JENN
Training and Consultancy
The path to enlightened education

Province of the
EASTERN CAPE
EDUCATION

GEOGRAPHY

GRADE 12

SPRING SCHOOL

TEACHER AND LEARNER CONTENT MANUAL

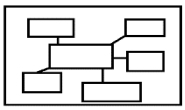
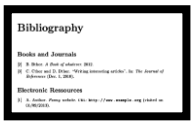
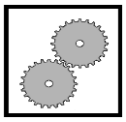
2026

Scan to watch video lessons!

CONTENTS **PAGE**

TOPIC 1: o Examination guideline and outcomes o Important terms and definitions o Worked examples. o Activities	**4 - 28**
TOPIC 2: o Examination guideline and outcomes o Important terms and definitions o Worked examples. o Activities	**29 - 39**
TOPIC 3: o Examination guideline and Outcomes o Important terms and definitions o Brief notes and worked examples. o Activities	**40 - 67**

ICON DESCRIPTION

 MIND MAP	 EXAMINATION GUIDELINE	 CONTENTS	 ACTIVITIES
 BIBLIOGRAPHY	 TERMINOLOGY	 WORKED EXAMPLES	 STEPS

GEOGRAPHY EXAMINATION TIPS

Paper, **ONE** comprises of **Climatology**; **Geomorphology** and **Mapwork**.

Paper **TWO** comprises of **Settlement Geography**; **Economic Geography** and **Mapwork.**

Learners are encouraged to read instructions carefully before answering the question paper.

Instructions provide important information with regards to the length of responses and to indicate the unit in all steps of calculations...

Highlighting the instructional verbs and important aspects of the question will assist learners in interpreting the question correctly.

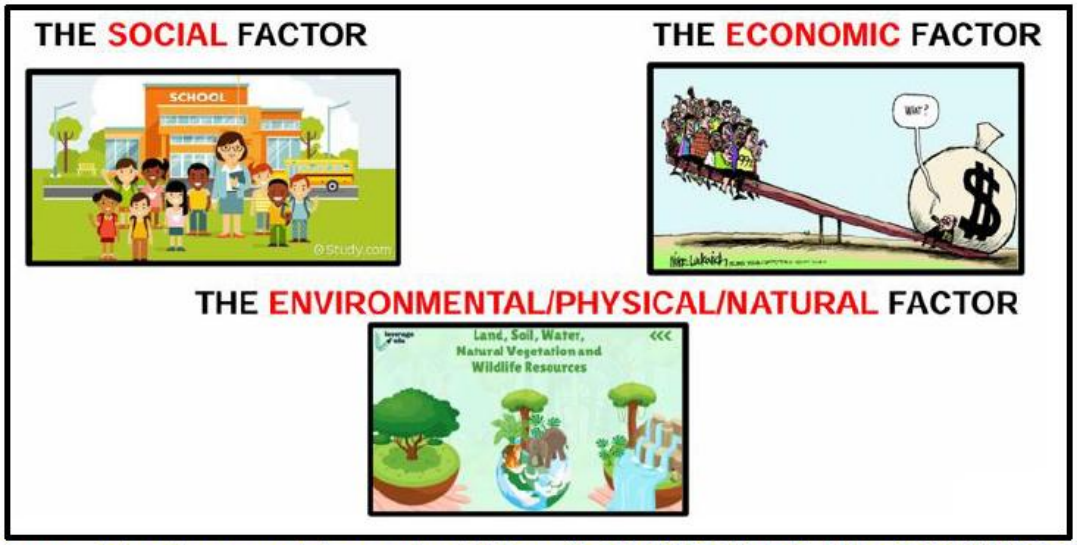
Geographical issues are often assessed, and thorough preparation is crucial.
Learners should focus on:

- CONCEPT DEFINITION
- the causes and impacts
- both negative and positive impacts,
- Impact on human activities (social and economic) and the environment
- possible solutions or sustainable strategies/measures to be implemented to overcome these issues.

Paragraph writing

- Knowledge of paragraph writing skills is essential.
- Learners need to write in full sentences and **NOT** use bullets or point form.
- Four points (if required) must be explained(4x2) (8).;
- Answers in most instances require a factor and a qualification.
- Learners should underline or highlight the main topic of the question, the instructional verb, and the focus areas of the question.
- Make at least four points and then elaborate on each point.
- Learners know all the geographical concepts and definitions required.

- Learners should compile a glossary of terms/concepts and an explanation of each in their notebooks for easy reference.



Source: https://www.youtube.com/watch?v=sd8c3Ky8K5Q&list=PLLTtun7pIbIxVHORe]

ECONOMIC GEOGRAPHY EXAMINATION GUIDELINES



1.1 Economic Geography of South Africa

- Economic sectors – definitions and examples:

- Primary
- Secondary
- Tertiary
- Quaternary

- Contribution of economic sectors to the South African economy:
- Definition, interpretation of, value and contribution to, GNP and GDP
  Use/Interpretation of statistical and graphical information.
  Employment (linked to different sectors, interpretation, and application)
- **Agriculture**
  - Contribution of agriculture to the South African economy
  - Small-scale farming and large-scale farming: definition, characteristics, and interpretation
  - Main products produced (definition and examples)- home market and export market

NOTE: Instruction at the beginning of the section on Economic Geography

EXAMINATION	YEAR	PRESCRIBED AGRICULTURAL PRODUCT
November 2026 **May/June 2027**	**2026/7**	**Maize**

- Areas of production on a map, identification and interpretation
- Apply factors that favour and hinder agriculture in South Africa to the product studied.
- Contribution of prescribed product to the South African economy

Food security:

- Definition of food security and food insecurity
- Importance of food security in South Africa
- Factors influencing food security in South Africa
- Strategies to improve food security in South Africa
- Case studies related to food security and food insecurity in South Africa.

Mining

- Contribution of mining to the South African economy
- Significance of mining to the development of South Africa
- A case study of one of South Africa's main minerals produced

Grade 12 summary notes 2026

NOTE: Instruction at the beginning of the section on Economic Geography

EXAMINATION	YEAR	PRESCRIBED MINERAL
November 2026 May/June 2027	**2026/7**	**Platinum**

- Location of mineral studied on a map, identification and interpretation
- Apply factors that favour and hinder mining in South Africa to the main minerals above
- Contribution of prescribed mineral to the South African economy

Secondary and Tertiary Sectors

- South Africa's core/main industrial regions:
- Gauteng (PWV), Durban-Pinetown, Port Elizabeth-Uitenhage, South-western Cape
- Location of the above FOUR core industrial regions on a map

EXAMINATION	YEAR	PRESCRIBED MINERAL
November 2026 May/June 2027	**2026/27**	**Gauteng (PWV) Port Elizabeth/Uitenhage**

Types of industries (definition, description, examples and characteristics):

- Heavy and light
- Raw material orientated
- Market orientated
- Footloose industries
- Ubiquitous industries
- Bridge (Break of bulk

Factors favouring industrial development in South Africa:

- Raw materials
- Labour supply
- Water supply
- Energy supply
- Transport
- Political intervention
- Competition
- Trade

Factors hindering industrial development in South Africa:

- Over-concentration
- Transport
- Air pollution

- Labour supply
- Water supply
- Energy supply
- Raw materials
- Political interference
- Competition
- Trade

Strategies for Industrial Development

- Overview of apartheid industrial development strategy:
- The Good Hope Plan

Overview of post-apartheid industrial development strategies:

- The Reconstruction and Development Programme (RDP)
- Growth, Employment and Redistribution (GEAR)
- Industrial Development Zones (IDZs) and spatial development Initiatives (SDIs):
- Case studies of two Industrial Development Zones (IDZs) and Spatial Development initiatives (SDIs):

EXAMINATION	YEAR	IDZ	SDI
November 2026 May/June 2027	**2026/27**	**Coega**	**Wild coast**

Key facts to concentrate on with regard to the prescribed IDZ's and SDI's

- Definition and difference between an IDZ and SDIs
- Map showing the location of prescribed IDZs and SDIs
- Factors influencing the location of the prescribed IDZs and SDIs
- Main industrial activities
- Factors that favour and hinder the development of the prescribed IDZs and SDIs
- Economic and social impacts
- Case studies to illustrate the above

The informal sector

- Concept of informal sector employment
- Characteristics of informal sector employment
- Reasons for high informal sector employment in South Africa
- Challenges facing South Africa's informal sector
- Importance/Role of the informal sector in the economy
- Strategies for strengthening the informal sector
- Case studies to illustrate the above in the South African context

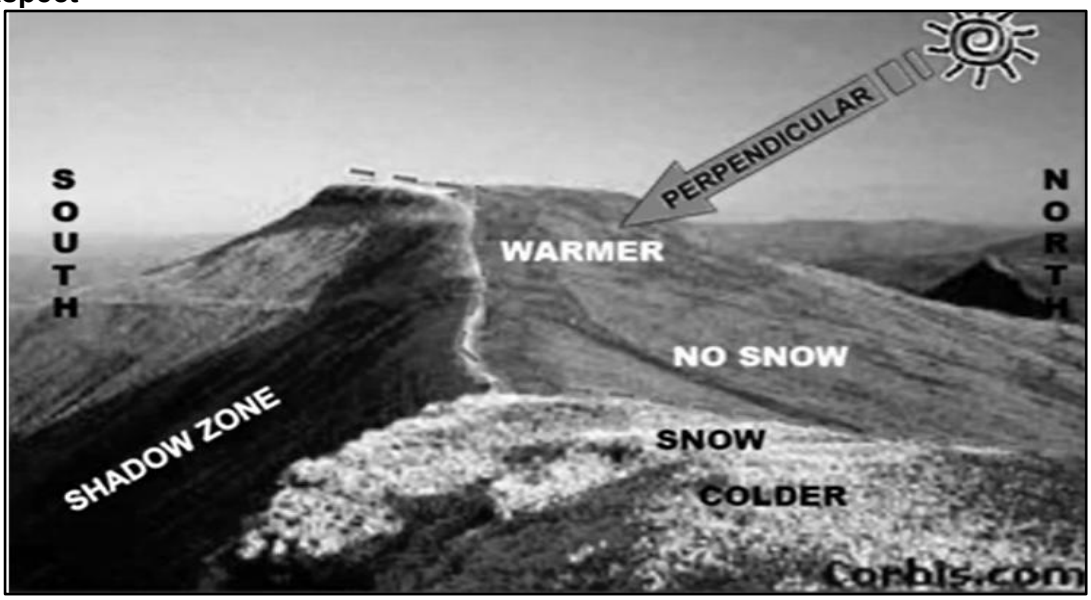
Climate and Weather
Valley climates and Urban heat islands

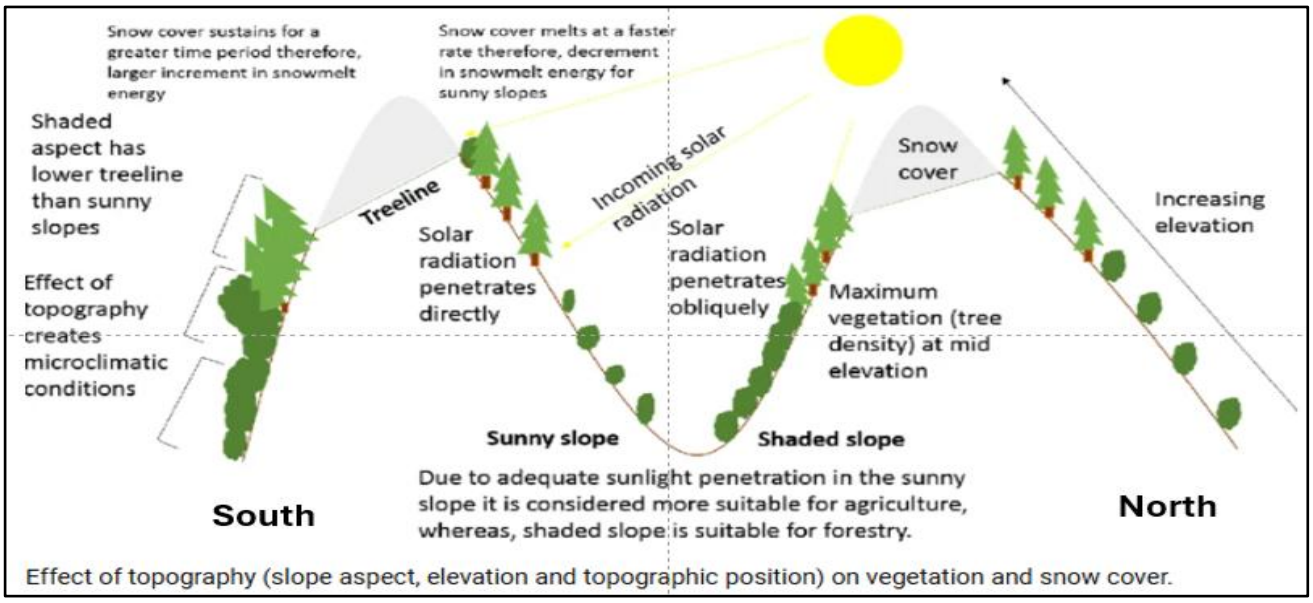
Anabatic wind	A local wind which blows up the length of the valley during the day, because of rising of warm air.
Frost pocket	An area of cold air reaching a dew point temperature below freezing at the bottom of the valley. May occur on clear, calm winter evenings.
Katabatic wind	A local wind which blows down the slope of a valley during the night, because of cold subsiding air.

Microclimate	The climate of a small area that is different to the climate of its surroundings. Three factors contribute to valley microclimate.
Shadow zone	The part of the valley or slope that does not receive any sunlight.
Slope Aspect	Refers to the direction to which a slope faces.
Temperature inversion	An increase of temperature with altitude rather than the usual decrease.
Thermal belt	Warm layer of air midway up a valley with cold air below as a result of inversion of temperature.
Upslope wind	A local wind which blows up the sides of a valley during the day.
Acid rain	A form of precipitation that is acidic due to water droplets dissolving gaseous pollution molecules.
Albedo	The amount of incoming solar radiation (insolation) that is reflected by the Earth's surface.
Condensation nuclei	Particles of dust, smoke or salt that water vapour sticks to and on which it condenses. Also called hygroscopic nuclei.
Isotherms	A line on a map connecting points having of equal temperature.
Plume	Smoke, dust, fire, or water is a large quantity of it that rises into the air in a column.
Pollutants	The dome-shaped concentration of polluted air above the centre of a city or industrial area.
Pollution dome	A mass of polluted air temporarily trapped over a city or industrial area.
Smog	A mixture of smoke and fog
Urban climate	Climatic conditions specific to large urban areas.
Urban heat island	The temperature over the city is warmer that the surrounding rural area.

