

KZN DEPARTMENT OF EDUCATION
GREENBURY SECONDARY SCHOOL
DEPARTMENT OF SOCIAL SCIENCE
NOVEMBER EXAM – 2016
GEOGRAPHY P1
GRADE 11

EXAMINER : F. PARUK

MARKS : 225

MODERATOR : R. RANGANATHAN

DURATION : 3 HOURS

DATE : 17/11/16

NAME : _____ GR/DIV. : _____

INSTRUCTIONS AND INFORMATION

1. This paper consists of 4 Questions and 14 Pages.
2. Answer any 3 Questions of 75 marks each.
3. All diagrams are included in the annexure.
4. Leave a line between subsections answered.
5. Start each question on a new page.
6. Number your answers correctly according to the numbering system used in this paper.
7. Where possible, illustrate your answer with diagrams.
8. Write neatly and legibly.
9. Write your subject educator's name in full on the top corner of your answer book.

SECTION A – THE ATMOSPHERE AND GEOMORPHOLOGY**QUESTION 1**

- 1.1 Figure 1A illustrates air pressure belts over Africa. Answer the questions below by matching each question with a term from the list below. Write only the word(s) next to the question number.**

0°, ITCZ, Subtropical High, Westerlies, Equatorial Low, Hadley, Polar Easterlies, Sub Polar Low, 60°N/S, 90°N/S, Pressure Gradient Force, Polar, Ferrel

- 1.1.1 Name the pressure belt South Africa is located in.
- 1.1.2 What is the name of the zone where the tropical Easterlies converge?
- 1.1.3 The winds at X are known as _____.
- 1.1.4 Name the winds that diverge away from the 30° N/S latitude and converges at the 60° N/S latitude.
- 1.1.5 Identify the name of the cell associated with warm rising air at the equator.
- 1.1.6 The zone of convergence of a warm and cold air mass.
- 1.1.7 The name of the global pressure belt that results from descending cold air at the 30° latitude.
- 1.1.8 The influence of Coriolis force is nil at this latitude.

[8]

- 1.2 Match the description in Column A to the features in Column B. Write the number and the correct letter next to it.**

COLUMN A	COLUMN B
1.2.1 Hard Resistant Rock	A. Canyon
1.2.2 Joints between layers of Sedimentary Rock.	B. Bedding plane
1.2.3 A deep narrow valley in an Arid Region.	C. Pediplain
1.2.4 Dip slope faces inwards.	D. Cap Rock
1.2.5 Largest intrusive feature.	E. Cuesta Basin
1.2.6 Gentle level landscape.	F. Hilly landscape
1.2.7 Consists of rounded hills and gentle slopes.	G. Basaltic landscape
	H. Batholith

[7]

Please turn over

1.3 Refer to the synoptic map. (Figure 1B).

1.3.1 Identify the following :

1.3.1.1 Pressure cell A and B. [2]

1.3.1.2 Front labelled C. [1]

1.3.2 Briefly explain the impact that Front C will have on the South Western Cape (D) as it passes over. (2 answers). [2X2]

1.3.3 Describe the weather being experienced at E. [4]

1.3.4 Will the winds be blowing stronger in area marked G or F.
Give a reason for your answer. [1+2]

[14]

1.4 Read the Case Study on Desertification in Africa. Figure 1C.

1.4.1 Explain the term 'Desertification'. [2]

1.4.2 Give the main reason for the shortage of Water in the Region. [2]

1.4.3 Provide 2 effects mentioned in the article on the following :

1.4.3.1 Environment [2]

1.4.3.2 People [2]

1.4.4 Provide a reason why the U.N plan of action to combat desertification was unsuccessful. [2]

1.4.5 Write a short paragraph of approximately 6 lines in which you explain sustainable strategies that can be implemented to reduce the impact of Desertification. [3X2]

[16]

1.5 Figure 1D is a Case Study on Mass Movement in Uganda.

- 1.5.1 Identify the environmental factor that caused the Mass Movement. [2]
- 1.5.2 According to scientists, why is it possible that landslides could become more frequent in this area. [2]
- 1.5.3 Explain how the 'deforested mountains' contributed to the landslide. [2X2]
- 1.5.4 Mention a short term solution that the Minister of Disaster preparedness has suggested to reduce the effects of potential landslides. [2]
- 1.5.5 Human Activity is one of the main causes of Mass Movement. Write a single paragraph suggesting possible solutions to prevent Mass Movement. [3X2]

[16]

1.6 Refer to the Figure 1E, a photograph of a TOR.

- 1.6.1 Name the type of rock in which Tors originate. [2]
- 1.6.2 Briefly describe what a Tor looks like. [2]
- 1.6.3 Use the diagram to explain the process of development of a Tor. [3X2]
- 1.6.4 Provide a significance of Tors to man. [2]
- 1.6.5 Give an example of a granite dome found in the Western Cape. [2]

[14]

SUB TOTAL : [75]

QUESTION 2

2.1 Study Figure 2A which represents a typical slope. Match the statements below with the labels on the diagram. Write only the number and next to it the correct answer.

- 2.1.1 This slope element is convex.
- 2.1.2 It is also called a scree slope..
- 2.1.3 This slope element is vertical.
- 2.1.4 Suitable for farming.
- 2.1.5 Rills and Gullies are common on this slope.
- 2.1.6 Material from the Cliff and Crest land on this slope.
- 2.1.7 This slope element has a low angle.

[7]

2.2 State whether the following statements are True or False.

- 2.2.1 The earth revolves around the sun in 24 hours.
- 2.2.2 The Earth's Axis is tilted 45° to the vertical.
- 2.2.3 Warm air can hold more water vapour than cold air.
- 2.2.4 Solstice is a time of the year when day and night are of equal length.
- 2.2.5 The Earth's rotation results in day and night.
- 2.2.6 Convection is the downward movement of air caused by heating.
- 2.2.7 Clouds form in low pressure conditions.
- 2.2.8 Air generally moves from a HP to a LP area.

[8]

2.3 Read the Article on Monsoons in India. Figure 2B.

- 2.3.1 Name the Monsoon Winds that bring heavy rainfall to India. [1]
- 2.3.2 Describe the characteristics of this air mass which causes the rain in the Monsoon season. [2]
- 2.3.3 Identify the source of the moisture this wind carries into India. [2]
- 2.3.4 During which season does the Monsoon Rain occurs.
Give a reason for your answer. [1+2]
- 2.3.5 Describe 2 consequences of Monsoon Rains. [2X2]
- 2.3.6 Outline why dams can be a problem when Monsoon Flooding occurs. [2X2]
- [16]**

2.4 Figure 2C shows the forces that affect the Movement of Wind.

- 2.4.1 Name the Force represented by
2.4.1.1 X
2.4.1.2 Y [2X2]
- 2.4.2 Briefly explain how Force Y occurs. [2]
- 2.4.3 In which Hemisphere is this Wind occurring.
Support your answer with a reason. [2X2]
- 2.4.4 Identify the Wind labelled Z. [2]
- 2.4.5 Explain how this Wind (answer to 2.4.4) forms. [2]
- [14]**

2.5 Figure 2D shows landform features that result from Canyon Landscape.

- 2.5.1 Identify features labelled A & B. [4]
 - 2.5.2 Identify the underlying rock strata of both landforms A and B on the landscape. [4]
 - 2.5.3 Differentiate between the Dimensions of Landform A and B. [2X2]
 - 2.5.4 What is the main process of erosion that takes place at Feature A & B respectively? [2]
 - 2.5.5 Describe one characteristic of Canyon Landscape. [2]
 - 2.5.6 Suggest a reason why Canyon landscape is not suitable for Human Settlement. [2]
- [15]**

2.6 Refer to Figure 2E which depicts 2 Homoclinal Ridges resulting from inclined rock strata.

- 2.6.1 What type of Rock is associated with these landforms.? [1]
 - 2.6.2 Name the slopes A & B that are associated with Homoclinal Ridges. [2X2]
 - 2.6.3 Describe each of these slopes identified in Q.2.6.2. [2X2]
 - 2.6.4.1 Identify the 2 types of Homoclinal Ridges shown. [2]
 - 2.6.4.2 Use the diagram to explain how these Ridges differ. [2X2]
- [15]**

SUB TOTAL : [75]

SECTION B – DEVELOPMENT GEOGRAPHY & RESOURCES AND SUSTAINABILITY

QUESTION 3

3.1 Various options are given as possible answers to the following.

Choose the answer and write only the letter next to the question number.

