



basic education

Department:
Basic Education
REPUBLIC OF SOUTH AFRICA

**SENIOR CERTIFICATE/
NATIONAL SENIOR CERTIFICATE**

GRADE 12

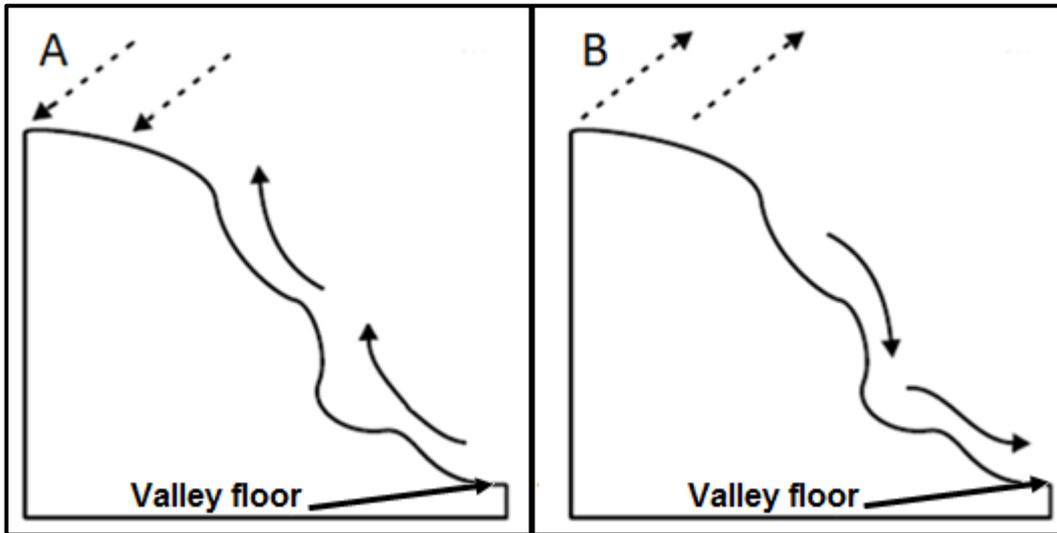
GEOGRAPHY P1

NOVEMBER 2020(2)

ANNEXURE

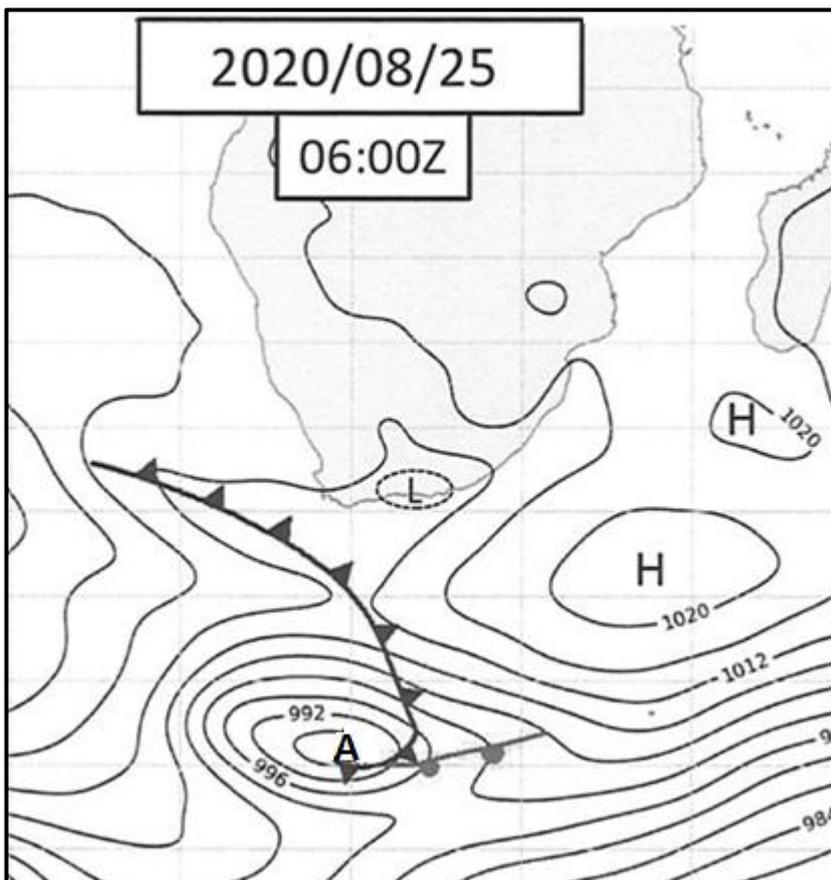
This annexure consists of 12 pages.

