

## **Tutorial letter 101/3/2013**

### **World issues: A Geographical perspective**

**GGH1502**


**Semesters 1 & 2**

**Department of Geography**

#### **IMPORTANT INFORMATION:**

This tutorial letter contains  
important information  
about your module.

BAR CODE



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## 1 INTRODUCTION

Dear Student

We take great pleasure in welcoming you as a student to the module, 'World Issues: A geographical perspective'. This module deals with some of the major problems that the world is facing at the beginning of the 21<sup>st</sup> century.

You will receive a number of tutorial letters during the year. A tutorial letter is our way of communicating with you about teaching, learning and assessment. This tutorial letter contains important information about a specific study plan, resources and assignments for this module. We urge you to read it carefully and to keep it at hand when working through the study material, preparing the assignment(s), preparing for the examination and addressing questions to your lecturers.

In this tutorial letter (101), you will find the assignments as well as instructions on the preparation and submission of the assignments. It also provides all the information you need with regard to the prescribed study material and other resources, and how to obtain them. Please study this information carefully and make sure that you obtain the prescribed material as soon as possible.

We have also included certain general and administrative information about this module. Please study this section of the tutorial letter carefully.

Right from the start we would like to point out that **you must read all the tutorial letters** you receive during the semester **immediately and carefully**, as they always contain important and, sometimes, urgent information.

Some of this tutorial material may not be available when you register. Tutorial material that is not available when you register will be posted to you as soon as possible, but is also available on *myUnisa*.

## 2 PURPOSE OF AND OUTCOMES FOR THE MODULE

### 2.1 Purpose

After the completion of this module, you should be able to identify spatial patterns of both natural and human phenomena, as well as the spatial processes, that give rise to these patterns and change them over time. The phenomena and processes that will be studied are presented as a number of selected issues that manifest on a global scale. The causes, global patterns, consequences of, and possible solutions to these issues will be studied. Where applicable, we pay particular attention to how these issues manifest in both Africa and South Africa. We also introduce you to some of the skills, techniques, and aids that geographers use to analyse the environment and environmental problems.

## 2.2 Outcomes

After you have completed this module, you should be able to apply the following specific outcomes:

### Specific outcome 1

Explain why and how human-environment interaction leads to environmental degradation.

### Specific outcome 2

Describe what sustainable development is and how it can mitigate environmental degradation.

### Specific outcome 3

Explain the impact of human activities on the environment with specific reference to air, soil, water and biodiversity.

### Specific outcome 4

Describe possible solutions to prevent environmental degradation.

## 3 LECTURER(S) AND CONTACT DETAILS

### 3.1 Lecturer(s)

The names of the responsible lecturers will be announced in Tutorial Letter 102.

### 3.2 Department

**Tel:** 011 471 3689 (International: +27 11 471 3689)

**Fax:** 011 471 3216 (International: +27 11 471 3216)

Please be advised that all available study material can be downloaded from *myUnisa*.

### 3.3 University

If you need to contact the University about matters that do not relate to the content of this module, please consult the publication *my Studies @ Unisa*, which you received with your study material. This brochure contains information on how to contact the University (e.g. to whom you can write with different queries, important telephone and fax numbers, addresses and the times when certain facilities are open).

Always have your student number at hand when you contact the University.

## 4 MODULE-RELATED RESOURCES

### 4.1 Prescribed books

Middleton, N. 2008. *The global casino: An introduction to environmental issues*. 4<sup>th</sup> edition. London: Hodder Arnold Publishers.

Please refer to the list of official booksellers and their addresses in the *my Studies @ Unisa* brochure.

### 4.2 Recommended books

**ATLAS:** Although an atlas is essential for this module, no specific atlas is prescribed. You may use any good, recent atlas in your possession. If you do not have an atlas at home and cannot borrow it for a lengthy period from someone else, you will have to buy one. You need not buy an expensive atlas since any high school atlas will be adequate, provided it contains some recent and reasonably detailed maps of the world.

### 4.3 Electronic Reserves (e-Reserves)

Check on the *myUnisa* website and look under “Additional Resources” to find all electronic resources related to this module.

### 4.4 DVD

A DVD is included in your study package. As you progress through the study material, you will be instructed to watch certain clips of the DVD.

## 5 STUDENT SUPPORT SERVICES FOR THE MODULE

For information about the various student support services that are available at Unisa (e.g. student counselling, tutorial classes and language support), please consult the publication *my Studies @ Unisa*.

### 5.1 Study groups

It is advisable to have contact with fellow students. One way to do this is to form study groups. You can obtain addresses of students in your area from the following department:

Directorate Student Administration and Registration  
PO Box 392  
UNISA  
0003

### 5.2 *myUnisa*

The *myUnisa* learning management system is Unisa's online campus that will help you to communicate with your lecturers, other students and the administrative departments of Unisa. Students can get free access to non-course specific and course specific functions.

**Non-course specific functions comprise:**

- Administrative tasks such as checking your personal information, changing your address, changing your exam venue, adding or cancelling courses and viewing your account, doing credit card payments
- Personalising your examination timetable
- Seeking out library functions and resources
- Receiving online student counseling
- Receiving advice on studying online

**Course specific functions are for example to:**

- View the course home page
- Contact your lecturer via e-mail
- View, record and submitting assignments
- Participate in course discussion forums
- View or download study material

To go to the *myUnisa* website, start at the main Unisa website (<http://www.unisa.ac.za>) and then click on the “Login to *myUnisa*” link on the right-hand side of the screen. This will take you to the *myUnisa* website. You can also go there directly by typing in <http://my.unisa.ac.za>. Please consult the publication *my Studies @ Unisa* for more information on *myUnisa*.

**5.3 Video conference**

A video conference will be conducted in each semester for this module. You will receive a tutorial letter regarding the specific place, date and time. Please note: attendance of the video conference is not compulsory. It will, however, assist you with exam preparation.

**6 MODULE-SPECIFIC STUDY PLAN**

Use the *my Studies @ Unisa* brochure for general time management and planning skills. Take into account the number of weeks in a semester, number of study units to be covered, due dates for assignments, examinations, etcetera. The table below is a guideline on how you should schedule your time for the semester. We have indicated the weeks of important due dates. Complete the rest of the table according to your specific circumstances and timetable.

**STUDY FRAMEWORK FOR 2013**

WEEK	ACTIVITY
1	Study Tutorial letter 101 and watch the DVD*
2	
3	Submit assignment 01
4	
5	
6	
7	Submit assignment 02
8	
9	
10	
11	
12	Submit assignment 03
13	
14	
15	Examination commences

\* Contact Despatch if you did not receive the DVD

**7 MODULE PRACTICAL WORK AND WORK-INTEGRATED LEARNING**

There is no practical work for this module.

**8 ASSESSMENT****8.1 Assessment plan**

Assignments are seen as part of the learning material for this module. As you do the assignment, study the reading texts, consult other resources, discuss the work with fellow students or tutors or do research, you are actively engaged in learning. The

assessment criteria given for each assignment will help you to understand what is required of you.

You will receive the correct answers for multiple-choice questions together with your results. Feedback on the assignments will be sent to all students registered for this module in a follow-up tutorial letter. Tutorial letter 201 will include the feedback on Assignments 01 and 02. Tutorial letter 202 will include the feedback on Assignment 03. As soon as you have received the feedback, please check your answers. The feedback on assignments constitutes an important part of your learning and should help you to be better prepared for the examination.

The mark-reading sheets for Assignment 01 and 03 (multiple-choice questions) are marked electronically at the assignment section. The written assignment (Assignment 02) must be completed on the worksheet that appears at the end of this Tutorial Letter. You should attach the worksheet to your assignment cover page before submitting it. A word document of this worksheet will be placed on *myUnisa* under "Additional Resources" for the students who wish to submit their assignment electronically.

## SEMESTER 1 AND 2

ASSIGNMENT NUMBER	ASSIGNMENT FORMAT	PERCENTAGE TOWARDS YEAR MARK
1	MCQ*	10
2	WRITTEN	50
3	MCQ*	40

\*Multiple choice questions

**Please note:** Assignment 01 gives you admission to the examination. To gain admission to the examination for this module, you have to submit Assignment 01 on or before its due date.

## COMPOSITION OF FINAL MARK FOR SEMESTER 1 AND 2

COMPONENT	PERCENTAGE
YEAR MARK	25
EXAMINATION	75

### 8.2 General assignment numbers

Assignments are numbered consecutively per module, starting from 01.



### 8.2.1 Unique assignment numbers and due dates

#### FIRST SEMESTER

ASSIGNMENT	UNIQUE NUMBER	DUE DATE
01	749235	2013/02/11
02	798710	2013/03/11
03	804242	2013/04/15

#### SECOND SEMESTER

ASSIGNMENT	UNIQUE NUMBER	DUE DATE
01	336117	2013/08/05
02	253597	2013/09/09
03	210040	2013/10/01

### 8.3 Submission of assignments

You may submit written assignments and assignments done on mark-reading sheets either by post or electronically via *myUnisa*. Assignments may **not** be submitted by fax or email. For detailed information and requirements as far as assignments are concerned, see the brochure *my Studies @ Unisa*, which you received with your study material.