3.1.1 The difference in value between a country's imports and its exports is ...

- A. An unfavourable trade balance
- B. The balance of payments
- C. The balance of trade
- D. The balance owing

3.1.2 When there are no barriers to the import / export of goods and services between countries. We refer to this as :

- A. Protected trade
- B. Open trade
- C. Fair trade
- D. Free trade

3.1.3 Restrictions placed on the quantity of goods imported into a country are referred to as :

- A. Trading blocks
- B. Quotas
- C. Tariffs
- D. Import substitution

3.1.4 These activities are concerned with the provision of Services to consumers.

- A. Tertiary
- B. Quaternary
- C. Primary
- D. Secondary

3.1.5 A total value of goods and services produced in a country in 1 year.

- A. GDP
- B. GDP / Capita
- C. GNP
- D. Trade balance

- 3.1.6 The improvement of the quality of life of people while ensuring enough resources for future generations is called :
- A. Resource Development
 - B. Wealth creation
 - C. Conservation
 - D. Sustainable Development
- 3.1.7 Which of the following economic indicators is not used to calculate the HDI of a country?
- A. Birth rate
 - B. Life expectancy
 - C. Death rate
 - D. Infant mortality rate
- 3.1.8 The three pillars of sustainable developments are :
- A. Resource, technology, energy
 - B. Literacy level, population growth, Birth rate
 - C. Social, Economic, Environmental
 - D. People, product, profit

[8]

- 3.2 Match the list of terms below with the statements. Write only the Question number and next to it the correct answer.**

Human Resource, National Grid, Natural Resource, Overstocking,
Monoculture, Soil Erosion, Eluviation, Weathering, Kyoto Protocol

- 3.2.1 An agreement that was signed by governments of many countries to reduce carbon emissions.
- 3.2.2 Keeping more animals on a piece of land than it can support.
- 3.2.3 The Network of electricity cables, wiring and pylons.
- 3.2.4 Skills of people are an example of _____.
- 3.2.5 The planting of one type of crop, coupled with poor soil management.
- 3.2.6 The transport of nutrients downwards through the Horizons.
- 3.2.7 The removal and transportation of broken down rock material.

[7]

3.3 Study Figure 3A showing South Africa's Trade.

- 3.3.1 Name South Africa's largest international trading partner. [1]
- 3.3.2 Suggest a mineral South Africa would export to china. [1]
- 3.3.3 Name the most likely commodity South Africa would import from Saudi Arabia. [1]
- 3.3.4 Is South Africa's Trade Balance with these countries positive or negative?
- 3.3.4.1 China [1]
- 3.3.4.2 U.K [1]
- 3.3.5 South Africa has established trade with various countries.
- 3.3.5.1 Explain your understanding of a trade bloc. [2]
- 3.3.5.2 Name 3 countries shown on the graph that are part of BRICS. [3]
- 3.3.6 If the Chinese Economy was to experience difficulties and enter a recession. Predict how this would affect economic development in South Africa. [3X2]
- [16]**

3.4 Refer to the Cartoon showing the effects of globalisation, Figure 3B.

- 3.4.1 Define the term Globalisation. [2]
- 3.4.2 Explain your understanding of 'the gap between rich and poor countries has grown even bigger'. [2]
- 3.4.3 In Cartoon A, reference is made to wages. Why is the worker unable to complain about the wages? [2]
- 3.4.4 The cartoons portray Globalisation in a positive and negative way. Give 2 advantages. [2X2]
- 3.4.5 Give 2 reasons why Multi-national Companies often prefer to establish factories in less economically developed countries. [2X2]

[14]

3.5 Refer to the extract and the diagram, Figure 3C and answer the questions that follow.

- 3.5.1 List 2 natural resources found in the DRC. [2]
 - 3.5.2 Give 2 reasons why the area covered by rainforests in the DRC, are shrinking in size. [2X2]
 - 3.5.3 Provide 2 possible uses of fuel-wood by Locals. [2]
 - 3.5.4 Describe how the increase in the demand for fuel-wood has an impact on the environment in this area. [2X2]
 - 3.5.5 Explain why fuel-wood is no longer a Renewable Resource. [2]
- [14]**

3.6 Refer to the Figure 3D, An Article on the Koeberg Nuclear Power Station.

- 3.6.1 What mineral is used to produce nuclear energy? [1]
 - 3.6.2 Name a hazardous by-product of nuclear energy. [1]
 - 3.6.3 Explain why Cape Town became more reliant on the Nuclear power station rather than the coal-fired power station. [2X2]
 - 3.6.4 Mention 2 safety precautions that have been implemented at the Koeberg Nuclear Power Station. [2X2]
 - 3.6.5 Although there are high risks in the usage of nuclear energy, the demand for energy is increasing our reliance on it. Outline some of the advantages of using nuclear power over coal-fired power stations. [3X2]
- [16]**

SUB TOTAL : [75]

QUESTION 4**4.1 Match the descriptions from Column A to the terms in Column B.**

COLUMN A	COLUMN B
4.1.1 Activities associated with production & industrial process.	A. Infrastructure
4.1.2 Resources that can be replenished.	B. Technical Aid
4.1.3 Road, rail and air links, services & communication.	C. Brandt line
4.1.4 A country with a low standard of living and a low GDP.	D. HDI
4.1.5 The average number of years a person can expect to live.	E. Gini-co-efficient
4.1.6 The Korean government assists Mozambique in building a hydroelectric dam.	F. LEDC
4.1.7 The South African public sends food & water to Earthquake victims in Indonesia.	G. Humanitarian Aid
4.1.8 Imaginary line separating MEDC's from LEDC's.	H. MEDC
4.1.9 Indicator of development measuring the gap between the rich and poor..	I. Renewable
	J. Life Expectancy
	K. Secondary
	L. Non-Renewable
	M. Financial Aid

[9]

4.2 For each of the following statements, choose the correct answer from within brackets. Write only the correct answer next to the question number.

4.2.1 (Western Cape, Gauteng) is an ideal province for developing wind energy.

4.2.2 (Afforestation / Deforestation) causes soil erosion.

4.2.3 Wind power is (reliable / unreliable) throughout the year.

4.2.4 Energy produced by burning agricultural waste is (geothermal energy / biomass energy).

4.2.5 Hydro-electric power is a (conventional / non-conventional) source of energy.

4.2.6 (Leaded / unleaded) fuel produces more greenhouse gases.