VALLEY CLIMATES

Slope aspect





Effect of topography (slope aspect, elevation and topographic position) on vegetation and snow cover.

North facing slopes

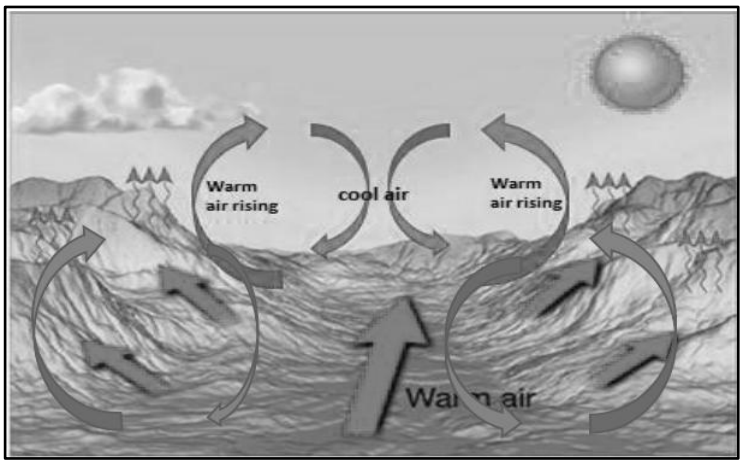
- north-facing slopes are hot, sunny and drier
- Receive more direct Sun's rays
- Smaller surface area heated thus warmer
- Soils are warmer as they are in the sunny zone.
- Farmers have to select a slope which is best suited for certain crops.
- Warmer part of valley is called the thermal belt
- The effect of aspect is greater in the winter and in places further from the equator

South facing slopes

- South-facing slopes are cool, shady and retain moisture
- Soils are cooler on the south-facing slopes as they are on the shadow zone.
- Area in shadow zone on the south facing slope are heated only by reflection

Anabatic and katabatic winds

Anabatic



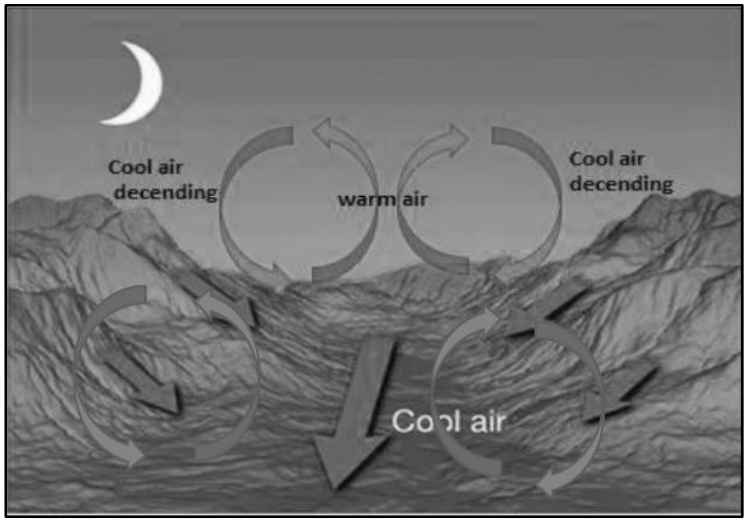
The air above the slopes warms, becomes lighter and rises the slopes of the valley

This is a warm wind which blows up a steep slope or mountain side, driven by heating of the slope through insolation

Occur during the day when the slopes warm due to insolation.

Rising air remove any pollution in the valley to higher altitudes

Katabatic



The air above the slopes becomes cold and dense and sinks down the valley sides

This is a wind that carries high density air from a higher elevation down a slope under the force of gravity.

Occurs at night when the slopes cool due to terrestrial radiation.

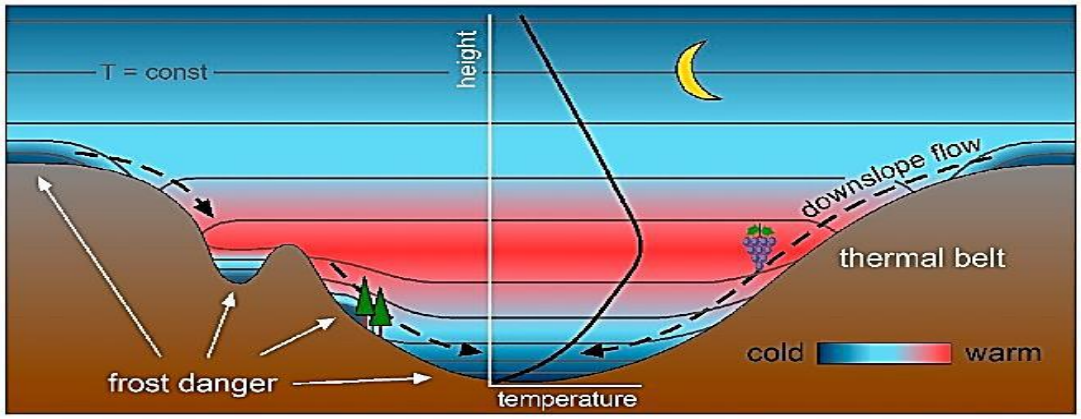
Descending air is cold and capture the pollution on the valley floor which can result in the development of smog

Inversions



- Occurs during calm, cold and clear winter night.
- When cold air drains down the valley slopes and collects at the bottom of the valley
- Warm air is displaced upwards to form an inversion layer in the mid-valley
- It is a layer of warm air trapped between two layers of cold air
- Layer is called the thermal belt
- Can lead to the formation of acid rain which corrode buildings and damage crops

Frost pockets



- Cold air drains down neighbouring slopes
- If dew point temperature is below freezing point, it condenses to ice crystals
- Forming frost pockets where the cold air collects.

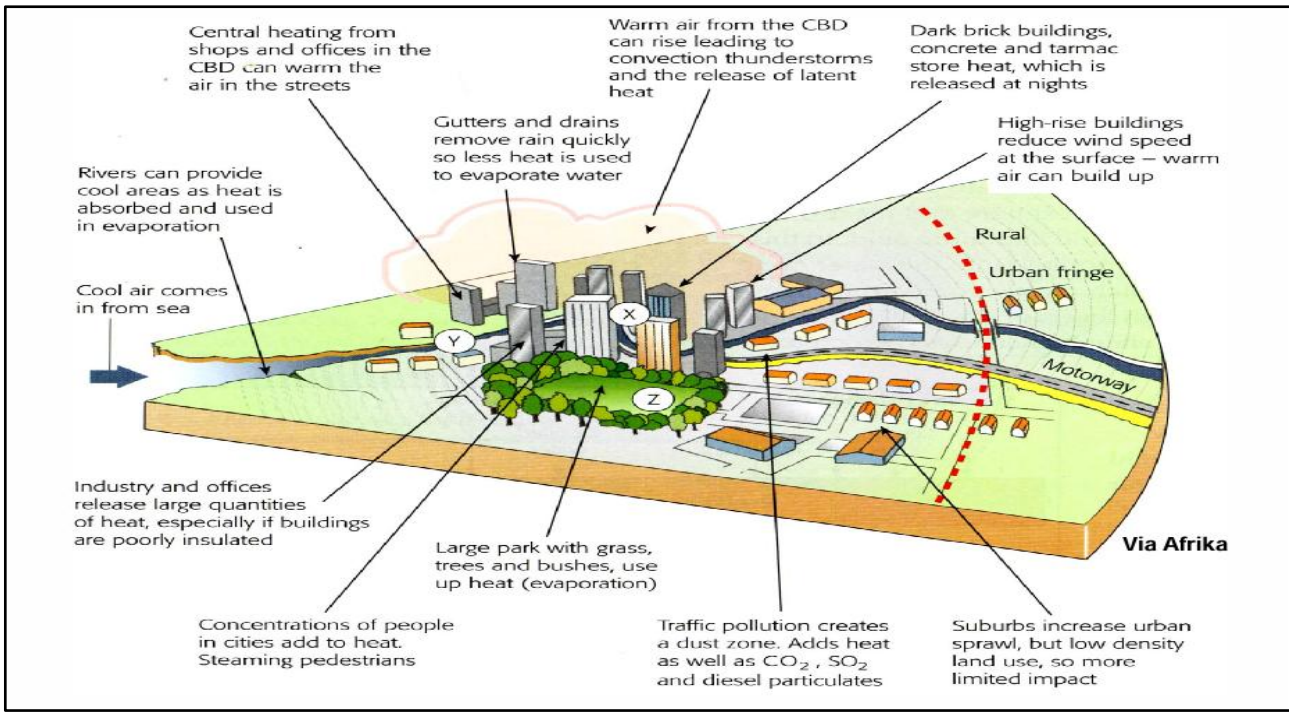
Urban heat islands

Urban climate vs Rural climate

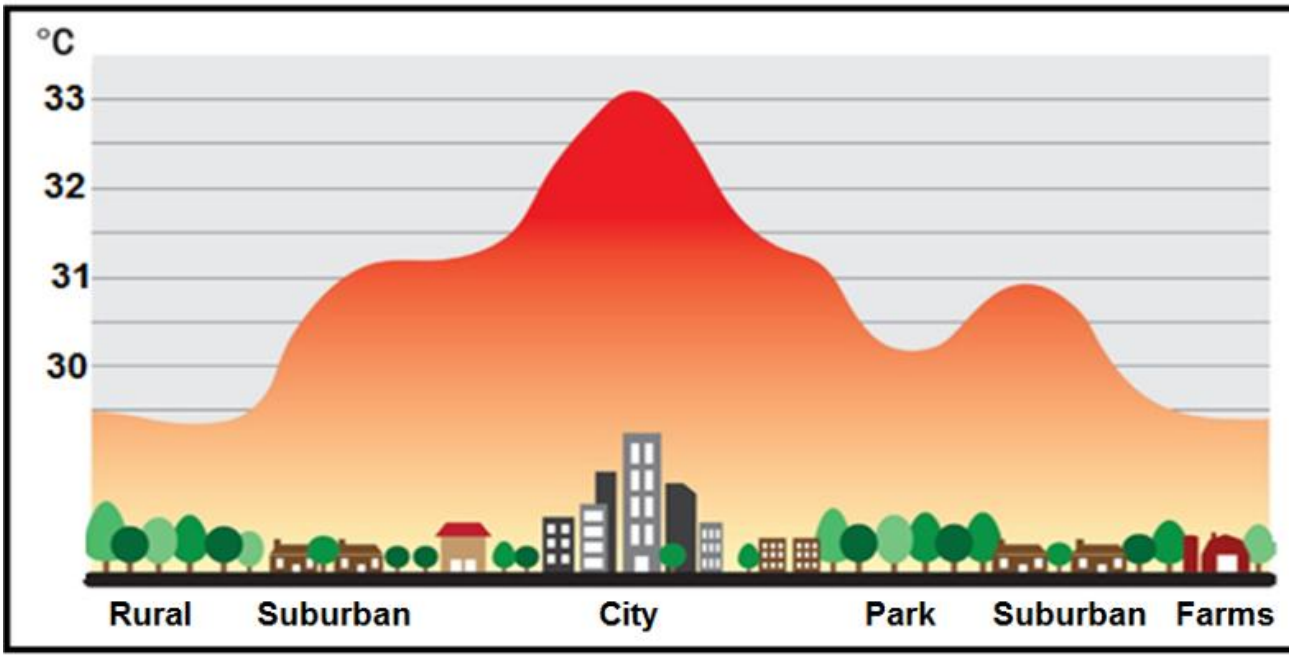
	Urban	Rural
Temperature	Warmer due to lack of vegetation and transpiration. More artificial heating, air conditioning, vehicle emission. More artificial surfaces, tar, concrete that absorbs heat. More dust and pollution prevent heat from escaping.	Cooler due to fewer artificial surfaces and more vegetation cover.
Pollution	More pollution and dust due to industrial activities, Combustion processes and traffic.	Less pollution and dust particles.
Cloud cover	More clouds form as there are more dust and pollution particles in the atmosphere.	Fewer clouds because of less hygroscopic nuclei.
Precipitation	More rain and hail due to more hygroscopic nuclei in the atmosphere and strong updrafts of air. Warmer temperature causes more evaporations.	Less rain and hail because Lower temperature and Less condensation.
Relative humidity	Lower evaporation and relative humidity due to lack of vegetation cover and natural resources. less surface water to evaporate. warmer air can hold more moisture.	Higher relative humidity Due to water retention in Soil and vegetation.
Wind speed	Wind speed is less as buildings creates friction And acts as windbreaks. • greater turbulence because wind is channeled Between buildings.	Wind speed is higher. Turbulence is less due to open space.

