwelling/shack in backyard	244,958

⁸³ StatsSA. 2018. General Household Survey 2017. Data portal: Quantec.

Informal dwelling/shack not in backyard (e.g. in an informal settlement)	130,206
Other	
Caravan/tent	629
Other	20,376.04
Total CoJ	1,780,133

The top 4 challenges that the city faces in respect of the housing sector are strongly influenced by the context of economic recession and political fluidity. They are as follows:

- Bringing human settlements and housing more firmly under municipal control and providing strong leadership in the context of economic recession and political fluidity;
- Addressing the high levels of alienation and anger that service delivery protests and xenophobic violence seem to express particularly but not exclusively in informal settlements;
- Restructuring our cities in a direction which breaks with the spatial footprint inherited from apartheid and which promotes the life chances of the urban poor; and
- Adopting a more proactive and programmatic response to the inner city housing sector which addresses the future of both the derelict buildings and the people resident in them.

Improved housing provision is a central driver in the City’s delivery of basic services. Therefore, housing backlog, rise of informal settlements, homelessness and overcrowding in public hostels and the inner city overcrowding are of major concern. The City’s response to its housing challenges requires up-scaling the delivery of low-cost housing, uplifting informal settlements and revitalising the inner city to create liveable and resilient human settlements.

3.6.7 Transport

Population densities in South Africa’s cities are extremely low by world standards, impacting negatively on the viability of public transport, particularly on train and bus services. Travel distance is significantly longer than in more densely populated cities elsewhere in the world. Car ownership is rising with most new growth being new arrivals from smaller urban areas and rural areas.

The city faces a number of transport challenges. Key public transport interventions such as the Gautrain (a provincially led project) and the Rea Vaya Bus Rapid Transport (BRT) system (a City-led initiative) have laid the foundation for a new era of mass public transport but the use of these interventions is still relatively low when compared to other modes of transport. According to the GCRO’s 2017/18 Quality of Life Survey, a majority (45%) of Johannesburg residents commute with taxis. This is followed by 28% who utilise their private cars with only 4% and 0.4% who use Rea Vaya/Metrobus and the Gautrain respectively. The increased use of private cars and taxis has resulted in increased traffic congestions and the city’s transport sector continues to be the highest (38%) carbon emitter when compared to other sectors such as the industrial (28%) and the residential (26%) sectors.⁸⁴ In addition to this, a lot of working time is lost due to traffic congestion, and while the exact productivity cost of commuting has not been measured, the city’s accessibility may eventually impact investment decisions.

⁸⁴ Sustainable Energy Africa .2015. State of Energy in South African Cities. Cape Town: Sustainable Energy Africa

To mitigate against increasing petrol prices, the cost of maintaining road infrastructure and increasing air pollution, a modal shift from private to public transport is the answer for the future City of Johannesburg. Approximately 55% of households do make at least one public transport trip per week.⁸⁵ This includes train, minibus/taxi and bus trips. The City plans to increase this number by 20% in 2030 by encouraging commuters to move from private cars to public transport. The potential of modal shifts present a number of opportunities for economic development and improved city living.

Lobbying for a prioritised focus on improved safety and reliability of the metro-rail services will also need to form a core part of a wider public transport programme, as noted above. While not a City competence, this forms an integral part of a transport network, supported by other forms such as the BRT, the Metrobus system and the Gautrain.

It should be noted that the linkages between transport and city priorities such as inclusive economic growth and development should be highlighted. Large-scale transport improvement programmes offer an ideal opportunity through which to create employment opportunities, promote scarce skills development, and provide experiential training opportunities (e.g. for young engineers). They also present opportunities for the empowerment of vulnerable groups (e.g. women and the youth) – through involvement in activities across the transport value chain. Careful consideration of how these opportunities should best be used must be part of the planning process, in the move towards building an improved transport system that supports our vision of the city in 2040.

Municipalities need to make choices and decisions related to infrastructure and land use in order to address predicted transport changes. It is clear that passenger transportation must become foremost on the agenda for municipalities. This will require addressing issues around municipal labour productivity, maintenance, overcrowding and delays. Crucial to encouraging passenger transportation will be appealing to consumers alongside rooting out wasteful practices. Several techniques, such as increasing passenger capacity on popular routes by adding articulated or double-decker buses, and eliminating or downsizing lesser-used itineraries, or enhancing the efficiency and cost-effectiveness of existing roadways by giving priority to higher-occupancy vehicles through dedicated bus lanes or high-occupancy/toll lanes (HOT lanes) can offer a business approach enabling government to better direct supply to where it is most needed.

Altering travel behaviour to spread out commuting hours and ease demands on the transportation system in peak periods is essential. For example, employers should be encouraged to implement staggered workdays and more flexible working hours. The City can accelerate this shift by leading through example and implementing such principles within their own structures which include 300,000 employees. In addition, better management of traffic flow assisted with the latest technologies, such as real-time monitoring of driving conditions, intelligent traffic patterns that employ data analytics to predict backups in advance and redirect drivers to alternative routes, dynamic tolls that go up during peak periods (or differentiate between lanes), and similar measures can help to lessen congestion. In some cases, however, more basic technology is enough; for example, simple electronic signs on major arteries can warn drivers of traffic jams ahead and suggest different, less congested roads.

Behavioural changes are needed too, e.g. encouraging commuting to work by bike or ride sharing, or telecommuting. More coherently structured land and community development policies can trim road use through strategic planning for population and employment density in different parts of

⁸⁵ StatsSA. 2018. General Household Survey 2017. Data portal: Quantec.

urban areas. These initiatives require municipalities to work with local communities, companies and developers.

Getting people to change their mode of transport and shifting from the convenience of private to public transport is not just about logistics. As noted above, this is about driving a new transport culture. But citizen activism, in terms of voicing and supporting the transport system that all desire, is also key. Proposals emerging from the focus group discussions in this regard included the establishment of effective forums through which to collaborate with various partners, including citizens, the private sector and others, to promote road safety and drive a change in culture.

The city's transport system is of crucial importance to its economy and its people. Efficient and wide-ranging public transport support a reduced carbon footprint, increased socio-economic performance as well as greater citywide inclusivity. Therefore, the City's is intent on reinforcing its transport infrastructure with the intention to reduce its carbon footprint, curb congestion, reduce the cost of transportation for the poor and advance the development of an efficient and connected transport network.

3.7 Governance and institutional development

Governance underpins everything the City does. The establishment of appropriate structures, systems, policies and processes – informed by a sound set of values and ethics – are prerequisites for driving development and ensuring successful delivery by local government. The fundamental principles of good governance, as reflected in the Constitution of the Republic of South Africa, include the rule of law, accountability, accessibility, transparency, predictability, inclusivity and a focus on equity, participation and responsiveness to people's needs.

Tensions characterise the domain of government, and local government in particular. These tensions include those between the respective powers and functions of local, provincial and national government; ideas and practice in respect of community participation; the different role-players in the City, the issues and responsibilities residents hold metros accountable for; the need to plan and govern in the context of slow economic growth, significant poverty, constant in-migration and uncertain climate changes; the role of cities in supporting economic growth and development; and the lack of cohesion between metros and their entities.

Governance arrangements provide a more predictable and commonly understood approach through which to mediate these tensions. Mediating these tensions also highlight the need for an integrated system of cooperative governance between the spheres of government, to facilitate the provision of more effective support for cities and other municipalities by national and provincial government. This requires less focus on attributing non-delivery to local government, and more focus on supporting the best outcomes through the provision of requisite capacity and resources – within the context of cooperative governance.

The implementation of a refined governance and institutional arrangements is a feature of the current administration. These arrangements enable improved oversight (in respect of both municipal entities and City departments), greater scrutiny and increased accountability of the Executive to the Council (where the latter represents the Legislative component of the City). Systems have been implemented or adapted to support these arrangements – including those pertaining to Oversight Committees and their delegations, performance management policies and practices, and reporting requirements. There have also been increased levels and intensity of engagement with citizens through processes of consultation and communication.

However, despite high levels of engagement, the city has witnessed a significant volume of service delivery protests, with it acknowledged that further, and different work must take place in this regard.

3.7.1 Financial sustainability

Ensuring financial and thereby service delivery sustainability is a non-negotiable, as witnessed through recent experiences of the City itself. The City's ability to generate and collect revenue, and enforce a level of financial accountability is key to its long-term financial sustainability, and requires a focus on fraud prevention and the requirements for a clean audit. In terms of focusing on financial matters, it is suggested that the City should learn from other cities – while also considering if the impact of the recession on the economic growth of Johannesburg is reflected in the financial sustainability model. With the economy still in recovery mode, there are implications for the City's ability to collect revenue (and its approach to tariff setting) – especially in the context where customers are often not able to make ends meet. Other factors such as the shift towards renewable energy, and decreased water consumption negatively impact the City's ability to collect revenue.

Mechanisms to address financial sustainability must therefore anticipate the risk of a shrinking tax base. Some of the key considerations in respect of financial sustainability include a focus on:

- Revenue Enhancement: through the aggressive application of the City's improved revenue collection strategy and credit control policy, and the establishment of efficient and sustainable billing systems;
- Strategic procurement and contract management: procurement and contract management practices in the City are convoluted and complicated – often as the result of stringent legislative requirements. The City has to reinforce rigorous but easy to follow procurement and contract management policies and procedures, that provide the requisite checks and balances to drive efficiency, derive better value for money and combat fraud;
- Strategy-aligned budgeting, following a robust process of resource allocation;
- Ethical financial practices for effective and efficient financial management;
- Consideration of long-term funding requirements (and long-term borrowing approach); and
- A focus on alternative funding sources: such as public and private partnerships and the imposition of new forms of taxation to harness additional revenue sources.

It is important to note that financial performance is not only about compliance with sound financial management requirements. Clean audits are only possible in the context of sound quality and capacity across a range of parameters with delivery on these parameters a good marker for ongoing sustainability of the city. To drive a clean audit, it is noted that risk management mechanisms need to address group-wide strategic risk identification, management and mitigation, report a moderate liquidity profile and continue to work towards ensuring revenue optimisation whilst also reducing the impact of corruption so that every cent available to the City is used for service delivery.

3.7.2 Ethical and transparent governance

The City recognises its susceptibility to fraud and corruption within its operations and the adverse impact that it has had on its service delivery capacity in the past by diverting public funds and undermining development. Although significant progress has been made in terms of performance and service orientation, reporting practices, oversight and accountability, more can be done to further enhance organisational efficiencies and eliminate fraud and corruption for improved delivery. In order to set a new tone in the fight against fraud and corruption the City has adopted a zero tolerance approach that encompasses a more robust and proactive stance on the principles of good governance, risk management, and investigative systems.