[6]

Please turn over

4.3 Refer to the Article titled 'Bitter Coffee' in Figure 4A.

- 4.3.1 Why does Pedro feel so bitter about the profit he makes from planting coffee? [2]
- 4.3.2 Who gets the largest share of the profit from the coffee industry? [1]
- 4.3.3 Coffee is sold as an unprocessed product from Brazil. Explain how this affects Brazil's economic growth. [2X2]
- 4.3.4 Explain your understanding of Fair Trade. [2]
- 4.3.5 Write a paragraph on how 'Fair Trade' practices can be beneficial to communities. [2X2]
- [13]**

4.4 Refer to the table showing a comparison of development indicators between 2 countries. Figure 4B.

- 4.4.1 Explain your understanding of development indicators. [2]
- 4.4.2 Which of the 2 countries is an MEDC? Give a reason to support your answer. [1+2]
- 4.4.3 UK has a higher life expectancy. Suggest 2 reasons for UK's high life expectancy. [2X2]
- 4.4.4 Why do you think Ethiopia has such a high infant mortality rate? (2 answers). [2X2]
- 4.4.5 The rate of development in Ethiopia is very low (as seen by the statistics). Suggest measures the Ethiopian government (can implement to improve the quality of life of its citizens. [2X2]
- [17]**

4.5 Refer to Figure 4C showing a simple Soil Profile.

4.5.1 Match the Horizons labelled 1, 2, 3, 4 & 5 with the following alternatives.

R – Horizon, A – Horizon, B – Horizon, O – Horizon, C – Horizon. [5]

4.5.2 List 3 factors that affect to the formation of soil. [3]

4.5.3.1 Which layer is rich in humus? [1]

4.5.3.2 What is humus made up of? [2]

4.5.4 Analyse how high rainfall influences the process of Leaching and impacts the fertility of the soil. [2X2]

[15]

4.6 Read the Article, Figure 4D and answer the questions.

4.6.1 Name the resource that produce solar power. [1]

4.6.2 Solar energy is an unconventional energy supply. Explain the term 'Unconventional energy'. [2]

4.6.3 Name 2 other examples of 'unconventional energy'. [2]

4.6.4 Identify the device that will be used to convert solar power into energy in the village. [2]

4.6.5 Suggest a possible reason why Eskom has no immediate plans to electrify the village. [2]

4.6.6 Explain ways in which providing electricity to the village will improve the standard of living and reduce poverty for the villagers. [3X2]

[15]

SUB TOTAL : [75]

GREENBURY SECONDARY SCHOOL



DEPARTMENT OF HSS
H.O.D. MR D RAMASAMI

R. Ramasami
03/11/16

TOTAL : [225]