Urban heat islands

Causes of urban heat islands



Effects of urban heat islands

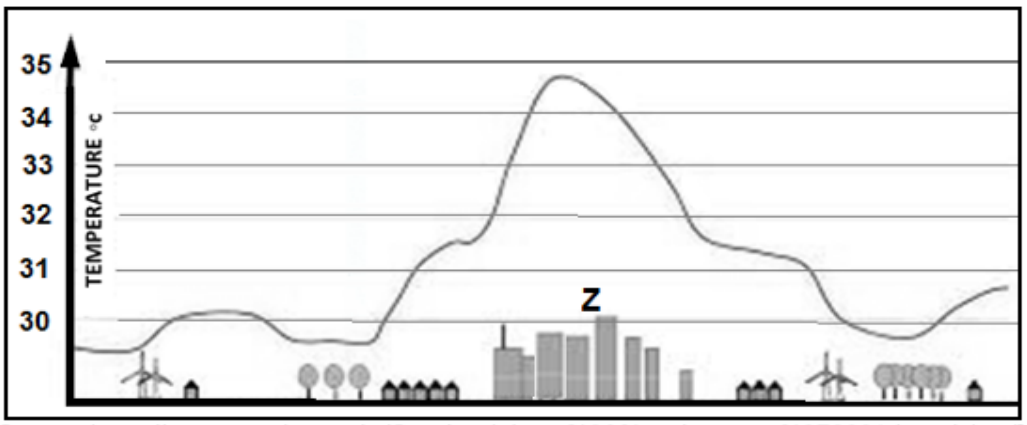


Human discomfort
•Heat stroke-deaths
•Reduced visibility (smog)
•Increased energy use
•Air conditioners

•Increase in air pollution
•Increase in greenhouse gasses
•Respiratory discomfort. Asthma
•Increased precipitation
•Reduced insolation (pollution)

Activity 1

Refer to the graph showing the difference between rural and urban temperatures.



[Source: https://www.google.com/url?sa=i&url=https%3A%environment%2F2021-heat-island]

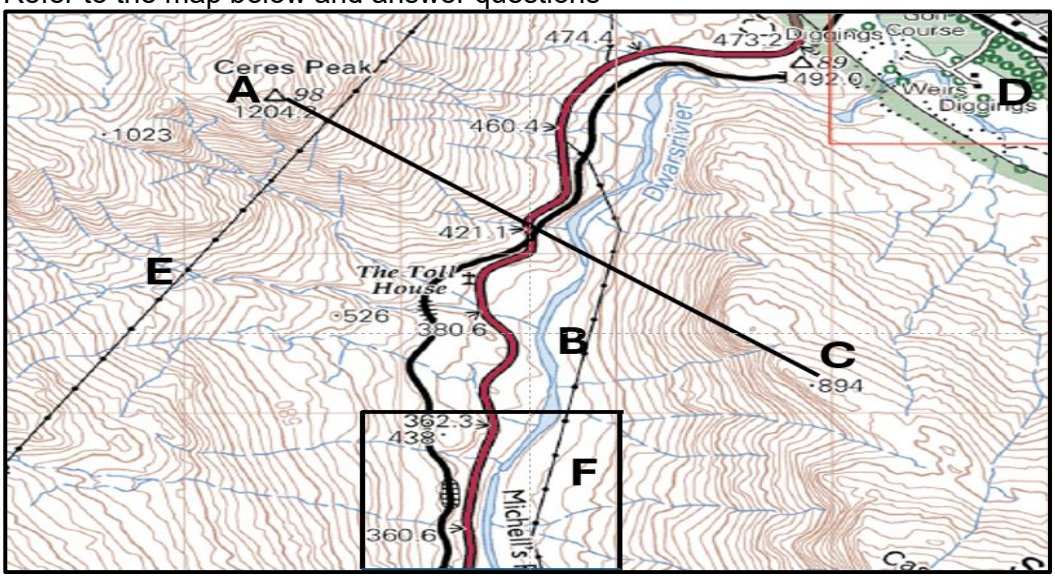
1.1.1 Define the concept urban heat island. (1x2) (2)

1.1.2 Give the highest temperature recorded. (1x1) (1)

1.1.3 Explain TWO ways in which the buildings at Z contribute to the high temperatures. (2x2) (4)

1.1.4 In a paragraph of approximately EIGHT lines, suggest sustainable building strategies to reduce the urban heat island effect. (4x2) (8)

1.2 Refer to the map below and answer questions



1.2.1 Identify the cultural feature at **E**, (1x1) (1)

1.2.2 How will the vegetation at **D** have an impact on heat islands in a city? (1x2) (2)

1.2.3 What kind of winds will cause frost conditions along the river at **B**? (1x2) (2)

1.2.4 Which crops can grow well at **B**? (1x2) (2)

1.2.5 Identify the thematic layers that are visible in block **F** on the map. (3x1) (3)

1.2.6 The measured distance between **A** and **C** is 3.1cm.
Calculate the gradient from **A** to **C**. Use the scale of a topographic map. (4x1) (4)

RURAL SETTLEMENT ISSUES

Social justice issues are associated with rural settlements.

Social justice is the view that everyone deserves equal economic, political and social rights and opportunities.

According to South African Government Information the challenges in rural areas in South Africa include

- an unsustainable use of natural resources
- inadequate access to socio-economic and cultural infrastructure and services
- a lack of access to water for both households and agricultural developments
- a low literacy rate and skills levels
- migratory labor practices
- a decay of the social fabric
- an abundance of unexploited opportunities in many economic sectors
- high unemployment
- Due to the legacy of past policies, such as the former homelands system, rural South Africa has high-density population areas and dislocated settlement where residents live in abject poverty.
- The past injustices impede efforts of the rural people to maintain intact families and ensure a livelihood for themselves.
- Rural areas in South Africa have been experiencing economic and social decay over the past decades due to urban migration.
- Rural areas are also plagued with a lack of education and skills which makes the challenge of finding adequate employment even harder.
- HIV/AIDS poses and extensive challenge to rural development in South Africa because it impacts on a range of developmental factors.
- Rural areas are generally less equipped with resources to address this challenge, **increasing the vulnerability of households.**

Measures that can be implemented to develop rural areas

- Institutional development to help rural people set priorities in their own communities and access funds to plan and implement local economic development.
- Investment in basic infrastructure and social services.
- Improvement in income and employment opportunities and broadened access to natural resources.
- Establishment of periodic markets to restore basic economic rights to marginalized rural areas.
- Conservation of resources.
- Increased justice, equity and security

LAND REFORM

Equitable distribution of landownership by changing laws about ownership of land

Land reform is necessary in South Africa inequalities exist due to apartheid legislation of the past which prevented all people to own land

> **Land redistribution:** some agricultural land must be bought and given to black owners by the state
>
> **Land restitution**: return of land to people who fell victim to forced removals
>
> **Land tenure reform:** to secure the residential rights of people living in farms

CHALLENGES WITH LAND REFORM

- Willing buyer, willing seller causes delays
- it is very costly to buy land from those wiling to sell
- takes time to resolve disputes
- grey areas in land reform policies
- disagreement between government and traditional leaders
- land redistributed to those who have no interest or knowledge of farming
- move from subsistence to commercial farming has not occurred
- land reform has not stimulated the economic growth of rural areas
- the process is very slow



www.landreformfutures.org

SOCIAL JUSTICE ISSUES IN RURAL AREAS



Zapiro: 1913 Land Act: How far has SA come?

2.1.1 Explain the concept social justice (1x1) (1)

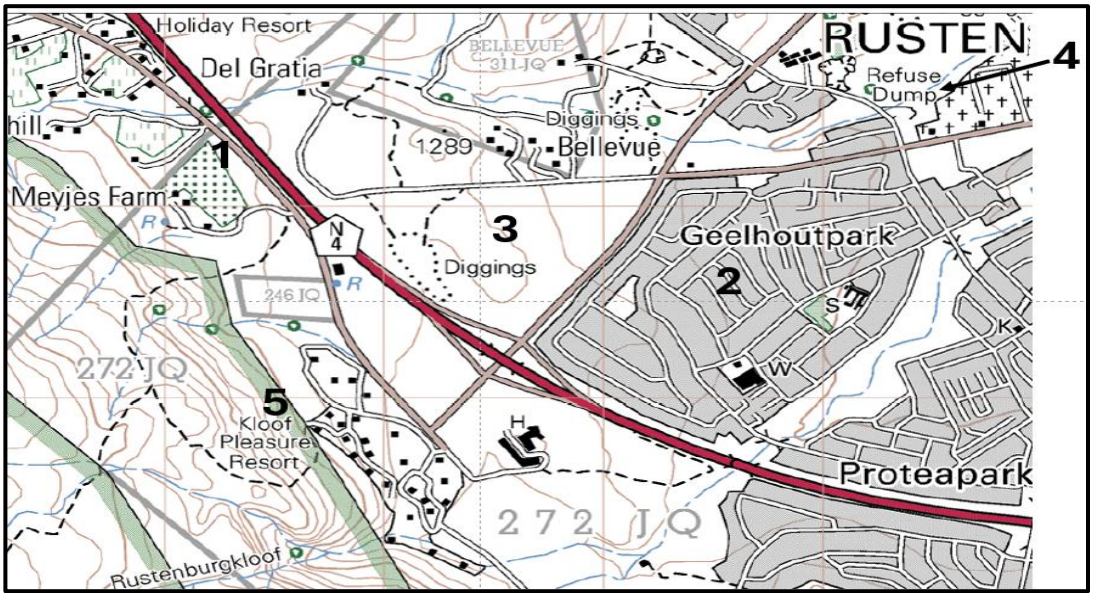
2.1.2 Identify the social justice issue depicted in the cartoon. (1x1) (1)

2.1.3 Explain why the character with the South African flag is riding on a snail. (1x2) (2)

2.1.4 What challenges are faced by the government in delivering the land reform policy. (3x2) (6)

2.1.5 Discuss how the implementation of land reform can affect South Africa's agricultural production. (3x2) (6)

2.2 Refer to the map extract of Rustenburg 2527CA



Choose the most correct answer from the options given

2.2.1 Classify the refuse dump at **4** in its correct land use zone

A residential rural
B urban fringe
C light industrial
D dumping place

2.2.2 Discuss reasons why the cemetery is located at area 4. (2x2) (4)

2.2.3 Provide evidence that suggests Geelhoutpark (2) is a high income residential area. (2x2) (4)

2.2.4 Explain why temperatures will be higher at 2 than at 5. (3x2) (6)

2.2.5 Discuss factors that influenced the location of Meyjers Farm at 1. (3x2) (6)

2.2.6 The Rustenburg municipality intends to expand the low in come residential area Bellevue towards 3 where there are diggings.

Explain the social justice issues that future residents may face in the area. (3x2) (6)

IMPORTANT TERMS AND DEFINITIONS

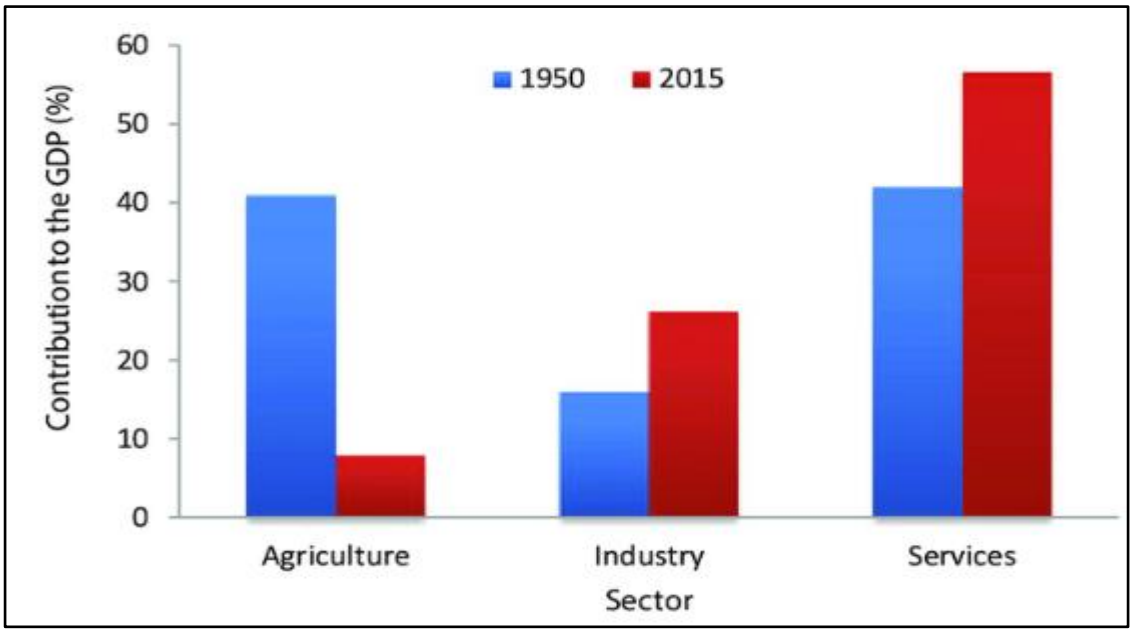


Imports	Goods and services brought from outside countries
Exports	Goods and services sold to outside countries
Gross national product	Total value of goods and services produced in a country in a particular year
Industrial Development Zones	areas away from core industrial areas earmarked for industrial development. The available infrastructure (seaport or airport) makes possible for export-orientated manufacturing industries
Spatial Development Initiatives	investment strategy that aims to unlock inherent economic potential in specific spatial locations in southern Africa
Foreign exchange	The money paid to South-Africa by other countries in exchange for goods and services. (Money earner by SA)
Balance of trade	The difference in value between the visible imports and exports
Informal Sector	The unregistered and unregulated sector of the economy which includes hawking and street vending. They do not pay tax and are not monitored by government.
Gross Domestic product	The total value of goods and services produced within the borders of the country in a year.
Home market	Products sold within the country South Africa
Export Market	Goods that are produced for export markets
Food insecurity	When most people have lack of access to quality, nutritious food in a country for sustainable living.

Extraction and exploitation of raw materials

AGRICULTURE

Agriculture forms part of the primary activities that contribute to the South African economy and has shown a steady decline in its percentage contribution to the GDP due to other sectors increasing their shares of the GDP as skill levels in the country have increased.



