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Tour Guide to Gauteng



Module # 1 - Province overview

Component # 1 - Gauteng province overview

Module # 2 - Meet the Zulu people

Component # 1 - Meet the Zulu people

Module # 3 - Historical overview

Component # 1 - Gauteng historical overview

Component # 2 - Gauteng gold and gold mining

Module # 4 - Wildlife and nature conservation overview

Component # 1 - Gauteng wildlife and nature conservation overview

Module # 5 - The City of Johannesburg region

Component # 1 - Johannesburg tour

Component # 2 - Johannesburg CBD tour

Component # 3 - Sandton tour

Component # 4 - Alexandra township tour

Component # 5 - Soweto township tour

module # 6 - The city of Tshwane region

Component # 1 - Pretoria and township tour

Component # 2 - Pretoria city tour

Component # 3 - Along the N1 and R21

Module # 7 - The City of Ekurhuleni region

Component # 1 - Along the N17 and N3

Component # 2 - Along the N12 and R21

Module # 8 - The West Rand region

Component # 1 - West Rand tour

Module # 9 - The Sedibeng region

Component # 1 - Sedibeng tour

Module 1

Component 1



Gauteng Province Overview





'A bright desolate, dreary space of open veld, over which the bleak winds of the wintertime had a passage unhindered and unchecked by the presence of any human habitation, save a few farmhouses.'

This is how Henry Longland described the Witwatersrand before gold was discovered in 1886.

Introduction

Gauteng, the 'Jacaranda City' (Pretoria), the 'City of Gold' (Johannesburg/ Egoli/ Jozi) and the 'Township life and vibe' have been the inspiration for many a song, good and bad, humorous and sad. The Province has grown into the country's most densely populated and urbanised, although comprising only 1.5% of the land area. Geographically, it was previously part of the old Transvaal province and known as the Pretoria-Witwatersrand-Vereeniging (shortened as P.W.V.).

In December 1994, it was renamed to Gauteng. The name Gauteng is the Sesotho word meaning 'Place of Gold'. This is the historical Sesotho name for Johannesburg and its surrounding areas that refers to the flourishing gold industry in the Province. The Sesotho word 'gauta' is derived from the Afrikaans word goud ('gold'). The suffix '-ng' means 'place of ...'.

Gauteng is surrounded by four other provinces: Limpopo, North West, Free State and Mpumalanga. Gauteng is the only landlocked Province in South Africa with no foreign border.



Gauteng Province Overview

The discovery of gold (1886) was not the only contributor to the economy of this region. Vast coal and iron deposits were also discovered, boosting the mining and industrial sectors. The Premier mine at Cullinan also produced the largest diamond (3106 carats) in the World, adding to the many claims to fame of the Province. The 'spirit of gold' refers to the struggle for liberation, justice and equality for all South Africans. Gold symbolises the pain and suffering of people being shaped and formed through the fire, emerging stronger and more determined. Their story is told at many places in Gauteng, such as Soweto, Alexandra, Constitutional Hill, the Apartheid Museum and Freedom Park. The latter is unique in that it celebrates all South African's struggle for freedom, including the Anglo-Zulu War, the War of Independence, the Great South African War and the two World Wars. Gauteng also bears evidence of human origins at the 'Cradle of Humankind', a World Heritage Site and home to the renowned Mrs Ples (*Australopithecus africanus*).