The Group Forensic Investigation Services (GFIS) directorate gives effect to the City's zero-tolerance approach to fraud and corruption, and to develop and drive the implementation of the City's Anti-Corruption Strategy. As such, the City is committed to:

- Design and implement appropriate, transparent and fair processes to prevent, report and administer fraud and corruption;
- Treat corruption as part of organised crime under the Prevention of Organised Crime Act, (POCA) and Prevention of Corrupt Activities Act (PRECA), and pursue every allegation of fraud and corruption in collaboration with other relevant organisations within the criminal justice system;
- Establish an open tender system in accordance with City policy;
- Intensify anti-corruption awareness programmes and promote a culture of professional ethics and good governance;
- Proactively enforce Minimum Information Security Standards (MISS);
- Capacitate integrity and discipline units to deal with fraud and corruption cases in the city.

There is a wider responsibility on all City employees, as custodians of Good Governance in the city, to adhere to the highest ethical norms and standards by cultivating values of integrity, competence, responsibility, accountability, fairness, and transparency. Therefore, issues of maladministration (which include undue influence in the appointment of staff, negligent non-compliance, lax financial controls, tender irregularities and the misuse of Council property) are contrary principles of fair and honest professional standards and are perceived as contributing to fraud.

In order to maintain the highest standards of governance the City will enforce robust anti-corruption campaigns and activities, which include prevention, detection, investigation and resolution mechanisms, in order to promote a culture of professional ethics and good governance

3.7.3 Smart City

The Smart City concept has over the last decade grown in popularity and has become an integral part of the global city policy lexicon. With the advent of the Fourth Industrial Revolution we witness every day the sheer power of technology transforming our society and infiltrating every aspect of our human existence, it is only logical that technology be used as an enabler to tackle some of our most urgent urban challenges and crises. It is a logical progression of the idea that cities are complex systems and can be optimised and designed to work better using technology to better respond to the changing (and growing) needs of those who live and work within its boundaries, and providing opportunities for: monitoring our infrastructure networks, decongesting our highways, improving our health care system, creating safer neighbourhoods, minimising our energy consumption, and leveraging data to improve service delivery and creating safer neighbourhoods.

One of the most important ways in which the Smart City concept has become an integral part of the global city policy lexicon is through linking technology to human progress to city development. Cities are in themselves testaments to human progress and successful cities are those represented by their capacities to adopt smarter technologies and greater intelligence to drive city competitiveness and efficiency. The Smart City concept has also presented a vision of the future: cities that are smart, clean, efficient, environmentally sustainable, un-chaotic, and more competitive underpinned by intelligent integrated technology systems.

A number of cities globally are embracing the Smart City concept and have demonstrated the impact that smart cities have to create an environment that supports human, social, economic and infrastructural development. In an increasingly technologically driven age and with the rise of

the digital economy Smart Cities provide an enabling environment for innovation and creativity, are able to attract and retain talented people, and enhance their liveability and attractiveness, while those who do not embrace this change run the risk of losing key demographics and experiencing economic, social and even environmental decline.

For all the inherent solutions and merit that the Smart City concept brings it has not been adequately conceptualised in the South African and African urban context. Technology is but one approach to confronting some of our most critical urban challenges. However, rapid urbanisation, large informal economies and shifting forms of governance requires more than just a technological fix but a systemic change in urban governance. There is therefore a need to revisit the conceptual basis of the concept in relation to the Joburg context in light of the major urban transitions happening across the continent. Unless the concept of the Smart City engages meaningfully with the systemic change needed in urban governance it is not likely to have a marked impact on urban development in the city. Being a city that is in many ways arguably better positioned to adopt some of the Smart City ideas than other cities on the continent, this is relevant for Johannesburg.

The CoJ has already made considerable progress implementing Smart City measures (including the expansion of the Johannesburg broadband network, the rollout of free Wi-Fi, as well as the e-Health and e-Learning projects). Nevertheless the City has yet to define the applicability and relevance of the Smart City concept based on the city's own unique set of challenges and requirements. Instead of blindly adopting the Smart City concept through transference and translation, and falling victim to vendor-driven solutions and consumerism the City must craft its Smart City offerings to the local context. This means defining a responsive, inclusive and holistic Smart City model that also incorporates human needs and liveability. The primary tenet of the CoJ Smart City strategy is to "do more with less" by leveraging technology and innovation to enhance institutional efficiency, service delivery and citizen engagement.

While seeking to achieve the vision of a Smart City the CoJ cannot ignore the unequal access of information technologies across the city. The 'digital divide' refers to those who have access to digital technology and the internet and those who do not, and mirrors the broader socio-economic disparities that our Apartheid legacy has bequeathed on contemporary South Africa.

Only 21% of households in Johannesburg have access to the internet, discounting mobile devices.⁸⁶ This gap is even more significant in respect of access to broadband networks, where broadband has been a driver of growth and development across the globe, improving community development, ensuring access to economic opportunities and knowledge and allowing for greater access of services. In Johannesburg, a significant minority enjoy high-speed access via corporate networks, domestic connections and wireless 3G networks. Broadband networks are clustered in the main urban economic nodes, effectively excluding township areas, informal settlements and non-urban/agricultural areas.

Therefore the Smart City concept is defined further by arguing that only through promoting more equal access of digital technologies across all sectors of society can the CoJ achieve its broader vision of being 'smart'. This may be considered as slight nuances in the way in which smart cities are defined; however this definition in the GDS is important taking into considerations issues of social justice and equity. Furthermore the City of Johannesburg takes a wider view of the Smart City concept understanding the Smart City as including smart people, smart living, smart planning and smart governance, etc. This view indicates that while technology is an important central

⁸⁶ Statistics SA. 2018. General Household Survey 2017. Data portal: Quantec.

feature of the Smart City concept not all Smart City interventions would involve the use of information technology.

The primary tenet of the City's Smart City agenda is to continue to build Universal Access as an area of focus to provide an enabling environment for residents and businesses to adopt to the Fourth Industrial Revolution. Through its Smart City agenda the City has committed itself to become a City that "makes decisions and governs through technologically enhanced engagement with its citizens who have universal access to services and information, where socioeconomic development and efficient service delivery is at its core"

3.7.4 Joburg's global position

There is a new global economic order that affects all cities, including Johannesburg. Twenty-first century cities need to be competitive, attract global capital, and simultaneously address growing deep-seated socio-economic inequalities. It is no longer sufficient for city governments to focus on service delivery alone. Instead, they are expected to capture global capital and drive local economic development. Local government is inextricably tied into global, national and local markets. There are also the pressures of urbanisation, changing urban communities and active civil societies that necessitate the keen political and administrative management of limited available resources. Increasingly, cities are expected to contribute to delivery on global, national and local priorities, as reflected in a broad set of strategic frameworks.

While cities are progressively more influenced by global priorities, they are equally able to influence and affect national and international matters through their global networks. Because cities are in flux and their populations are fluid and growing, they benefit through working together to address the big issues such as migration, urban development and their need to drive innovation. It is no longer viable for city governments to be inward looking.

The CoJ locates itself firmly in the global space, with aspirations of further growth and development, in support of its vision of a resilient, liveable and sustainable future. Following the 2012 adoption of its International Relations Strategy, the City proactively pursued international relationships and membership in global networks as a way of influencing the global agenda as it pertains to city governments, while also using these to target improved service delivery and innovation. The City's global relationships are significant because of their potential to assist it as it pursues its strategic outcomes. However, following the approval of the revised IR Strategy in 2017, the focus shifted away from pro-active international relationships to prioritise local demands and requirements. All global network relationships were retained and selected outreach exercises were undertaken to market the City and to promote investment opportunities. The content that follows reflects on a range of strategies, policies and plans drawn from the global, regional, national, sub-national (provincial) and local arena. The information provided is not meant to be exhaustive, with only the most relevant policies and strategies addressed.⁸⁷ In the case of Johannesburg, direction is provided by the Constitution, and by the following agendas:

- The SDGs;
- The AU's Agenda 2063;
- The NDP, as developed by the National Planning Commission (NPC);
- South Africa's Medium Term Strategic Framework (MTSF) for the 2014-2019 electoral term; and
- The Department of International Relations and Cooperation's (DIRCO's) Strategic Plan for the period 2015 to 2020.

⁸⁷ Including cross-cutting or IR-specific international, national, sub-national and local strategies/ documents that have status (i.e. are approved and current)

Gauteng Provincial Government's (GPG's) Transformation, Modernisation and Re-Industrialisation (TMR) Programme, and the province's 2015 'IR Strategy for the Gauteng City Region'

On the domestic side, the establishment of appropriate structures, systems, and processes is fundamental for successful delivery by local government. The necessity of intergovernmental relations highlights the need for an integrated system of cooperative governance between the spheres of government, to facilitate the provision of more effective support for cities and other municipalities by national and provincial government. This requires less focus on attributing non-delivery to local government, and more focus on supporting the best outcomes through the provision of requisite capacity and resources – within the context of cooperative governance.

The implementation of a refined governance and institutional arrangements is a feature of the current administration. These arrangements enable improved oversight (in respect of both municipal entities and City departments), greater scrutiny and increased accountability of the Executive to the Council (where the latter represents the Legislative component of the City). Systems have been implemented or adapted to support these arrangements – including those pertaining to Oversight Committees and their delegations, performance management policies and practices, and reporting requirements. There have also been increased levels and intensity of engagement with citizens through processes of consultation and communication.

However, despite high levels of engagement, the city has witnessed a significant volume of service delivery protests, with it acknowledged that further, and different work must take place in this regard.

3.8 Conclusion

The analysis contained herein provides a holistic perspective of the challenges – and opportunities – that lie ahead. These inputs, while clustered in the context of the five development drivers, tie directly into the areas highlighted within the GDS Outcomes and provide a focal point towards which all targeted interventions within the City can aim.

4. Joburg 2040 Outcomes and Outputs

4.1 Introduction

The review of the City's long-term development strategy consolidates and refines the Joburg 2040 GDS, based on learning, experience, new theory and practice. This chapter presents clear outcomes and outputs as statements of intent for the long-term development path to be followed by the City to achieve its 2040 aspirations. These outcomes define the type of society – and city – those within this metropolis, and those who work within the municipality itself, hope to see by 2040.

In reflecting the City's intended path, reference has been made of an outcomes approach, as this allows for clarification of "what we expect to achieve, how we expect to achieve it and how we will know whether we are achieving it". **Outcomes** refer to a changed state of being...They describe the effects, benefits or consequences that occur due to the outputs or programs, processes or activities. The realisation of the outcome has a time factor and can be in either the medium or long-term."⁸⁸ This view – and the linkages between inputs, activities, outputs, outcomes and impacts (alongside the questions these elements seek to answer) – is depicted in the figure below.