Agriculture contributes to the economy directly as it:

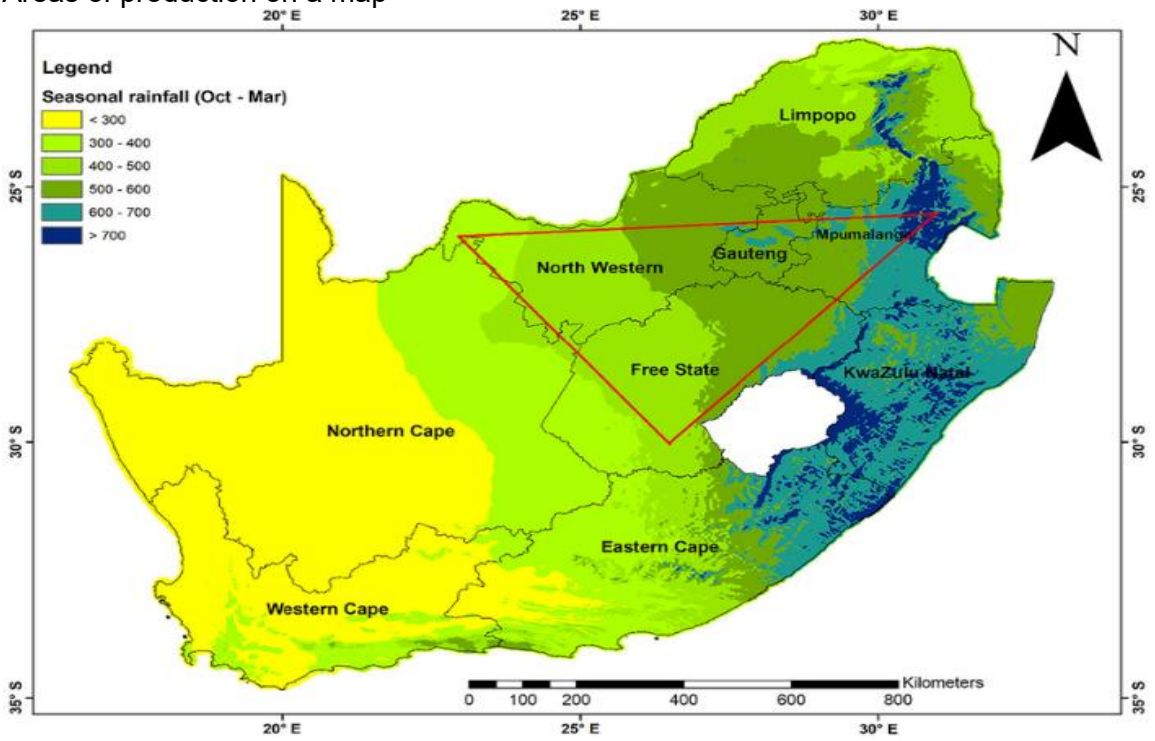
- Contributes a percentage to the GDP.
- Contributes a percentage of the workforce employed in labour.
- Contributes a percentage from exports to the GNP**.**

Agriculture contributes to the economy indirectly as it:

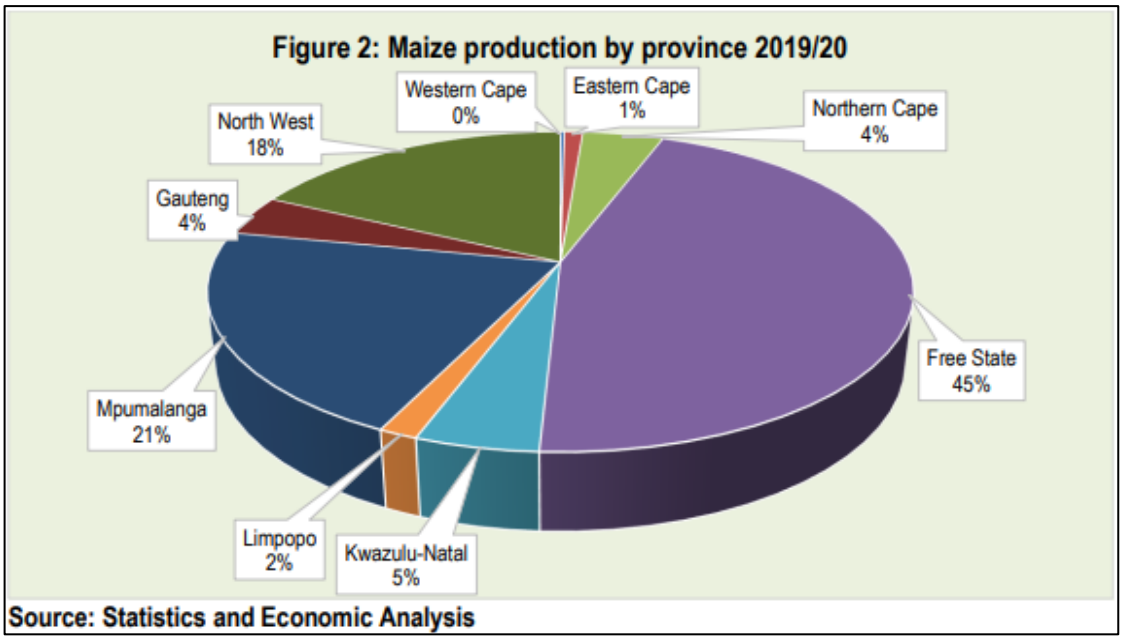
- promotes growth in the other economic sectors as it provides raw materials for the industry.
- promotes growth in the transport sector by using transport for receiving agricultural goods.
- is a major employer of South Africans as 19% of people are directly/indirectly dependent on agriculture for their income.
- has been a good exporter and derives income from countries that import South African agricultural products

Maize Farming

Areas of production on a map



- Maize is produced in all the provinces of South Africa, but the most significant producing regions are the **Free State**, **Mpumalanga** and **the North-West** provinces. On average, between 2.5 and 2.8 million hectares of commercial maize are planted in the country each year.



- In 2021/22, South Africa was the ninth largest producer of maize (also known as “mielies” and corn) in the world, and the largest maize producer in Africa.
- The country produces around 14 million tonnes of maize per year, of which around 12 million tonnes are white maize and 2 million tonnes are yellow maize.

- There are also many small-scale farmers, who produce a significant proportion of the country's maize.
- Maize is typically planted in summer and harvested in late winter or early spring.
- South Africa has a long tradition of maize farming, and the crop is well-suited to the climate and soils found in the country.
- Maize (also known as “mielies”) is grown in all provinces of the country, with the majority of maize in 2020/21 being produced in the Free State, Mpumalanga and the North West provinces.

IMPORTANCE OF MAIZE PRODUCTION

- It is one of the most important crops in South Africa, as it is the main source of food for millions of people.
- A smaller percentage is used for animal feed and other industrial uses.
- It is the second largest agricultural sector in terms of value after poultry slaughtered.
- Ensures self-sufficiency in the major basic food product.
- Ensures food security in SA and the SADC region.
- Is an earner of foreign exchange through exports.
- The existing production infrastructure is well developed.
- There is enormous intellectual capital and experience that is available in the maize sector.
- There are low entry barriers, in the sense that grain producers can easily substitute other grains produced with maize.

CHALLENGES FOR MAIZE PRODUCTION

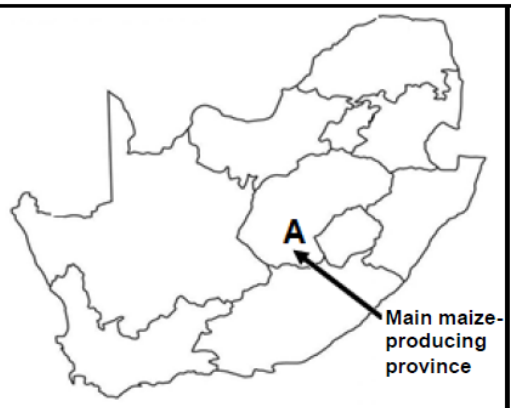
- Production is largely dependent on climatic conditions which can only be partially manipulated by man through irrigation.
- International agricultural policies significantly distort international grain markets.
- Deteriorating research infrastructure and capacity may limit new technology development in the future.
- Export opportunities are mainly limited to African countries.
- Relatively high input and capital costs because a large proportion of production inputs are imported.

Activity 3

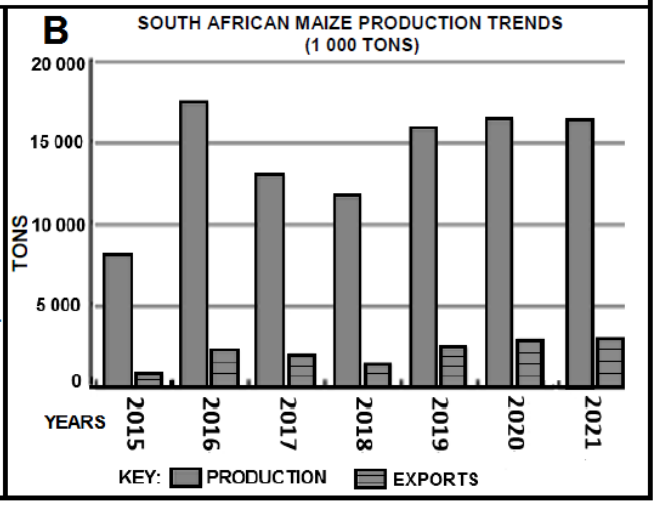
Refer to the infographic on maize farming in South Africa below.

MAIZE FARMING IN SOUTH AFRICA

More than 10 million tons of maize grain is produced in South Africa annually on approximately 3,1 million hectares (ha) of land. Half of the production consists of white maize for human food consumption. Maize needs 450 to 600 mm of rainfall per season, which is mainly acquired from the soil moisture reserves. The challenges in maize production include variations in environmental and climatic conditions, poor soils, labour issues and low-yielding seeds among others.



[Adapted from https:/www.google.com/Maize farming]



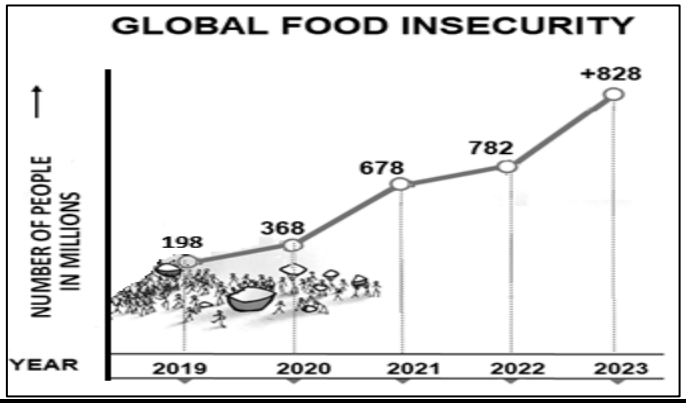
3.1.1	Name the main maize-producing province (A) in South Africa.	(1 x 1)	(1)
3.1.2	Refer to the graph. Compare the amount of maize produced to the amount that is exported.	(1 x 2)	(2)
3.1.3	Why does South Africa have a large domestic (local) market for maize?	(2 x 2)	(4)
3.1.4	How will climatic factors reduce maize production?	(2 x 2)	(4)
3.1.5	Explain the economic importance of maize production to the South African economy	(2 x 2)	(4)

IMPORTANCE OF FOOD SECURITY IN SA

- Food security refers to the availability of well-balanced meals on a regular basis
- South Africa has high unemployment levels and high poverty levels. Hence, many individuals and families have no food security at all.
- South Africa faces moderate risk of food insecurity along with a number of other African states

Factors contributing to Food Insecurity	How to improve on food security
• Population growth • Unemployment • Poor soils • Environmental degradation • Uneconomical farm units • Government corruption • War and conflict • Lack of capital to purchase • equipment • Shift to biofuel production • Trade policies	• Empowering women • Planting a variety of crops • Diversity of climate regions • Sustainable agriculture • Land reform programs & land redistribution • strong trade relations • Diversification of rural economies • Processing crops • Prevent soil erosion • Efficient ways of storing food • Reduce water wastage

3.2 Refer to the graph and extract below on food insecurity.



Until recently, food insecurity has been largely linked to climate change, the Covid pandemic and poverty. Availability of food has now become an important issue. Today conflict between countries have resulted in wars (like the conflict between Russia and Ukraine), which has increased trade-related policies* imposed by countries. This has resulted in a number of global food trade restrictions being put in place by countries in order to increase domestic (local) supply. More recently, 20 countries have implemented 27 food export bans, and ten have implemented 14 export-limiting measures.
The main products imported by South Africa are wheat, maize, soya beans and sunflower seeds. The impact of reducing South Africa's imports has resulted in increasing food prices and higher inflation rates in South Africa.
Glossary:
* Trade-related policies are policies related to the importation and exportation of goods between countries.
[Adapted from https://www.worldbank.org/en/topic/agriculture/brief/food-security-update#]

3.2.1 State the trend evident on the graph with regard to global food insecurity from 2019 to 2023. (1x2) (1)

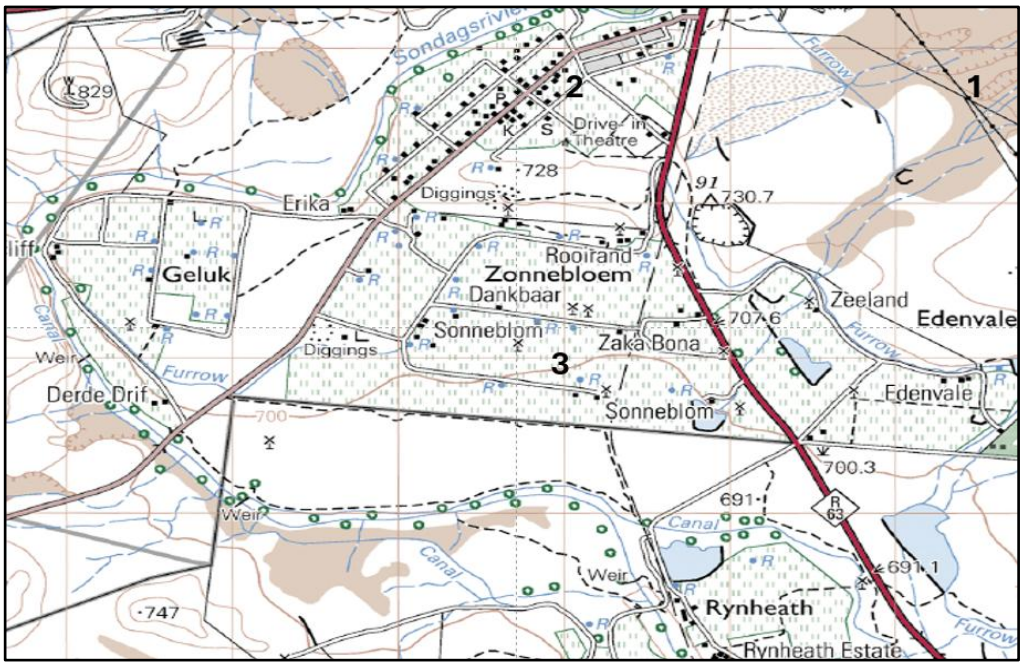
3.2.2 According to the extract, what are the reasons for the trend shown on the graph? (1x2) (2)