**If you submit your assignments via post, the address is:**

The Registrar  
PO Box 392  
UNISA  
0003

The Department of Geography would like to mark more of your assignments electronically. We would thus like to encourage you to submit your assignments electronically (in PDF format) via *myUnisa*. Software to convert a Word document to PDF is available on *myUnisa*. You can download a PDF convertor free of charge from: <http://www.primopdf.com/index.aspx>. The advantages for you submitting your assignment in PDF format are numerous. Your assignment will reach us sooner and therefore you will receive feedback much earlier. This mode is also intended to be more environmentally friendly.

**To submit an assignment electronically via *myUnisa* follows these instructions:**

- Go to *myUnisa*.
- Log in with your student number and password.
- Select the module.
- Click on assignments in the menu on the left-hand side of the screen.
- Click on the assignment number you wish to submit.
- Follow the instructions on the screen.

If you experience problems with *myUnisa*, contact [bugmaster@unisa.ac.za](mailto:bugmaster@unisa.ac.za). Describe the problem and/or the error message in detail.

## **PLAGIARISM**

Before you start with your assignment please read the following information regarding how to avoid plagiarism.

### **AVOIDING PLAGIARISM**

It's easy to quote someone else and inadvertently forget to cite the source when writing an assignment. When compiling your assignment, you visit lots of Web sites, and you have lots of ideas going around in your head. It's easy to copy and paste a quote and forget to note the source of that quote. It's easy to copy a whole section of someone else's work. Even if you don't mean to plagiarise, doing it has important consequences. Plagiarism, intentional or not, is serious. Take careful steps not to plagiarise in your assignment.

**How to Be Careful:** There are several steps to take to avoid plagiarism.

1. It's usually better to paraphrase ideas than to quote. Read the source and then put the idea into your own words. But even when paraphrasing, you need to give credit to the original source!
2. Whenever you use a fact, phrase, chart, or quotation from someone else in your work, acknowledge the original source.
3. Keep careful notes of every source you consult when working on a paper. Use a reference citation system, such as EndNote, Reference Manager, RefWorks or ProCite to keep your notes in order.
4. Never copy and paste anything from the Internet without also copying the URL where you found it. Later, when you may not be sure whether you're quoting or not, you will be able to go back to the same page, check the wording, and give a proper citation.
5. If you think you may be using something without credit, copy and paste the passage into Google or another search engine. If your search comes up with close hits, your passage may well not be original work!

### Resources to help understand and curb plagiarism

<http://www.plagiarism.org/>

An educational Web site from iParadigms, LLC, makers of Turnitin plagiarism detection software

Unisa's official plagiarism policy can be found at

[http://cm.unisa.ac.za/contents/departments/tuition\\_policies/docs/copyrightinfringement\\_and\\_plagiarism\\_policy\\_16nov05.pdf](http://cm.unisa.ac.za/contents/departments/tuition_policies/docs/copyrightinfringement_and_plagiarism_policy_16nov05.pdf)

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<http://www.emeraldinsight.com/librarylink>.

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### 8.4 Assignments

SEMESTER 01		
ASSIGNMENT 01	UNIQUE NUMBER: 749235	DUE DATE: 11/02/2013

- 1 The Baben Rafi rainforest in the southern region of the Sahel was severely impacted upon as a result of an increase in population numbers and agricultural activities.
  - (1) True
  - (2) False
- 2 The ocean is huge and can absorb any amount of waste.
  - (1) True
  - (2) False
- 3 The dumping of waste is problematic as it disrupts ocean currents.
  - (1) True
  - (2) False
- 4 Conventions regulating the dumping of waste into the oceans are unnecessary.
  - (1) True
  - (2) False

- 5 Environmental managers of the Rietvlei Nature Reserve make use of aerial photographs to assist them with decision making on conservation issues.
- (1) True  
(2) False
- 6 Waste is one of South Africa's biggest environmental problems. South Africans generate approximately 200 000 tonnes of litter and 1,3 000 000 tonnes of packaging material per year.
- (1) True  
(2) False
- 7 A complex system with many interactive components is referred to as an ecosystem.
- (1) True  
(2) False
- 8 The modification of the natural distribution of vegetation and animals does not directly cause environmental issues.
- (1) True  
(2) False

Study Figure 1 and answer the question that follow:

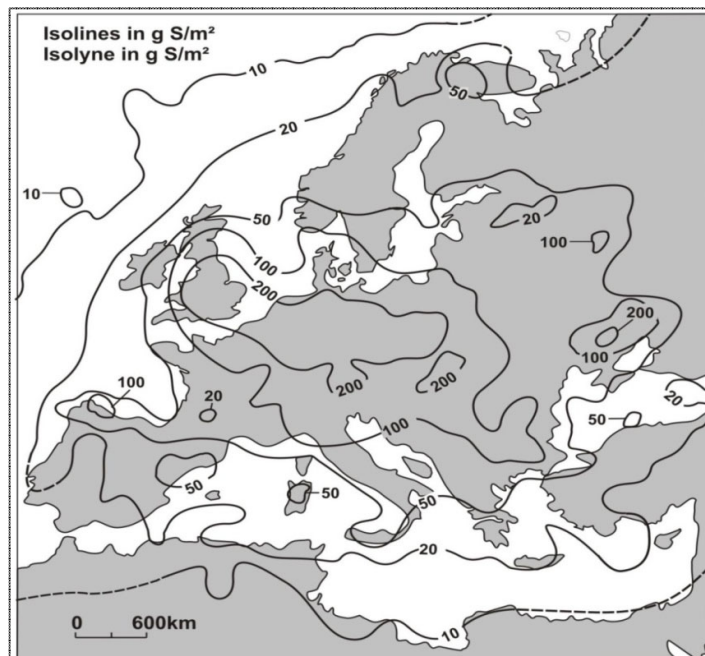


Figure 1: Sulphur deposition over Europe (Adapted from <http://www.sciencedirect.com>).

9 The sulphur deposition over Italy in figure 1 is between 10 and 20 g S/m<sup>2</sup>.

- (1) True
- (2) False

Study Figure 2 and answer the questions that follow:

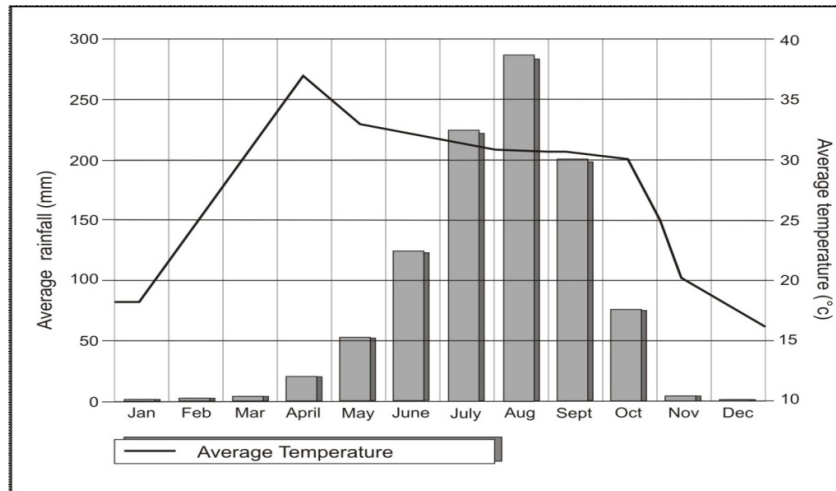


Figure 2: Climate graph (Adapted from <http://www.bbc.co.uk>).

10 The bar graph in figure 2 shows temperature not rainfall.

- (1) True
- (2) False

11 According to figure 2, the month of August has the highest amount of rainfall.

- (1) True
- (2) False

12 According to figure 2, the average temperature of August is 31 °C

- (1) True
- (2) False

13 The graph in figure 2 portrays the climate pattern of a country in the Northern Hemisphere.

- (1) True
- (2) False

Study figure 3 and answer the question that follow:

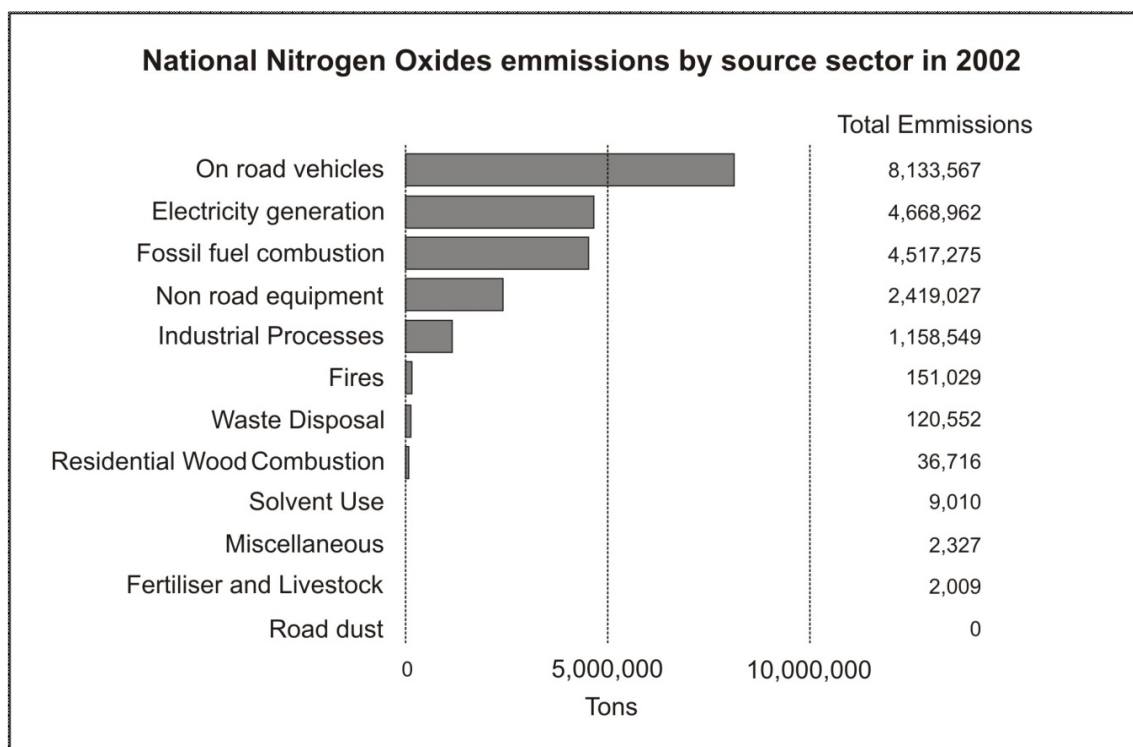


Figure 3: Emissions inventory for *nitrogen oxides* in the lower atmosphere:  
(Adapted from <http://www.intechopen.com/source/html/11378/media/image11.png>).

- 14 According to figure 3, the largest **two** sources of nitrogen oxides in the USA are fires and industrial processes.
- (1) True  
(2) False

Study figure 4 and answer the question that follow:

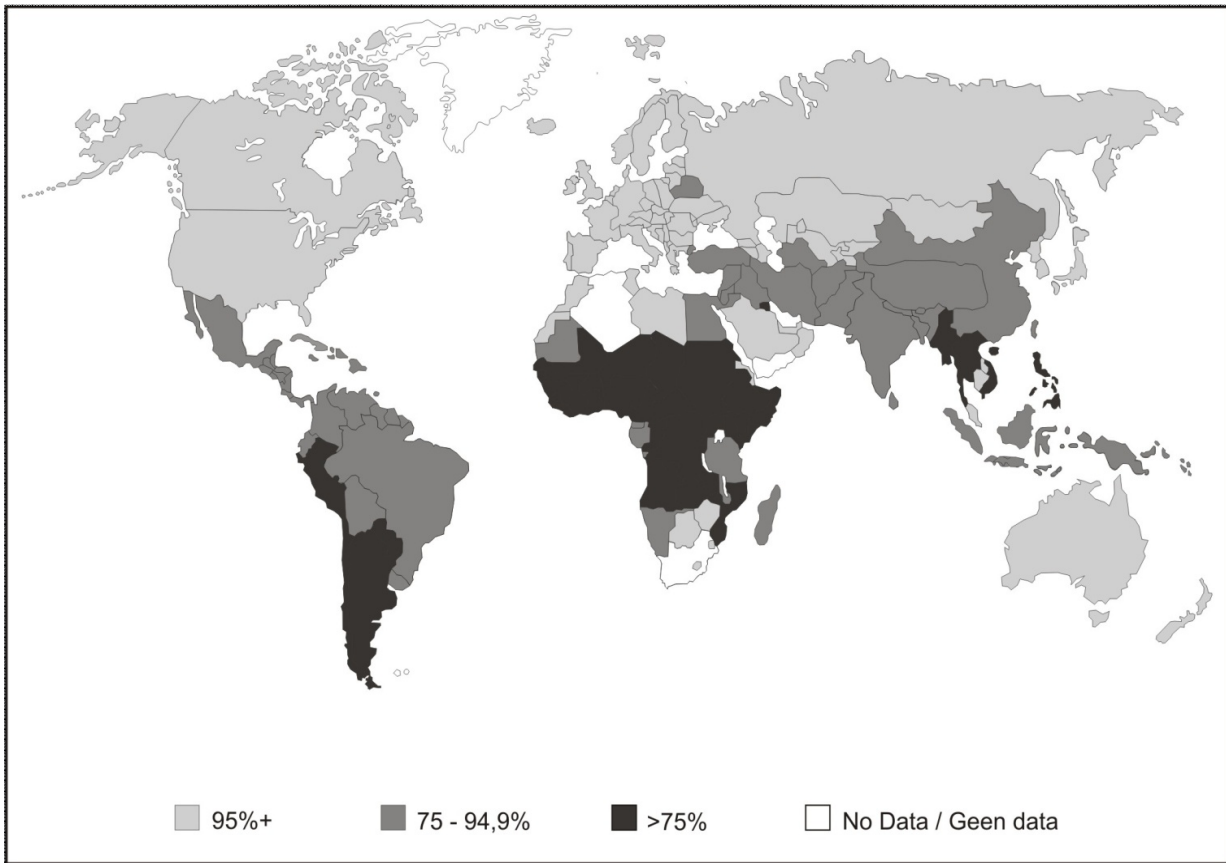


Figure 4: The availability of safe drinking water around the world (Adapted from <http://www.climate.org/topics/water.html>).

15 According to figure 4, the urban population of South America and Africa has the greatest access to safe drinking water.

- (1) True
- (2) False

**TOTAL: 15**

SEMESTER 01		
ASSIGNMENT 02	UNIQUE NUMBER: 798710	DUE DATE: 11/03/2013

**Sources that you have to consult:**

- Prescribed book
- Atlas
- Figures 1 to 3 on page 16 and 17
- DVD received with the study package

**Complete assignment 02 on the worksheet provided on pages 43 – 48.**

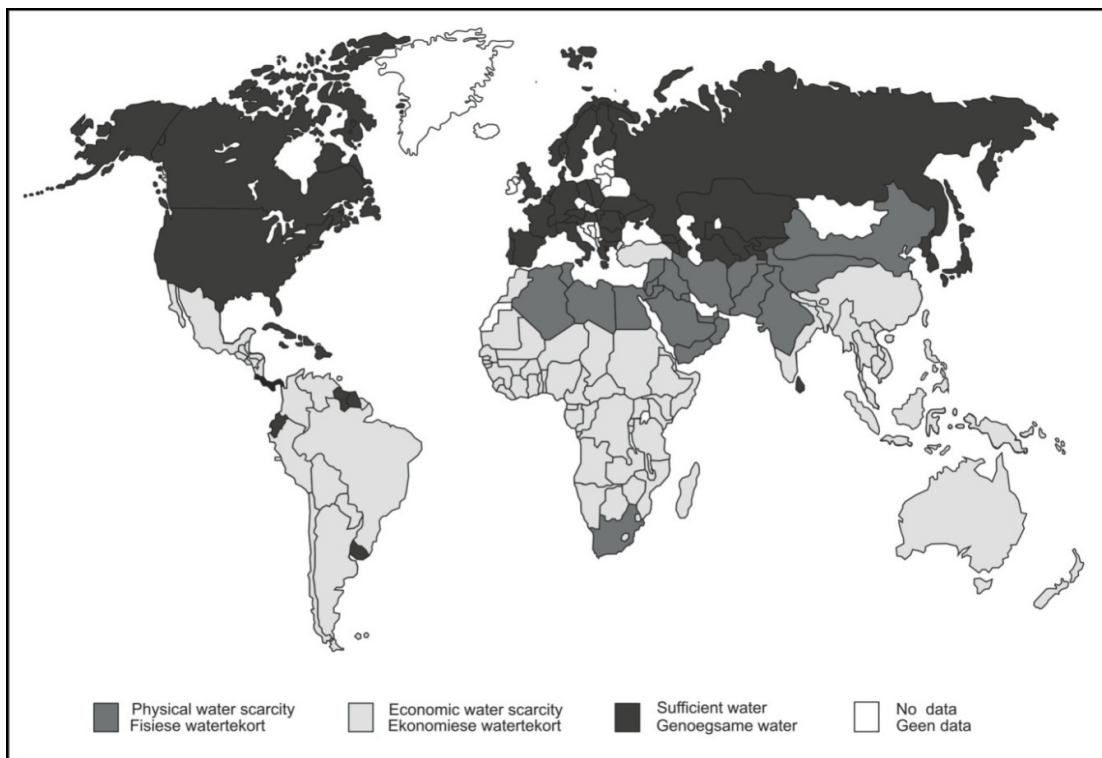


Figure 1: Global map of water scarcity in 2006 (Adapted from <http://blog.foreignpolicy.com>).