FIGURE 1.1: VALLEY CLIMATES



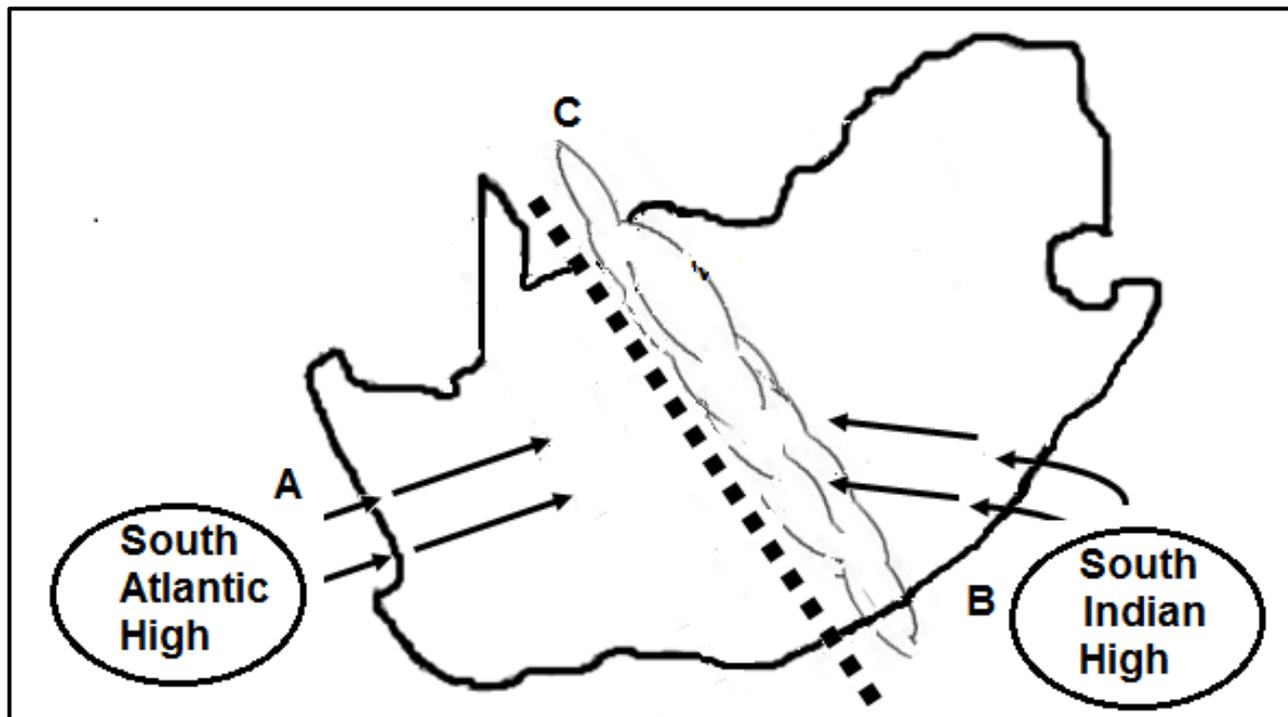
[Examiner's own sketch]

FIGURE 1.3: MID-LATITUDE CYCLONE



[Source: South African Weather Bureau]

FIGURE 1.4: LINE THUNDERSTORM



[Source: Examiner's sketch]

FIGURE 1.5: DELTAS

DELTA ARE SINKING

The world's river deltas take up less than 0,5% of the Earth's land area, but they are home to hundreds of millions of people. With fertile soils and easy access to the coast, deltas are important areas for food production. They also have unique ecosystems. Now many of the world's deltas are facing a crisis. Sea levels are rising as a result of climate change, while deltas are sinking.

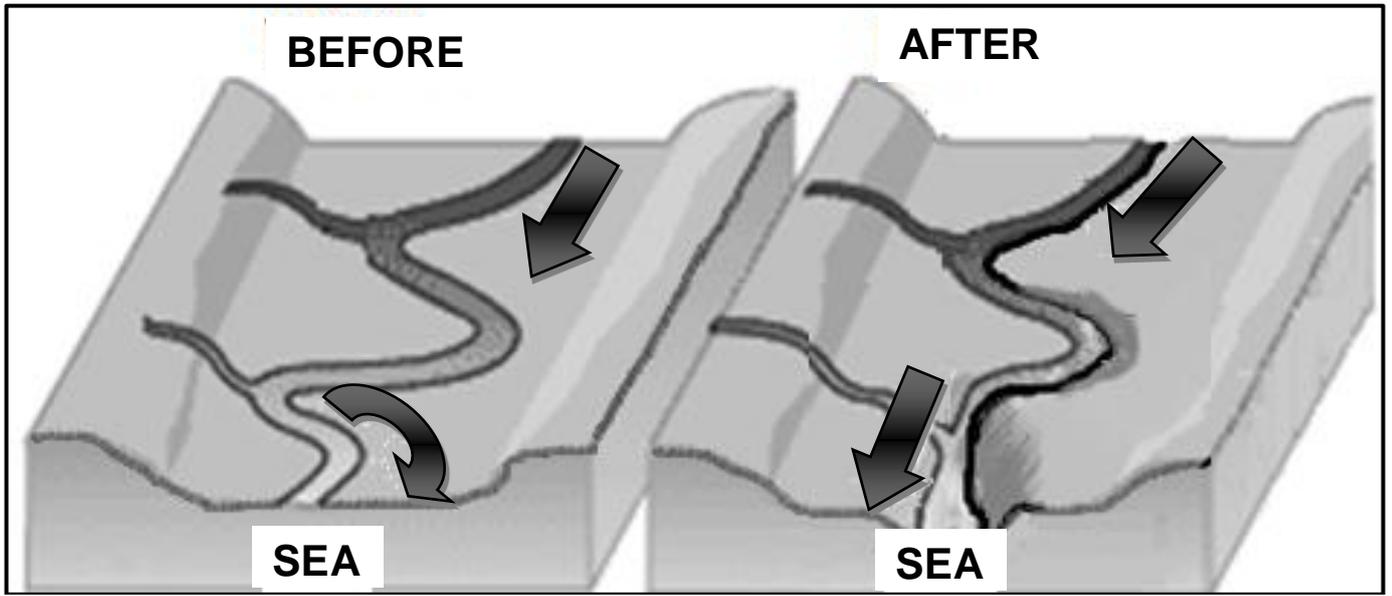
As sediments in deltas compact under their own weight, deltas naturally sink. If left undisturbed, new river sediment can accumulate and help to maintain the delta surface above sea level.