ADDENDUM

GEOGRAPHY

P1

GRADE 11

NOVEMBER EXAM

2016

**THIS ADDENDUM CONSISTS OF 12 PAGES
INCLUDING THE COVER.**

Figure 1 A

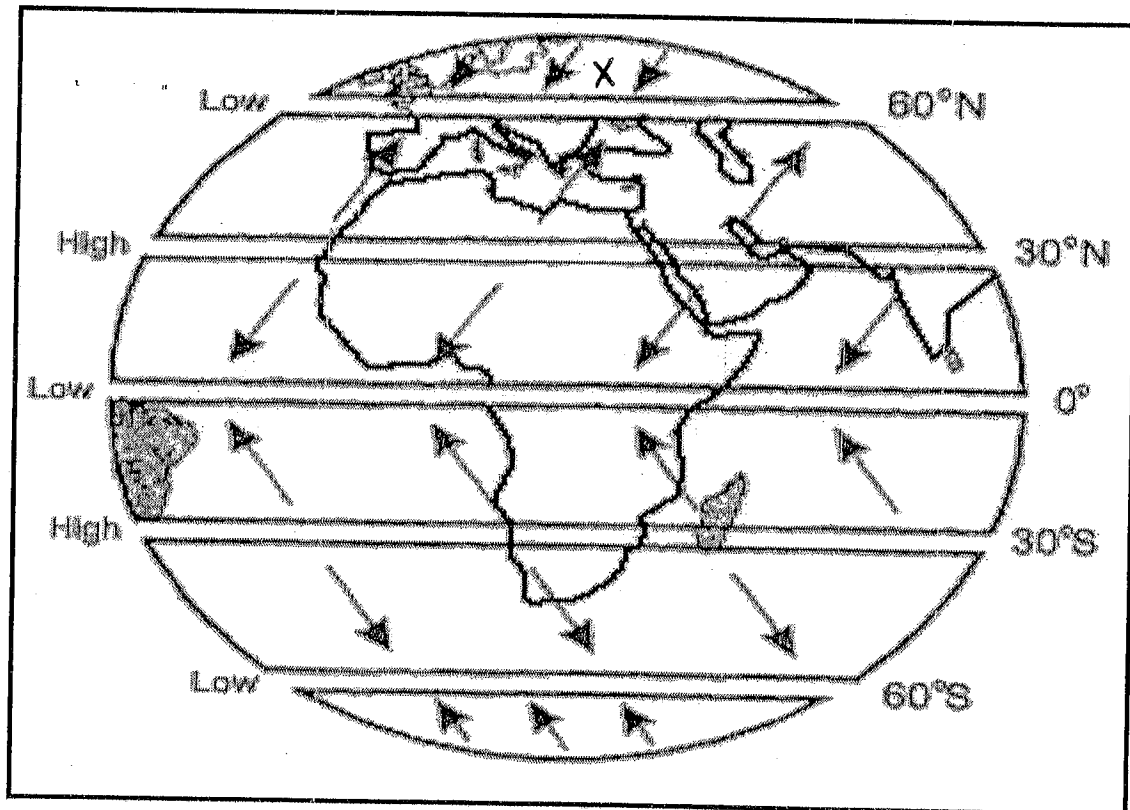


Figure 1B

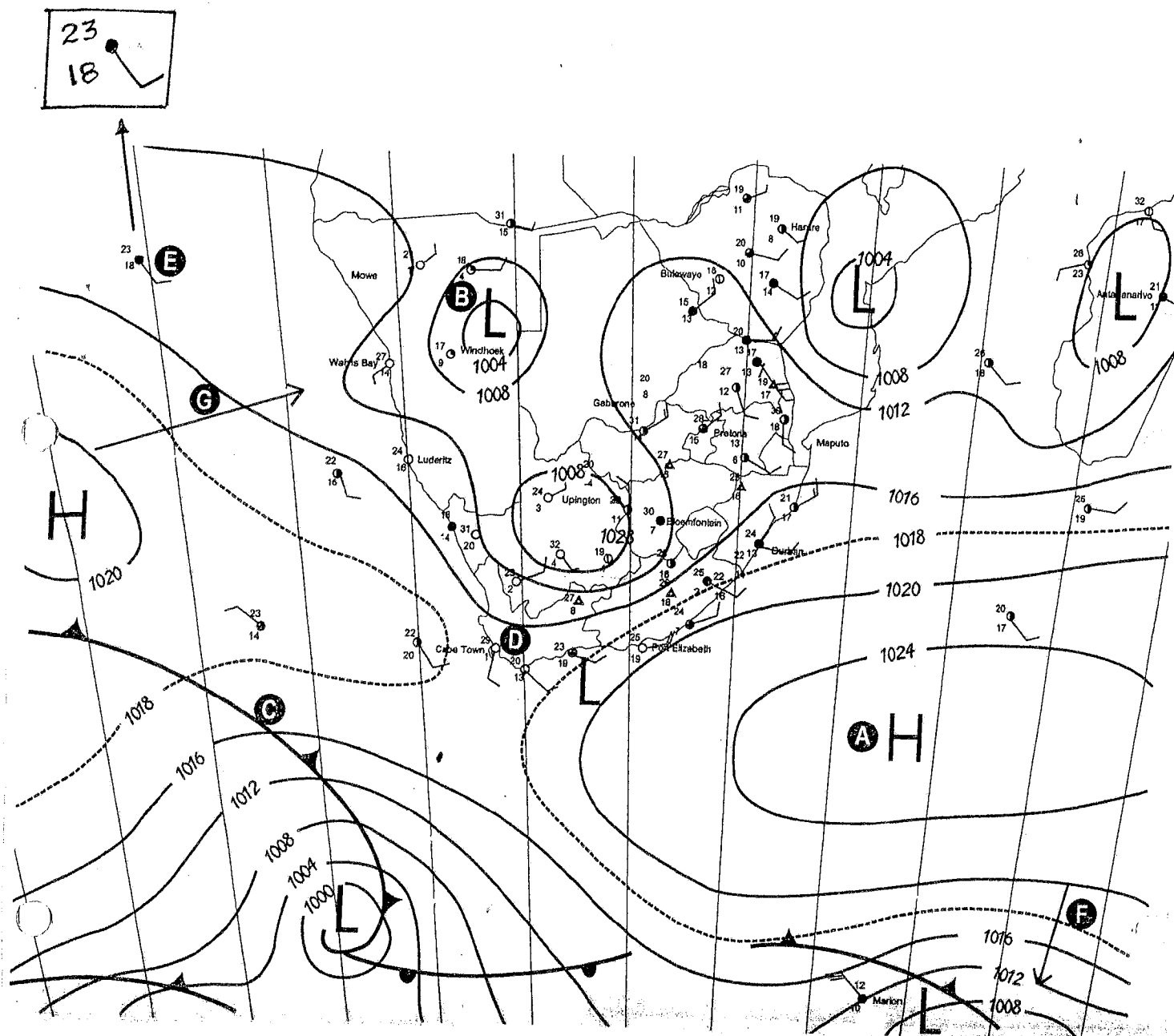


Figure 1c

Desertification in Africa

Many countries in Africa have experienced drought and famine during the past 10 to 15 years. These countries are unable to provide enough food for their people.

It is estimated that nearly 400 million people live in the arid and semi-arid lands of Africa. The populations in these areas expand at a rate of three percent a year and therefore an extra 12 million people need to be fed each year. This has resulted in the overexploitation of the continent's water, land, forest and pasture resources. Surface water resources are drying up, groundwater is being depleted and there is increasing salinisation of soil. The growing demand for charcoal among urban people is leading to deforestation and desertification within a 50 km radius of many large urban areas in the Sahel region.

The continent's topsoil is being eroded at an incredible rate. In Ethiopia, an estimated one billion tons of topsoil is lost each year, as compared to four billion tons in the United States, which is much much larger than Ethiopia. The degradation of the land has made the area more vulnerable to climate change, erratic rainfall and drought.

Desertification in Africa is creating refugees as people are forced to abandon their land because it can no longer sustain them and they migrate to other regions or to urban slum areas. Millions of people in the Sahel region are unable to feed themselves. Ethiopians depend on foreign donations of food.

The UN Plan of Action to Combat Desertification (PACD) has issued national plans of action, but these have not been successful. Some of the problems are that African governments have failed to make desertification a priority issue, there is a lack of funds, legislation is inadequate and there is insufficient community support.

Agenda 21, which was adopted by the world's governments at the Earth Summit in Rio de Janeiro in 1992, issued the following plans for combating desertification:

- intensified soil conservation, afforestation and reforestation activities
- integrated national development programmes
- drought preparedness and drought relief schemes
- promotion of participation of the people.

(This material is reproduced with the permission of the author and publisher, *Tiempo*, from *Desertification the scourge of Africa*, *Tiempo*, Issue 8, 1993, pp. 1-6, by Michael Bernard Kwesi Darkoh)

Landslide in Uganda (2010)

Authorities believe that about 100 people were killed in a landslide in the district of Bududa, eastern Uganda on the 1st of March 2010. Heavy rains brought on the landslide in which hundreds of missing people were presumed dead. This included around 60 children who had taken shelter in the local health centre, which was destroyed by the landslide. Large areas in the villages were buried by the landslides and houses, a church and markets were destroyed.

The heavy rains from 12 pm to 7 pm on 1 March, which prompted the landslides, were preceded by very heavy rainfall in the region. Scientists suggest that global climate change is affecting rainfall patterns in East Africa, resulting in extreme and unusual rainfall. The coffee-growing region, in which Bududa is situated, normally has a dry season in between the wet seasons. The Ugandan Government believes that deforestation in the mountains may also have played a role in the landslide.

The difficult terrain hampered rescue workers' efforts to access the area with emergency vehicles. Rescuers had to use hand tools to dig through the mud to rescue survivors.

At the time, the minister of Disaster Preparedness advised people who were living on mountain slopes affected by the landslides to evacuate and move to safer ground.



Figure 3.79 Satellite image of the landslide and surrounding area

Figure 1 E

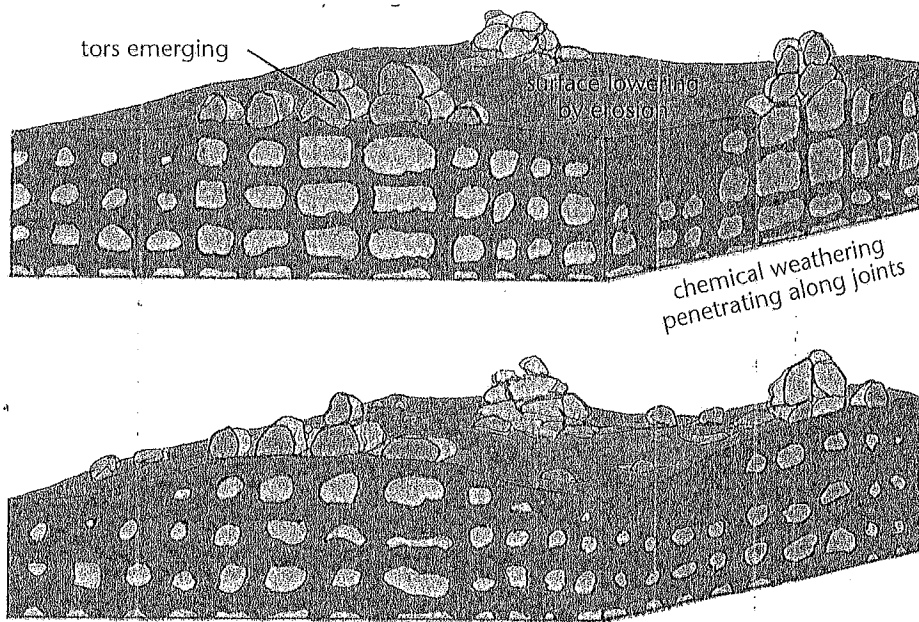
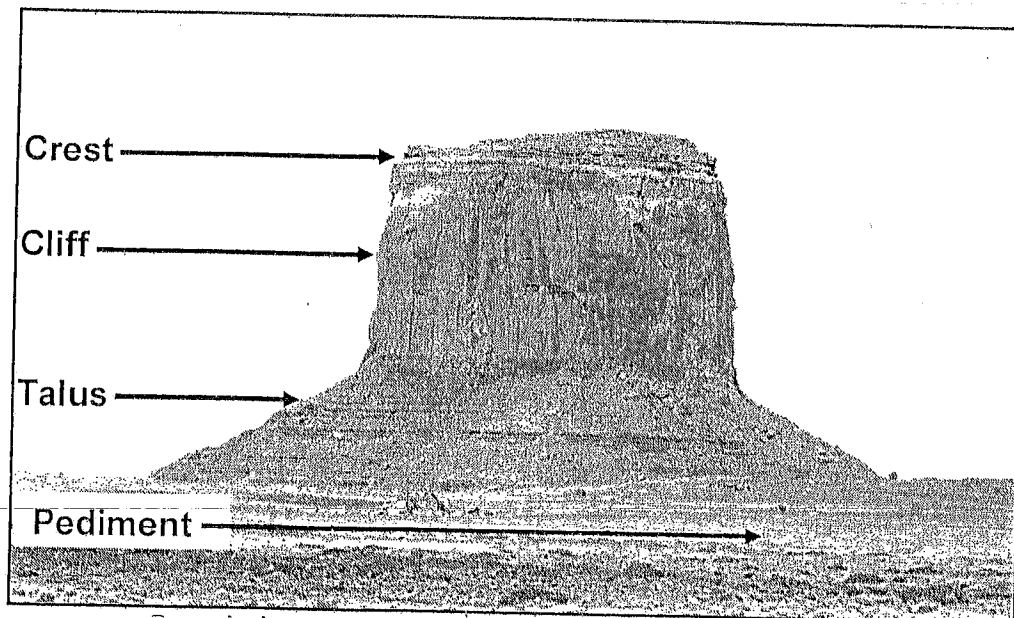


Figure 2 A



Preparing for the monsoon

India has a love-hate relationship with the annual weather phenomenon called the monsoon. With over 50 per cent of the economy depending on agriculture, she can't do without it. But what the monsoon does with India – is the other part of the story.