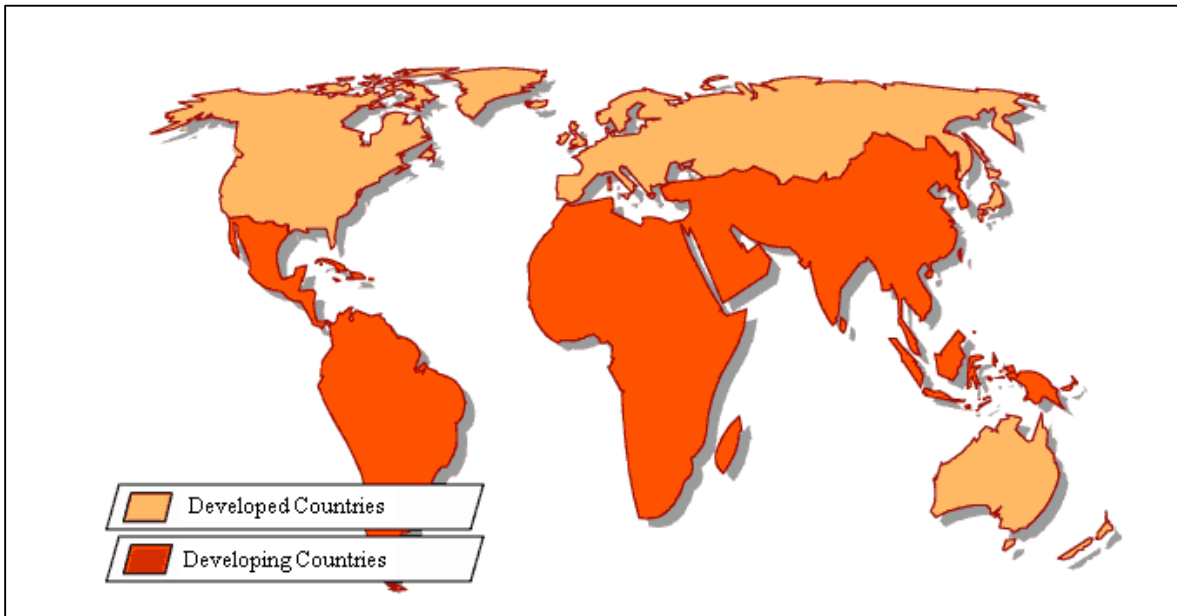


Figure 2: World map showing developed and developing countries (Adapted from <http://www.bbc.co.uk>).

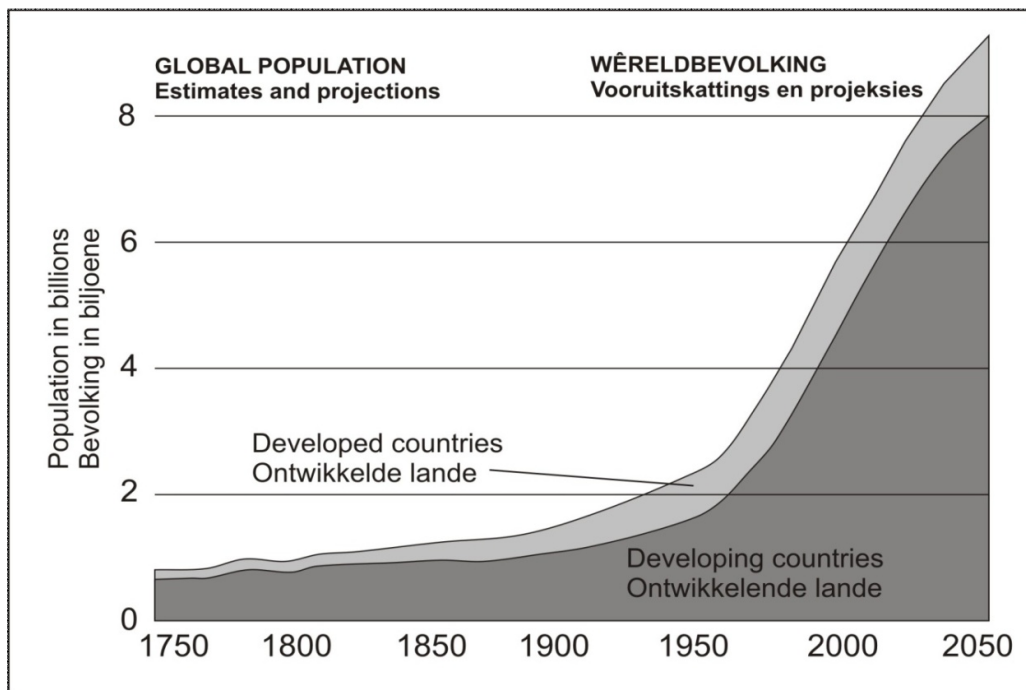


Figure 3: Trends in population for developed and developing countries from 1750-2050 (Adapted from <http://www.grida.no/publications/rr/food-crisis>).

- 1 Name **three** countries that are experiencing **physical water scarcity**. (3)
- 2 Name the hemisphere **mostly** affected by physical and economic water scarcity. (1)
- 3 Describe the climate of the areas which typically experience **physical water** scarcity. (2)
- 4 Name **three** developing countries. (3)
- 5 Identify the population **growth trend** of developing countries. (1)
- 6 Consider the answers to the previous questions and indicate the relationships between climate, location, water scarcity and the population growth trend of developing countries. (8)
- 7 Explain the possible **impact of water scarcity** and the population growth trend of developing countries in terms of the human and natural environment. (15)
- 8 Describe possible **solutions** to mitigate (lessen) soil degradation due to natural and human impacts. (5)
- 9 List all the resources you have consulted. (2)

**TOTAL 40**

SEMESTER 01		
<b>ASSIGNMENT 03</b>	<b>UNIQUE NUMBER: 804242</b>	<b>DUE DATE: 15/04/2013</b>

**STUDY UNIT 01**

- 1 With respect to the earth as a system, the hydrosphere is concerned with ... .
  - (1) air
  - (2) rocks
  - (3) vegetation
  - (4) water

**STUDY UNIT 02**

- 2 Which theory states that the overuse or misuse of certain resources occurs because they are commonly owned?
  - (1) Exploitation theory
  - (2) Poor valuation theory
  - (3) Tragedy of the commons theory

(4) Ignorance theory

3 Which approach believes that technology and economics will provide the answers to environmental problems?

- (1) Ecocentric
- (2) Technocentric
- (3) Anthropocentric
- (4) Market based

### STUDY UNIT 03

Study figure 1 and answer the question that follow:

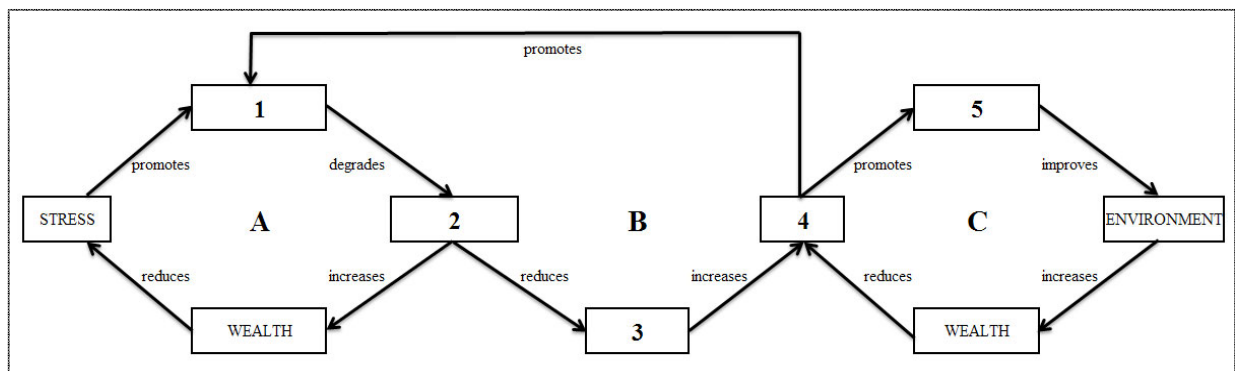


Figure 1: The three cycles illustrating the relationships between modes of development and the environment (Adapted from Middleton 2008).