Gauteng Province Overview

Location of Gauteng in South Africa



Gauteng Province Overview

Municipal map of the Province

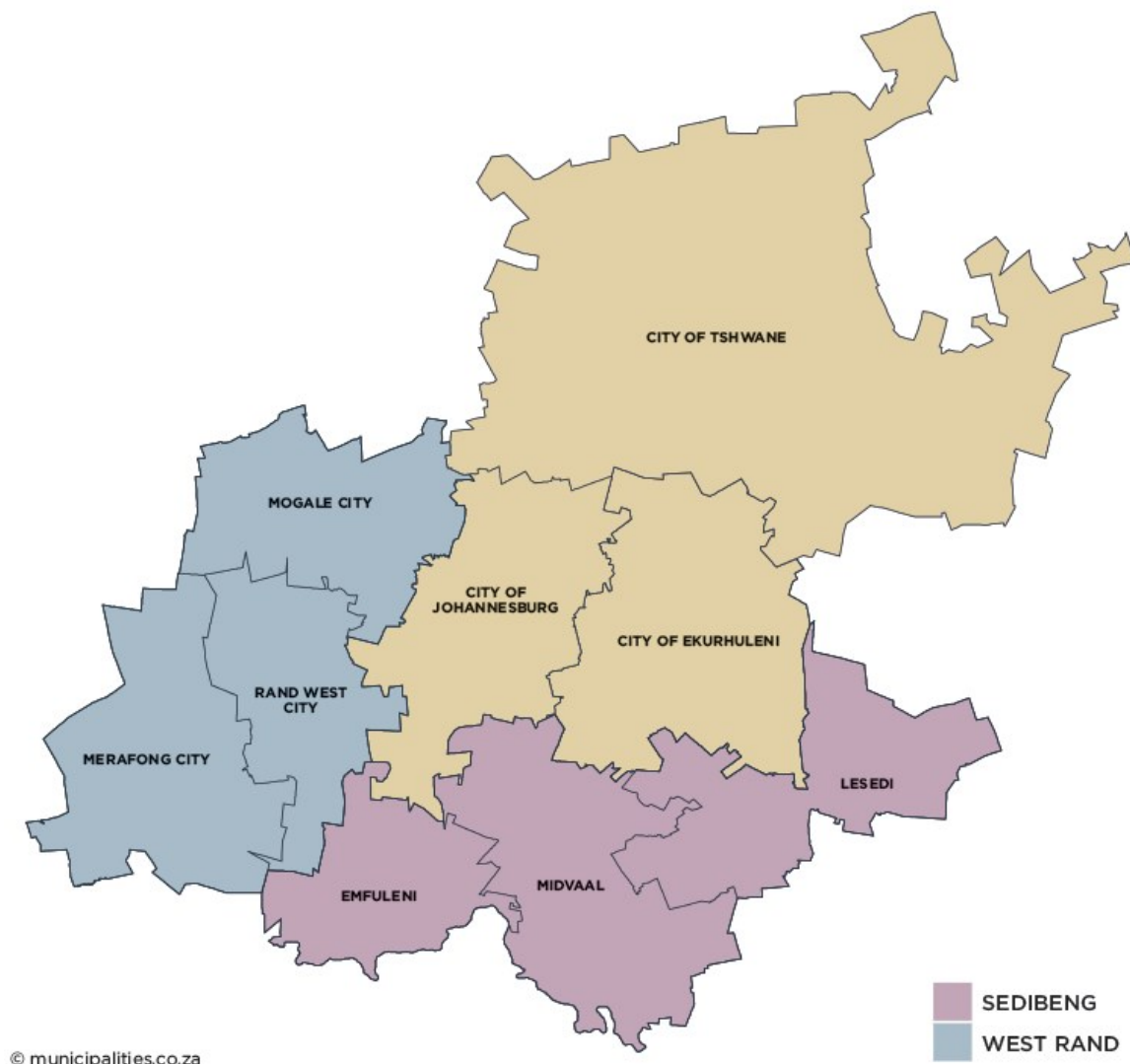


Image source: www.municipalities.co.za

Coat of Arms



Motto: Unity in Diversity

- The Nguni-shaped shield represents the Nguni speakers, who are the majority in the Province.
- The main language in Gauteng is isiZulu.
- The pick symbolises the importance of mining in the Province.
- The iron symbols in the 'crown' point to other activities, especially the iron and steel works of Pretoria and the Vaal Triangle, but also to manufacturing and heavy engineering.
- The honeybees symbolise diligence, economic activity and reinforce the golden element in the arms.
- The crest wreath is unusual (in fact, highly irregular in heraldry) since two metals are used, probably to underline the region's mineral wealth.
- The lion supporters are a symbol of strength and are also derived from the old arms of the Transvaal.
- The motto is shown on three gold bars, symbolising gold mining and prosperity.

Demographics




Land surface area	18,176km ² (7,018 sq. mi)
Highest elevation	1,913m (6,276 ft)
Population	Total: 12,272,263 (2011 census) Estimate (2022): 16,098,571 Rank: 1 st in South Africa Density: 680/km ² (1,700/sq. mi) Density rank: 1 st in South Africa
Languages	Zulu: 14.8% English: 13.3% Afrikaans: 12.4% Southern Sotho: 12.1% Northern Sotho: 11.6% Tswana: 11.1% Xhosa: 10.6% Tsonga: 6.6% Southern Ndebele: 3.2% Venda: 2.3%
Races	Black: 77.4% White: 15.6% Coloured: 3.5% Indian or Asian: 2.9%
Capital	Johannesburg
Largest city	Johannesburg

- ➊ Different cultural backgrounds from all around South Africa, as well as from other countries, live in the Province.
- ➋ Gauteng Province is home to 16.1 million people (2022 Stats SA Mid-year estimates), with 26% of the total South African population.
- ➌ Gauteng Province is also the fastest-growing Province, experiencing an average annual population growth rate of 2.0% and was the highest growth rate compared to other provinces between 2011 and 2016.
- ➍ About 22.1% of all households are made up of individuals.
- ➎ The Province's age distribution was 23.6% under the age of 15, 19.6% from 15 to 24, 37.9% from 25 to 44, 15.0% from 45 to 64, and 4.0% who are 65 or older.
- ➏ The median age is 27 years.
- ➐ For every 100 females, there are 101.2 males.
- ➑ For every 100 females aged 18 and over, there are 102.3 males.
- ➒ 76.0% of residents are Christian, 18.4% have no religion, 1.7% are Muslim, 0.5% are Jewish, and 0.8% are Hindu. 2.6% have other or undetermined beliefs.
- ➓ 8.4% of residents aged 20 and over have received no schooling, 11.2% have had some primary, 5.5% have completed only primary school, 34.3% have had some high education, 28.0% have finished only high school, and 12.6% have an education higher than the high school level.
- ➔ Overall, 40.6% of residents have completed high school.
- ➕ 56.1% of housing units have a telephone and/or mobile phone in the dwelling, 41.5% have access to a phone nearby, and 2.3% have access that is not nearby or no access.
- ➖ 82.8% of households have a flush or chemical toilet.
- ➗ 84.2% have refuse removed by the municipality at least once a week, and 2.6% have no rubbish disposal.
- ➘ 47.2% have running water inside their dwelling, 83.6% have running water on their property, and 97.5% have access to running water.
- ➙ 73.2% of households use electricity for cooking, 70.4% for heating, and 80.8% for lighting.
- ➚ 77.4% of households have a radio, 65.7% have a television, 15.1% own a computer, 62.1% have a refrigerator, and 45.1% have a mobile phone.
- ➛ 25.8% of the population aged 15-65 is unemployed.
- ➜ The median annual income of working adults aged 15-65 is R 23 539.
- ➝ Males have a median annual income of R 24 977 versus R 20 838 for females.