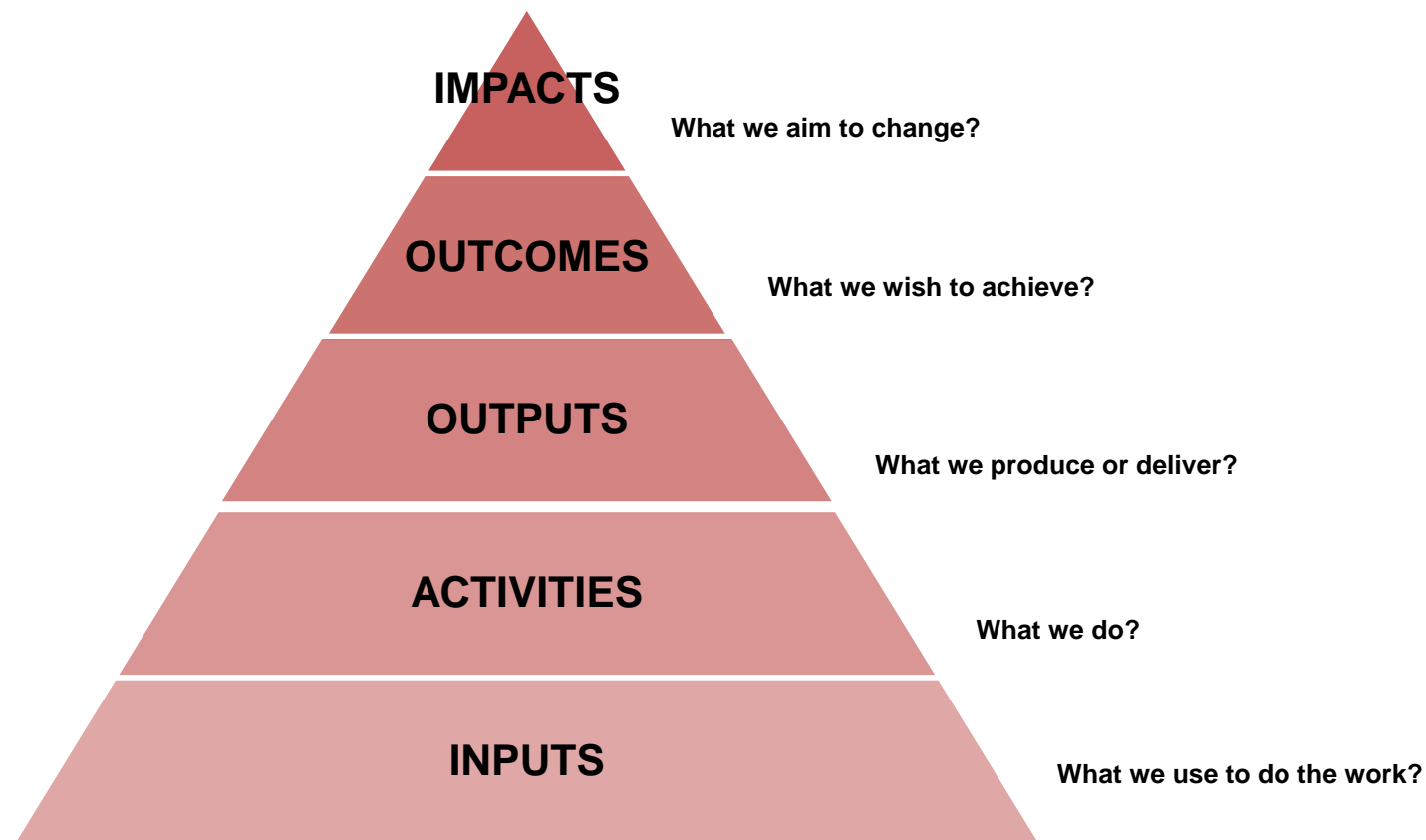


Figure 1: Figure 4.1. Outcomes approach⁸⁹

⁸⁸ National Treasury, 2012

⁸⁹ Adapted from the Department of National Treasury. 2010. The Framework for Strategic Plans and Annual Performance Plans. Pretoria, South Africa

The GDS is the long-term strategic lens of the City whereas the IDP unpacks and defines the short and medium-term operational activities necessary to give effect to each of the long-term strategic outcomes and aligned outputs. The IDP therefore effectively operationalises the GDS. This chapter, read in conjunction with the next chapter on measuring implementation, forms the basis for alignment with the IDP – and provides the framework for the development of detailed priorities and programmes. As such, the City’s focus on ‘GDS – IDP - Business Plan’ alignment is reflected appropriately in the model above; where the Joburg 2040 GDS defines the long-term outcomes and associated outputs, while the IDP and business plans address activities and inputs necessary, for the desired impact to be realised.

The City has identified five outcomes it aims to achieve by 2040. The formulation of each outcome has taken place in the context of the paradigm (and principles), which calls for a balanced focus on four primary drivers: good governance, economic growth, human and social development, and environment and services. Inputs emerging through research have in some cases shaped, and in other cases, clarified the issues reflected in the outcome statements. Each outcome is further unpacked into a number of outputs.

The GDS outcomes and Outputs are as follows:

GDS OUTCOMES	GDS OUTPUTS
1. A growing, diverse and competitive economy that creates jobs	1. Job intensive economic growth 2. Promotion and support to small businesses 3. Increased competitiveness of the economy 4. Revitalising and diversifying the Joburg economy 5. A Smart city that delivers quality and efficient services to its citizens
2. An inclusive society with high quality of life that provides meaningful redress through pro-poor development	1. Eliminating poverty and dependency 2. Reducing inequality 3. A city characterised by social inclusivity and enhanced social cohesion 4. Proactively driving a progressive youth agenda 5. Spatial justice
3. Enhanced, quality services and sustainable environmental practices	1. Water Security 2. Energy Efficiency 3. Waste Reduction 4. Eco-mobility 5. Sustainable human settlements 6. Climate change resilience and environmental protection
4. Caring, safe and secure communities	1. Food security that is both improved and safeguarded 2. Increased literacy, skills and lifelong learning amongst all our citizens

	<ol style="list-style-type: none"> 3. Substantially reduced HIV prevalence and non-communicable diseases – and a ‘fit city’ characterised by healthy living for all 4. A safe and secure city
5. An honest, transparent and responsive local government that prides itself on service excellence	<ol style="list-style-type: none"> 1. A responsive, corruption-free, efficient and productive metropolitan government 2. Building cooperative and intergovernmental partnerships 3. Financially and administratively sustainable and resilient city 4. Meaningful citizen participation and empowerment 5. Guaranteed customer and citizen care and service 6. Enhancing Joburg’s global footprint

Figure 4.2. GDS Outcomes and Outputs

4.2 Outcomes and outputs

4.2.1 Outcome 1: A growing, diverse and competitive economy that creates jobs

At the core of the City’s vision is the need to create an enabling economic environment in which the private sector can thrive and create much-needed employment for the residents of Johannesburg. Access to private sector employment opportunities provides the best pathway to improved livelihoods for the residents of Johannesburg. The City is currently undertaking a variety of measures to improve the ease of doing business in Johannesburg, in an attempt to fully capitalise on city’s vast potential.

Outcome 1 related outputs:

The following outputs are critical ingredients for this outcome to be realised:

- **Job intensive economic growth**
- **Promotion and support to small businesses**
- **Increased competitiveness of the economy**
- **Revitalising and modernising the Joburg economy**
- **A Smart city that delivers quality and efficient services to its citizens**

Job intensive economic growth

Johannesburg’s prosperity is crucial to the regional and national economy. But Johannesburg’s economy features high levels of unemployment above the national statistics of 27.5% (official unemployment rate). Low levels of education amongst the youth compromise their employability. Productive, decent jobs are needed. Households will only become independent of government grants in a thriving economy.

The goal is that by 2040, the economy of Johannesburg will be vibrant, growing and creating jobs. Johannesburg will contribute to the national priority of job creation and reduction in the rate of unemployment through establishing an enabling, business-friendly economic environment where employment opportunities in the private sector is abundant.

The City will support job creation by supporting those sectors that are job intensive – as guided by market forces.

Businesses and residents will focus on business opportunities that promote prosperity and simultaneously increase job opportunities. At the same time they will promote teaching and skills development within the work environment.

The City will play its part in promoting job-intensive economic growth, through the creation of an enabling environment that supports job creation and future-oriented skills development. In addition, the City will ensure optimally managed job opportunities within its own institutional framework – with an awareness of additional long-term spin-off prospects of these opportunities, into the wider city environment (e.g. through skills development outcomes).

Promotion and support to small businesses

The City recognises that both the informal sector and entrepreneurs who operate within the city hold significant potential for supporting sustainable, inclusive growth of the city's economy. Supporting entrepreneurial spirit is imperative given that the obstacles to entrepreneurship success are many. The City acknowledges that the informal sector plays both an important and controversial role, bolstering entrepreneurial activity, but at times, to the detriment of compliance measures as defined in various regulations; alleviating poverty, but with a parallel concern noted in respect of pay levels and job security.

By 2040 Johannesburg aims to attract and retain entrepreneurs in both the formal and informal economic sectors.

Because entrepreneurs create jobs, the City will support entrepreneurship through favourable policies, skills development, and transfer of technology and support services. Well-functioning infrastructure allows enterprises to conduct their business efficiently. The City acknowledges the role of the informal sector as a source of employment and livelihood for its residents, and will support the informal sector through skills development, helpful regulations and a focus on health, safety, employment rights and the management of trading spaces.

Businesses and residents will support the growth of small business through private incentives, funding assistance and promotion. They will establish new small business ventures that offer decent jobs.

Through targeted intervention, the City hopes for other positive spin-offs, including the further growth of dynamic entrepreneurial spirit, competition, innovation, higher efficiency and increased investment.

Increased competitiveness of the local economy

South Africa and Johannesburg lag behind other countries in economic competitiveness. This is made worse by insufficient incentives, crippling regulations and inadequate funding support which also weaken the local economy. Each year more youth with low skill levels join the pool of unemployed. Many skilled workers are moving out of the city to different cities in the country. There is a need for Joburg to re-think how it will retain and attract skilled workers to the city.

Johannesburg attracts and needs to retain and grow private corporate investment. It also needs to promote diversification in the city economy. The City needs to have more effective partnerships with the private sector and other players in the local economy.

By 2026, Johannesburg aims to build its status as a strategic Foreign Direct Investment (FDI) location meeting broad expectations of the national economy and be able to sustain its status as financial and business hub of Africa. By 2030, the City aims to balance growth and create employment through lowered costs of transport and logistics achieved through increased

competition in regulated sectors. The City will become a key attractor of talent and skills globally and remain a key global centre of growth.