But deltas are now subsiding much faster than they would do naturally. That's due to groundwater being pumped from aquifers (permeable rock) underneath them and used to irrigate crops and provide water for rapidly growing cities. Under these conditions, only the continued deposition of sediment on deltas can keep them from 'drowning'.

Difficult decisions need to be made about development priorities between countries upstream of deltas and those including the deltas themselves. There will be trade-offs to be made between hydropower, agricultural practices and delta sustainability.

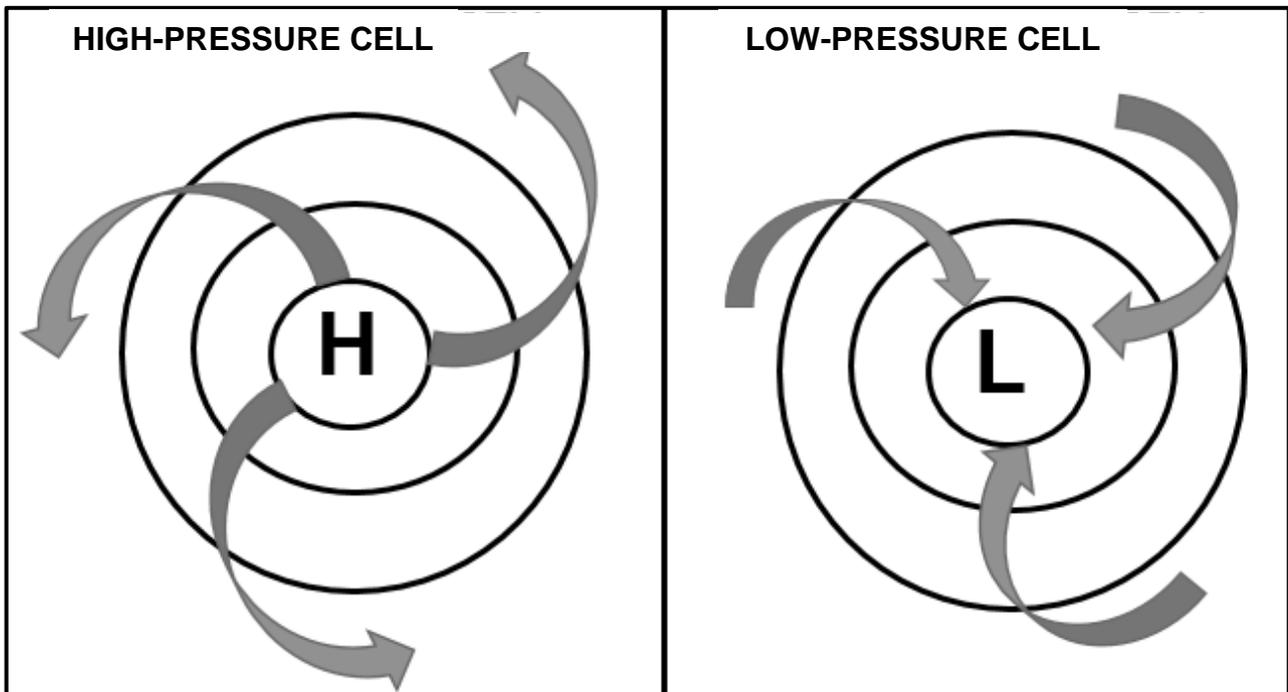
[Source: <https://www.asiatimes.com/2019/11/article/river-delta-changes-threaten-hundreds-of-millions/>]

FIGURE 1.6: RIVER REJUVENATION



[Adapted from <http://navneetsingh00215.blogspot.in>]

FIGURE 2.1: HIGH- AND LOW-PRESSURE CELLS IN THE SOUTHERN HEMISPHERE



[Source: Examiner's own sketch]

FIGURE 2.3: TROPICAL CYCLONE



[Source: Meteo France]

FIGURE 2.4: URBAN HEAT ISLANDS

CITY DWELLERS ARE BEARING THE BRUNT OF EXTREME TEMPERATURES

Thanks to a phenomenon that makes urban areas hotter than their surroundings, cities such as Pretoria are as much as 6 °C hotter than they could be.