Municipalities and Districts

The Gauteng Province (as of May 2011) is divided into three metropolitan municipalities.





























Metropolitan municipalities

-  Ekurhuleni Metropolitan Municipality (East Rand region - OR Tambo International Airport, Kempton Park)
-  Johannesburg Metropolitan Municipality
-  Tshwane Metropolitan Municipality (Pretoria)

District municipalities

-  Emfuleni
-  Lesedi
-  Merafong City
-  Midvaal
-  Mogale City
-  Rand West City
-  Sedibeng District
-  West Rand District

Cities and Towns

-  Alberton
-  Alexandra
-  Bedfordview
-  Benoni
-  Boksburg
-  Braamfontein
-  Carletonville
-  Centurion
-  Edenvale
-  Ga-Rankuwa
-  Germiston
-  Heidelberg
-  Houghton
-  Johannesburg
-  Kempton Park
-  Krugersdorp
-  Magaliesburg
-  Meyerton
-  Midrand
-  Parkhurst
-  Pretoria
-  Randburg
-  Rosebank
-  Sandton
-  Soweto
-  Springs
-  Vanderbijlpark
-  Vereeniging

Geology

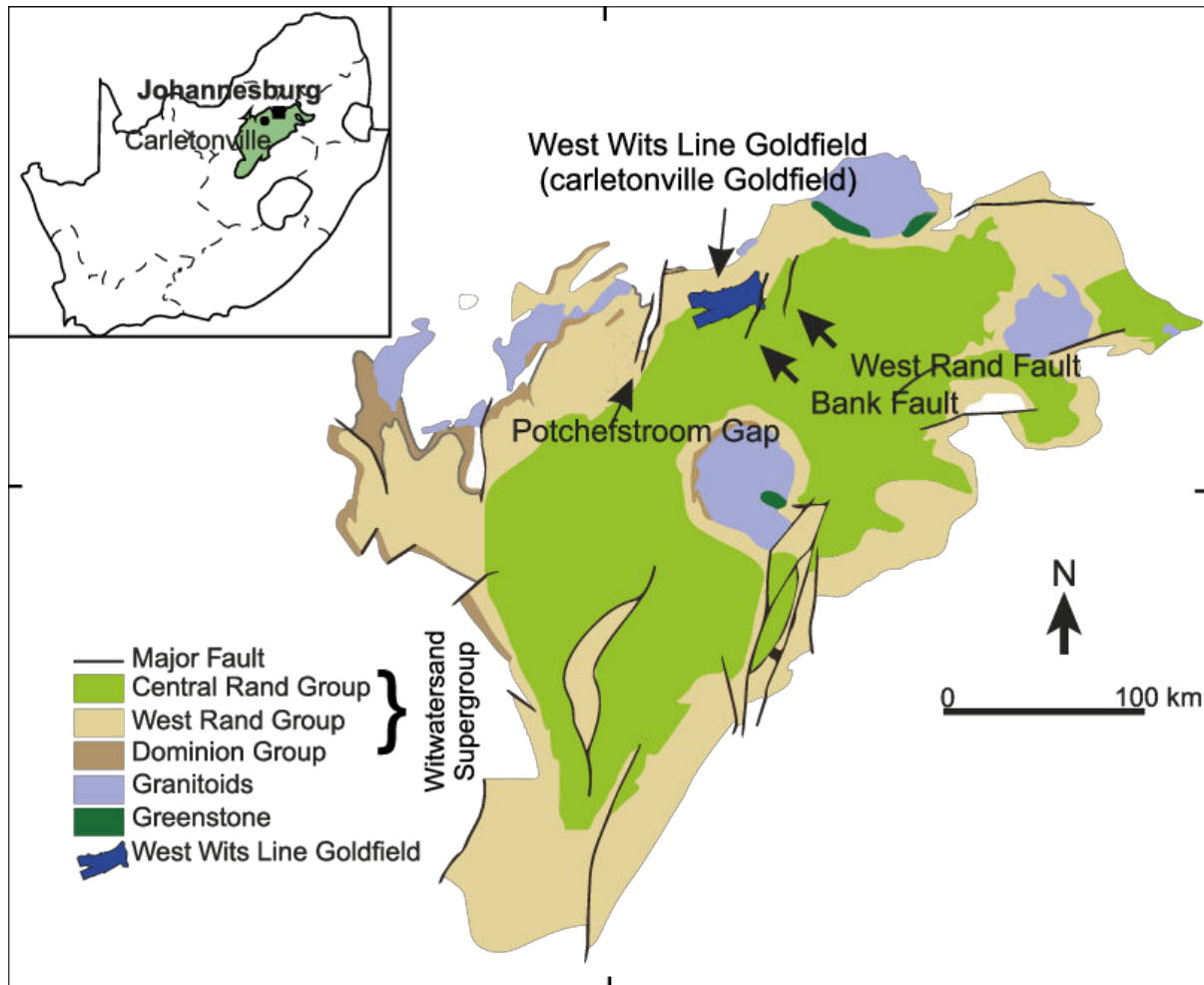
The most important geological event that took place in the Province was the formation of the Witwatersrand Supergroup. Experts believe that about 3 billion years ago, an inland shallow 'sea' or lake was formed due to a depression of the earth's granite crust. High mountains surrounded the shallow shores of this sea. The gold was believed to be first deposited with very ancient volcanic rocks (now called greenstones) and granites that formed these mountains. The mountains were eroded away over a very long time. Fast-flowing rivers ran from the mountains and carried vast volumes of sand, mud and pebbles into the sea.