The City will follow a combined approach of promoting private investment, developing skills, using the City's own resources, and entering into partnerships to drive success and to spread the benefits of economic growth to all. The City will also focus on the competitive advantages present in Joburg which are informed by market forces.

Businesses will invest in Johannesburg and seek out new opportunities for growing investment, wealth and savings. They will cluster business activities to attract like-minded business and services that match international competitive cities. Businesses will invest in the green economy to make Johannesburg a leader in this field and attract global business. A combined approach is necessary and essential – focusing on all the elements that make for a successful economy, including the mobilisation of the skills base within the city, and possible partnerships through which to drive success.

Revitalising and diversifying the Joburg economy

Johannesburg's future economy will be diversified. Retail monopolies will no longer dominate the retail market. Informal and alternative economies will create the vibrancy as they would be supported and protected.

The City will facilitate economic growth which will entail using the existing forces of capital accumulation but also building more equitable forces of accumulation such as SMMEs. Residents and businesses can mobilise township buying power to improve incomes and investment in productive activities when different community-based businesses, cooperatives and other businesses in the township are better organised and cooperate economically among themselves.

The informal sector is a critical ingredient to supporting economic growth. By 2021, the city will incentivise innovation and new practice by creating an enabling environment for informal and new entrepreneurs. By 2026, the City will optimise innovation and entrepreneurship practices by becoming a sustainable environment conducive for small business creation and ensuring that high-potential entrepreneurs continue to shape the future economy. By 2030, a high degree of innovation sustained through small business productivity in both formal and informal activities will be mutually supportive and coexist in the city.

A Smart City that delivers quality and efficient services to its citizens

Smart Cities improve resource efficiency. The City has already begun to forge partnerships with knowledge partners, technology companies, research institutes and universities that are at the forefront of research and development. Improving service delivery will take place through real-time monitoring and information management, and optimal management of resources – including those who work within the City structures.

By 2040 Johannesburg plans to do more, with fewer resources. With better information and by using technology as an enabler, the City will offer better coordination, better planning, better communication and better response times.

The City will invest in building knowledge and will partner with organisations and educational institutions to develop a sound information and research base from which to plan. It will build the information technology required to ensure that data is gathered and information is used and shared effectively. Service problems will be tracked immediately.

The Smart City of Johannesburg should achieve:

- Smart land use - utilising available land to best serve the needs of the residents and City;
- Good governance - transparent and accountable governance practices including reducing bureaucratic excess and providing the best possible service delivery with the available resources;
- Social Development, i.e. social cohesion, human development at scale;
- Service Delivery Efficiency, i.e. interoperable systems across all services, leveraging service delivery in communities, lowering the cost of service delivery, tracing defaulters;
- Better Decision making, i.e. using citizens' input, taking into account all available relevant data through improved governance;
- Stimulating Economic activity, i.e. job creation, stimulating SMMEs and entrepreneurship, ease of doing business;
- Universal Internet Access, i.e. utilise technology bridging digital divide, leverage on high cell phone penetration; ICT skills development
- Active citizen participation, citizens as co-creators, improved communication with the citizens, accessible information for communities; and
- Creating a Sustainable & Liveable Environment, i.e. safety and the sustainable usage of resources;

Business and residents will also coordinate their information and data with the City's resources and information to create integrated systems of managing the knowledge around service provision. Residents will provide feedback and input where this is required. Business will assist with innovative technologies and systems for information processing and for systems of quick response to complaints and service delivery problems.

Bridging the digital divide remains a priority for the City of Joburg. By 2021, the City will continue to build Universal Access as a Smart City area of focus to provide an enabling environment for residents and businesses to adopt to the Fourth Industrial Revolution. The ambition to become a Smart institution to enhance efficiency and productivity will be realised through centralised, coordinated digital platforms and smart infrastructure to improve insight and decision making. By 2026, the City seeks to have digitalisation as part of everyday service delivery and the City will mainstream technology to influence change across social, economic and cultural barriers. By 2030, cutting edge smart technology, innovation and knowledge research and intelligence will become the primary platform for citizen engagement, service delivery and economic growth.

4.2.2 Outcome 2: An inclusive society with high quality of life that provides meaningful redress through pro-poor development

The residents of Johannesburg still live with the legacy of our country's past, visible in the uneven development of the different communities that make up our city. This necessitates an approach by local government which is both pro-poor and provides redress. Vulnerable and poor residents of our city must be supported to access a better quality of life through key interventions. At the same time, efforts at redress must focus on, among other imperatives, creating communities that are more inclusive. Inclusive communities embrace and welcome diversity; the City must do more to ensure that space is provided where all members of the public can find a sense of belonging.

Outcome 2 related outputs:

The following outputs are critical ingredients for this outcome to be realised:

- *Eliminating poverty and dependency*
- *Reducing inequality*

- *A city characterised by social inclusivity and enhanced social cohesion*
- *Proactively driving a progressive youth agenda*
- *Spatial justice*

Eliminating poverty and dependency

By 2040, The City aims to reduce poverty in Johannesburg to less than 5% as a result of empowered communities that are enabled with high quality services.

Many of Johannesburg's residents have no income and rely on social grants, welfare organisations or family and friends. Often old age and child support grants are used to support wider households. These households cannot deal with the shocks of unexpected events such as death or illness. The safety net for supporting vulnerable households is not being used to its best effect. Poverty currently stands at 47%⁹⁰ (defined against the national upper bound poverty line), and the large gaps between affluent and poorer communities and unequal access to services add to the social problems of Johannesburg.

The City will address the determinants of poverty through strategic interventions that are able to stimulate employment; improve education and skills, providing good quality and sustainable services.

Businesses will increase their corporate social responsibility efforts in the city. Non-governmental organisations and community organisations will coordinate their services with one another and with the City to promote human development and skills development. They will provide programmes for relief in times of crisis. Residents will take advantage of opportunities provided by the City to support individuals and communities to become self-sufficient. They will make a living through decent work in the upgrading and management of the public environment, in the informal sector, in small business and in the formal sector.

By 2021, the poverty rate should have been stabilised by eliminating the barriers to livelihood opportunities. The City will address the determinants of poverty through strategic interventions that are able to stimulate employment; improve education and skills, and by providing good quality and sustainable services. By 2026, the poverty rate should be less than 30%, by sustaining positive gains made by reducing barriers to opportunities. By 2030, the City aims to reduce poverty to less than 25% as a result of empowered communities that are enabled with high quality services.

Reducing inequality

The city remains one of the most unequal cities in the world, with a Gini coefficient of 0.632.⁹¹ Inequality slows economic growth and makes a given rate of economic growth less effective in reducing poverty. Local government is but one actor that can assist to reduce inequality, and is ideally the key driver of any poverty and inequality reduction strategy, as the sphere that directly interfaces with people's lived reality on a daily basis.

In the future, inequality in Johannesburg will be reduced, with the embedding of a new urban culture that realises the connectivity of communities to the broader urban environment. The City will cultivate a multi-faceted approach to reducing income, spatial, and gender inequality by creating meaningful economic opportunities, taking the lead in spatial transformation, and enhancing local state capacity to drive this process.

⁹⁰ IHS Markit 2018 Q3. Regional eXplorer version 1479. Centurion: IHS Markit

⁹¹ IHS Markit 2018 Q3. Regional eXplorer version 1479. Centurion: IHS Markit

Businesses will form partnerships with the City and other key stakeholders in order to develop a framework on reciprocal economic relations. Non-governmental organisations and community organisations will partner with government to determine social interventions that can improve the determinants of inequality.

Residents will embrace the opportunity to address their own development and become self-sustainable, as part of a new urban culture.

By 2021, the City intends to cultivate a multi-faceted approach to reducing income, spatial, and gender inequality by creating meaningful employment. By 2026, the Gini coefficient – a measure of inequality – will have been reduced to less than 0.59 by ensuring that the city remains a driver of a people-centred approach to addressing developmental challenges. By 2030, inequality will be less than 0.56 with the embedding of a new urban culture that realises the connectivity of communities to the broader urban environment.

A city characterised by social inclusivity and enhanced social cohesion

By 2040, communities must trust each other, despite their differences. The City envisages a future where communities will display greater levels of confidence in respect of their abilities to positively influence and control their own urban environments. This sense of belonging – built through the growth of social inclusion and cohesion – is fundamentally important as a pathway out of poverty, and as a poverty support mechanism. The concept of collectivism, working together to improve the lives of everyone in the community, will be an important qualitative outcome by 2040.

Johannesburg has always been a gateway for newcomers from the continent and other parts of the world. The city will become more diverse and culturally plural over the coming decades. Diversity will be both even more evident and acknowledged across the city – with the City acknowledging its role in fostering a sense of excitement about the potential this reality presents, and in improving cohesion and inclusivity within and between its citizens and the various communities. The City will focus on ensuring all feel a part of this cosmopolitan reality – through active engagement, facilitation of cultural cross-pollination and sharing of experiences, and the establishment of bridges between diverse communities.

In addressing this long-term output, the City seeks to:

- Ensure that the places in which communities live are distinctive, and that the built form becomes an expression of citizens cultural identity – through designing for inclusion;
- Promote central improvement districts – community managed organisations that take ownership of their area and assists the City in improving their neighbourhoods;
- Make participation more meaningful, representative and just, thereby bringing diverse communities closer to planning and decision-making (e.g. by providing platforms and opportunities through which multiple voices can be heard); and
- Provide social infrastructure to support the ‘socially excluded’, ensure awareness and education of their rights and entitlements among all, provide social support – and share in debates on the role and importance of and inclusivity, with all.

By 2021, the City seeks to create positive social relationships at all levels by promoting citizen participation, diversity awareness and tolerance in order to create a new urban culture. By 2026, social cohesion will be sustained by ensuring a deeply entrenched new social compact between government and citizens. By 2030, the City aims to achieve full social cohesion will be achieved as an infusion of spatial and cultural linkages to create a culturally vibrant, tolerant, and inclusive urban space.

Proactively driving a progressive youth agenda

A 2040 strategy is essentially a plan through which the youth of today will reap the developmental benefits in future. South Africa, and in particular Johannesburg, has a significant youth bulge and there is a need to ensure that we maximise the dividends thereof by proactively driving a progressive youth agenda. Investing in our young people by lobbying for better school education for all, especially at primary and secondary school levels, by reducing dropout rates and increasing throughput rates, by equipping them with advanced skills and post-school education, by providing employment opportunities, and by making them more aware of the long-term consequences of risky health behaviour is of the utmost importance, both in driving this progressive agenda, and in the quest to reduce youth unemployment levels.