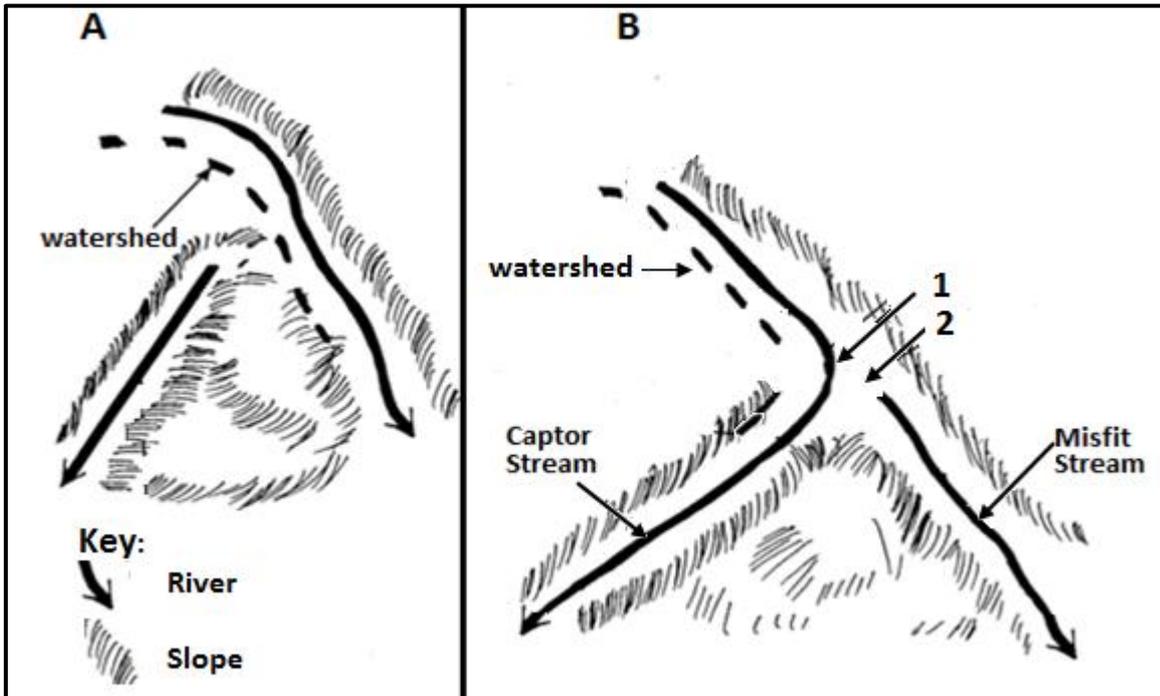
The heat comes from decades of poor planning. Since the 1950s, the global focus of city infrastructure planning has been on cars and on getting as many people as possible into tall buildings (skyscrapers).

In South Africa's six big cities, this means tarred roads crisscrossing what used to be fields, big cement slabs providing parking for the cars, high-rise apartments and office blocks overcrowding their occupants. This both creates and traps heat, which leads to an urban heat island. This effect is worse at night, with cities storing heat.

The World Health Organisation (WHO) says urban heat islands, which both raise temperatures and trap pollutants, will have to disappear in this century if future generations are to live healthy lives in cities. A possible way of addressing the issue of heat islands is introducing 'green' strategies. Green strategies are sustainable and do not harm the environment.

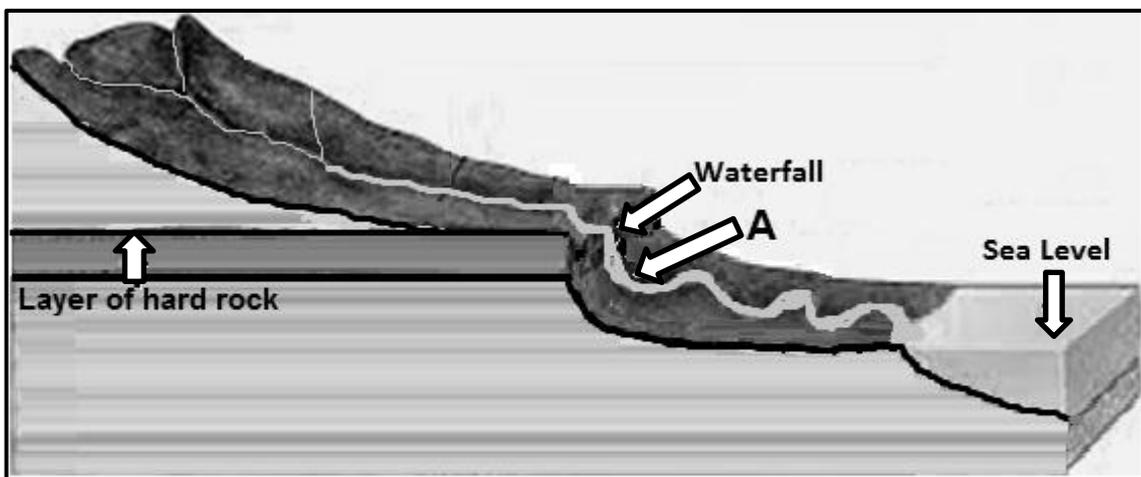
[Adapted from <https://mg.co.za/article/2016-01-16-beyond-the-inferno-how-sa-cities-must-green>]

FIGURE 2.5: RIVER CAPTURE (STREAM PIRACY)