4 Identify the **correct** labels for numbers 1 and 5 in figure 1 from the options listed.

- (a) Inappropriate development
- (b) Environment
- (c) Wealth
- (d) Sustainable development

The **correct** combination of alternatives is:

- (1) (a) and (b)
- (2) (a) and (c)
- (3) (a) and (d)
- (4) (b) and (d)

**STUDY UNIT 04**

- 5 A **major** environmental problem affecting Latin America, Sub-Saharan Africa, and Southeast Asia is ... .
- (1) air pollution
  - (2) deforestation
  - (3) nuclear waste
  - (4) acid rain
- 6 A major factor contributing to the destruction of the Amazon rain forests is the ... .
- (1) movement of people to urban areas
  - (2) trafficking of drugs
  - (3) need for more farmland
  - (4) clearing of vegetation for organic farming
- 7 In developing countries, the use of wood, charcoal, and dung as sources of energy has created an increase in ... .
- (1) economic dependence on industrialised nations
  - (2) sales and profits of international oil corporations
  - (3) deforestation and other environmental problems
  - (4) nuclear waste products

**STUDY UNIT 05**

- 8 The transformation of arable land into uninhabitable land as a result of climate change and destructive land use, is referred to as ... .
- (1) deforestation
  - (2) desertification
  - (3) soil erosion
  - (4) acid rain
- 9 Identify the **main** cause of desertification in the Sahel region during the 1970s and 1980s?
- (1) Soil degradation
  - (2) Drought
  - (3) Overcultivation
  - (4) Overgrazing

**STUDY UNIT 06**

10 Excessive nutrient flow to coastal environments causes ... .

- (1) overfishing
- (2) ocean sedimentation
- (3) coastal erosion
- (4) coastal eutrophication

11 The **two main** marine pollutant categories are ... .

- (1) conservative; non-conservative
- (2) corrosive; non-corrosive
- (3) harmful; non-harmful
- (4) water based; oil based

**STUDY UNIT 07**

12 Which of the following is **not** a type of wetland?

- (1) Peatland
- (2) Wasteland
- (3) Swamp
- (4) Bog

**STUDY UNIT 08**

13 Identify the upstream impacts associated with dams.

- (a) Change in vegetation
- (b) Decreased erosion of topsoil
- (c) Modification of hydrology
- (d) Increase of sedimentation

The **correct** combination of alternatives is:

- (1) (a) and (b)
- (2) (a) and (c)
- (3) (a); (b) and (c)
- (4) (a); (c) and (d)

**STUDY UNIT 09**

14 Many scientists believe that the greenhouse effect is the result of ... .

- (1) overgrazing of land in developing nations
- (2) burning large amounts of oil and coal in developed nations
- (3) testing nuclear weapons along coastlines
- (4) using natural fertilisers to increase crop production

- 15 Which of the following is **not** as a consequence of global warming?
- (1) Rising sea level
  - (2) Increased incidence of tsunamis
  - (3) Worsening health effects
  - (4) Increased storm frequency and intensity
- 16 Which of the following is **not** a primary contributor to the greenhouse effect?
- (1) Carbon dioxide
  - (2) Carbon monoxide
  - (3) Chlorofluorocarbons
  - (4) Methane gas

### STUDY UNIT 10

- 17 Acid rain has a pH of ... .
- (1) above 7
  - (2) exactly 7
  - (3) below 5.6
  - (4) between 5.6 and 7
- 18 Which of the following combinations regarding the effect of acid rain is **incorrect**?
- (1) Limestone; dissolve
  - (2) Plastic; corrosion
  - (3) Health; Alzheimer's disease
  - (4) Trees; leaf loss

### STUDY UNIT 11

- 19 A **negative** impact of the use of modern technology is that ... .
- (1) levels of air and water pollution often increase
  - (2) economic opportunities are frequently limited
  - (3) contact with other cultures decrease
  - (4) international trade is limited
- 20 In Mexico and India, the Green Revolution has been successful because it has ... .
- (1) promoted democratic reform
  - (2) increased agricultural productivity
  - (3) introduced eastern culture and values
  - (4) established economic equality among the people

- 21 The term “Green Revolution” is used to describe the ... .
- (1) tensions between developing and developed nations
  - (2) heavy reliance on manual labour in agriculture
  - (3) environmental destruction caused by industry
  - (4) development of new farming techniques to increase crop yields
- 22 The main goal of the Blue Revolution was to ... .
- (1) decrease fisheries, where industrial fishing is practiced
  - (2) solve chronic food shortages through aquaculture
  - (3) expand the economies of developing nations
  - (4) reduce ocean pollution
- 23 Which one of the following is **not** associated with an agricultural revolution?
- (1) Neolithic
  - (2) Green
  - (3) French
  - (4) Industrial

## STUDY UNIT 12

- 24 Identify the **two** most common effects of human activities that give rise to accelerated soil erosion.
- (a) Modification and removal of vegetation
  - (b) Destabilisation of natural surfaces
  - (c) Deposition of sediment
  - (d) Re-vegetation of mine dumps
- The **correct** combination of alternatives is:
- (1) (a) and (b)
  - (2) (a) and (c)
  - (3) (b) and (c)
  - (4) (c) and (d)
- 25 Which **two or more** of the following alternatives is **true** regarding the causes of soil erosion?
- (a) In developing countries, soil erosion is often associated with the removal of natural vegetation for subsistence farming.
  - (b) Farming techniques, which are unsuitable for local conditions.
  - (c) In Africa, burning bush and grassland is not associated with more rapid soil erosion.
  - (d) Changing and removing vegetation accelerates soil erosion.

The **correct** combination of alternatives is:

- (1) (a) and (c)
- (2) (a), (b) and (c)
- (3) (a), (b) and (d)
- (4) (b) and (c)
- (5) (c) and (d)

### STUDY UNIT 13

26 A species whose role is absolutely vital for the survival of many other species in an ecosystem is called a/an ... .

- (1) keystone species
- (2) pivotal species
- (3) critical species
- (4) invaluable species

27 An exotic species is ... .

- (1) a specie from a tropical biome
- (2) a specie introduced into an area from somewhere else
- (3) a specie adapted to a specific environment
- (4) a pest species affecting agriculture

### STUDY UNIT 14

28 In order to reduce waste in South Africa, we need to ... .

- (1) burn all waste
- (2) dump the waste into the ocean
- (3) bury the waste and seal it underground
- (4) reduce, reuse and recycle

29 Identify **two** characteristics of the Aswan Dam in Egypt.

- (a) Flooding of the Nile has become a problem.
- (b) The Aswan Dam has made the River Nile less navigable.
- (c) Farmers use water from the River Nile to irrigate their crops.
- (d) The Aswan Dam is also a hydroelectric power station.

The **correct** combination of alternatives is:

- (1) (a) and (b)
- (2) (a) and (d)
- (3) (b) and (c)
- (4) (c) and (d)



30 In a campaign to reduce waste production, a ... strategy should take the highest priority.

- (1) reuse
- (2) incineration
- (3) recycling
- (4) prevention

**TOTAL: 30**

**END OF SEMESTER 01**

SEMESTER 02		
ASSIGNMENT 01	UNIQUE NUMBER: 336117	DUE DATE: 05/08/2013

1 Desertification is the transformation of arable land into inhabitable land as a result of climate change and destructive land use.

- (1) True  
(2) False

2 The construction of big dams impacts only on the environment.

- (1) True  
(2) False

Study figure 1 and answer the question that follow:

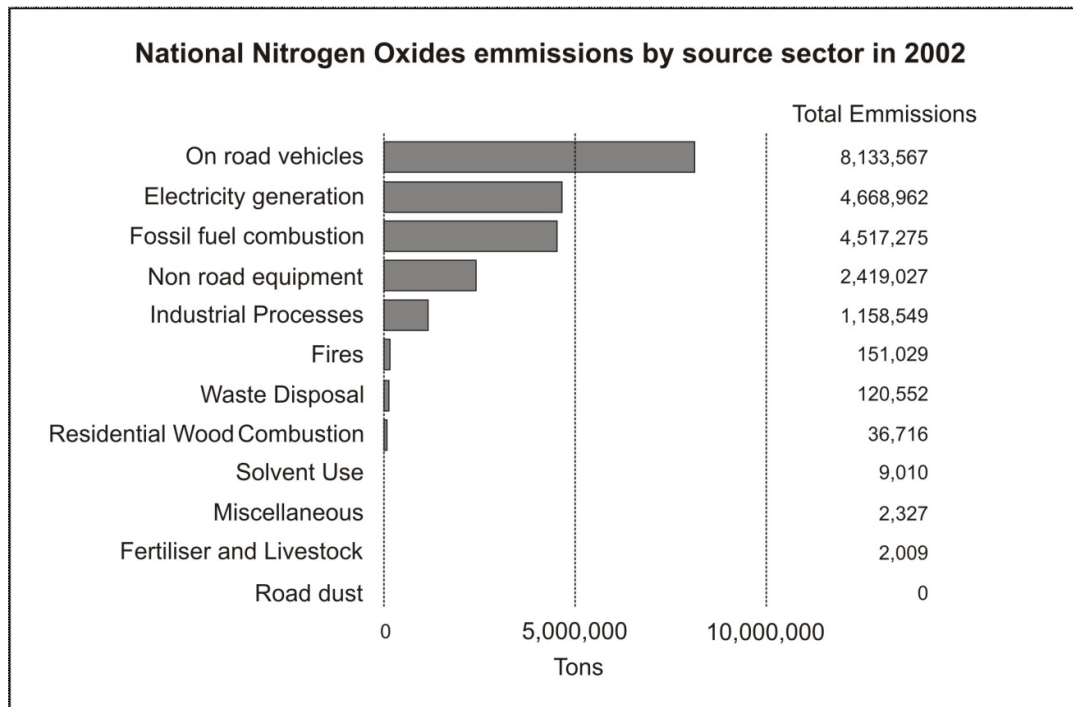


Figure: 1 Emissions Inventory for *nitrogen oxides* in the lower atmosphere in the USA. (Adapted from <http://www.intechopen.com/source/html/11378/media/image11.png>).