3.2.3 What positive impact could the global food trade restriction measures have on South Africa? (1x2) (2)

3.2.4 Explain how TWO physical factors negatively impact South Africa's food production. (2x2) (4)

3.2.5 Suggest measures that government can implement (put in place) to support farmers in achieving food security in South Africa. (3x2) (6)

3.3



3.3.1 Differentiate the settlement patterns at 2 and 3. (2.x2) (4)

3.3.2 Which of the farms 2 or 3 is extensive farming practiced? (1x2) (2)

3.3.3 Provide a reason for your answer in question 1.3.2 (1x2) (2)

3.3.4 Identify the environmental injustice issue at 1. (1x2) (2)

3.3.5 Explain how the injustice issue identified in 1.3.4 will have a negative impact on farming? (1x2) (2)

3.3.6 Identify the settlement shape at 2. (2x1) (2)

3.3.7 Which feature influenced the shape of the settlement at 2? (1x2) (2)

MINING

Importance of Mining to South Africa

- Large contribution to the GDP
- Multiplier Effect: additional economic development in response to a new or expanding part of the economy
- Exports of processed and unprocessed mineral products
- Mines are a large source of employment
- Mining attracts foreign investment
- Improvement and construction of infrastructure
- Development of link industries (supplies materials or equipment to another industry, or is dependent on another industry for materials and equipment)
- Growth of local industry

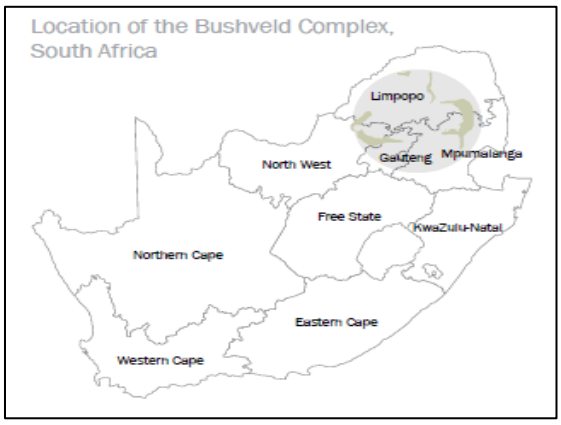
Factors Favouring Mining in South Africa

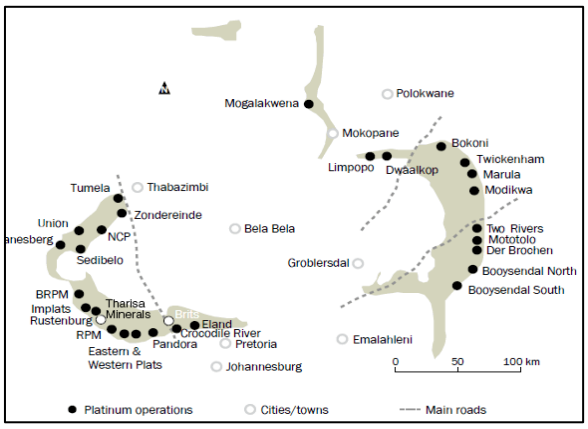
- Enormous reserves of minerals
- Rich geological history provides a wide variety of minerals
- Mineral seams are thick and continuous
- Most minerals are close to the surface
- Low thermal gradient: temperature does not increase rapidly with depth, therefore the cost of cooling the air pumped into the mines in reduced
- Coal was available for electricity
- Availability of low-paid labour

Factors Hindering Mining in South Africa

- Fluctuation in exchange rates
- Dangerous underground water
- Labour costs have risen steeply
- Environmental damage
- Mines far inland – transport costs raise price of minerals making them less competitive against global competition
- HIV / AIDS

PLATINUM MINING





Platinum is mined across the Bushveld Igneous Complex, in northern South Africa. These deposits were discovered by geologist Hans Merensky in 1924.

Comprised of the Rustenburg Layered Suite, the Lebowa Granites and the Rooiberg Felsics, this large mineral body is estimated to hold over half of the world's platinum reserves.

The geographic breakdown of platinum mines in each province is:

- Free State: 1 mine
- Gauteng: 4 mines
- Limpopo: 35 mines
- Mpumalanga: 13 mines
- Northwest: 31 mines

USES OF PLATINUM

The reason why platinum is today the most valuable of precious metals is because it is required in many industrial applications. It is estimated that one-fifth of everything we use either contains platinum or requires platinum in its manufacture.

AUTOMOBILE CATALYST

- the best-known use of platinum is in the catalytic converter that is part of the exhaust system in the automobile
- Instead of dispersing harmful carbon monoxides, hydrocarbons and nitric oxide into the atmosphere, catalysts convert these harmful emissions into harmless carbon dioxide and water.

PETROLEUM INDUSTRY

- Platinum mesh or gauze is used in cracking processes in oil refineries.
- Platinum catalysts play a critical role in extracting gasoline from crude oil and for making high octane fuels.

JEWELLERY

- Platinum colour, strength, hardness and resistance to tarnish are some of the advantages of this metal in jewellery.
- It provides a secure setting for diamonds and other gemstones, enhancing their brilliance.
- Its flexibility is an important element for jewellery designers.
- Platinum jewellery is regarded as the precious metal for the "New Millennium".

GLASS

- Platinum is used in glassmaking equipment.
- It is used in the manufacturing of fiberglass reinforced plastic and of glass for liquid crystal displays (LCD).
- In this context, some new developments in the production of LCD glass and cathode ray tubes, both used in computer screens should be mentioned.

4.1 Refer to the infographic below on platinum mining.

PLATINUM MINING

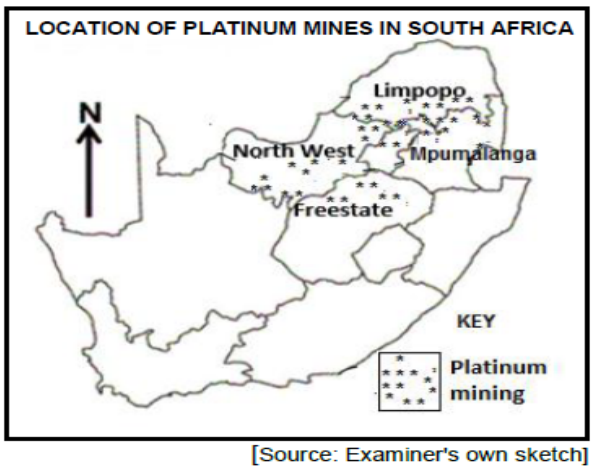
Mining for Platinum Group Metals (PGM) is widespread over South Africa and holds over 80% of the world's reserves.

The decline in the South African platinum supply has not been given the attention it deserves by industry research organisations.

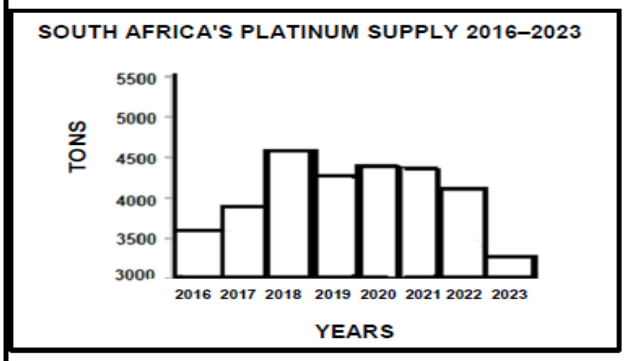
Apart from the labour strikes that challenge the platinum mining industry, access to affordable and reliable electricity is critical. Eskom and government encourage independent power production and supplementary power production.

Another challenge is water security. A growing concern is the deterioration of water distribution infrastructure on the one hand and climate change on the other.

[Adapted from https://www.miningreview.com/platinum-group-metals/]



[Source: Examiner's own sketch]



[Source: Examiner's own sketch]

4.1.1 What percentage of the world's platinum reserves does South Africa have? (1x1) (1)

4.1.2 Give evidence from the extract that platinum production in South Africa is influenced (affected) by a:

(a) Social factor

(b) Service delivery factor (2 x 1) (2)

4.1.3 Refer to the map and name TWO provinces where platinum is mined. (2 x 1) (2)

4.1.4 Describe the general trend of the platinum supply between 2016 and 2018 and between 2020 to 2023, by referring to the graph. (2 x 1) (2)

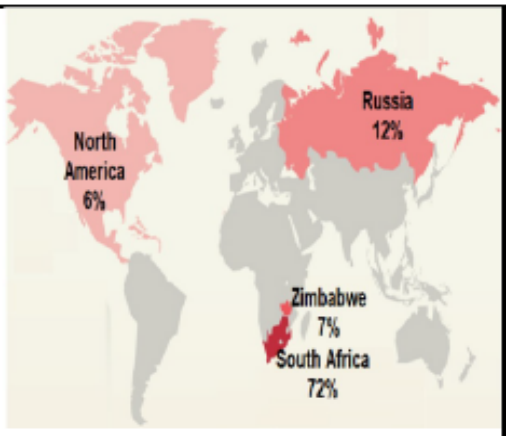
4.1.5 In a paragraph of approximately EIGHT lines, suggest strategies that government can implement (put in place) to address challenges of platinum production. (4 x 2) (8)

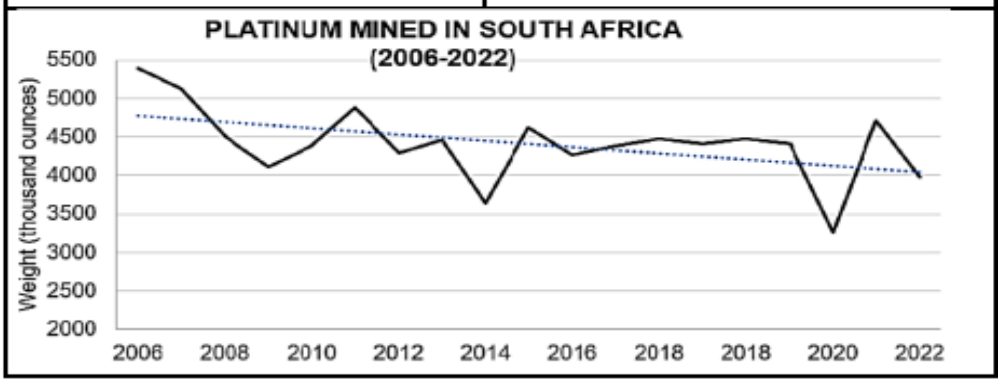
4.2 Refer to the infographic below on platinum mining in South Africa.

Platinum is one of the rarest metals in the world and is in high demand because of its wide range of uses.

South Africa has more than 80% of the world's platinum reserves with platinum being the primary revenue driver for mines in the country.

However, the South African platinum mining industry is not secure and the country's ability to supply platinum is being hindered by a number of factors.





4.2.1 According to the infographic, what percentage of global platinum is supplied by South Africa? (1 x 1) (1)

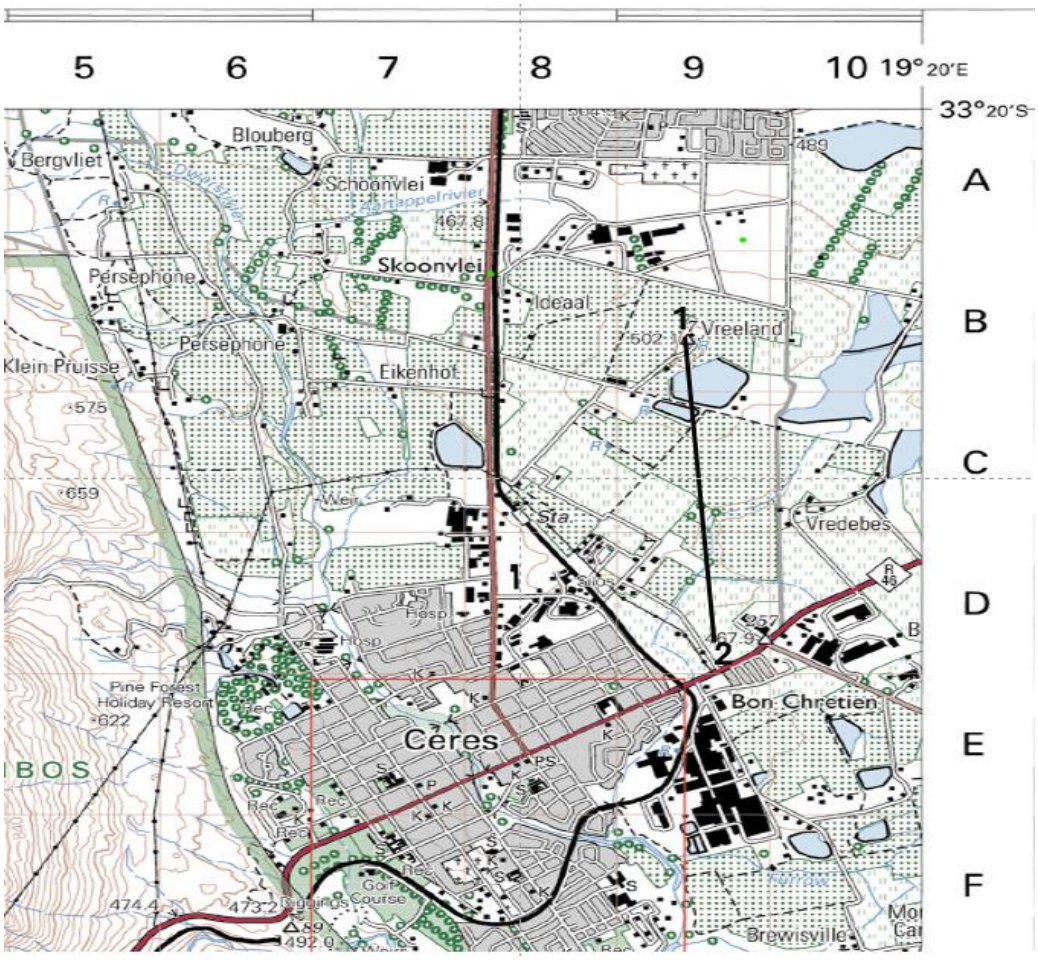
4.2.2 Quote from the infographic ONE physical factor that promotes platinum mining in South Africa. (1 x 1) (1)

4.2.3 According to the graph, state the trend in South Africa's platinum production from 2006 to 2022. (1 x 1) (1)

4.2.4 How has South Africa's dominant global position of platinum supply contributed to the country's infrastructural development? (2 x 2) (4)

4.2.5 In a paragraph of approximately EIGHT lines, explain how the economic factors hindering platinum mining in South Africa impact negatively on the country's GDP. (4 x 2) (8)

4.3 Refer to the topographical map extract of 3319AD CERES attached.



4.3.1	What is the dominant farming type evident on the map north of Ceres, in blocks B9 to C9?	(1x2)	(2)
4.3.2	Provide evidence of map evidence to prove that the farming in this area is intensive	(2x2)	(4)
4.3.3	What term is used for growing the same crop / fruit trees in the same area year after year, as seen in the orchards?	(1x2)	(2)
4.3.4	What is the function of the black shaded buildings on farms like Schoonvlei (A6) and Blouberg?	(1x2)	(2)
4.3.5	Identify factors that promote farming in the mapped area.	(4x1)	(4)
4.3.7	Explain why farming is not possible in the west part of Ceres.	(2x2)	(4)
4.3.8	Calculate the real distance in kilometers from 1 to on the topographic map	(3x1)	(3)

Secondary Activities

Conversion of raw material into fabricated items/ conversion of raw material in semi-finished or finished goods.