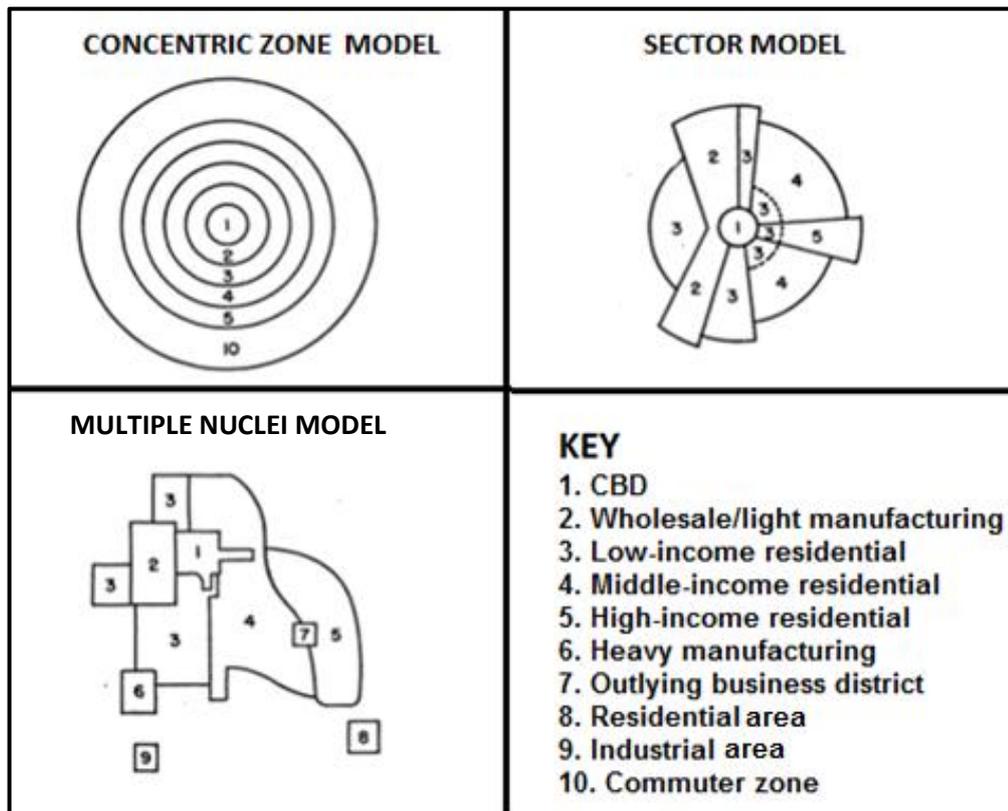
[Adapted from <https://revision.co.ke/marking-schemes/kcse-cluster-tests-3/geography/>]

FIGURE 2.6: RIVER PROFILE



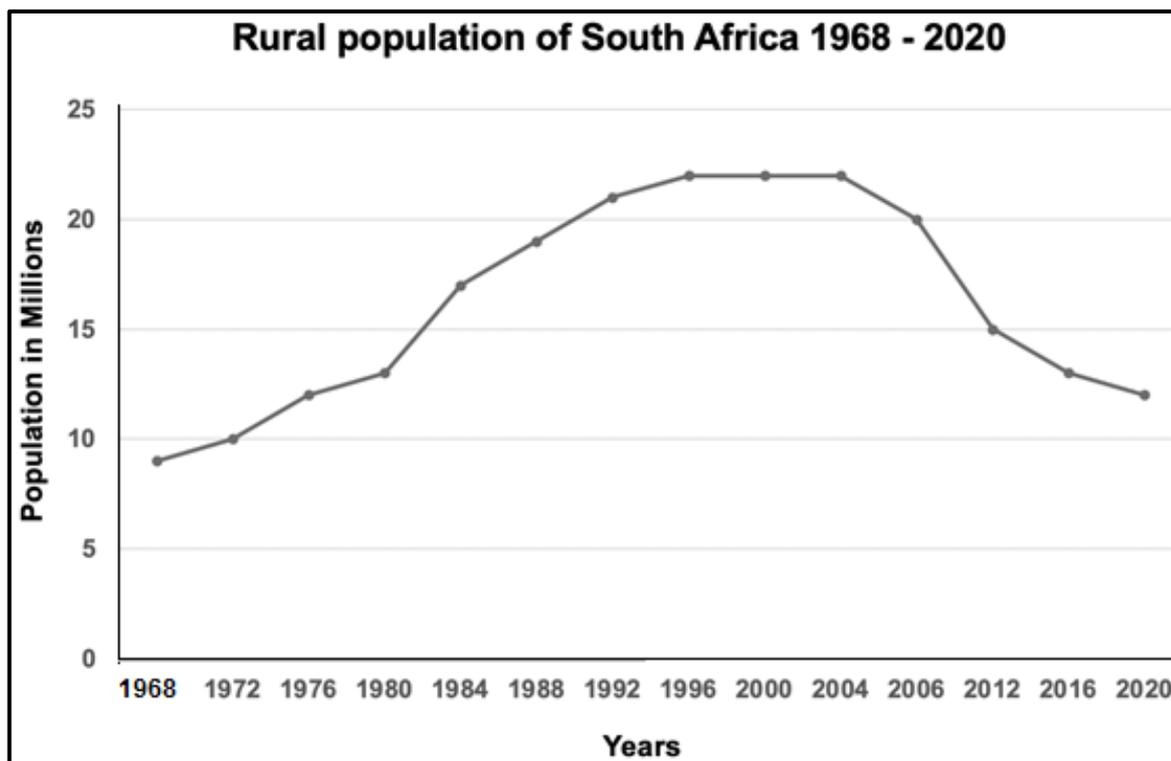
[Adapted from <https://www.google.com/search?q=photograph+of+an+ungraded+river+profile>]