It also deposited minute gold particles, together with uranium minerals and pyrite grains. The small heavy gold particles and other minerals were concentrated within the pebble beds. Whenever the rocks were reworked, the gold became more and more concentrated in specific layers called conglomerates. These consisted of white quartz pebbles or black chert and a fine sand matrix with about 10 - 20 grams of gold per ton, resulting in the earth's largest and richest gold deposits.



View over The Witwatersrand from Kloofendal Nature Reserve

The rocky outcrops of the Witwatersrand ('ridges of white waters'), prominent around Johannesburg, provide evidence of the quartzite formations during this period. It stretches about 80km from east to west. The name was derived from the white colour of the quartzite rock. Others believe the name refers to the numerous streams flowing down the slopes. The Rand, South Africa's currency, was named after this region that greatly impacted the country.



A simplified geological map of the Witwatersrand Basin with older sediment cover showing the location of the West Wits Line Goldfield (Carletonville Goldfield) (after Grové and Harris, 2010). Source: www.researchgate.net

Sinkholes

Dolomite land occupies up to 25% of Gauteng. This area is underlain directly or at shallow depths by the rock type dolomite. Dolomitic rock is composed of the mineral dolomite, a calcium and magnesium carbonate. Rainwater and groundwater gradually dissolve the rock over time as it seeps through cracks in the rock. This gives rise to cave systems and voids in the rock.

Soils covering the rock can collapse into these caves or spaces, resulting in catastrophic ground movement on the surface, such as sinkholes. Over 1000 sinkholes have occurred on the West Rand, 800 south of Pretoria, Centurion and Atteridgeville and 150 on the East Rand.



Stalactite formations in the Wondercave

Mountains

The Magaliesberg



The only mountain range in Gauteng

Main Rivers



The Witwatersrand

- ❶ The Witwatersrand has the largest inland water distribution system in South Africa, and rainwater is evenly dispersed across Johannesburg.
- ❷ The Klip Rivier ('Stone River') drains the southern suburbs, flowing into the Vaal River, which in turn is a tributary of the Orange River that flows into the Atlantic Ocean.
- ❸ The Jukskei ('yoke-pin') River drains the northern suburbs, which joins the Crocodile and other tributaries.
- ❹ They eventually flow into the Limpopo River, emptying into the Indian Ocean.
- ❺ The Apies ('Monkey') River flows through Pretoria and drains into the Pienaar's River north of Pretoria. The name means 'small monkeys'. Winston Churchill (a later British Prime Minister) recalled: 'swimming the mighty Apies' after he escaped from the Staats model Skool ('State model School') School during the Anglo-Boer War (1899-1902).
- ❻ The Sesmyl Spruit ('Six Mile Stream') is crossed when travelling south on the R21 from Oliver Tambo International (ORTIA).
- ❼ Other rivers in the Province are the Blesbokspruit, Suikerbosrand, Natalspruit, Rietspruit, Wonderfonteinspruit and Hennops.

Major Dams

- Bon Accord
- Bronkhorstspuit
- Rietvlei
- Roodeplaat
- Roodepoort
- Vaal Barrage
- Vaal

The Vaal, Rietvlei and Roodeplaat Dams supply water to the Province. Naturally, Gauteng's water resources would come from surface runoff and groundwater. However, due to the high water demand, Gauteng imports raw water from outside the Province (for example, the main supply to the Province is from the Vaal River, which receives input from the Lesotho Highlands Project). Industrial and domestic discharges return some of this imported resource to the water system.