Raw Material Orientated Industry	found close to the source of the raw materials that they require. This is usually because transportation costs are high. For example, sugar mills are located close to the sugar fields.
Market Orientated Industry	located close to the market. the products are perishable and need to be sold relatively fresh. For example, baked foods, vegetables and fish products.
Footloose Industry	**can be located anywhere** without effect from factors such as resources or transport. a software company. It does not need to transport any raw materials and the product is non-perishable
Ubiquitous Industry	These industries are **not located at a particular space** on a landscape. For example, Telkom/MTN is a ubiquitous industry because it has lines that cover entire suburbs
Bridge Industry	These industries are located between the raw materials and the market. Also known as “break-of-bulk” industries. For example, an oil refinery. Oil is pumped ashore, refined into products and transported to the market.

Secondary Sector/Manufacturing

- Conversion of raw material into fabricated items/ conversion of raw material in semi-finished or finished goods.
- Types of Industries (heavy, light, raw material orientated, market orientated, footloose industries, ubiquitous industries, bridge industries)
- Factors influencing industrial development in SA (e.g., raw materials, labour supply, transport infrastructure, political intervention, competition and trade).
- The secondary industries compose 22% of the SA GDP.

This leads to:

- job creation
- economic empowerment of previously disadvantaged groups
- increase of raw material production
- acceleration of growth and development

TYPES OF INDUSTRIES

Raw Material Orientated Industry

- These types of industries are found close to the source of the raw materials that they require. This is usually because transportation cost are high.
  For example, sugar mills are located close to the sugar fields.

Market Orientated Industry

- These types of industries are located close to the market.
- This is usually because the products are perishable and need to be sold relatively fresh.

For example baked foods, vegetables and fish products

Footloose Industry

- These industries can be located anywhere without effect from factors such as resources or transport.
  For example, a software company. It does not need to transport any raw materials and the product is non-perishable (it lasts forever)

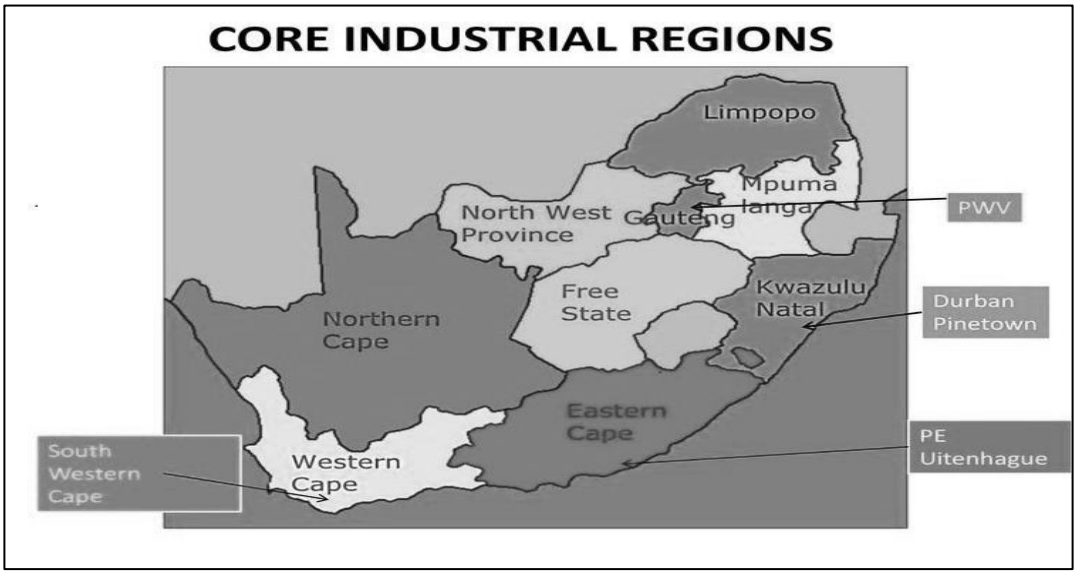
Ubiquitous Industry

- These industries are not located at a particular space on a landscape.
  For example, Telkom is a ubiquitous industry because it has lines that cover entire suburbs

Bridge Industry

- These industries are located between the raw materials and the market.
- Also known as “break-of-bulk” industries.
  For example, an oil refinery. Oil is pumped ashore, refined into products and transported to the market.

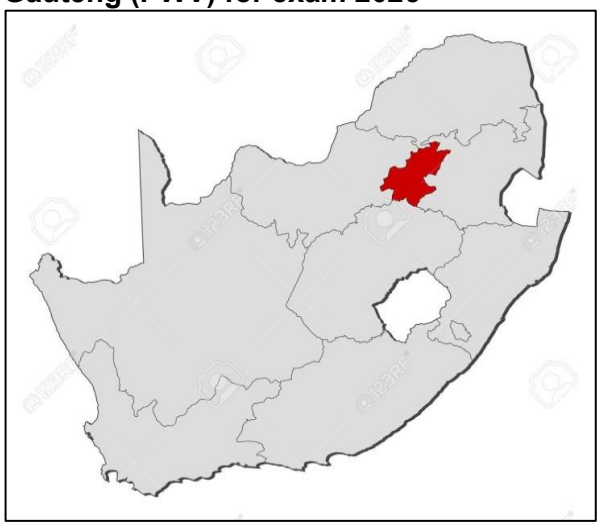
CORE INDUSTRIAL REGIONS IN SOUTH AFRICA

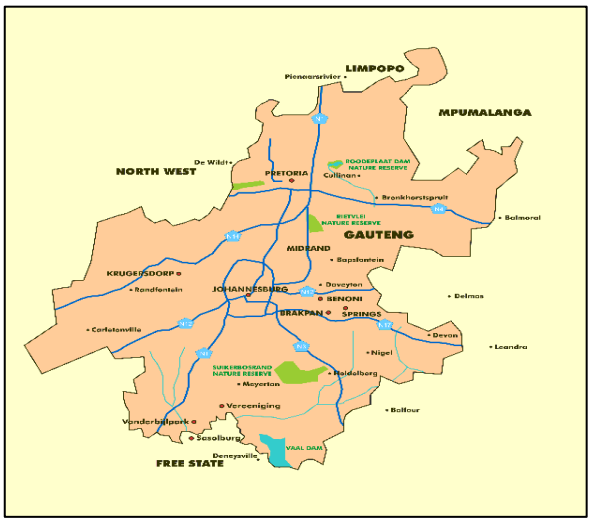


Learners need to know:

- Factors favouring location and industrial development in industrial regions: PWV/Gauteng Region and South Western Cape.
- Main industries
- Factors hindering the development of: PWV/Gauteng Region and South Western Cape.

Gauteng (PWV) for exam 2026





The industrial region contributes the highest percentage share to the Gross Domestic Product (GDP) in almost all sectors of the South African economy such as manufacturing, construction, trade, finance, mining, with the exception of agriculture.

FACTORS FAVOURING LOCATION AND INDUSTRIAL DEVELOPMENT IN PWV/GAUTENG

- Large population/ready market
- Raw material available - mineral resources (gold),agricultural products.
- Large reserves of coal close to power supply.
- Large labour force- skilled and unskilled.
- Water available in the Vaal Dam/Lesotho Highlands water project

- Well-developed transport infrastructure
- Flat land makes construction easier.

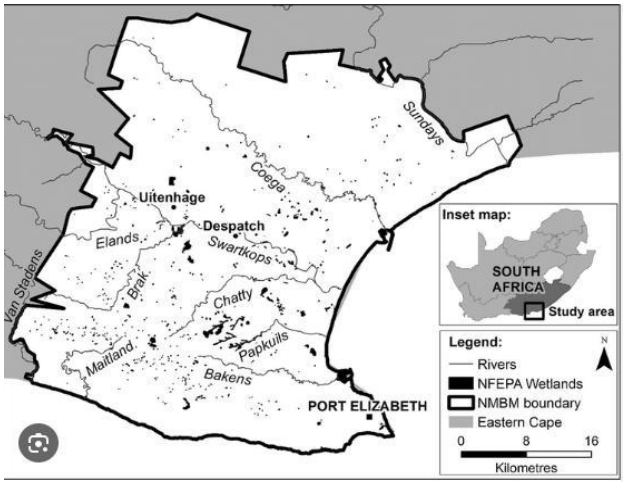
MAIN INDUSTRIES
- Metal, Iron and Steel plants. (Vanderbijlpark and Vereeniging)
- Motor Vehicles
- Chemicals – explosives
- Petrochemicals-Sasol
- Machinery

FACTORS HINDERING THE DEVELOPMENT OF PWV/GAUTENG REGION

- Pollution
- Far from the harbours – increase in transport costs
- Eskom power cuts have negative impact on production hours
- Labour strikes and unrest
- Destruction of the ecosystem
- Congestion and overpopulation
- Overutilization of resources

The Port Elizabeth-Uitenhage industrial region 2026 exam





FACTORS FAVOURING LOCATION AND INDUSTRIAL DEVELOPMENT IN PORT ELIZABETH-UITENHAGE

Market
- import and export of goods made easy by harbour

Transport
- good links with the rest of SA harbour

Raw materials
- wool subtropical fruit cotton

Relief
- flat land

Labour
- Large labour force due to large population

MAIN INDUSTRIES

Motor vehicle assembly parts (VW, Mercedes and Delta)	Textile- wool
Bridge industries	Leather – shoes
Supporting industries (car parts; tyres)	Fruit canning
	Salt works

FACTORS HINDERING THE DEVELOPMENT OF PORT ELIZABETH-UITENHAGE

- No raw materials from mining. This makes the costs of transporting of these raw materials much higher e.g. iron ore.
- Higher electricity prices. (far from coal mines)
- Labour strikes e.g. PE-Uitenhage relies heavily on the motor vehicle industry.
- Strikes in these industries has a major negative impact.
- Some motor vehicle companies have moved to other areas.
- Factors like, overconcentration of industries and pollution may not be bad as the PWV. As more development occurs the negative impact of these factors increases.
- Loadshedding and increasing costs of electricity

Activity 2.1
Study the case study on the PWV industrial region.

THIS IS HOW ESKOM THROTTLES THE ECONOMY IN THE PWV REGION.

Reserve Bank analysis shows the effect of load-shedding on economic growth, particularly on the manufacturing industry.

Smaller businesses can counter the effects of load-shedding for a few hours by using standby generators – at a cost – but large enterprises such as ISCOR/Mittal Steel, simply cannot operate without steady and adequate power.

The ongoing problems at Eskom have had such a huge effect that it urged the Reserve Bank to look into it closely, with an analysis showing that electricity disruptions during the three months to the end of March were the worst ever.

It listed various other factors that probably impacted economic growth, such as a number of long labour strikes, maintenance and weak domestic and global demand, as well as political uncertainty, which affected business and consumer confidence.

Since the beginning of the fourth industrial revolution[1], there seems to be an uncanny correlation between load-shedding and a declining economy.

The results show that as the intensity of load-shedding increases, South Africa's real GDP growth decreased by a statistically significant 0,06%.

In short, the report proves what everybody already knows – businesses cannot operate without electricity and without operating businesses, the economy cannot grow.

Solving Eskom's problems will solve a lot of other problems too.

[1]Fourth industrial revolution: A technological revolution where one or more technologies is replaced by another technology over a short period of time e.g. artificial intelligence such as self-driven cars, drones and robotics.