FIGURE 3.1: MODELS OF URBAN STRUCTURE



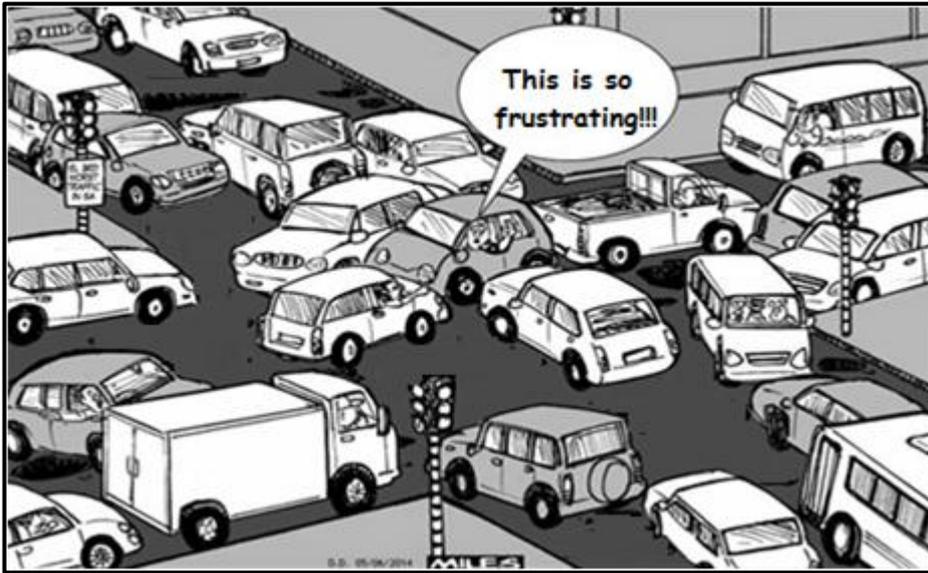
[Adapted from Davies 1981, <https://geographycasestudysite>]

FIGURE 3.3: RURAL DEPOPULATION



[Source: Examiner's graph]

FIGURE 3.4: URBAN ISSUE RELATED TO RAPID URBANISATION



[Adapted from <http://cartoonsbymiles.blogspot.com/2014/06/mixed-bag.html>]

FIGURE 3.5: CATTLE FARMING IN SOUTH AFRICA

TOUGH TIMES NEED TOUGHER CATTLE

With the ongoing drought and foot-and-mouth disease outbreaks in South Africa, choosing the right cattle breed for production and breeding has never been more crucial. With its adaptability and high functional efficiency, Bonsmara cattle has proved itself the ideal breed to cope with, and thrive in, these challenging conditions.



The Bonsmara, bred for Africa's harshest conditions, has shown that it can adapt to the changing climate, reduced rainfall and warmer temperatures. The Bonsmara cow is capable of walking long distances to find grazing. The breed also adapts in both extensive and intensive agricultural environments.

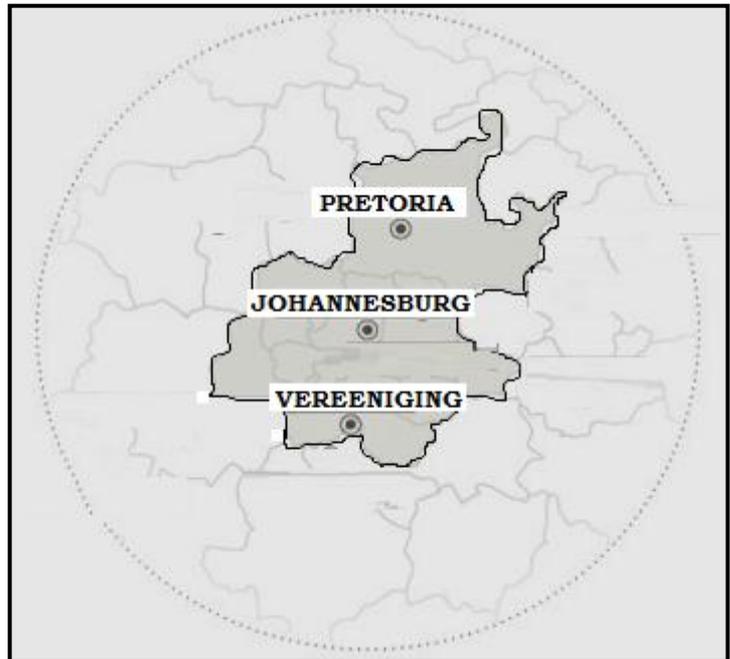
[Source: <https://www.farmersweekly.co.za/animals/cattle/tough-times-need-tougher-cattle/>]

FIGURE 3.6: PWV (GAUTENG) INDUSTRIAL REGION

The PWV (Gauteng) Industrial Region is an integrated cluster of cities, towns and urban nodes that together make up the economic heartland of South Africa.