Too much rain and large swathes of the land are turned into virtual islands with millions displaced and not enough rain means crippling drought. 80 per cent of the total rainfall in India takes place between June and September under the influence of the south-west monsoon. Floods from these monsoon rains are a perennial phenomenon.

Widespread human and material losses, collapse of infrastructure and services may be major consequences of the floods. Hundreds of thousands may be displaced, often in isolated and not easily accessible areas. Loss of life also occurs each year due to the flooding from the monsoon rains.

Against the total of 40 million hectares prone to floods, approximately 15 million hectares have been protected by construction of embankments.

Dams and barrages have also been constructed, but sometimes these cause floods. In 2006 as many as 10 dams had to release large quantities of water within 24 hours after four days of incessant rains. As a result, over 2 000 villages in 104 taluks spread over 19 districts downstream of the dam were affected and more than 200 000 hectares of agricultural land were damaged. Around 100 000 people were affected. Flash floods in Gujarat, Himachal Pradesh and Bihar were similarly caused by dams upstream discharging excess water.

As part of the measures to prepare for the disasters caused by the monsoons, there is an overall master plan for every state and a contingency plan for each district, involving apart from other things, steps required to be taken before the onset of floods and post-flood management.

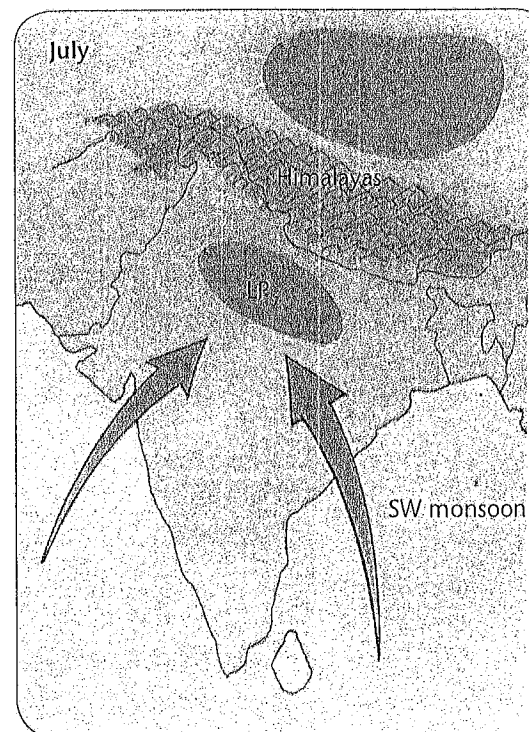


Figure 2C

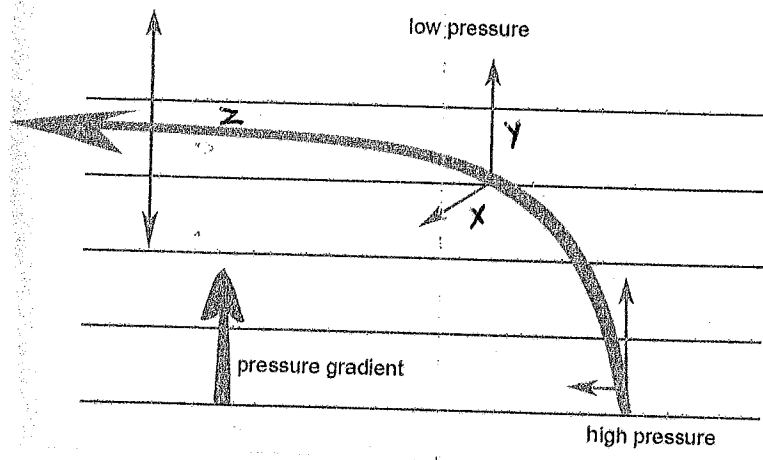


Figure 2D

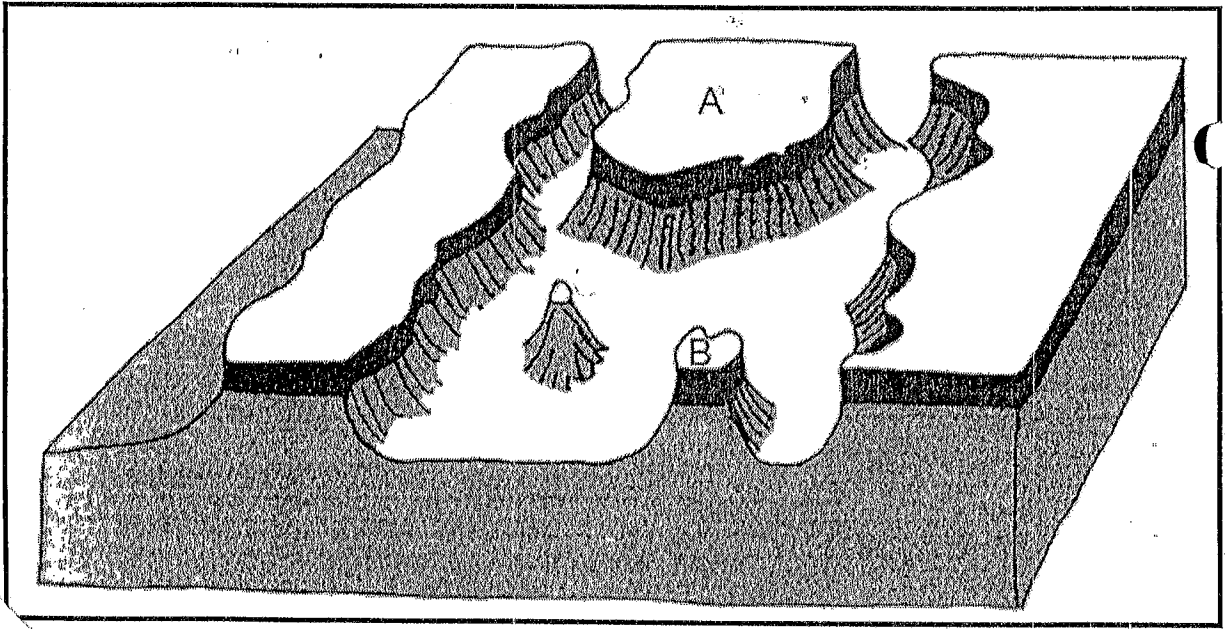


Figure 2E

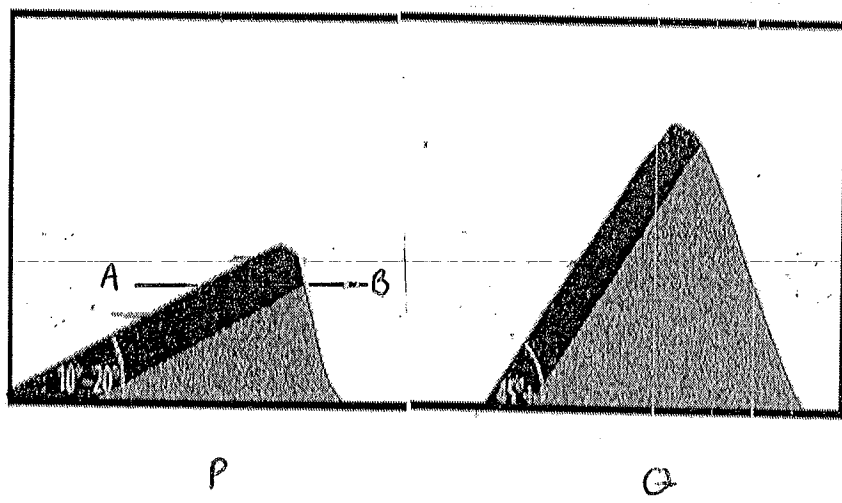


Figure 3A

South Africa's trading partners

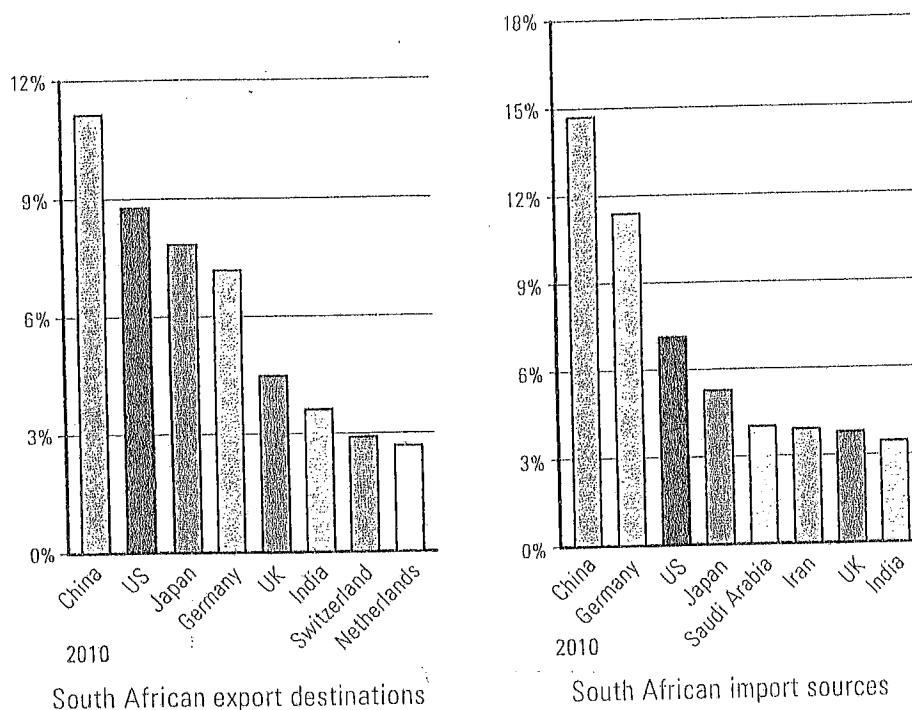
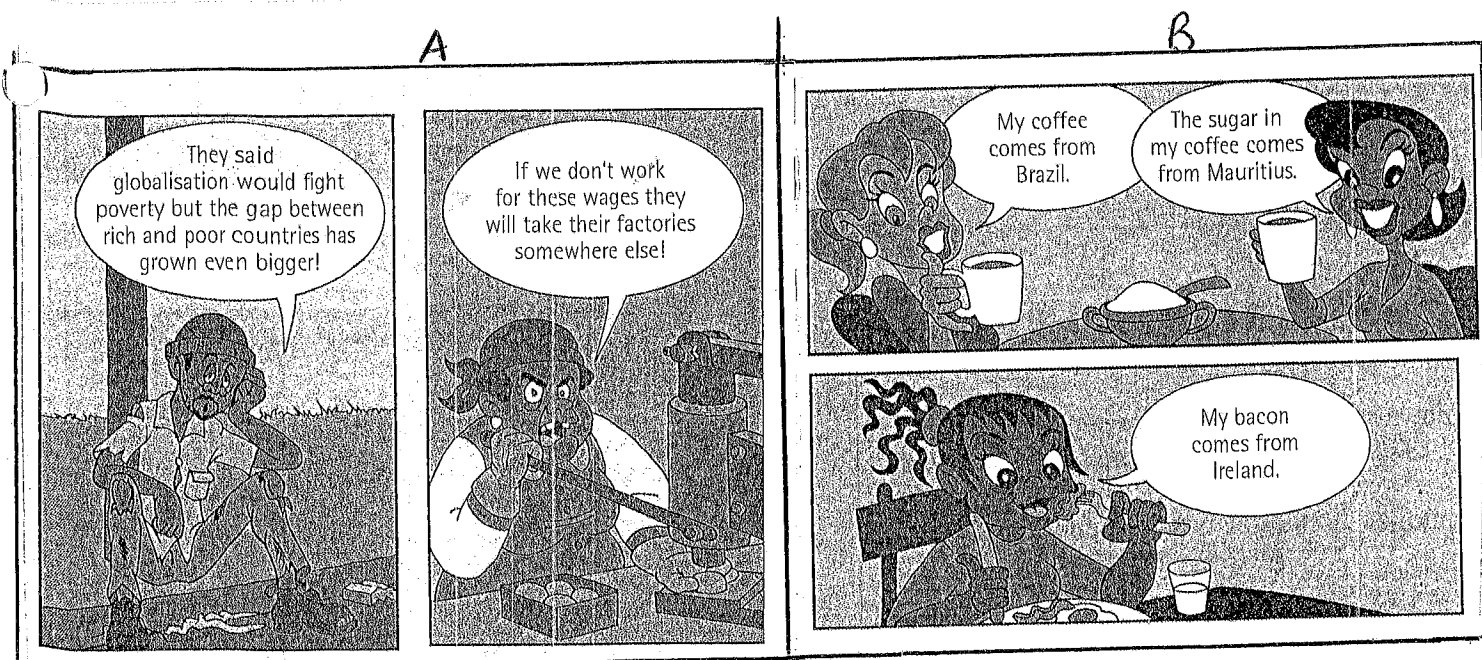
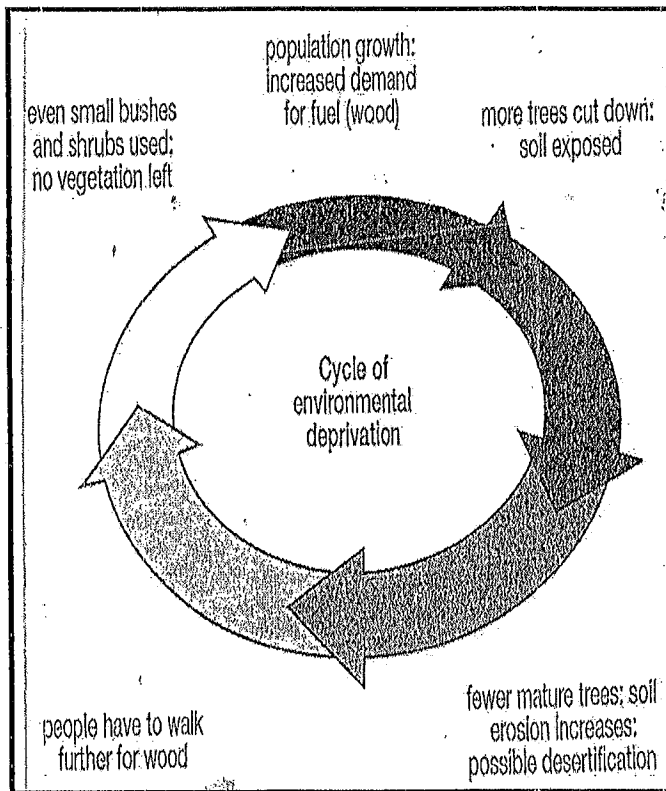


Figure 3B



There are mixed feelings about the effects of globalisation on development

Figure 3c



The Republic of Congo (DRC) has the largest tropical rainforest in Africa, covering over 100 million hectares. However, the future of the DRC's forests is in question due to population growth exceeding 3%. The demand of fuelwood exceeds availability.