- 3 Electricity generation is the third largest contributor of nitrogen oxide in the USA.
- (1) True  
(2) False
- 4 The oceans occupy 50% of the earth's surface and contain 71% of the earth's water.
- (1) True  
(2) False
- 5 The oceans play a major role in the functioning of climate and supply people with food and other resources.
- (1) True  
(2) False
- 6 Tourism activities threaten coastal habitats such as mangroves and salt marshes.
- (1) True  
(2) False

Study figure 2 and answer the question that follow:

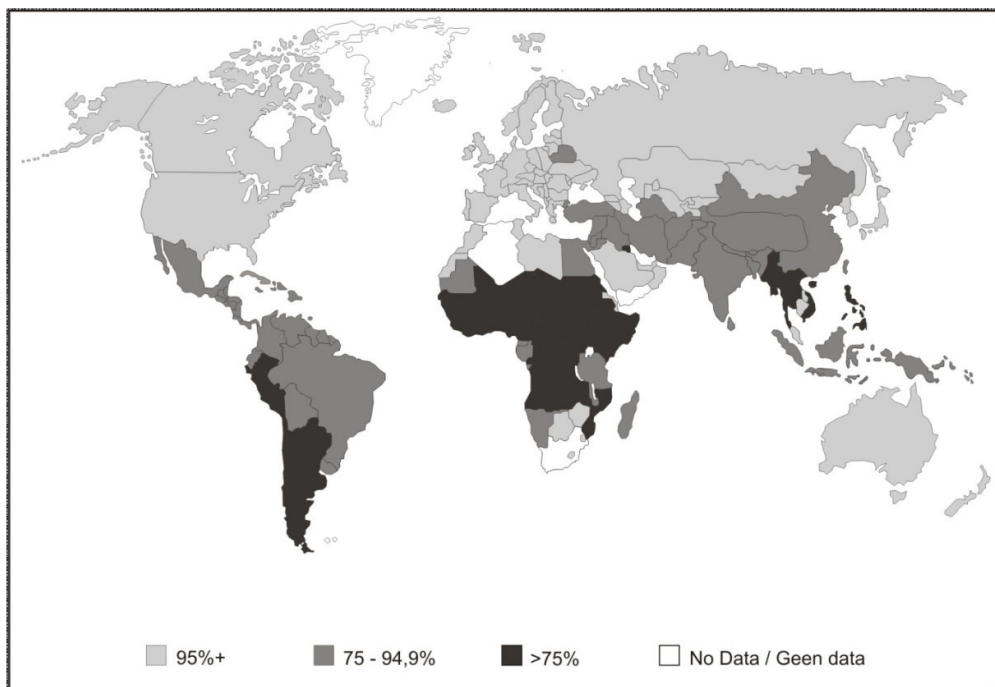


Figure 2: The availability of safe drinking water around the world (Adapted from <http://www.climate.org/topics/water.html>).

- 7 The developed countries have the highest percentage of access to clean water in urban areas.
- (1) True  
(2) False
- 8 The **main** function of the Rietvlei Dam is to promote nature conservation in Pretoria.
- (1) True  
(2) False
- 9 Excessive nutrient flow to coastal environments causes ocean sedimentation.
- (1) True  
(2) False
- 10 Waste is one of South Africa's biggest environmental problems. South Africans generate approximately 200 000 kg of litter and 1, 3 000 000 kg of packaging material per year.
- (1) True  
(2) False

Study figure 3 and answer the question that follow:



Figure 3: A global distribution map of a biome.

11 The shaded areas in figure 3 represent the Fynbos/ Chaparral biome.

- (1) True
- (2) False

Study figure 4 and answer the questions that follow:

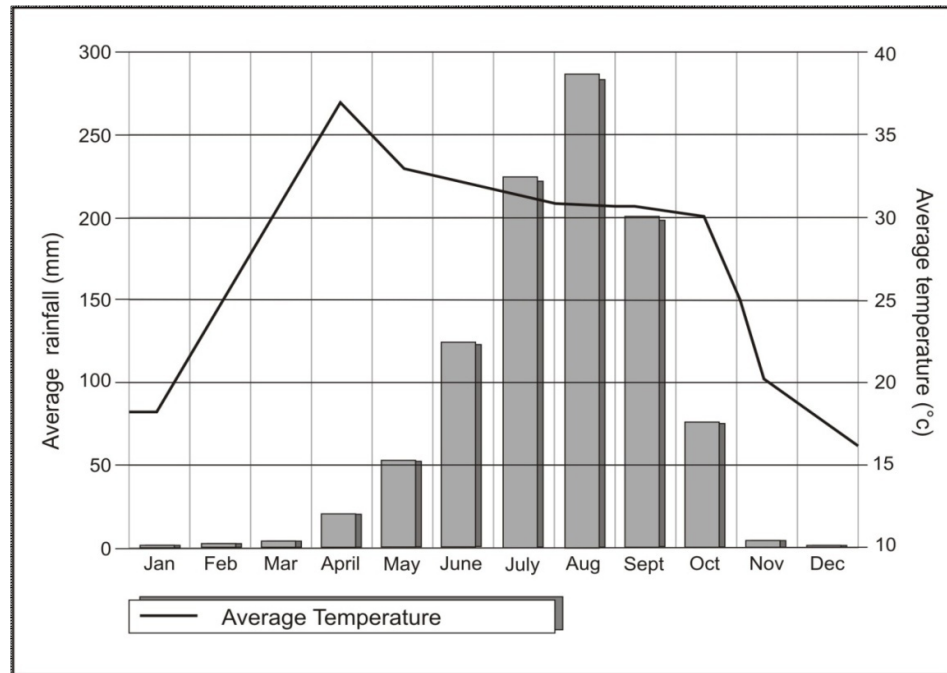


Figure 4: Climate graph (Adapted from <http://www.bbc.co.uk>).

12 The bar graph shows rainfall and the line graph shows temperature.

- (1) True
- (2) False

13 The month of August has the highest amount of rainfall.

- (1) True
- (2) False

14 The graph portrays the climate pattern of a country in the Southern Hemisphere.

- (1) True
- (2) False

Study figure 5 and answer the question that follows.

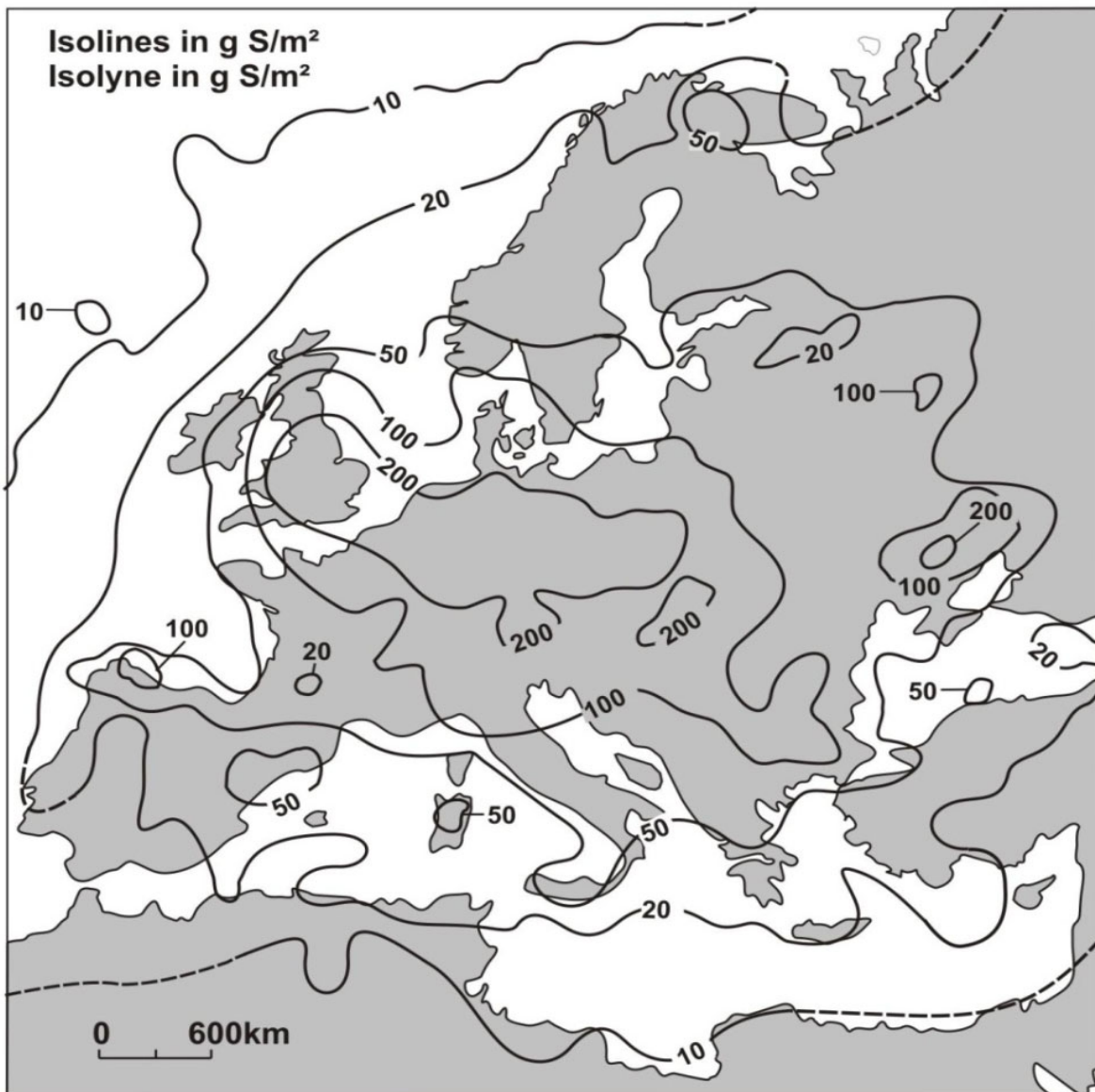


Figure 5: Sulphur deposition over Europe (Adapted from <http://www.sciencedirect.com>).