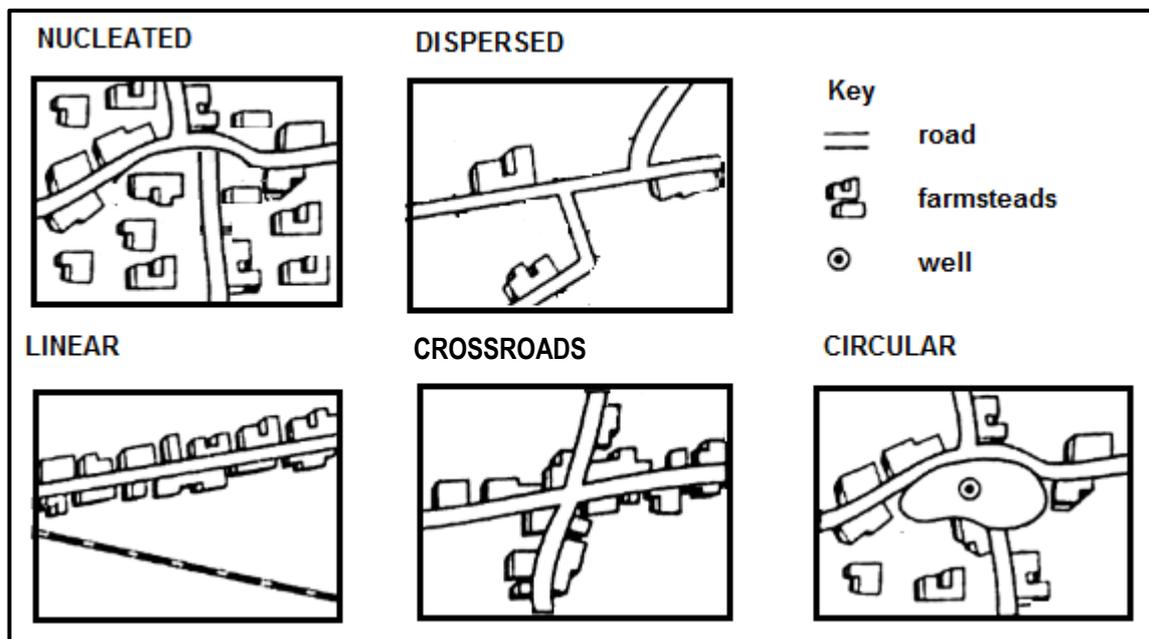
This region is the country's centre of trade within Southern Africa and beyond. PWV (Gauteng) produces more than 33,8% of the national GDP in current prices. PWV (Gauteng) is estimated to contribute about 45% of South Africa's total economic output.

Despite its importance, the PWV (Gauteng) region faces many challenges, such as water shortages and high levels of unemployment.



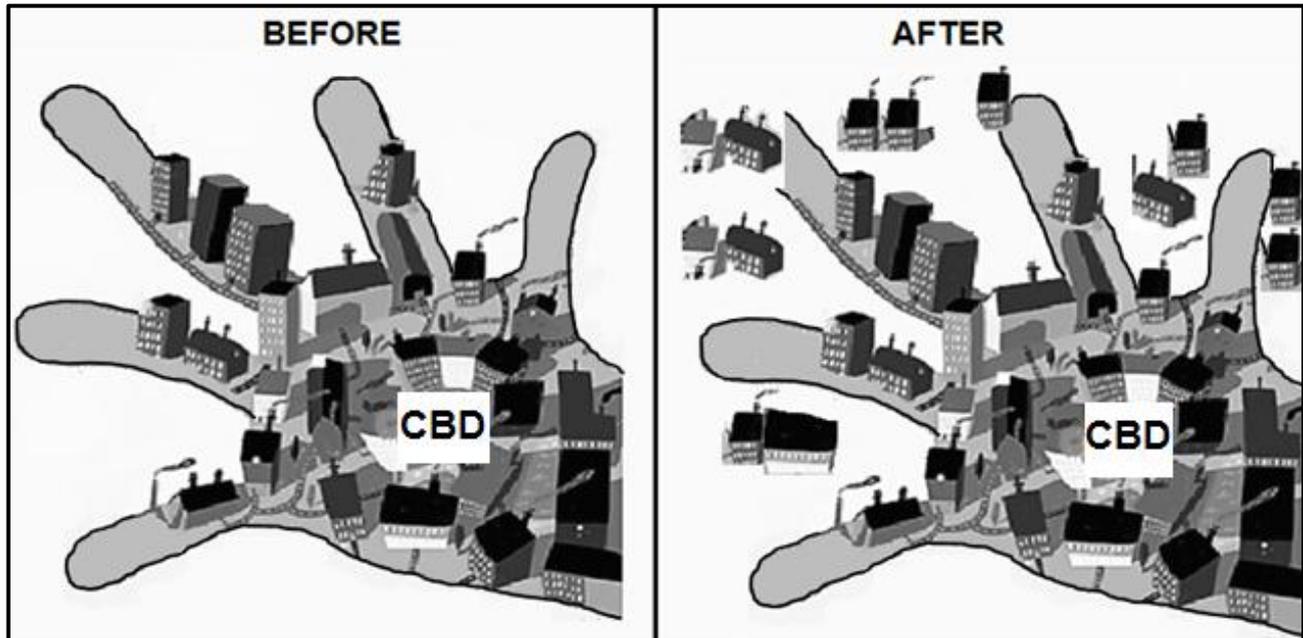
[Adapted from <https://www.gcro.ac.za/about/the-gauteng-city-region/>]

FIGURE 4.1: RURAL SETTLEMENT PATTERNS AND SHAPES



[Adapted from <https://www.studyadda.com/current-affairs/human-settlements>]

FIGURE 4.3: URBAN SPRAWL



[Adapted from <https://theurbanweb.wordpress.com/finger-plan-in-copenhagen-urban-sprawl/>]

FIGURE 4.4: URBAN ENVIRONMENTAL JUSTICE ISSUE



[Adapted from <https://pulitzercenter.org/reporting/south-africas-future-without-coal/>]

FIGURE 4.5: STRATEGIES FOR INDUSTRIAL DEVELOPMENT: THE SALDANHA BAY INDUSTRIAL DEVELOPMENT ZONE (SBIDZ)