2.1.1 The core industrial region of Gauteng is also referred to as the PWV-region. For what does the abbreviation PWV stand? (1x1) (1)

2.1.2 **What** is the relationship between load-shedding and the GDP growth. (2x1) (2)

2.1.3 Apart from load-shedding, the reserve bank identifies factors that impacted the GDP of the PWV region. **List** TWO of these factors. (2x1) (2)

2.1.4 **Explain how** the fourth industrial revolution influences industries' dependency on electricity supply in the PWV region (2x2) (4)

2.1.5 **Discuss how** load-shedding impacts negatively on the multiplier effect of the PWV economy and ISCOR / Mittal Steel (a large enterprise found in the PWV region). (3x2) (6)

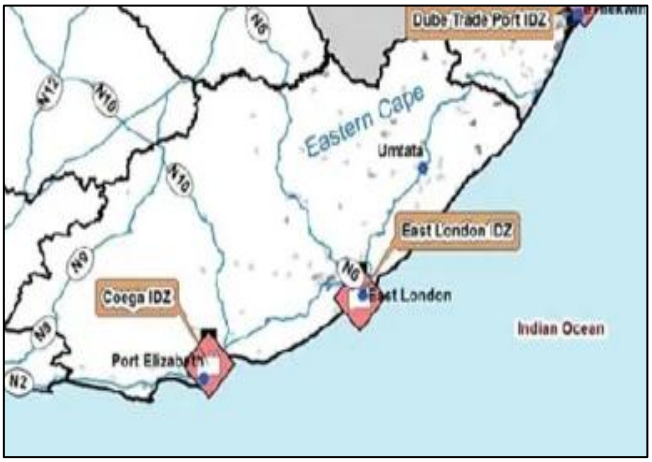
INDUSTRIAL DEVELOPMENT ZONES

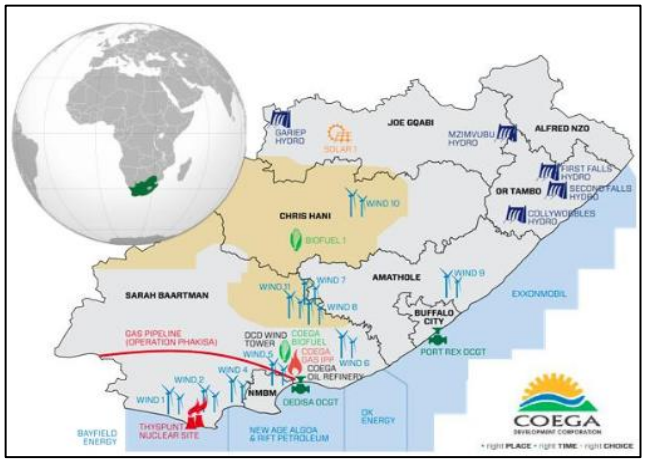
An Industrial Development Zone (IDZ) is a purpose-built industrial estate linked to an international seaport or airport, and which is capable of leveraging fixed direct investments in value-added and export-orientated manufacturing industries.
Industrial Development Zones (IDZs) are intended to promote the competitiveness of the manufacturing sector and to encourage beneficiation of locally available resources

Key objectives of the IDZ

- Develop linkages between domestic and zone-based industries.
- Provide world-class industrial infrastructure.
- Attract foreign direct investment (FDI);
- Attract advanced foreign production and technology methods in order to gain experience in global manufacturing and production networks;

COEGA IDZ





The Coega Special Economic Zone, established in 1999 and 9 003 ha in extent, is situated near Gqeberha (Port Elizabeth) in the Eastern Cape province of South Africa.

- **It lies adjacent to the largest port in the southern hemisphere, the deep-water port and transhipment hub of Ngqura.**
- The initiative is a multibillion-dollar industrial development complex **customised for heavy, medium and light industries, and adjacent to a deep-water port, the Port of Ngqura**.
- It is a very large site of 11,500 hectares divided into 14 zones, with 6 dedicated clusters (intended to reduce costs and increase efficiency through sharing of services): automotive, agro-processing, chemicals, business process outsourcing, energy and general manufacturing.
- The site is **directly connected to South Africa's national rail and road networks and sea-based east-west trade routes.**
- The Coega Development Corporation (CDC) is the developer and operator of the Coega SEZ and is responsible for the land side infrastructure, while the Transnet National Ports Authority (TNPA) develops the deep-water port facility, the Port of Ngqura.

- **The aim of the Coega IDZ is to drive local and foreign investment in export-oriented industries and to position South Africa as a trade hub, while securing/creating jobs in the local economy.**

SPATIAL DEVELOPMENT INITIATIVES

SDI's are transport and communication links between major industrial areas, metropolitan area and harbours

SDI's aims

- To create an attractive environment for private sector investment
- To initiate and support economic activities along transport corridors
- To promote growth in those parts of SA that are underdeveloped but have the potential for growth.
- To developed and improve existing transport infrastructure
-

WILD COAST SDI

The Wild Coast Area covers the whole of OR Tambo District Municipality and greater part of the eastern coastal area of Amatola District Municipality.

The OR Tambo District Municipality has 7 local municipalities of which 5 of these forms the greater part of what is known as the Wild Coast, namely:

- King Sabata Dalindyebo
- Nyandeni
- Port St Johns
- Mhlontlo
- Ntabankulu
- Qaukeni
- Mbizana

The Wild-Coast of the Eastern Cape has long been identified as having a great potential for the development of the Eastern Cape in particular and for South Africa in general.

The area was identified, because of its unique position, as providing a model for integrated rural development initiatives-based land and agrarian livelihoods with modern approaches to community driven tourism development.

The main attractions in the Wild Coast include, beautiful and diverse natural resources, adventure and outdoor tourism; cultural and historical tourism.

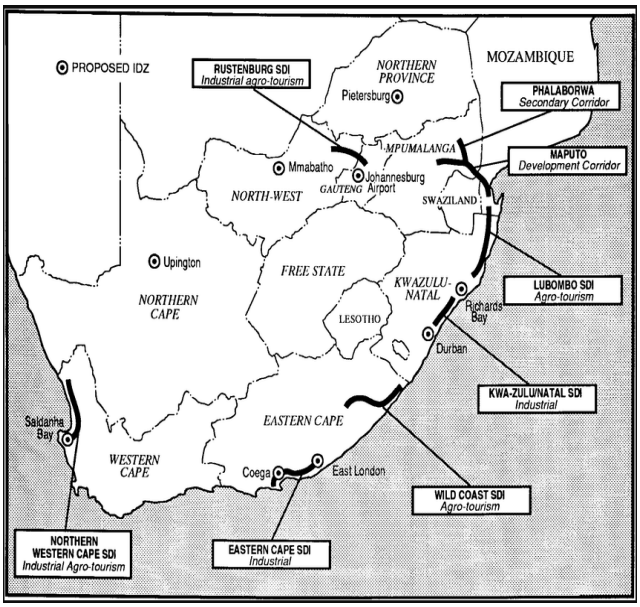
The main strategy of Spatial Development Initiative is the integration of community tourism development driven largely by partnerships between private sector investment and public sector development programmes.

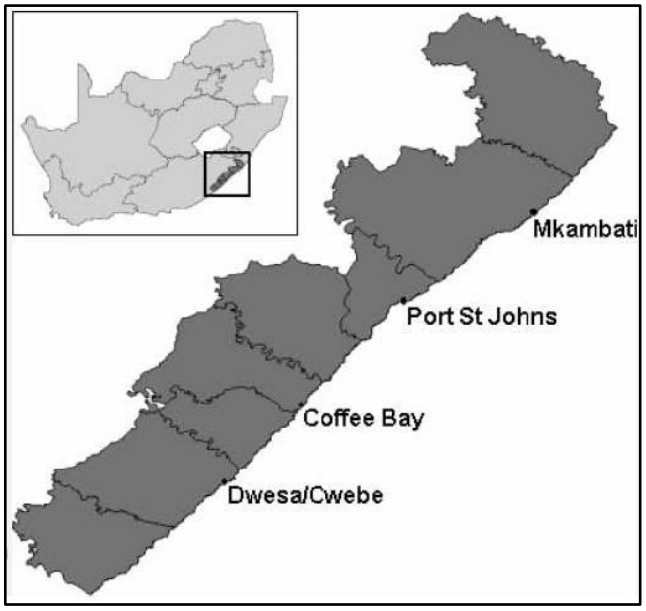
The development approach is the integrated sustainable rural development in the context of community, public, private partnership initiatives.

Key objectives of Spatial Development Initiative as a development strategy, as stated in the Province of the Eastern Cape Growth and Development Strategy is to:

- To generate sustainable economic growth and development in the Wild Coast area

- To generate long-term and sustainable employment for local inhabitants
- To maximize the mobilization of private investment, especially in the context of community tourism development and to lessen demands on government funds for development projects.
- To exploit spin-off opportunities from tourism investments for the development of SMME's and for the development of local communities
- To exploit the under-utilised location and economic advantages of SDI areas for export-oriented growth.





Development and Planning Objectives in the Wild Coast

The development strategies of the O.R. Tambo District Municipality as contained in the Integrated Development Plan (IDP) was guided by both the national and provincial principles and are the following:

Focus on poverty alleviation: There is a need to alleviate poverty, as there are a number of people who are unemployed and require access to social infrastructure and housing.

Focus on women, disabled and youth: Build on strength which already exist: Increasing economic development **through tourism and Local Economic Development Programmes**

Link infrastructure to economic development: Access to basic services is very important, especially in rural areas

Observance of the Development Facilitation Act, Land Use Bill, White Paper on Local Government etc (efficiency, equity and democracy)

Develop existing capacity: Increasing institutional capacity and proper management within the Wild Coast area.

Focus on identified developmental areas and nodes

Activity 5.1

Refer to the infographic on the Port Elizabeth-Uitenhage core industrial region and the Coega Industrial Development Zone (IDZ) below.

PORT ELIZABETH-UITENHAGE INDUSTRIAL REGION

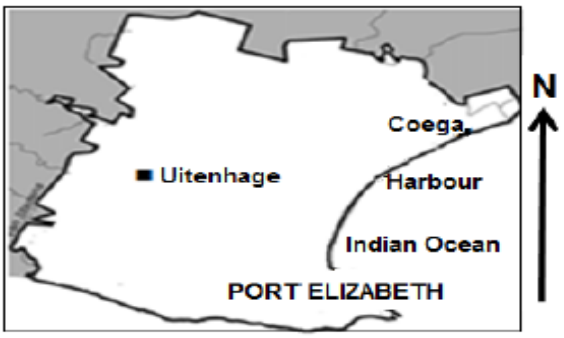
While the automotive sector continues to dominate, the Coega Industrial Development Zone holds the key to expanding and diversification of the industries* of the Port Elizabeth-Uitenhage core industrial region.

The long-term presence of Volkswagen and Isuzu has been uplifted by a multi-phase R11 billion investment by Beijing Automotive Group (BAIC) at the industrial development zone (IDZ).

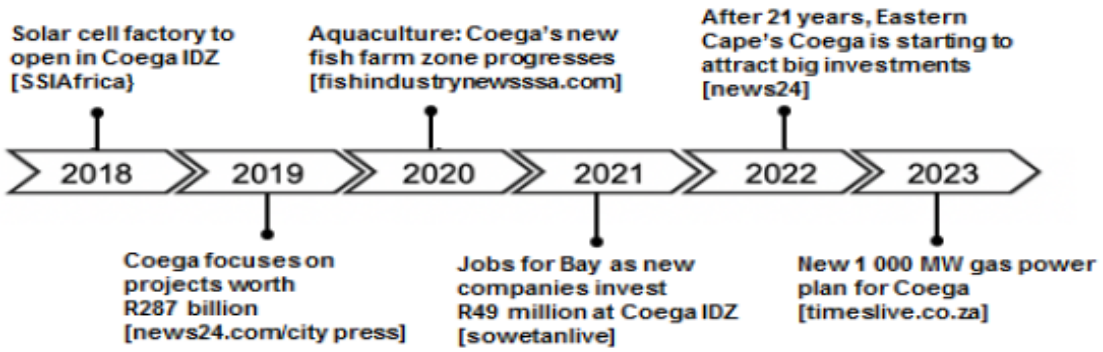
Glossary:
*diversification of the industries: allowing a greater variety of industries to locate in this area

[Adapted from globalafricannetwork.com]

MAP OF PORT ELIZABETH-UITENHAGE CORE INDUSTRIAL REGION AND THE COEGA IDZ



TIMELINE OF COEGA-RELATED NEWSPAPER HEADLINES



[Adapted from https://www.googlr.com/search?q=images Port Elizabeth]

5.1.1 Name the type of transport infrastructure indicated on the map, which favours the location of the Port Elizabeth-Uitenhage core industrial region (1x1) (1)

5.1.2 The (primary/secondary) sector dominates the economy of the Port Elizabeth-Uitenhage core industrial region. (1x1) (1)

5.1.3 Name ONE major company in the extract that has invested in the Port Elizabeth-Uitenhage core industrial region. (1x1) (1)

5.1.4 Quote TWO headlines from the timeline of the Coega-related newspaper headlines to show that diversification of industries is taking place. (2x1) (2)

5.1.5 How would this diversification of industries benefit the labour force in the Port Elizabeth-Uitenhage core industrial region? (2x2) (4)

5.1.6 Explain why the Coega Industrial Development Zone would be an attractive location for investment by overseas companies (3x2) (6)

Activity 5.2

N2 WILD COAST TOLL ROAD PROJECT – AN INCENTIVE FOR SUSTAINED DEVELOPMENT

The Wild Coast would be well served by the development of a road system to encourage tourism and open up the region to economic opportunities.

The N2 Wild Coast toll road project will benefit the local community during the construction process, as a number of direct jobs will be created. The new route will also provide a safer road network which will allow those living along the new road to benefit from road interchanges, pedestrian walkways, bridges and agricultural underpasses for livestock.

The social and economic impacts of the project will offer a significant injection for the local communities. It is estimated that income for the local industry will increase by R360,4 million and construction work will create 6 800 direct jobs, and between 21 300 and 28 100 indirect jobs.

The project to upgrade the N2 Wild Coast road from East London to Port Edward is an important initiative to unlock economic opportunities in some of the most impoverished (poorest) parts of the country.

However, cultural beliefs and traditional values are in conflict with economic development of the Wild Coast Spatial Development Initiative.