Climate

Gauteng is a summer rainfall area with hot summers and frequent thunderstorms, sometimes accompanied by hail. The winters are cold, and frost is common in the southern parts. It rarely snows.



The altitude influences the climate in the Province. Johannesburg is approximately 1,700m above sea level and usually about 3 °C less than its neighbour, Pretoria (1330m).

Difference in temperatures

Rainfall	Winter		Summer	
	Maximum	Minimum	Maximum	Minimum
Johannesburg 713mm p.a.	16 °C	4 °C	26 °C	15 °C
Pretoria 674mm p.a.	19 °C	5 °C	29 °C	18 °C



Gauteng Province Overview

Economy

The Gauteng Province's total G.D.P. for 2010 was R811 billion, making the Province the single largest contributor to South Africa's G.D.P. with a contribution of 33.8%, despite having only 1.4% of South Africa's land area. Gauteng also generates approximately 10% of the entire African continent's GDP.

Gauteng is the financial and economic powerhouse of South Africa. Gauteng is considered the economic hub of South Africa and contributes heavily to the financial, manufacturing, transport, technology and telecommunications sectors, amongst others. It also plays host to a large number of overseas companies requiring a commercial base in and gateway to Africa.



A view of the city in Johannesburg

Finances

The Province is the financial-services capital of Africa. More than 70 foreign banks have their head offices here, as well as most South African banks, stockbrokers and insurance giants. The J.S.E., the largest securities exchange in Africa, is also hosted in Johannesburg.



Anchor Capital celebrates their first listing at the JSE

Agriculture

Agricultural activities comprise a small share of the Province's economy and mainly provide the cities and towns with daily fresh produce, including dairy products, vegetables, fruit, meat, eggs and flowers.



At a dairy farm near Krugersdorp on the West Rand

The districts of Heidelberg, Cullinan and Bronkhorstspuit fall within the 'Maize Triangle'. They mainly produce ground nuts, sunflowers, cotton and sorghum.

Industries and manufacturing

Gauteng is an integrated industrial complex with major areas of economic activity in four sub-regional areas, namely the Vaal Triangle, the East, West and Central Rand and Pretoria. The manufacturing sector in Gauteng includes over 9 300 firms, employing more than 600 000 people.

Most steel in South Africa is produced and consumed in Gauteng. Other main industries are basic iron and steel; fabricated and metal products; food; machinery, electrical machinery, appliances and electrical supplies; vehicle parts and accessories; and chemical products. Food, food processing and beverages make up around R9,9 billion of G.G.P.

Roughly half of South Africa's estimated 4 000 food-processing companies are in Gauteng. The automotive parts and components industry, with its main centre in Rosslyn (Pretoria), employs about 38 000 workers and contributes an estimated 4,3% to the Province's G.G.P. This equates to an industry worth about R13 billion annually.



A view of the cooling towers from the Soweto side

Orlando Power Station Cooling Towers

The two cooling towers are a prominent landmark in Soweto. They were built in 1951 to supplement the spray pond cooling system, as this cooling source was running at capacity. Being supplied by sewage effluent from the Klipspruit Sewage Works, the spray ponds at Orlando were the first in South Africa to use this ready supply of coolant liquid.

Both towers are painted, one functioning as an advertising billboard and the other containing the largest mural painting in South Africa. The towers are also used for bungee and BASE jumping from a platform between the top of the two towers and a bungee swing into one of the towers.

Once dull and gray, the attractively painted towers are the biggest works of public art in Soweto, and they play different roles as exhibition and advertising platforms with one of them working as an advertising signboard another exhibiting the largest mural painting in South Africa. Info via: www.thisisafrica.me





The cooling towers up close

Gauteng Province Overview

Tourism

Most overseas visitors enter South Africa via OR Tambo International Airport. One in every two foreign tourists in South Africa visits Gauteng, making the Province the country's highest earner of tourism income. Jozi takes the crown as South Africa's most visited city, according to the 2017 edition of the Mastercard Global Destination Cities Index.



Education

Gauteng is a large centre of learning in South Africa, and it has many universities and other educational institutions of higher learning. Some of these include:

- African Leadership Academy
- C.T.I. Education Group
- Damelin
- Lyceum College
- Midrand Graduate Institute
- Monash University South Africa Campus
- Rabbinical College of Pretoria
- St Augustine College of South Africa
- Tshwane University of Technology
- University of Johannesburg
- University of Pretoria
- University of South Africa
- University of the Witwatersrand
- Vaal University of Technology

In 2002, the Gauteng Department of Education founded an initiative called Gauteng Online to get the entire Province to utilise various electronic and telecommunications systems.

In 2007, this initiative was handed over to the Gauteng Department of Finance.

The 2013 national budget speech announced that the Gauteng Department of Education would be granted over R700 million to improve education and alleviate issues concerning overcrowding in schools, a shortage in teaching staff and transport for poor pupils.

In 2017/2018, the Gauteng Provincial government spent R42.4 billion on education, accounting for 38% of the Province's total expenditure.