By 2040, the City will have become an enabling environment for its young people to actively participate as drivers of change in its transformational agenda. The City will harness the potential of youth social capital and place young people at the centre of innovation through smart city programmes and initiatives. Youth social movements and new forms of activism will contribute to policy debate more meaningfully, as they gain momentum and force through a combined voice. A 'new' urban youth culture will also enhance the concept of a 'city identity', which fosters a collective sense of belonging to the broader Joburg community and validates the youth as key participants in the city. This is intended to inspire responsibility and commitment to a more inclusive Johannesburg of the future.

By 2021, the City intends to reduce youth unemployment to less than 28% by investing in opportunities for their education, advanced skills and post-school education. By 2026, the City intends to harness the potential of youth social capital and place the youth at the centre of innovation through smart city programmes and initiatives. By 2030, the City seeks to become an enabling environment for the youth to actively participate as drivers of change.

Spatial Justice

Managing spatial inequality means that the City develops a logical and implementable strategy for how livelihoods of the poor will be supported spatially. This includes indicating where affordable housing, employment opportunities and economic opportunities will be located with respect to services and existing employment opportunities. This requirement should not be confined to human settlements only, but requires that plans also pay attention to the location and agglomeration of economic uses with a specific focus on how these will benefit the poor. This focus does not exclude the needs of the formal economy (for economic growth, for promotion of formal sector employment and economic development) but is allied to it.

Johannesburg will be a polycentric city, part of a larger polycentric urban region. Strongly defined, high-intensity nodes, incorporating both residential and commercial land uses, will complement a regenerated central city that will remain as the heart of Johannesburg. These nodes, large and small, will anchor the spatial structure of the city. They will be well-connected with a network of mobility spines, allowing for easy movement of both privately-owned vehicles and a viable and efficient public transport system. They will rise like islands from a sea of green – with the urban forest and well-maintained open public space having been extended to all areas.

A future Johannesburg will be known worldwide as a model of efficient and appropriate land-use management. Its solutions to the challenges of post-apartheid social integration will offer the world real examples of how vibrant and functional mixed-use, mixed-income areas can be built in practice. It will be one of the cities able to claim that it realised the ideal of a compact city, arresting outward sprawl through a strong nodal structure and through a built environment that makes denser urban living a preference of a majority of residents.

A future Johannesburg will not allow the built environment of poorer neighbourhoods to be any less appealing than that of its wealthier suburbs. The City will ensure a quality urban fabric everywhere. Strong urban design principles will be enacted to guide development. And robust and flexible urban management will prevent any deterioration in the built environment. The Johannesburg of the future will no longer be a city of predominantly private spaces. Over the years, attractive and vibrant public spaces, where citizens can gather to exercise their need for urban life, culture and community, will become a normal feature of the Johannesburg urban landscape.

Urban transformation is achieved through constant improvement, planning and investment in public transportation. Transport is an important driver for bringing people closer to jobs and jobs closer to people. Crime and urban violence will be reduced to ensure that these social conditions do not distort the spatial form and function of the city. Urban transformation would also be achieved by removing opportunities for new forms of spatial exclusion and injustice by opening up the city, providing access and developing Sustainable Human Settlements.

By 2021, a series of catalytic spatial transformation projects must ensure ongoing development along corridors with a strategic approach to residential densification embedded. The City will integrate state investment into the property market through partnerships and a spatially coordinated focus on deprived areas. By 2026, the City will ensure that productive land use and economic activities will be linked to stronger spatial coordination within the GCR. By 2030, the City will achieve the vision of a spatially transformed city, where greater access and mobility are linked to compact, sustainable and liveable urban settlements.

4.2.3 Outcome 3: Enhanced, quality services and sustainable environmental practices

In a well-run city, residents do not have to worry about potholes, broken street lights and crumbling infrastructure. The City's development plan is anchored in improving access to quality and affordable basic services, safe roads and well-maintained public spaces. The preservation and protection of the natural environment for the health and wellness of current and future generations is also a vital component of this outcome.

Outcome 3 related outputs:

The following outputs are critical ingredients for this outcome to be realised:

- **Water Security**
- **Energy Efficiency**
- **Waste Reduction**
- **Eco-mobility**
- **Sustainable human settlements**
- **Climate change resilience and environmental protection**

Water security

Johannesburg is subject to water scarcity, having to import water from as far as Lesotho. This increases water costs. About 30% of Johannesburg's water is lost to leaks or through unbilled consumption. Water is a finite resource and future economic growth will be dependent on using existing supplies more efficiently.

By 2040, Johannesburg plans to be water secure.

The City will repair leaking pipes and invest in technologies for water reclamation. The City will ensure an adequate supply of water by negotiating with Johannesburg's water suppliers. The City

will also protect Johannesburg's rivers and dams, encouraging natural flow to help with storm-water management and the cleaning of water. The City will improve its billing system and ensure that water is valued and priced correctly.

Residents and businesses in Johannesburg will pay for the water they use. Residents and businesses will also take control of how much water they use. Educational programmes will help build a culture of water saving among residents, which will contribute to reduced demand. The City will also achieve a high level of net water savings, by investing in alternative schemes such as water reclamation, rainwater harvesting and appropriate grey water use, to ensure alternative supplies. The City will anticipate probable future water scarcity and develop forward looking strategies. Protecting the quality of water in Johannesburg is also a critical part of building the city's resilience. The City will work proactively to anticipate emerging threats to water quality, to mitigate these and to maximise those opportunities that arise for potential water quality risks to be averted. The recent acid mine drainage threat is one such example.

By 2021, the City wishes to have an adequate supply of water by ensuring that demand-side management is balanced by secure water supplies, and that unaccounted for water is reduced to less than 17%. By 2026, the City will ensure that 100% of access to water is sustained by quality infrastructure and optimal use of innovative and smart systems to secure water supply. By 2030, security of water supply will be established through a coordinated approach across government and investment in good quality infrastructure will be maintained.

Energy efficiency

Johannesburg's economy is reliant on electricity generated from coal. Although the country has an abundance of coal, this is a finite resource – and a resource with high costs in terms of carbon dioxide (CO₂) emissions. The national electricity supplier cannot keep up with increasing demand as demonstrated by the power outages in 2015 and ongoing load shedding.

Electricity supply challenges are worsened by the high cost of ongoing maintenance in the face of aging infrastructure, illegal connections, cable theft and vandalism.

The City plans to have more than half of the energy used by Johannesburg coming from alternative renewable energy sources in 2040.

The City will find an energy mix that is not dependant on coal. The City will mine gas from landfills, extract energy from waste, and use energy from renewable sources such as solar energy. The City will set a good example by making its own buildings more energy efficient through 'retrofitting'. The City will educate residents and businesses on how to reduce their energy costs. It will promote technologies that help businesses and residents reduce energy consumption.

Residents and businesses will reduce the amount of energy they use. People will use energy from renewable sources and make their own buildings more energy efficient through better insulation and solar orientation. Johannesburg businesses will make sustainability a corporate priority as a necessity for the long-term future. Citizens and businesses will respect and pay for City-provided energy services.

By 2021, the City plans to support a growing diversity in the mix of energy services by optimising renewable sources of energy. Electricity pricing and access, and infrastructure investment decisions will be made in favour of the poor by ensuring that all informal settlements are electrified. By 2026, the City strives to incentivise and catalyse private investment and technologies supportive of a low carbon economy whereby the consumption of solar energy will be greater than 5%. By

2030, the City aims to have growth in the renewable energy sector remain the preferred energy source for subsidised energy in the city and the reliance on heavy coal is significantly reduced.

Waste reduction

93% of all waste in Johannesburg is currently disposed of in landfills.⁹² At this rate the city will run out of landfill space in about eight years or less. In order to reduce waste the City has initiated separation at source and composting initiatives. The private sector is also helping by recycling an estimated 29,580 tons of dry waste

The City strives to achieve 7% waste-to-landfill by 2040. This means an inversion of current dumping patterns. This will be achieved through fostering a new hierarchy: beginning with waste avoidance and reduction, to re-use, recycle, recovery, and lastly treatment and disposal. Existing dumps will be mined for methane gas, transforming waste into a useable resource.

The City will lead programmes to re-use and recycle waste in ways that create jobs, ensure that the streets are cleaner, and improve public health. The City will enable alternative waste management activities that prioritise a recycling culture.

Residents and businesses will separate waste at source, will re-use and will recycle. Residents and businesses will stop littering, dumping illegally, and engaging in other activities that negatively affect Johannesburg. They will develop more positive pro-city attitudes that protect the environment.

By 2021, the City strives to divert waste from landfills by increasing separation at source, reducing waste disposal and optimising the economic benefits generated from waste aligned to job creation and urban management. By 2026, the City wishes to shift the focus to waste prevention by ensuring that all waste is reused and recycled and that new infrastructure is developed to support waste. By 2030, the City will technologically enhance waste composition and disposal, using an inter-connected approach to waste minimisation by adapting to new waste streams as demands shift globally.

Eco-mobility

Johannesburg's transport infrastructure is inadequate. The majority of Johannesburg's residents do not own cars and rely on subsidised buses, commuter trains, and mostly, on private mini-bus taxis. Wealthier residents insist on using private cars. Car users endure increasing congestion and longer commuting times that leads to loss in productivity, because of sprawl and decentralisation. The increased numbers of trucks has also worsened congestion and caused more wear-and-tear on the roads. These factors reduce efficiency and increase air pollution.

Eco-mobility refers to environmentally sustainable and socially inclusive ways of local mobility, combining the use of non-motorised transport means such as; walking, cycling and wheeling with the use of public transport and light electric vehicles from renewable energy resources. By 2040 Johannesburg will be a pedestrian and public transport oriented city. The city's movement system will combine walking, cycling and wheeling with efficient public transport and with vehicles powered by renewable energy resources.

The City will continue developing mass public transport and will create safe walking spaces. The City will develop sound transportation plans that improve mobility and access and that connect all modes of transport – including commuter rail, the high speed Gautrain, buses, minibus taxis

⁹² Aurecon South Africa et al. 2017. Feasibility Study for Alternative Waste Treatment Technology for the City of Johannesburg. Pretoria: Aurecon

and private vehicles – and a parallel, inter-connected pedestrian system. This system will connect people and places and give all residents access to new opportunities. The City will drive a new transport culture. One that decreases congestion and encourages residents to enjoy the convenience and socio-environmental benefits of public transport and car-pooling.

Residents and businesses will use efficient mass public transport systems offered by the City and will be keen to walk and cycle on the newly developed paths and lanes.