[Adapted from Sanral]

5.2.1 State ONE key objective of Spatial Development Initiatives (SDI) in South Africa. (1x1) (1)

5.2.2 In which province is the Wild Coast Spatial Development Initiative (SDI) located? (1x1) (1)

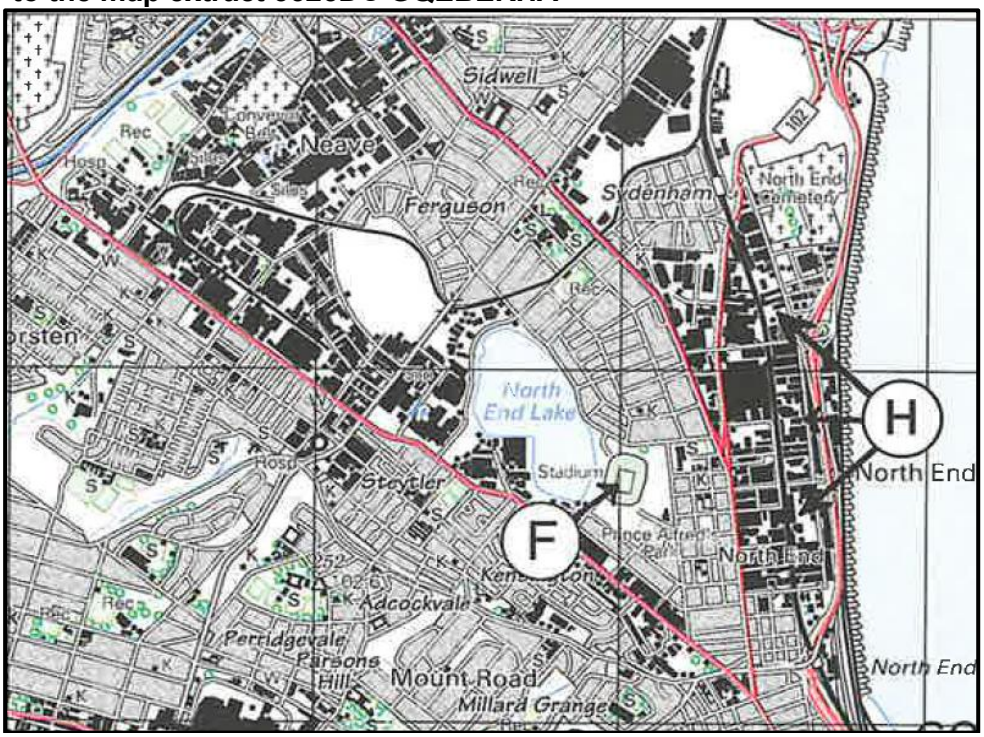
5.2.3 According to the extract, by how much will the income of the local industries increase? (1x1) (1)

5.2.4 State TWO physical factors that would encourage tourism in the Wild Coast Spatial Development Initiative (SDI). (1x2) (2)

5.2.5 How would the N2 Wild Coast toll road project encourage economic development of the Wild Coast Spatial Development Initiative (SDI)? (2x2) (4)

5.2.6 Explain why the Wild Coast Spatial Development Initiative (SDI) has experienced challenges with regard to achieving its key objectives (goals). (3x2) (6)

5.3 **Refer to the map extract 3325DC GQEBERHA**



5.31	Identify the land use at F and H.	(2x1)	(2)
5.32	Give two pieces of evidence from the map to show that H is a heavy industrial zone.	(2x1)	(2)
5.3.3	What is the street pattern of the industrial area H on the map?	(1x2)	(2)
5.3.4	Give one advantage of the street pattern identified in 1.5.3 for industries.	(1x2)	(2)
5.3.5	Provide factors evident on the topographic map that favoured the location of the industrial zone at H.	(2x2)	(4)
5.3.6	Identify two modes of transport that serve the industrial area at H.	(2x1)	(2)
5.3.7	How will the relocation of industries from H to Coega IDZ have a negative impact on the industrial zone H?	(1x2)	(2)
5.3.8	Suggest strategies that the municipality can implement to make the industrial zoone at H more sustainable	(2x2)	(4)

TERTIARY SECTOR/SERVICES

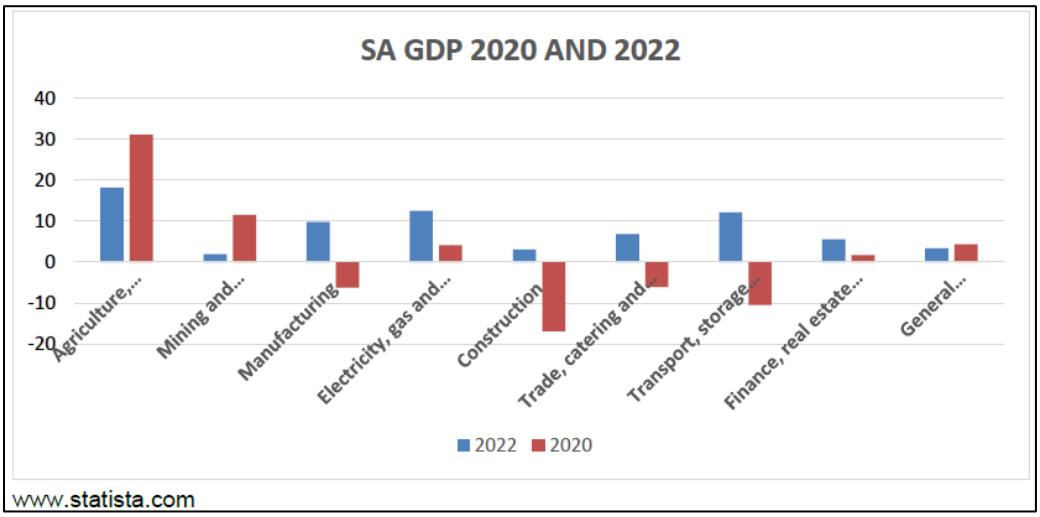
The tertiary industry is the segment of the economy that provides services to its consumers, including a wide range of businesses such as financial institutions, schools and restaurants. It is also known as the tertiary sector or service sector.

Examples of tertiary industries may include:

- Telecommunication.
- Hospitality industry/tourism.
- Mass media.
- Healthcare/hospitals.
- Public health.
- Pharmacy.

- Information technology.
- Waste disposal
- International trade

Activity 5.4 Refer to the graph below



5.4.1	Define the concept gross domestic product.	(1x2)	(2)
5.4.2	Which sector of the South African economy contributed the most in 2022?	(1x1)	(1)
5.4.3	Identify two activities from the graph that contributed more in the sector identified in 2.5.2	(2x1)	(2)
5.4.4	Explain why construction had negative growth in 2020.	(1x2)	(2)
5.4.6	Explain how a country has a negative balance of trade.	(1x2)	(2)
5.4.7	Suggest three reasons that led to the decline of agriculture..	(3x2)	(6)

INFORMAL SECTOR

5.5 Refer to the infographic below on the informal sector.



Richard's Bay – informal trader on main road

NUMBER OF INFORMAL TRADERS IN RICHARDS BAY CENTRAL BUSINESS DISTRICT (CBD) FOR 2024

MONTH	NUMBER OF INFORMAL TRADERS
January	35
February	22
March	38
April	24
May	22
June	42
July	35
August	29
September	46
October	49
November	58
December	60

[Adapted from https://www.researchgate.net/figure/Busiest-Trading-Months-for-Informal-Traders]

GIVE THE INFORMAL SECTOR A BREAK

Informal traders are part of the informal sector. Everyone in town has become familiar with the sight of informal traders on the main road in Richards Bay. Most of these informal traders are women without any other income other than selling their goods next to the road.

However, during the December holidays, which is normally peak season for informal traders, the municipality fined all of these traders R300 each for selling goods without permits. As it is the only income for some of the informal traders, their income will now take a huge knock. Selling fruit/vegetables/cooked food only twice a week will not cover monthly bills, and some of them are faced with hard times ahead.

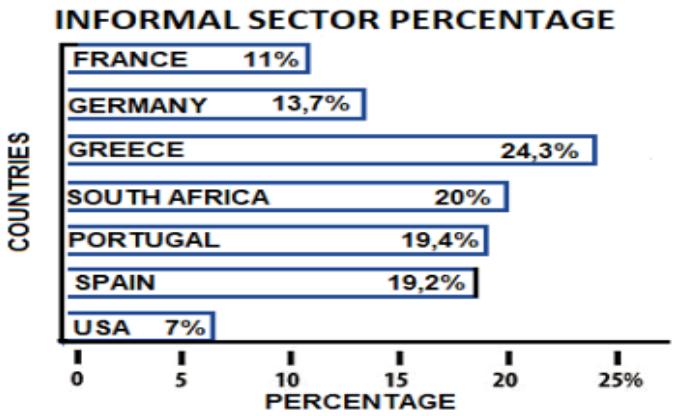
[Adapted from https://www.citizen.co.za/zululand-observer/opinion-give-vendors-a-break]

5.5.1	What is the informal sector?	(1x2)	(2)
5.5.2	Why is the informal trader in the photograph found on the main road?	(1x1)	(1)
5.5.3	State TWO challenges that this informal trader is likely to experience with the type of goods being sold.	(2x1)	(2)
5.5.4	Refer to the table. Account for the large number of informal traders during the month of December.	(1x2)	(2)
5.5.5	How will the municipality of Richards Bay benefit by issuing permits to informal traders?	(2x2)	(4)
5.5.6	What can the municipality of Richards Bay provide to the informal traders with the money collected from the issuing of permits?	(2x2)	(4)

15

Refer to the extract and graph on the informal sector below.

INFORMAL SECTOR



The vast majority of informal sector operators (73%) earn well below the income tax (personal tax paid to the government) threshold of R79 000 per annum, set by the South African Revenue Service (SARS).

In addition, many informal sector workers, particularly those in retail, pay VAT (tax paid for goods purchased). However, unlike their counterparts in the formal sector, they are not able to claim these amounts back from the tax authorities.

Permits allow people to trade legally. However, the legal requirement of encouraging informal traders to obtain permits has been met with reluctance (not wanting).

The informal sector is worth supporting because it makes up a large part of the workforce. Further, while earnings are often very low in the informal sector, this type of employment is particularly important in keeping households above the poverty line.

[Adapted from *The Conversation*, Rhodes University, Mike Rogan/Caroline Skinner]

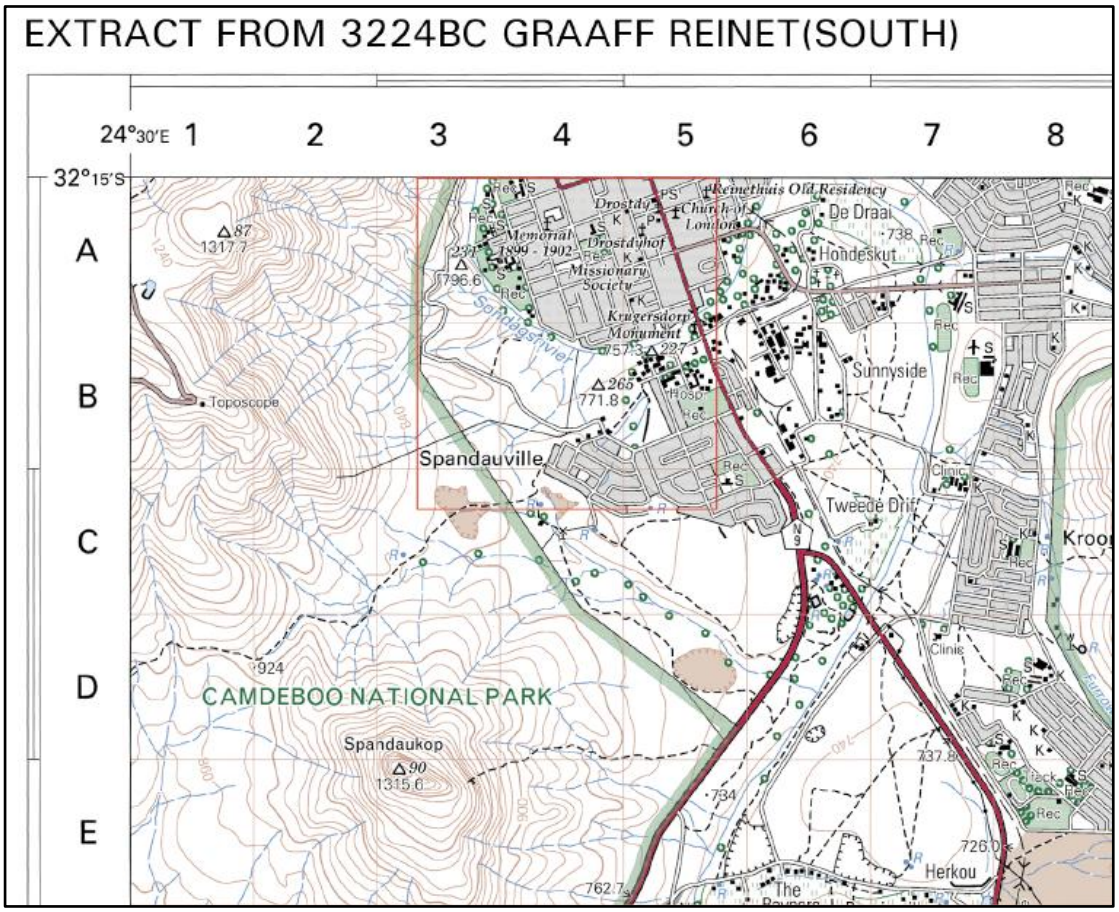
5.6.1 **According to the graph**, what percentage of South Africa's population is classified as the informal sector? (1x1) (1)

5.6.2 **Give** economic reasons that have led to such a large informal sector in South Africa. (1x2) (2)

5.6.3 **Explain** the economic importance of the informal sector. (2x2) (4)

5.6.4 In a paragraph of approximately EIGHT lines, **suggest strategies** that could be implemented **to improve** the informal sector. (2x4) (8)

5.7



5.71 Define the term geographical Information Systems (1x1) (1)

5.7.2 Distinguish between spatial data and attribute data.

5.7.3 Classify the following features from the map as point,line or polygon

a. Spandaukop trigonometrical beacin 30 at block D3.
b. Camdeboo national park block D2.
c. Sundays river block B3

5.7.4 Provide one attribute data of the following

a. Toposcope block B1
b. Graaf Reinet town

5.7.5 Is the topographical map an example of raster or vector data. Provide a reason for your answer.

5.7.6 Name four data layers in block B8.

5.7.7 Explain how data layering would help a town planner to decide where to build a new low-cost housing development near Spandauville (B3). Mention two layers you would use.