Sports and recreation

Gauteng is home to many stadia and sporting grounds

- ✿ Ellis Park Stadium
- ✿ Johannesburg Stadium
- ✿ Loftus Versfeld Stadium
- ✿ Odi Stadium
- ✿ Orlando Stadium
- ✿ Soccer City
- ✿ SuperSport Park
- ✿ Wanderers Stadium



The 947 Cycle Challenge is a popular annual event that takes place in Johannesburg North

Several teams from Gauteng play in the country's top-level association football (more commonly called soccer) league, the Premier Soccer League (P.S.L.), including Kaizer Chiefs and Orlando Pirates. The national squad Bafana Bafana's home stadium is Soccer City in Johannesburg. During the 2010 FIFA World Cup, the first-ever world cup held by an African nation, Gauteng's stadia hosted many games. The first-ever FIFA world cup match on African soil occurred at Soccer City on June 11, 2010. Along with Soccer City, Loftus Versfeld Stadium and Ellis Park Stadium hosted games in Gauteng.



A soccer game being played in Gauteng

Rugby, or more accurately, rugby union, is a popular sport in South Africa, particularly in Gauteng. Two rugby teams from Gauteng participate in the Southern Hemisphere Super Rugby championship: the Pretoria-based Bulls and the Johannesburg-based Lions (previously the Cats). Three Gauteng-based teams play in the country's domestic competition, the Currie Cup: The Blue Bulls from Pretoria, The Golden Lions from Johannesburg and The Falcons from the East Rand.

In 1995, South Africa hosted the 1995 Rugby World Cup and won the tournament at Ellis Park Stadium on June 24, 1995. The events surrounding the world cup formed the basis of the story for the movie *Invictus*. Many South African universities take part in the Varsity Rugby league. The Gauteng universities include the University of Pretoria, the University of Johannesburg and the University of the Witwatersrand.

Cricket is also widely popular among all cultural groups in the country. It is the only sport in the top two among South Africa's major ethnic/racial groups. The Highveld Lions represent Gauteng and North West in the country's three domestic competitions - the first-class SuperSport Series, the List A one-day M.T.N. Domestic Championship and the Twenty20 Standard Bank Pro 20 Series.

Many marathons, such as the Gauteng Marathon, the Arwyp Medical Centre 15km Night Race, and the Trisport Joburg City Triathlon, occur in Gauteng.

Gauteng's favourable weather conditions throughout the year make it an ideal hub for sports and other outdoor activities. This makes golf, horse racing and swimming very popular. The Vaal River facilitates water sports in jet skiing, water skiing and motor boating.



Zip lining across a river in Gauteng

Adventure sports are also quite popular in Gauteng, particularly skydiving, paragliding and hang-gliding. Gold Reef City's amusement park is in Gauteng, as are the Johannesburg and Pretoria Zoo.

Botanical gardens in the Province include the Pretoria and Walter Sisulu national botanical gardens, maintained by the South African National Botanical Institute and the Johannesburg and Manie van der Schijff botanical gardens. The Ticketpro Dome and the Gallagher Convention Centre, both popular events and expos venues, are located within Gauteng.

Transport

SANRAL

SANRAL, a parastatal, is responsible for maintaining, developing and managing all national road networks in South Africa. SANRAL is responsible for instituting the Gauteng Freeway Improvement Project, which was met with much opposition due to the tolling of Gauteng motorists. Many important national routes run through Gauteng, such as the N1, N3, N4, N12, N14 and N17. Johannesburg is quite dependent on freeways for transport in and around the city. The R21, R24, R59, M1 and M2 run through Johannesburg. The Gauteng Freeway Improvement Project led to a large decrease in traffic congestion when construction finished in 2011-2012. For the first time in decades, Cape Town is now the most congested city in South Africa.



A very commonly seen and extremely dangerous form of transportation in South Africa

PUTCO

PUTCO, the largest commuter bus operator in South Africa, services the Gauteng area extensively. Rea Vaya's bus rapid transit system also serves to transport people from Johannesburg's southern neighbourhoods into and around the CBD. In an interview, Parks Tau stated that by 2040, Johannesburg will be dominated by pedestrians and public transport instead of private or informal transport, such as minibus taxis.

Gautrain and Metrorail

Gautrain and Metrorail service the Province's public transport sector where trains are concerned. Gautrain offers a bus service that transports commuters to and from various train stations and predetermined bus stops. Metrorail trains are considered one of the most cost-effective transportation methods in and around Gauteng.



Gautrain Sandton Station

Airports

The OR Tambo International Airport, Rand Airport, Lanseria International Airport, Wonderboom Airport and Grand Central Airport are in Gauteng.