15 The sulphur deposition over Italy is between 10 and 20 g S/m<sup>2</sup>.

- (1) True
- (2) False

**TOTAL: 15**

SEMESTER 02		
ASSIGNMENT 02	UNIQUE NUMBER: 253597	DUE DATE: 09/09/2013

**Sources that you have to consult:**

- Prescribed text book
- Atlas
- Figures 1 to 3 on pages 31 and 32
- DVD received with the study package.

**Complete Assignment 02 on the worksheet provided on pages 43–48.**

- 1 Compare the two maps in figure 1. Describe the prediction regarding water withdrawal for North America, Australia, Mauritania, Sudan, Uganda, South Africa, Madagascar and India. (8)
  - 2 Study figure 2 and describe the global population trend. (2)
  - 3 Predict the global population for 2060. (2)
  - 4 Give **two** reasons why scarcity of fresh water can become a problem. (2)
  - 5 Describe the relationship between water stress, population growth and food security. (6)
  - 6 'Land degradation means the reduction or loss of the biological or economic productivity and complexity of cropland, pasture, forest and woodlands due to an increase in population and climate change (Coxhead 2007).'
- Identify the main environmental problem in figure 3. (2)
- 7 Describe five root driving forces of soil degradation which leads to desertification. (8)
  - 8 Explain the relationship between famine and desertification. (8)
  - 9 List the resources that you have consulted. (2)

**TOTAL 40**

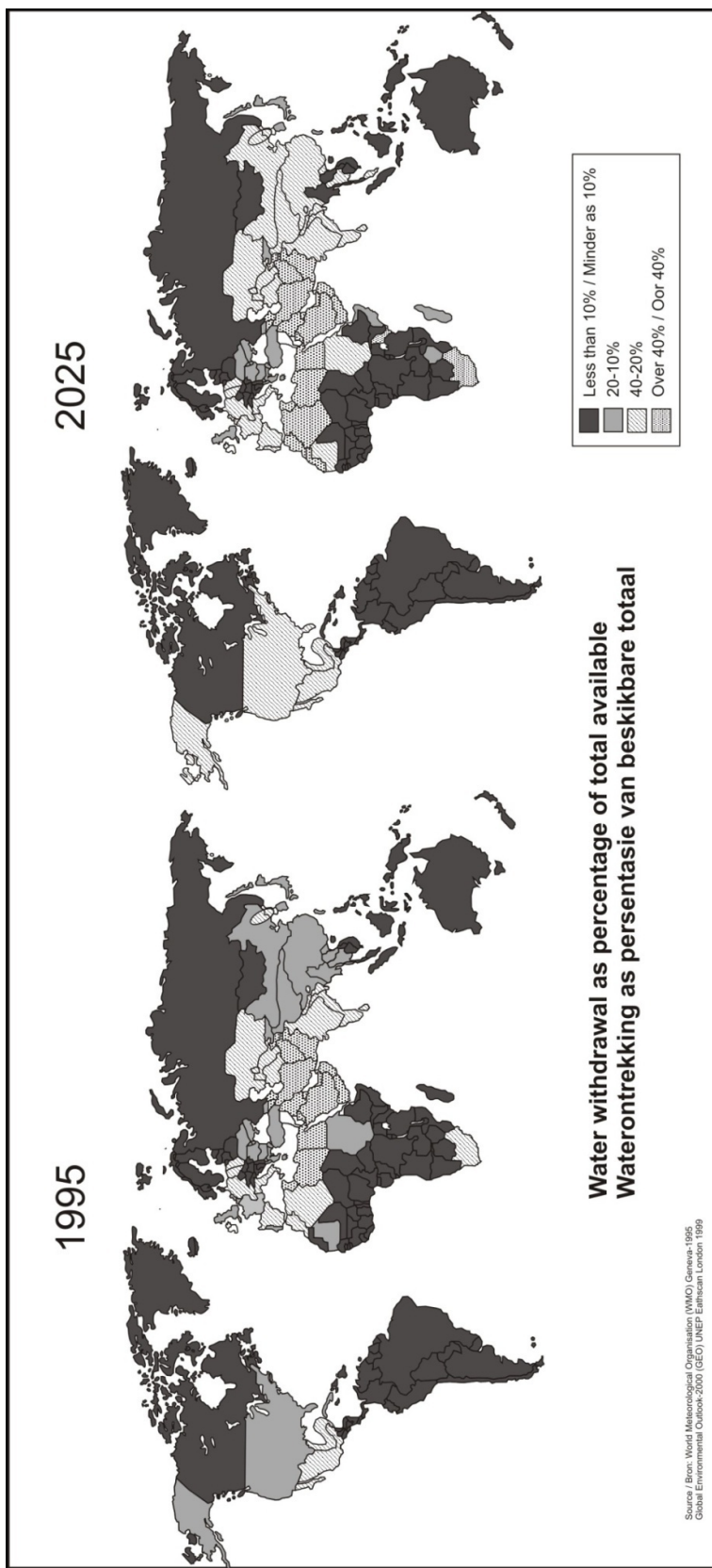


Figure 1: Global map of freshwater stress, between 1995 and 2025 (Adapted from <http://www.grida.no/graphicslib/detail/freshwater-stress>).



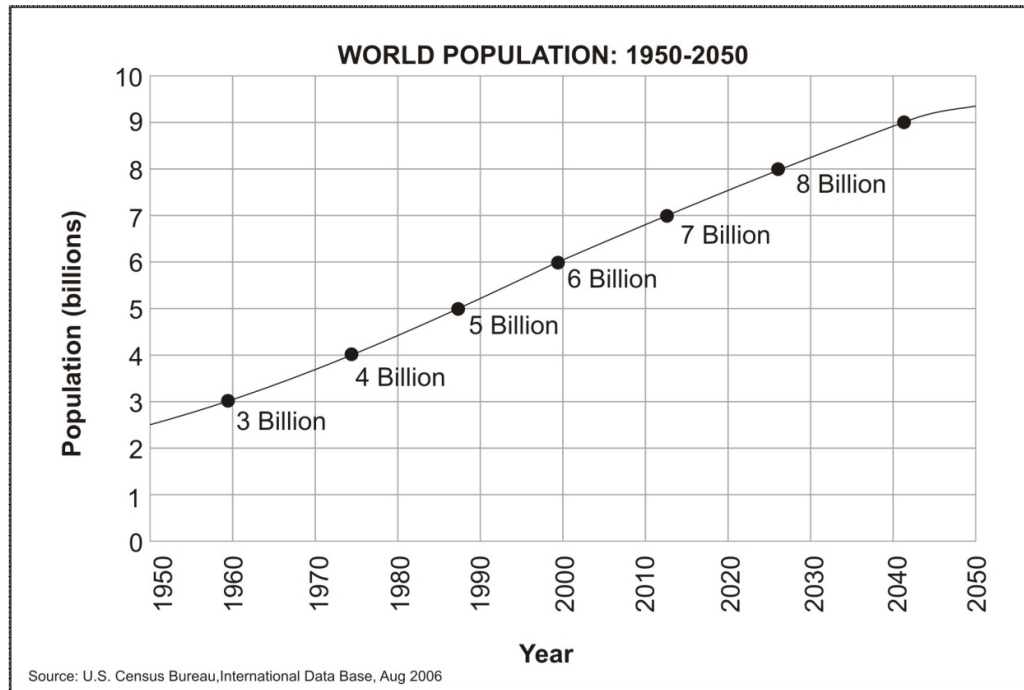


Figure 2: World population from 1950 to 2050 (Adapted from <http://www.census.gov/population/international>).



Figure 3: Land degradation (<http://oceanservice.noaa.gov/education.htm>).

SEMESTER 02		
ASSIGNMENT 03	UNIQUE NUMBER: 210040	DUE DATE: 01/10/2013

### STUDY UNIT 01

1 Which one of the following is **not** an example of a biome?

- (1) Midlatitude grassland
- (2) Forest–grassland
- (3) Tropical rainforest
- (4) Tundra

2 Taiga is a term applied to the ... .

- (1) boreal forest
- (2) tropical rainforest
- (3) tropical savanna
- (4) steppe grasslands

### STUDY UNIT 02

3 According to which one of the following perspectives or theories is technological change the result of human inventiveness reacting to needs?