Plantation agriculture and commercial farming are also on the increase. Both of these threaten the DRC's extensive rainforest.

Figure 3d

Cape Town's main energy supply was initially generated by the Athlone Power station. However because of a rapid increase in the population of Cape Town this energy supply became insufficient and uneconomical because large amounts of coal had to be transported from Mpumalanga to Cape Town.

The Koeberg Nuclear Power Station was built to generate energy to meet Cape Town's increased demand. It is currently the main energy supply of the Western Cape and nuclear energy can also be redistributed to the rest of South Africa during peak demand periods for electricity.

Koeberg Nuclear Power Station was originally located far outside the Cape Town area, but due to rapid growth over the past 20 years, suburban housing developments have moved closer and closer to the power station. The power station enforces strict housing regulations in case of evacuation due to nuclear radiation. For example no high-rise buildings are allowed to be built in the vicinity. The power station is surrounded by an extensive nature reserve containing species of birds and small mammal species.

Koeberg Nuclear Power station uses two nuclear reactors to produce nuclear energy. The nuclear reactors are cooled by cold water from the Atlantic Ocean.

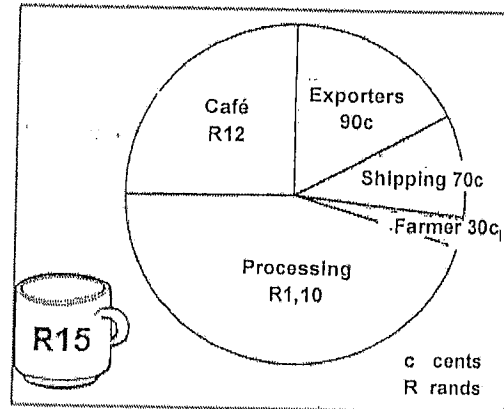
Figure 4 A

BITTER COFFEE: The story of Pedro

Coffee is mainly grown in poor developing countries such as Brazil. The coffee harvest season is over and Pedro is tired. For the past 10 weeks he and his wife picked coffee cherries all day starting at 5 a.m. in the morning.

It's a harsh world. Pedro hears from his cousin in Johannesburg that you can pay a fortune for coffee in a coffee bar. So why does he get so little for his coffee beans? That makes him feel really bitter. Maybe, just maybe it is time for him to give it up.

[Adapted from *Earthworks*]



[Source: Google Image]

Figure 4 B

Comparison of Development Indicators		
Development Indicator	United Kingdom	Ethiopia
Life expectancy	79 years	42 years
Ratio of doctors to people	1:455	1:32 000
Literacy rate	99%	41%
Nutrition	3 100 calories per person per day	1 800 calories per person per day
Access to clean water	100%	27%
GNP per capita	US\$21 410	US\$100
Birth rate	12 per 1 000	40 per 1 000
Death rate	10 per 1 000	19 per 1 000
Infant Mortality Rate	5 per 1 000	110 per 1 000
Natural increase	0,3%	2,5%

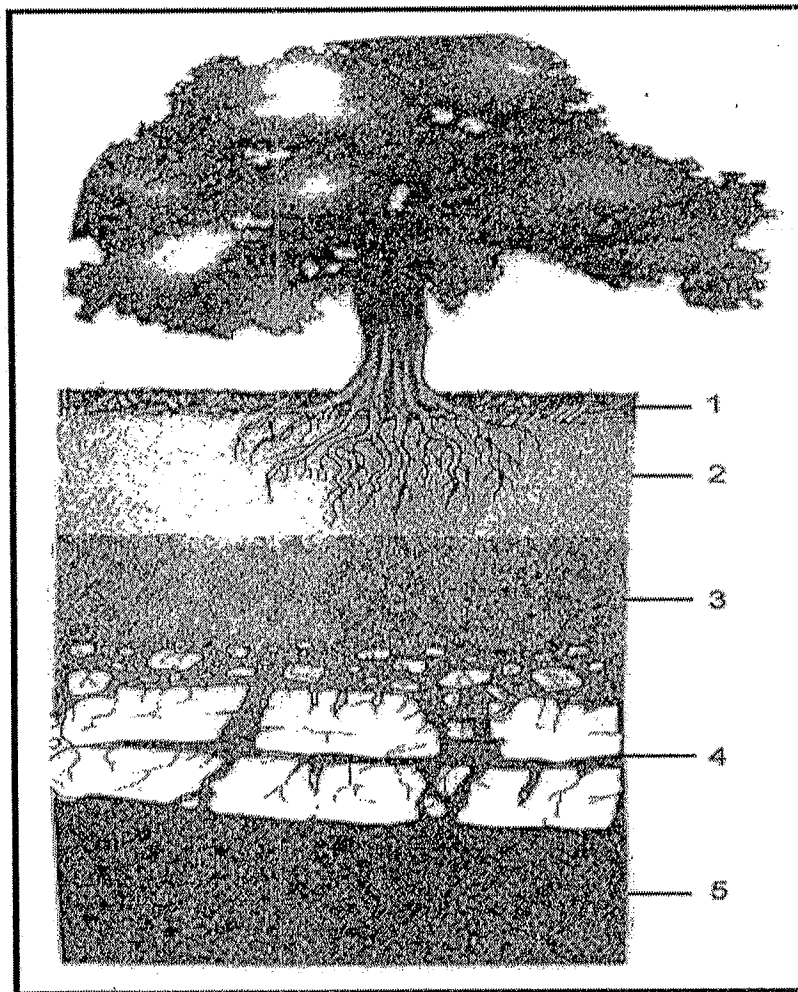


Figure 4 d

SOLAR POWER CHANGES VILLAGES

The days of cutting firewood for cooking and heating water are over for about 80 Xholobeni villagers in Mbizana who received solar panels and geysers from the Eastern Cape rural development and agrarian reform department.

The project was started earlier this year by former MEC Zoleka Capa as a means providing alternative energy to villagers after it was become known that power utility Eskom had no immediate plans to electrify the village.

The one-kilowatt solar panels provide the 80 households with enough energy for lights and to connect other household appliances and the 100-litre solar geyser ensure warm bath water daily.

(Source: Daily Dispatch (28/07/2014) - Lulamile Feni)

1.1.1 Subtropical High

1.1.2 ITCZ

1.1.3 Polar Easterlies

1.1.4 Westerlies

1.1.5 Hadley

1.1.6 90° N/S

1.1.7 Subtropical High

1.1.8 60° N/S

1.2.1

1.2.2

1.2.3

1.2.4 E.

1.2.5

1.2.6

1.2.7

1.3.1.1 A

1.3.1.2 C

1.3.2.

Temperature drop

Wind speed increases

Heavy Rainfall

Visibility becomes poor

1.3.3 Air Temp. - 23°C
 D.P.T. - 18°C
 W/D. - 10 knots.
 W/S - SE
 C/C - 100% (overcast) / 8/8

1.4.1. The loss of healthy, Fertile soils in areas close to deserts or Low Rainfall

1.4.2 Feed a rapidly growing population / Demands of a growing population increasing.

1.4.3.1. water resources drying up. / ground water depleted increasing Salination of soil / topsoil lost.

1.4.3.2 - Forced to abandon land → Not Sustainable
 - Become Refugees.
 - Shortage of Food → Unable to feed themselves
 - Depend on foreign Donations.

1.4.4 - government failed to make desertification priority.
 - lack of funding.
 - inadequate legislation.
 - insufficient community support. (any 1)

1.4.5.

1.4.5 - planting hedges or trees around fields - windbreaks
 - terracing slopes to reduce run-off
 - using organic fertilisers.
 - Crop Rotation - allowing land to lie fallow.
 - planting More tree 3 points (3x2)
 - using branches for fuel not the entire tree.

1.5.1 Heavy Rain

1.5.2 Due to Climate change, Rainfall patterns are changing.

1.5.3 - Due to Deforestation - No Vegetation to bind the soil.