Informal transport

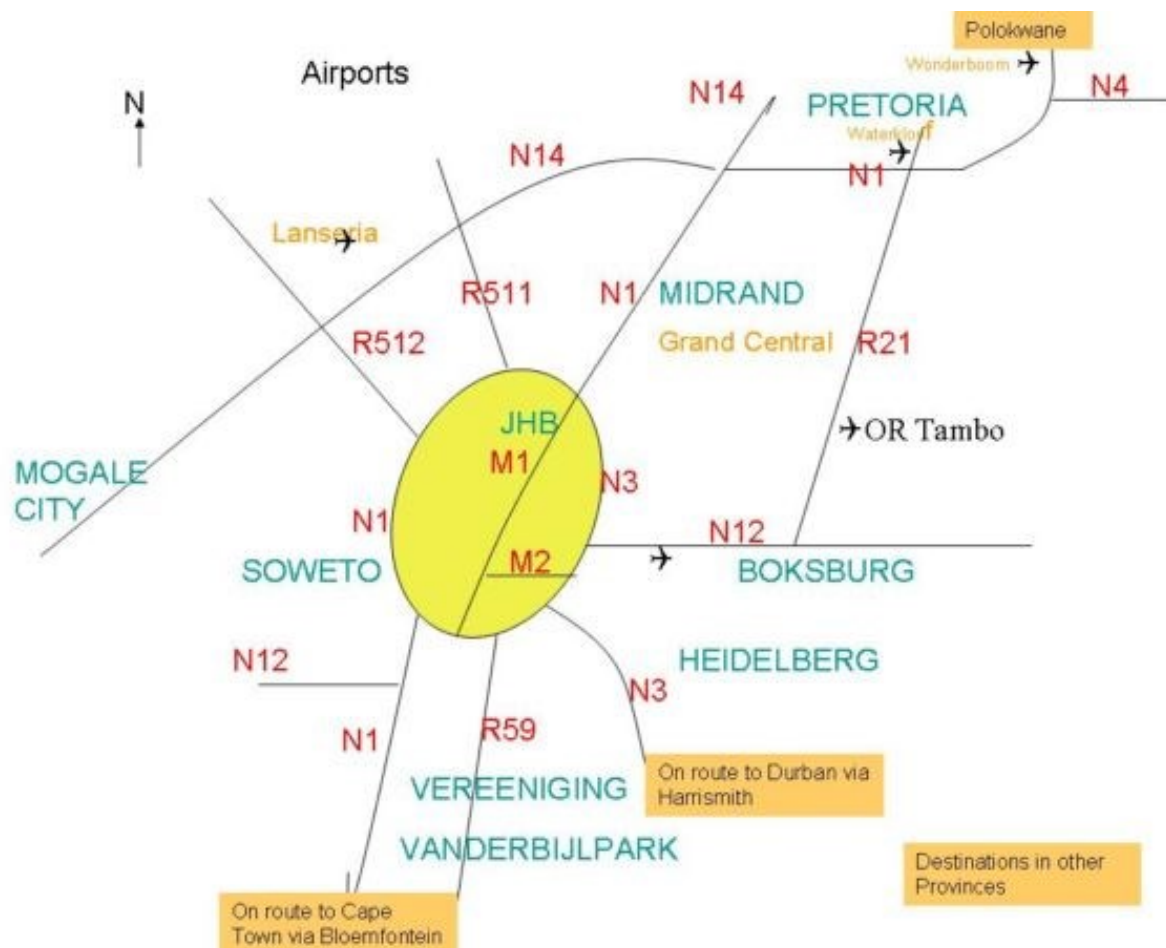
There is a large informal transport sector in Gauteng, consisting of thousands of minibus taxis, which many urban and rural populations use. However, it is noted that taxis are often unsafe as their drivers ignore the road rules, and the vehicles are often not roadworthy.



The City of Johannesburg stated, 'Major initiatives are underway to completely reform the taxi industry and provide more comfort and safety to customers.'

Major routes and orientation

The easiest way of finding your way in the Province is to imagine that Johannesburg and its suburbs can be likened to a 'golden egg' (depicting the gold and the subsequent economic wealth it brought about). This also represents the ring road around the city. From here, it is easy to make connections in all directions.



The N1 extends all the way from Cape Town via Bloemfontein.