By 2021, the City intends to link land-use to support shorter trips and sustainable transportation choices and reduce the cost of transportation for the poor. A 60:40 modal split towards public transport and away from private vehicles will ensure a gradual reduction in car dependence. The City will continue to accelerate the shift to low-carbon vehicles by enhancing the re-fleeting of the City's fleet with green technology and mainstreaming complete streets. By 2026, the aims to have a 70:30 modal split thereby reducing congestion, improving mobility and accessibility in a manner that integrates multiple nodes in a reshaped city morphology. By 2030, the City will continue to prioritise investments where the greatest benefits can be achieved in the mobility sector through a regionally networked transportation system connected to all economic nodes in the City-Region.

Sustainable human settlements

Johannesburg is a sprawling and divided city. Places of work are located far from the areas where the majority live. This pattern is worsened by low density housing, and residential neighbourhoods with few amenities. Johannesburg has some of the lowest urban densities of any global cities. But in the inner city demand for housing has been steadily increasing, leading to overcrowding and stressed infrastructural systems. New state-subsidised 'RDP' housing has been developed far from the opportunities Johannesburg offers.

By 2040, the City plans to have the majority of Johannesburg's settlements compact, sustainable and liveable. The City will establish neighbourhoods where all can find a place to live a good quality of life with access to work and social amenities – clinics, libraries, public squares and theatres. The City will work towards the upliftment of well-located informal settlements. It will develop an alternative housing model to the RDP settlement by increasing the supply of affordable, quality housing in the inner city and decreasing the number of households living in high risk situations. It will ensure well-located neighbourhoods with housing that is denser and more varied.

Residents and businesses will develop and live in well-managed buildings where their rights are protected and building regulations are upheld. Residents and businesses will continue to maintain their properties, utilise land and services more effectively, and respond to the City's plans which promote a more compact urban form.

By 2021, the City aims to explicitly advance the development of housing in designated growth centres by ensuring acceptable modes of creating sustainable human settlements and uplifting well-located informal settlements. By 2026, the City wishes to achieve major concentrations of jobs and housing which can be easily accessed from nearby neighbourhoods and communities linked to a highly efficient transportation network. By 2030, the City will provide a range of housing types and choices to meet the housing needs of all income levels and demographic groups through preservation, rehabilitation and new developments.

Climate change resilience and environmental protection

South Africa is one of the largest CO₂ emitters in the world, due to an over-reliance on coal-generated electricity. The largest contributors to CO₂ emissions in Johannesburg are electricity, petrol and diesel.

By 2040 the City will reduce CO₂ emissions and the dangers of climate change.

The City will reduce green-house gas emissions by improving public transport, reducing congestion, and ensuring improved fuel efficiency and compliance with emissions standards. The City will invest in utilities, transport and housing that uses less coal-generated electricity and fossil fuels. Businesses will produce solar energy panels, insulation and more efficient appliances. The City will develop new green spaces to manage the threat of urban flooding and to reduce the heat reflected by hard surfaces. The City will promote food security, and encourage a more compact urban form to protect the natural life of Johannesburg.

Residents and businesses will help to reduce greenhouse gasses by using public transport, designing new buildings that use less energy, and altering old buildings to make them more energy efficient. They will also plant trees and grow food.

The City will focus on building its resilience to climate change. Interventions that address both climate change adaptation and mitigation will be necessary, and will be implemented. The approach proposed deviates from interventions that focus on a reduction in emissions alone. Emphasis will be placed on building resilience to commodity price shocks, and working to create economic opportunities, savings and potential investments from a move towards a low carbon economy.

There is a well-recognised deep inter-connectivity between conservation of biodiversity, poverty alleviation and sustainable development. The City's overall objective for biodiversity conservation and management is to enhance humane development and well-being through sustainable use of biological resources and equitable sharing of benefits.

By 2021, the City wishes to develop and create innovative green practices and technologies to reduce emissions city-wide by ensuring energy efficiency, green finance, green fleet, and green services. Opportunities to adapt and mitigate will ensure that the socio-economic risks of climate change are reduced. By 2026, the City plans to ensure that innovative green practices and technologies to support resource-management and improved efficiencies are embedded. A low carbon environment will create a city that is resilient to the impact of climate change. By 2030, the City will strive to ensure that the benefits of a coordinated approach to creating a low carbon economy is realised and that the reduction in dangers of climate change will be significantly minimised.

4.2.4 Outcome 4: Caring, safe and secure communities

The City recognises the importance of providing a safe environment in which residents can live, work and play. To this end, the City is employing basic yet innovative measures to restore the rule of law and improve Johannesburg's reputation of being an unsafe city. Through the expansion of the metropolitan police force, a zero-tolerance approach to corruption, increased emphasis on by-law enforcement and the capacitation of the criminal justice system, the City is making great strides in creating an environment where residents are safe and secure.

Outcome 4 related outputs:

The following outputs are critical ingredients for this outcome to be realised:

- **Food security that is both improved and safeguarded**
- **Increased literacy, skills and lifelong learning amongst all our citizens**

- **Substantially reduced HIV prevalence and non-communicable diseases – and a ‘fit city’ characterised by healthy living for all**
- **A safe and secure city**

Food security that is both improved and safeguarded

Approximately 4.3% of Joburg’s residents experience severely inadequate access to food.⁹³ Urban food insecurity is subject to availability and access. Johannesburg does not produce enough of its own food. There are insufficient small agriculture producers in the city. Food insecurity is exacerbated by spatial factors since low-income areas are characterised as food deserts with poor access to healthy food. Furthermore, the poor are forced to spend too much of their income on meeting basic needs. Not having enough good food is harmful for the sick whose nutritional needs are particularly high.

In the future, Johannesburg will become a city where food security is improved and safeguarded for all. The City will ensure a secure supply of food to Johannesburg, by supporting localised food production and optimising agricultural potential in strategic locations across the city. Johannesburg will also work with its neighbours and with commercial food retailers to build long-lasting, secure food production and supply networks. The City will focus on a range of initiatives in this regard – including the development of a commercially viable and productive urban agriculture sector in Johannesburg, supporting localised food production. This is vital for targeting food security for those communities that are most vulnerable, who face severe food insecurity on a regular basis. This is also critical for promoting more sustainable household supply to the city. A large proportion of the high and low agricultural potential land will be cultivated.

Businesses, environmental organisations and non-governmental organisations will work on projects for growing and supplying food in the city. They will support local growers of food and supply chains that enhance food sourcing within the city region. Residents will change their behaviour with regard to sourcing food. They will buy food that is supplied locally and will grow more of their own food on their property. For example, the number of unused rooftops in the City provides a great opportunity for small-scale food production.

By 2021, the City intends to reduce severely inadequate access to food by supporting localised food production and optimising agricultural potential in strategic locations across the city. By 2026, the City wishes to eliminate severely inadequate access to food by ensuring a highly productive and sustainable arrangement for food supply in order to meet the City and Region’s requirements. By 2030, the City strives to make Joburg a city where no-one goes hungry by ensuring universal nutrition, linked to quality access to services, healthy lifestyles and improved quality of life.

Increased literacy, skills and lifelong learning among all levels of our citizens

Education is critical for building self-sufficiency and resilience. While formal education is a prerequisite for human and social development, by 2040, the majority of Johannesburg’s residents must be able to access information and knowledge for life-long self-learning. This is part of the process of building an active and engaged citizenry. Learning is an important aspect of human and social development, unlocking true human potential, and enhancing the likelihood of access to opportunities. It is also an increasing part of the knowledge economy, which will be critical in the Johannesburg of the future, as knowledge creation and innovation are driving new forms of growth.

⁹³ StatsSA. 2018. General Household Survey 2017. Pretoria: StatsSA

By 2040, the City envisages a Johannesburg that is a high producer and consumer of knowledge that supports competitiveness, economic growth and human and social development. In the short term, Early Childhood Development, Adult Basic Education and support to schools and libraries are important building blocks to ensure that short-term barriers to education and learning are significantly reduced. In the long-term, new realities are envisaged – including the establishment of world-class libraries and knowledge systems that serve as centres for ongoing learning, igniting a love for learning, and the potential of the city and its people.

Residents and businesses will take advantage of lifelong learning opportunities and partner with the City to ensure that knowledge is co-created. They will also actively participate in the development of the city's knowledge economy as a critical lever to improve literacy and up skilling.

By 2021, the City must ensure that education remains a critical building-block by unlocking human potential and knowledge creation by ensuring universal access to ECD facilities by all children and facilitating smart learning opportunities. By 2026, the City plans to encourage Joburg residents to take advantage of lifelong learning opportunities to develop the city's knowledge economy as a critical enabler to improving literacy and up-skilling. By 2030, the City seeks to ensure that knowledge remains co-created by advancing the knowledge capital of its communities in order to ensure international competitiveness.

Substantially reduced HIV prevalence and non-communicable diseases – and a 'fit city' characterised by healthy living for all

Prevention in the context of health is an important aspect of building a healthy city that is resilient to the threat of disease. By 2040, the City envisages dramatically reduced levels of HIV prevalence, with a small proportion of the population at risk. While progress has been made in terms of substantially reducing HIV prevalence during the last decade, proactive interventions already in place at the city level will be extended – alongside the introduction of new interventions, to dramatically reduce prevalence. These interventions will include, amongst others, the development of coordinated responses with NGOs to scale up ARV delivery. HIV in the short to medium-term will also be addressed through dealing with the often-neglected social and psychological contexts that place vulnerable groups such as women and children at higher risk.

Developing a sense of personal empowerment amongst citizens – and networks of social support – will support a reduction of major communicable disease and health risks by 2040. The City aims to minimise the risk of non-communicable diseases associated with lifestyle choices by 2040, as the majority of citizens will have access to information and knowledge relating to healthy living – and will live in communities that share a sense of health and well-being, where all work collectively for this vision to be achieved. Localised food production systems, safer streets, the reengineering of the health industry and promotion of the walkability of the city will become part of the holistic approach aimed at tackling lifestyle diseases.

By 2021, the City intends to improve human development by dramatically reducing HIV prevalence to less than 25% by extending proactive healthcare interventions to the most vulnerable. Promoting awareness of healthy living by communities working together will ensure a healthy lifestyles approach, thereby minimising the risk of non-communicable diseases. By 2026, the City intends to reduce non-communicable diseases through socio-economic and smart health measures, as well as to progressively reduce HIV prevalence to effectively increase life expectancy to over 70%. By 2030, the city aims to boast an accessible, complete healthcare system that is smart, efficient and where citizens are personally empowered as agents of healthy living.

A safe and secure city

The City will shift the perception and experience of safety in the city through crime prevention and reduction, by-law compliance, traffic management, emergency management, and risk and disaster management. Formal collaboration and partnerships established with members who include the beneficiaries themselves, will work in collective ways to achieve safety objectives. The City will work towards a more collaborative and community-based policing approach to safety. This will involve sustained community consultation, education and engagement.