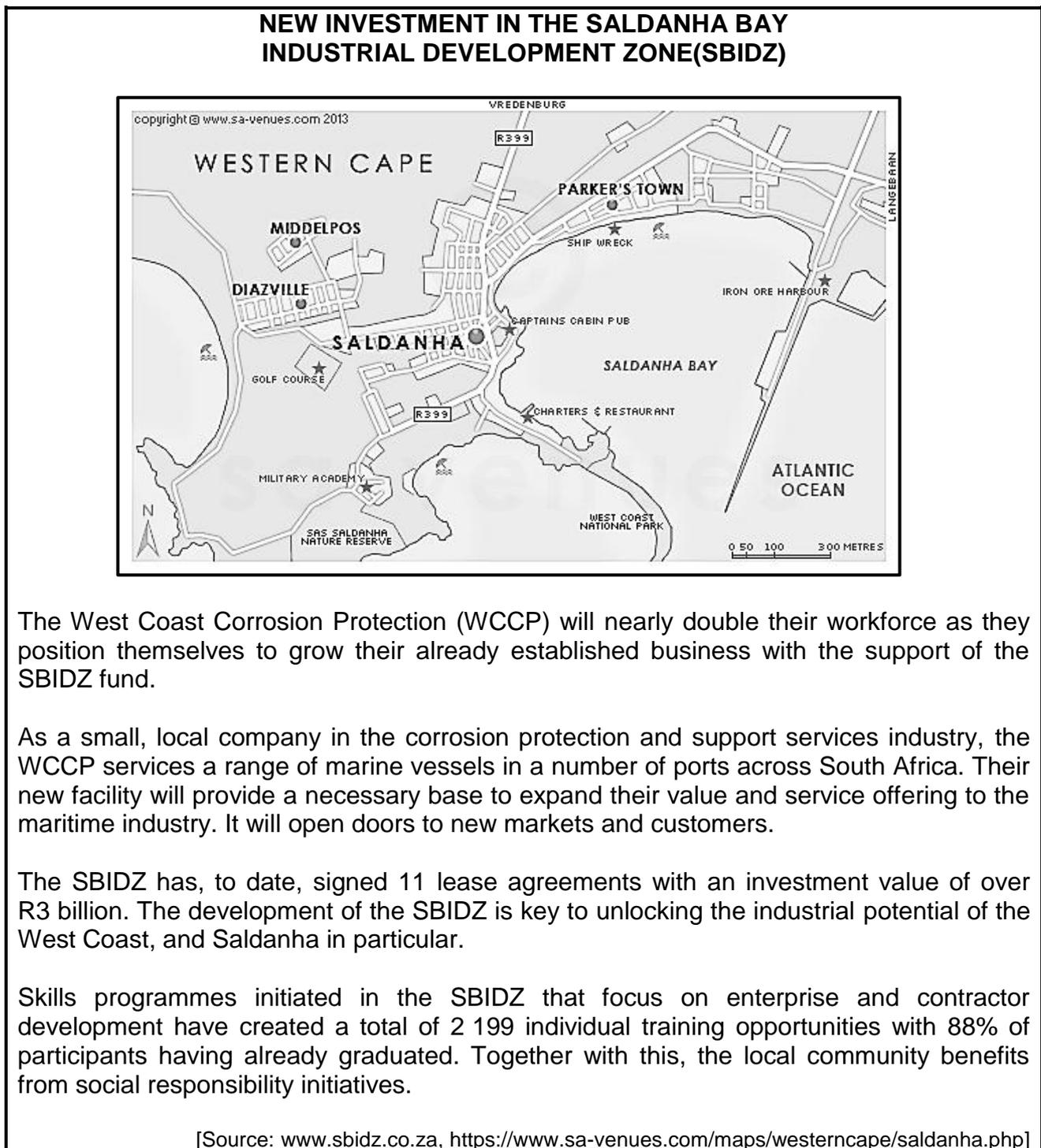
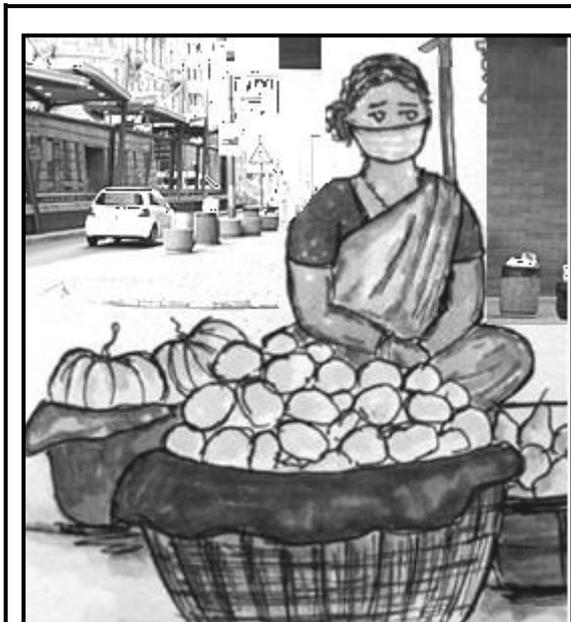


FIGURE 4.6: INFORMAL SECTOR

[Source: iol.co.za]

Informal trade is dominated by women in most countries.

South Africa's informal retail sector is made up of around 750 000 informal micro-retailers (mostly women) operating from home ('spaza' shops) and street vendors. They generate a total revenue of R31,8 billion per year.

Providing support to the informal sector could help South Africa relieve some of its unemployment pressures. There are few barriers to entering the informal sector. It provides in many of the local community's basic needs.

[Adapted from [Citizenmatters-post-covid-16671](#)].