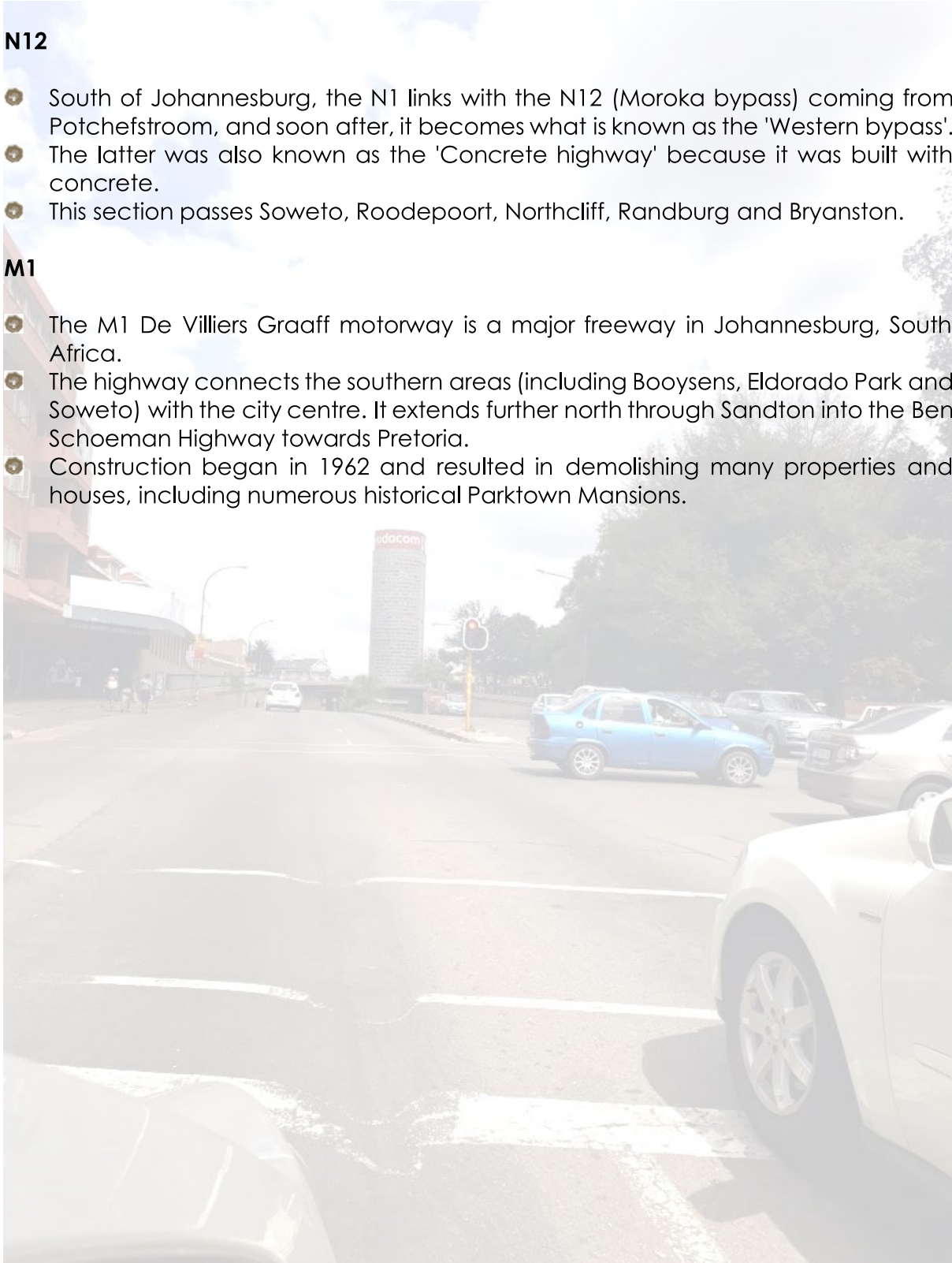
- After crossing the Vaal River, it reaches the town of Vanderbijlpark.
- It passes close to Sebokeng,
- Scene of the Sharpeville uprising and later through the Grasmere Toll Plaza.

N12

- South of Johannesburg, the N1 links with the N12 (Moroka bypass) coming from Potchefstroom, and soon after, it becomes what is known as the 'Western bypass'.
- The latter was also known as the 'Concrete highway' because it was built with concrete.
- This section passes Soweto, Roodepoort, Northcliff, Randburg and Bryanston.

M1

- The M1 De Villiers Graaff motorway is a major freeway in Johannesburg, South Africa.
- The highway connects the southern areas (including Booysens, Eldorado Park and Soweto) with the city centre. It extends further north through Sandton into the Ben Schoeman Highway towards Pretoria.
- Construction began in 1962 and resulted in demolishing many properties and houses, including numerous historical Parktown Mansions.



N3

- The N1 connects with the M1 (De Villiers Graaff Motorway) and the N3 at the Buccleuch Interchange.
- The N1 now swerves northwards, becoming the 'Ben Schoeman Highway'.
- It is packed every working day, and an early start is no guarantee of arriving on time.
- Always allow at least two hours of travel between Johannesburg and Pretoria in the morning and late afternoon, or use an alternative route (which is not always a better solution since everyone else has the same idea!)

Midrand is halfway between Johannesburg and Pretoria.

N14

- Soon after the Olifantsfontein off-ramp, the N1 interchange with the N14 (continuing to Pretoria CBD and to the west to Mogale City/Krugersdorp).

R21

- The N1 follows an easterly route, passing Centurion and Irene.
- It then interconnects with the R21 (the so-called 'Airport Road' or Albertina Sisulu Road) to OR Tambo International and Pretoria CBD.
- The N1 now slowly starts its course in a northwards direction again.

N4

- The intersection with the N4 supplies yet another option to reach downtown Pretoria.
- The westward-bound section of the N4 towards eMalahleni (Witbank) is the main access route from Pretoria to the Lowveld and Kruger National Park.
- After passing the most northern suburbs of Pretoria, the N1 becomes known as 'the Great North' road.
- The N4 or so-called 'Platinum Highway'.