- Soil is exposed to Agents of Erosion →

Run-off → Resulting in Mass Movement / Landslides.

1.5.4 Evacuation of people living on the Mountains.

1.5.5 - spray layer of Concrete.

- Use Rock bolts to Reinforce.

- Build Retaining walls.

- Build Gabions to stabilize weak slopes.

- prevent development in High Risk Areas

1.6.1 Igneous Rock.

1.6.2 A pile of rounded weathered boulders.

1.6.3 - Ground water seeps into joints & cracks.

- Ground water dissolves minerals in granite.

- The overlying layer of Rocks Removed. - exposing the Core stones

1.6.4 Tourist attraction

1.6.5 Pearl Rock.

Question 2.

- 2.1.1 Crest.
2.1.2 Talus.
2.1.3 cliff.
2.1.4 pediments -
2.1.5 cliff.
2.1.6 Talus.
2.1.7 pediments -

- 2.2.1 False.
2.2.2 False.
2.2.3 True.
2.2.4 False.
2.2.5 True.
2.2.6 False.
2.2.7 True.
2.2.8 True.

- 2.3.1 South West Monsoon.
2.3.2 Warm Moist Air Mass.
2.3.3 Indian Ocean.
2.3.4 - collapse of infrastructure. E services
- thousands displaced
- loss of life

- 2.3.5 Summer. - Temperature very high. result.
in intense LP over interior.
2.3.6 When Dams reach maximum large quantities of water released. resulting in Floods downstream thus affecting villagers.

2.4.1.1 X - Coriolis Force

2.4.1.2 Y. - PGF.

2.4.2. Forms as result of difference in pressure

2.4.3. Northern Hemisphere

According to Ferrel's law, with ones back to the wind, deflection is to the left

in the NH.

2.4.4. Geostrophic Wind

2.4.5 occurs when C.F & PGF reaches a balance.

2.5.1. A - Mesa

B. - Butte.

2.5.2. Sedimentary Rock

2.5.3. A - Its width is larger than its height.

B - Its height is larger than its width.

2.5.4 Backwasting 2.5.3. steep, deep-v-sided valleys

2.5.4. Rugged terrain. - infrastructure farming settlements not suitable.

2.6.1 Sedimentary Rock

2.6.2. A - Sharp Dip

B. - Dip Scarp.

2.6.3. A. - Gentle

B. - steep

2.6.4.1. P - Cuesta (asymmetrical) - X
Q - Hogback (symmetrical) - X

2.6.4.2. P - Asymmetrical in shape
- the angle of the dip slope is less than 20°

Q - Symmetrical in shape
- the angle of the dip slope is more than 40°

3.1.1. C.

3.1.2. D.

3.1.3. B.

3.1.4. A.

3.1.5. A.

3.1.6. D.

3.1.7. C

3.1.8. C.

3.2.1. Kyoto protocol

3.2.2. overstocking

3.2.3. National Grid

3.2.4. Human Resource

3.2.5. Monoculture

3.2.6. Eluviation

3.2.7. Weathering

3.3.1. China.

3.3.2. Iron and Steel, Coal. (other suitable)

3.3.3 Crude oil

3.3.4.1 Negative.

3.3.4.2 Positive.

3.3.5.1 Countries group together to make trade cheaper and easier between them.

3.3.5.2 China, India, South Africa

3.3.6.1 - Decrease in Exports - Affect Trade Balance
- Unemployment in S.A. - Retrenchment.
- Drop in Foreign Income.

3.4.1.1 Countries Economies becoming more interconnected and interdependent as.

goods & information move more easily with improved Info. technology.

3.4.2.1 The rich are getting richer and the poorer are getting poorer.

3.4.3.1 Wages are very low. If worker complain/strike - Companies will shut down & move away to other countries leaving workers worse off than before - with No. Income.

3-4.4.

Positive.

- closely connected world.
- Economic opportunities
- Development improved
- Access to variety of Goods & Services

Negative.

- smaller businesses close down unable to compete
- exploitation of workers - due to relaxed laws
- Countries vulnerable to global economic trends
- Loss of culture

3.4.5 - Available Raw Materials

- cheap labour
- low taxes
- Relaxed laws - Environmental issues
- temporary work contracts - pull out any time
- skills sharing

3.5.1. Forests, Fuelwood.

3.5.2. - Increase in demand of Fuelwood - population
Plantation agriculture & Commercial
farming increasing

3.5.3. - cooking,
heating water for bathing
keeping warm

3.5.4. Increased demand for fuelwood → More
trees chopped down → soil exposed → Soil
erosion → desertification.

3.5.5. trees - chopped down faster than regrowth.
No chance of growth. / Not being replenished
quickly enough therefore. → Non-Renewable.

3.6.1. Uranium.

3.6.2. Radio-Active waste.

3.6.3. Energy from coal insufficient &
uneconomical / expensive due to transportation.

○ Making Nuclear energy a cheaper choice.

3.6.4. - No high rise buildings are allowed
in the vicinity.

- enforces strict housing regulations in case
of evacuation.

3.6.5. - small amount of uranium required to
produce large amounts of energy.

- produces less CO₂ than C.F.P.P.

○ - Running costs are cheaper than C.F.P.P.

- Small number of workers required than C.F.P.P.

- Uranium easily available.

stopper - ...

... ..

... ..

- 4.1.1 k. 4.1.6 B. 4.1.7 G. 4.1.8 G. 4.1.9 E. 4.1.5 J.

- 4.2.1 Western Cape. 4.2.2 Deforestation. 4.2.3 Unreliable. 4.2.4 Biomass energy. 4.2.5 non-conventional. 4.2.6 Leaded.

4.3.1 get far less for the coffee beans than what others making from it. than the value of the coffee.

4.3.2 Café

4.3.3 - This lessens the value of the product as there is no value added to it.
- Receive less foreign income as a result.

4.3.4 A system where companies negotiate directly with growers or producers to establish fair prices for the product.

- 4.3.5 - growers offered fair price - No. exploitation → opportunity for small businesses to develop
- Better labour conditions - Avoids Sweath shops & Exploitation.
- Community development - employment of Locals → Money / profits used to develop Community / Investment.
- Environmentally sound practices - Ensures that the environment is not harmed or exploited in the name of profits.

4.4.1 A factor/aspect that can be used to measure and give an idea of how a country is growing / improving (Economically, Socially or Environmentally).

* 4.4.2 U.K.

- High GNP / Cap. ta. / High L.E. (appropriate)

4.4.3 Better diet.
Better Health Care
Higher standard of living.

4.4.4 Poor Health Care / lack of immunisation.

Poverty

Poor Diet.

4.4.5 - Industrialisation → job Creation (acceptable answers)

- Improve health Care Services → decreases IMR / O.R.

- Attract Investments / Change Economic policies.

- Make school Compulsory & Free - Improve Lit. Rate.

4.5.1. 1 - O - Horizon.

2 - A - Horizon

3 - B - Horizon.

4 - C - Horizon.

5 - R - Horizon.

4.5.2. Parent Material, Time, Topography,
Climate, Organisms

4.5.3. O - Horizon.

4.5.4. - In High Rainfall area.

in Higher water content in soil.

- Results in Increased levels of
Leaching $\rightarrow$ Nutrients moving
downwards to deeper horizon thus
making soil less Fertile.

4.6.1. Sun.

4.6.2. Energy source, not commonly used

4.6.3. Wind / Hydro - electricity / Bio - mass /
Wave and Tidal / geothermal

4.6.4. Solar panels

4.6.5. - Fewer hours collecting Firewood -
time used up for other tasks

- Children able to study homework
after daylight - More attending school.

- Electricity allows opportunities for
Industrialisation and job opportunities

4.6.6. Insufficient funds to transport
energy to village. (any other appropriate
answer)