By 2040 the City aims to strengthen inter-agency initiatives that tackle the underlying causes of unsafety and change the experience of the city and its public spaces. The City will develop a dynamic ecosystem of role-players to revitalise the inner city into a prosperous and inclusive place for Johannesburg's residents to live, work and play.

Communities will be informed, capacitated and engaged in issues relating to their own safety – and that of the community. A mind-set of collective responsibility will be engendered. In support of this, the capacity of community members to come together to develop responses to community safety will be enhanced – while collaboration (e.g. working alongside the South African Police Services, to build their own resilience and confidence with regards to tackling crime) will be encouraged. The City will engender a culture of compliance with bylaws and ensure rigor in dealing with criminal activities to ensure that the rule of law becomes the order of the day.

By 2040, the City of Johannesburg aims to have significantly reduced the crime rate, and everyone in the city will have equal access to quality police services, emergency services and safety support irrespective of where they live. The City will adopt an integrated risk management approach and a focus on overall community safety will also be encouraged, with mechanisms like effective early warning systems significantly reducing the threat and impact of possible disasters and supporting the realisation of a responsive, caring and resilient city.

By 2021, communities must be able to mobilise and organise around issues of urban safety by working in partnerships to address the socio-economic determinants of crime, such as youth unemployment and drug abuse. By 2026, the City intends to ensure a protected and safe urban environment, shaped through designing out crime and ensuring coordinated management approaches to urban safety. By 2030, the City envisages a peaceful and safe environment where communities mobilise and engage on building resilience and confidence to threats.

4.2.5 Outcome 5. An honest, transparent and responsive local government that prides itself on service excellence

The above outcomes can only be achieved where government is honest, responsive, transparent and productive. The City acknowledges its responsibility towards all of its residents, and is implementing measures to ensure that residents can trust that their government is acting in their best interests. This requires honest communication from the side of government about what it can and cannot achieve within its current limitations, as well as a willingness to listen to the concerns of residents and respond appropriately. Moreover, this requires a professional public service dedicated to serving the City's residents with pride.

Outcome 5 related outputs:

The following outputs are critical ingredients for this outcome to be realised:

- **A responsive, corruption-free, efficient and productive metropolitan government**
- **Building cooperative and intergovernmental partnerships**

- **A financially and administratively sustainable city**
- **Meaningful citizen participation and empowerment**
- **Guaranteed customer and citizen care and service**
- **Enhancing Joburg's global footprint**

A responsive, corruption-free, efficient and productive metropolitan government

Good institutions and policies, which stand on a firm set of values and ethics, make for successful delivery by local government. Although the City has made significant progress in terms of performance and service orientation, reporting practices, oversight and accountability, more can be done to further enhance organisational efficiencies and eliminate fraud and corruption for improved delivery.

The City will build efficiency and productivity through strong leadership and delivery by example – with demonstration of ‘appropriate leadership and delivery by example’ expected of all who those work within and deliver for the City, regardless of level or institutional base. As custodians of good Governance City employees are expected to adhere to the highest ethical norms and standards. The City will consistently improve its recruitment, performance management and disciplinary processes to build a competent and professional human resource capacity. The City will strive to understand and improve the differentiated skills and capacities of its workforce through skills audits, training and coaching. As a result, the City sees a future reality where all customers and citizens – within the boundaries of the city and beyond – experience true delivery, and regular, proactive and responsive communication and engagement.

The City will adopt a zero tolerance approach to fraud and corruption by ensuring that refined principles, policies and processes are in place for a corruption-free, people-centred city. The City will pursue allegations of fraud and corruption in collaboration with institutions within the criminal justice system to steadily foster a culture of honest, moral and ethical public service.

The City will keep its members and delivery partners informed of all policies and processes, and will manage delivery with clearly defined standards. Residents and businesses in turn will engage more proactively with City issues, informing municipal officials promptly of service delivery problems so that the City can live up to its promise of responsive governance.

By 2021, the City intends to strengthen its institutional capacity – with a particular focus on front-line service functions – in order to improve productivity and responsiveness. By 2026, governance arrangements in the City will be backed by a clear business strategy aimed at driving delivery, reducing bureaucracy, promoting accountability, maintaining separation of powers and enhancing legislative compliance – in order to sustain organisational efficiency. The City will also embark on resource-based planning programmes to enable effective management of diverse community needs. By 2030, self-sustaining public service and good governance practices will be well entrenched in the City as a functional and effective Metropolitan government. By 2021, the City plans to have in place, appropriate, transparent and fair processes to prevent, report and administer fraud and corruption, ensuring a corruption-free, people-centred city. By 2030, the City strives to be renowned for being an honest, moral and ethical public service.

Building cooperative and intergovernmental partnerships

The role of cities continuously evolves as community needs change and the development landscape transforms. This implies that everybody needs to get involved in building a common future and hence, coordination, collaboration and partnerships become more important. Municipalities in general still grapple with intergovernmental relations as both a key principle and function of effective developmental local government. The City in particular has not been able to sufficiently leverage on the benefits of joint planning and coordination.

In the future, the City will have enhanced intergovernmental cooperation to ensure delivery through the formulation of strategic partnerships and shifting scales of planning and delivery beyond traditional boundaries.

The City will take the lead in establishing inter-municipal relationships and developmental partnerships with both state and non-state actors, including businesses and residents, in order to leverage on the social capital necessary to co-create the future of Johannesburg.

By 2021, the City intends to use intergovernmental relations as a tool to build capacity across government through joint planning and execution across key transformative areas. By 2026, the City aims to take the lead in establishing inter-municipal relationships and developmental partnerships with both state and non-state actors in order to alleviate policy tensions and contradictions, and to leverage on the social capital necessary to co-create the future of Johannesburg. By 2030, the City plans to have enhanced intergovernmental cooperation to ensure the delivery of strategic programmes through the formulation of strategic partnerships and shifting scales of planning and delivery beyond traditional local and provincial boundaries.

A financially and administratively sustainable city

By 2040, the City aims to have developed a sound financial management and revenue management approach, built through extensive experience and supported by leading expertise (both managerial and technical). The City's finances will be stable, sustainable and resilient. The City will seek innovative mechanisms through which to grow the budget progressively, in line with population growth. Per capita spending will increase consistently, through the growth of a competitive and economically sound city – resulting in greater financial sustainability for all, and a wide revenue base for continued and improved service by the City.

The City is committed to sustaining its position as a pre-eminent investment destination both locally and internationally. The City will work to improve investor confidence and mobilise financial resources from public and private partnerships, in order to continue to support service delivery and improve residents' quality of life.

Residents and businesses will contribute to the financial viability and sustainability of Johannesburg by paying for the services that they receive and by contributing to Johannesburg's tax base. Through the implementation of revenue enhancement programmes the City will drive efficiency throughout its revenue value chain.

By 2021, the City intends to maintain financial sustainability through sound financial management practices and finding innovative ways to grow the budget through partnerships and investment attraction. By 2026, the City will ensure financial sustainability and resilience through disciplined expenditure management, smart procurement systems linked to the revised economic approach, and doing more with less. The City will actively engage in investigations to identify areas of mismanagement and maladministration and eliminate any fraud and corruption. By 2030, the City aims to utilise its global positioning to enhance its competitiveness, improve investor confidence and mobilise financial resources from public and private partnerships, in order to continue to support service delivery and improve the quality of life.

Meaningful citizen participation and empowerment

Local government cannot function without an informed view of the realities and needs of all the stakeholders it serves – and it cannot be effective in delivering true value without their participation, and the active use of partnerships. Processes of hearing, and listening to the voices

of stakeholders from all parts of society – be they citizens, customers, members of business and community organisations, delivery agents within other spheres of government, colleagues in local government, academics, researchers or fellow employees – helps build a socially inclusive environment, and services that matter. The City will strive to be recognised as a global leader for its proactive approach to both collaboration and engagement – and the outcomes that result from the participative processes followed by 2021.

Residents and businesses will participate actively in building a better city and will communicate their needs to the relevant departments in the City.

By 2021, the City aims to find innovative ways to deal with the general decline in trust and credibility of participatory machinery; generate renewed interest and make citizens feel included in decision-making, by enabling participation beyond planning and providing regular feedback. The City will continue to roll out and strengthen community-based planning processes with the aim of building trust, enhancing participation and co-producing a new urban future. By 2026, the City aims to create smart approaches to increase participation and involvement by empowering citizens to have a voice through increased access to technology and social media platforms. By 2030, the City strives to be recognised as a global leader for its collaborative, inclusive engagement approaches that promote the joint ownership of initiatives, enable transformation and the realisation of a shared vision for the citizens of Johannesburg.

Guaranteed customer and citizen care and service

The City will ensure customers and citizens feel acknowledged, through the operationalisation of a refined, shared and comprehensive customer care charter that puts people first. Customers will see clear evidence of the care the City takes in responding to queries and delivering quality services. They will experience responsiveness and a proactive stance from all who work within the City, regardless of the mechanism or platform through which the City is engaged. All customers will feel equally valued – acknowledged as members, contributors and players in the City of Johannesburg – valuable participants of the city, regardless of their origin, background, class, gender, or race.

By 2021, the City intends to restore trust and ensure that citizens and customers feel acknowledged and respected by creating a customer-centric culture within the institution and improving turnaround times by making e-services the backbone of service delivery. By 2026, the City plans to enhance customer-centricity through the establishment of functional integrated service delivery improvement machinery that are citizen-focused and can follow through on all issues around the provisioning of quality and equitable services. By 2030, the City will ensure that citizens and customers feel equally valued, respected and acknowledged through a refined, shared and comprehensive customer-centric approach that puts people at the heart of delivery.

Enhancing Joburg's global footprint

Now and in the future, Johannesburg embraces the view that the country's future is dependent on the success of Africa – and African local government in particular. Johannesburg's view of sustaining its developmental role on the continent is reinforced by the notion that aims to ensure that local government must be shaped with its people towards a prosperous future (towards Africa 2063). The City is aware of the number of strategic benefits of ensuring that Joburg fulfils its aspirations in the metropolitan age.

Johannesburg will maximise its global influence through established multi-lateral fora whereby the City will reap the benefits of establishing sustainable partnerships with key stakeholders,

including decision makers of national governments, local governments, cooperation agencies, and operators of the private sector.

The City will ensure that by playing a proactive role in the diplomacy of local government, it provides Johannesburg with an opportunity to ensure that the outcomes, findings and innovations from across the globe contribute to new advances in service delivery. Businesses and residents will reap the benefits of Johannesburg's role as a global city by receiving the benefits of new innovations, practices and solutions that improve quality of life

By 2021, the City will utilise its key position on the global stage to advocate and support the internationalisation of local concerns at a global level. By 2026, the City will continue to drive a proactive global agenda that is aligned to the commitment of upholding the interests of Africa as a strategic region. By 2030, the City aims to have leveraged on its global influence through established multi-lateral relations, in order to reap the benefits of sustainable partnerships locally and globally, including decision makers of national governments, local governments, cooperation agencies, and operators of the private sector.

4.3 How to operationalise the GDS

Each outcome is further clarified within the context of outcome-specific outputs. As with all strategies, the value rests in implementation – and in monitoring, evaluation and ultimately, realisation of the defined vision. While the formulation of the IDP will assist in driving short and medium-term delivery and in monitoring implementation, the vision of Johannesburg in 2040 must remain a priority, if the city is to attain the standing it hopes for – as a sustainable, resilient and liveable city – a Johannesburg in which all who live and work feel a sense of ownership, responsibility and pride.

The focus of this GDS moves beyond detailed statements of intent in terms of the type of society Johannesburg aims to become by 2040, to a more concerted approach of accelerating and up scaling implementation towards the realisation of this vision. There is also a need to track implementation and determine the progress made against the development objectives as outlined in the GDS outcomes and outputs.

Measuring implementation in the context of a city strategy essentially covers the following:

- Strategic alignment and calibration of outcomes to relevant global, national and provincial frameworks to enable a holistic perspective on impact;
- Appropriate key targets linked to development agenda's, outcomes and outputs; and
- Adherence to the organisational monitoring and evaluation (M&E) framework, as a basis to monitor and review progress based on these.

Additionally, at a city-level, the focus should be on impact, participation and accountability to citizens.

4.4 Alignment with other strategic plans, policies and strategies

The SDGs have in common with the GDS the elevation of the concept of sustainability in the context of long-term growth and development. While to a certain extent, almost all of the goals impact on Johannesburg in some way, of particular importance for urban cities is SDG goal 11, which emphasises the need to *make cities and human settlements inclusive, safe, resilient and*

sustainable. The objective in this regard is to create cities which are socially inclusive and environmentally sustainable, while also being economically viable.

Similarly, the NDP focuses on **transforming human settlements** and outlines the objectives as the following:

- Strong, efficient and integrated spatial planning system;
- Upgrading of all informal settlements on suitable, well-located land by 2030;
- Bringing people closer to their places of work;
- Providing better quality public transport; and
- Creating more jobs in or close to dense, urban townships.

The implication for the GDS is the realisation that new spatial norms and standards are required to densify cities, upgrade informal settlements, and improve living spaces and mobility in an effort to effectively transform the urban form. The aim of this strategic alignment is to enhance the GDS outcomes in order to give meaning and implementation force to the 2040 vision, and to solidify action around the best approach to executing delivery of this strategy. The purpose is also to deepen the understanding of multiple challenges facing the City, particularly the challenge for sustainable growth. The GDS has also adopted this approach - from a complex set of interrelated decisions all aimed at identifying the strategic focus of Joburg 2040, the substance of the NDP and subsequent SDGs, the GDS outcomes, and timeframes across different strategic focus areas.

4.5 GDS implementation framework

The GDS outputs are a tool to guide the overall state of the city system as a whole in terms of development progress over time. These GDS targets, although focused on the city system as a whole, relate specifically to ensuring progress on the strategic focus areas as identified in the five GDS outcomes detailed in the previous chapter. The GDS targets are also different from traditional performance indicators, based on the following:

- They focus on long-term impact;
- They mark milestones for the overall health or condition of the city, with emphasis on interconnectedness and multidimensionality; i.e. reflecting the impact of activities on two or more of the dimensions of sustainability in a parallel process; and
- They cover all aspects of city development, including the private and public sectors and civil society.

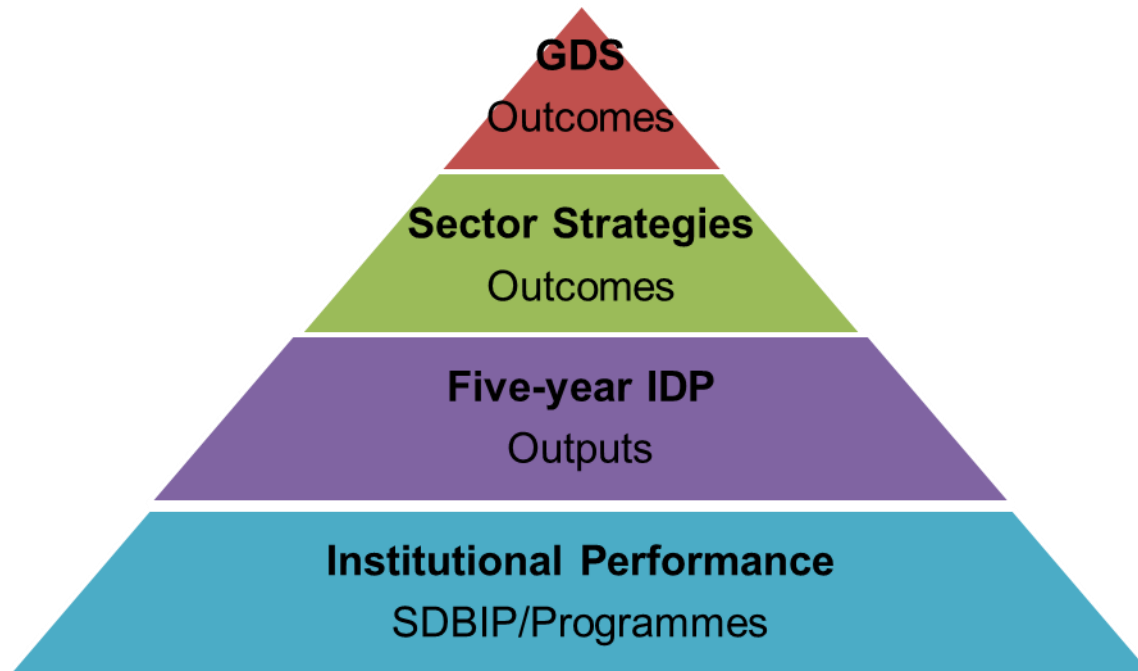


Figure 5.1 Hierarchy of plans

The GDS targets are expected to assist the City in:

- Guiding the implementation programme of sector strategies, the IDP and SDBIPs;
- Tracking progress and measuring implementation in achieving strategic objectives;
- Providing answers to central development questions, including the impact of activities, results on the ground and areas for improvement;
- Alerting managers to development problems so that corrective action can be taken;
- Ensuring that decision-makers ask fundamental questions and analyse assumptions and risks; and
- Facilitating benchmarking comparisons between different organisational units, regions, and over time.

The GDS provides the framework for the overarching long-term goals and strategies of the City of Johannesburg. To attain the city we strive for, short-term plans must align to the GDS and drive the implementation programme. By monitoring the progress made on an annual and five year basis the City will be well place to navigate its path to long-term success.

4.6 Monitoring progress

Monitoring the progress of the GDS is not only critical to determining impact, but allows for evaluative review and, if needed, course correction to result in better implementation. In long-term city strategies, tracking progress is equally as important as setting the development objectives themselves, primarily because the role of city strategies is to ensure continuity amidst rapid change and uncertainty, and because the responsibility for implementation is apportioned amongst a variety of internal and external stakeholders.

In order to track the City's progress towards the outputs and outcomes described above, the GDS aligns itself with the organisational monitoring and evaluation (M&E) framework, with the specific aim to:

- Coordinate efforts and leverage on the organisational capacity to monitor the progress of strategic actions in a comprehensive and integrated manner;
- Ensure that strategic choices are informed by evidence, particularly in terms of resource allocation;
- Determine the impact of long-term changes as a result of this strategy on the City's policy focus / strategic direction; and
- Promote accountability.

The organisational monitoring and evaluation (M&E) framework recognises the GDS as the apex of M&E activities in the City. It states that *"the GDS provides a set of indicators that serve as valuable starting points.....particularly when planning for M&E in relation to long-term impacts and outcomes. These GDS indicators should be reviewed in the context of the [identified] criteria, and confirmed if relevant. Following this, indicators can then be cascaded, with identification of suitable indicators for each level of delivery within the outcomes approach. This process allows for confirmation of the relevance of indicators, while also aiding self-reflection on operational plans themselves – and areas in which adjustments may be needed"*.⁹⁴

The implementation of the GDS will be monitored and assessed through indicators defined and outlined in IDP. The City will also carry out regular monitoring on development goals and objectives through the use of evaluation research and impact assessments, as per the M&E framework. The City will also use The Performance Management System which is based on the integration between strategic planning, performance monitoring and evaluation, by linking the GDS outcomes with the planned IDP priorities and objectives to the indicators and targets used to measure performance.

Data collection, information gathering and analysis will take place regularly and the relevant findings will be presented in the form of strategic information that will contribute to decision-making and add to the City's body of knowledge.

In order to promote transparency and accountability, participatory and engagement mechanisms will be used to enable the involvement of both citizens and other key stakeholders in the monitoring processes; and as part of awareness-raising, achievements will be communicated at all relevant levels.

4.7 Conclusion

Johannesburg is one of the most cosmopolitan cities of the world. It is a city that is life supporting:

How will we monitor progress?

1. Report through the IDP indicators.
2. Ensure that relevant information is gathered and used in monitoring and reporting.
3. Enable the participation of key stakeholders in the process.
4. Evaluate the progress of outcomes based on evidence and reporting.
5. Identifying and implement interventions required to move from non-compliance with GDS to compliance.
6. Ensure that achievements are recognized and communicated.

⁹⁴ City of Johannesburg (2012) The City of Johannesburg's Monitoring And Evaluation Framework, Annexure 3. Johannesburg: City of Johannesburg. page 42

- A place of hope and potential for many;
- A city with an economy that is the motor for national growth;
- A city that is home to the roughly five million people who live within it;
- A city that reflects the richness of our human heritage in its large concentration of hominid fossils;
- A city that is made up of an ever-increasingly diverse population – originating from many places, both within South Africa and beyond its borders.

The city faces significant challenges – including the spatial and socio-economic legacy left by apartheid, the deprivations faced by a large number of people who call it ‘home’, resource scarcities and difficulties in meeting the needs of residents, and challenges associated with shifts such as climate change, technology, economic pressures and migration. But this city is a place of gold – with immeasurable potential. Johannesburg’s greatest assets and its source of hope lies with its people.

The Joburg 2040 GDS serves as an invaluable tool through which to bring this potential to fruition. However, it will only succeed if all the city’s participants play a full role in the path ahead, as part of a collective team. Together, we can address poverty and ensure human and social development, create an inclusive economy and a healthy environment, and establish a sustainable city for all – supported by a capable, soundly governed metropolitan government.

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