- (1) Malthusian perspective
- (2) Boserup theory
- (3) Green perspective
- (4) Machako's perspective

4 Identify the **correct** combination of alternatives that has been associated with the Industrial Revolution.

- (a) Low population growth
- (b) Promotion of rural development
- (c) Improvement of transport
- (d) Enhancement of resource use and misuse levels
- (e) Globalisation of the economy

The **correct** combination of alternatives is:

- (1) (a) and (b)
- (2) (a), (c) and (d)
- (3) (b), (c) and (d)
- (4) (c), (d) and (e)

### STUDY UNIT 03

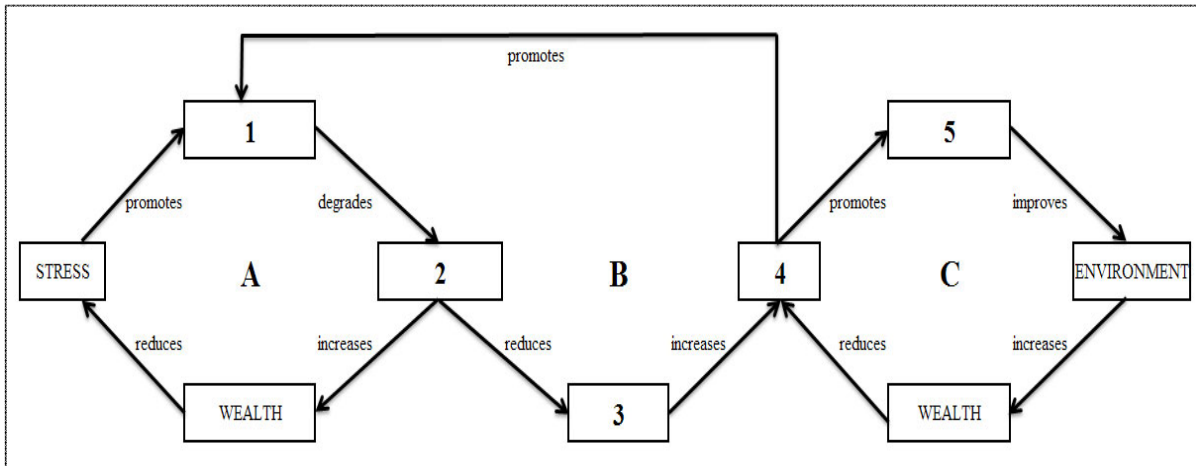


Figure 1: The three cycles illustrating the relationships between modes of development and the environment (Adapted from Middleton 2008).

5 Identify the **correct** labels for numbers 2 and 4 in figure 1 from the options listed.

- (a) Environment
- (b) Stress
- (c) Wealth
- (d) Sustainable development

The **correct** combination of alternatives is:

- (1) (a) and (b)
- (2) (a) and (c)
- (3) (a) and (d)
- (4) (b) and (d)

### STUDY UNIT 04

6 The removal of tropical forests is related to all of the following global concerns except ... .

- (1) their role in maintaining the oxygen and carbon balance of the earth
- (2) their ability to regulate surface and air temperatures, moisture content, and reflectivity
- (3) their contribution to the biological diversity of the planet
- (4) their ability to absorb the chemicals that contribute to depletion of the ozone layer

7 The clearing of forests for all forms of agriculture and for other land uses is referred to as ... .

- (1) desertification
- (2) deforestation
- (3) overgrazing
- (4) logging

#### **STUDY UNIT 05**

8 The continent at the greatest risk of desertification is ... .

- (1) Africa
- (2) Asia
- (3) North America
- (4) South America

9 A zone in which the loss of vegetation resources is outweighed by the advantages of a predictable water supply, is referred to as ... .

- (1) a piosphere
- (2) a biosphere
- (3) overcultivation
- (4) a hydrosphere

#### **STUDY UNIT 06**

10 The oceans of the earth are ... property.

- (1) international
- (2) privately owned
- (3) national
- (4) common

#### **STUDY UNIT 07**

11 The presence of high coliform (E. Coli) counts in water indicate ... .

- (1) human waste contamination
- (2) phosphorus contamination
- (3) landfill contamination
- (4) hydrocarbon contamination

12 Which one of the following is **not** a major source of groundwater contamination?

- (1) Agricultural products
- (2) Landfills
- (3) Septic tanks
- (4) Invasive vegetation

**STUDY UNIT 08**

- 13 Which one of the following statements related to downstream impacts of big dams is **false**?
- (1) Salinity problems may occur as a result of a decline in dry season discharge.
  - (2) Dams trap the flow of nutrients and influence aquatic ecosystems.
  - (3) Marine and lake fish species are affected through the barrier created by the dam.
  - (4) The ecological effects are limited to downstream rivers, estuaries and coastal areas.

**STUDY UNIT 09**

- 14 The depletion in the ozone layer is caused by ... .
- (1) nitrous oxide
  - (2) carbon dioxide
  - (3) chlorofluorocarbons
  - (4) methane
- 15 Depletion of the earth's ozone layer is expected to lead to the following consequences **except** ... .
- (1) increases in human vulnerability to a variety of infectious diseases
  - (2) increases in the incidence of skin cancer
  - (3) threats to the existence of the microscopic plankton at the base of the marine food chain
  - (4) an increase in sea temperatures causing melting of the polar ice caps
- 16 The greenhouse effect is related most closely to ... .
- (1) the increase in atmospheric carbon dioxide
  - (2) the nutrient enrichment of water
  - (3) the conversion of sulfur dioxides into sulfuric acid in the atmosphere
  - (4) the return of heated water to the environment
- 17 Global warming and climatic change would **most** adversely affect ... .
- (1) developing countries highly dependent on agriculture
  - (2) industrialized countries with diversified economies
  - (3) high-latitude areas such as Russia, Scandinavia and Canada
  - (4) tropical regions of the earth

## STUDY UNIT 10

18 What is the **major** reason for air quality standards?

- (1) Public health
- (2) Industrial growth
- (3) Political pressure
- (4) Environmental movements

19 Acid rain is formed due to the contribution from the following pair of gases:

- (1) Methane and ozone
- (2) Oxygen and nitrous oxide
- (3) Methane and sulphur dioxide
- (4) Carbon dioxide and sulphur dioxide

## STUDY UNIT 11

20 What is **not** a cause of the Green Revolution?

- (1) Warmer climates
- (2) Modern irrigation techniques
- (3) Improved technology
- (4) Synthetic fertilizer

21 Which one of the following is **not** an important characteristic of the Green Revolution?

- (1) Mechanized agriculture
- (2) Hybrid seeds
- (3) Slash and burn
- (4) Monoculture

22 The deliberate manipulation of living organisms, for the benefit of human society, is referred to as ... .

- (1) biological classification
- (2) bioaccumulation
- (3) biological invasion
- (4) biotechnology

23 Mechanized farming practices can ... .

- (1) decrease soil compaction
- (2) increase soil stability
- (3) enhance soil erosion
- (4) improve soil composition

**STUDY UNIT 12**

24 The agricultural practice of terracing ... .

- (1) allows soil to renew its fertility
- (2) decreases soil erosion
- (3) increases soil erosion
- (4) reduce land for agricultural production

25 The combination of decreasing crop yields, increased stream sediment loads, and downstream deposition of silt on a global basis is evidence of ... .

- (1) global warming
- (2) soil erosion
- (3) desertification
- (4) tropical deforestation

**STUDY UNIT 13**

26 The **main** reason for the current decline in biodiversity is ... .

- (1) pollution
- (2) destruction of habitats
- (3) poaching
- (4) invasion of exotic species

27 An international agreement that focuses on trade in wildlife and wildlife parts is known as ... .

- (1) NASDAQ
- (2) ADJA
- (3) CITES
- (4) UNESA

**STUDY UNIT 14**

28 One of the best solutions to get rid of non-biodegradable wastes is ... .

- (1) burning
- (2) dumping
- (3) burying
- (4) recycling

29 The **most** critical concern regarding the disposal of radioactive waste is that ... .

- (1) burying wastes on land has led to contamination via leaks from the barrels
- (2) dumping wastes at sea has resulted in the contamination of the oceans
- (3) injecting the wastes into deep wells can trigger earthquakes
- (4) no satisfactory method of disposal has yet been devised

30 Which combination of the following statements regarding landfill sites and their impact are **true**?

- (a) The location of a landfill site is associated with social problems.
- (b) Landfill sites are not associated with any groundwater pollution.
- (c) Landfill sites have an economic impact as they are expensive.
- (d) No noise pollution is caused by landfill sites, as most of these sites are not situated near any people.

The **correct** combination of alternatives is:

- (1) (a) and (c)
- (2) (a) and (d)
- (3) (b) and (c)
- (4) (c) and (d)

**TOTAL 30**

**END OF SEMESTER 02**



## 9 OTHER ASSESSMENT METHODS

There are no other assessment methods for this module.

## 10 EXAMINATION

For general information and requirements as far as examinations are concerned, see the brochure *my Studies @ Unisa*, which you received with your study material.

### Examination admission

To gain admission to the examination for this module, you have to submit the compulsory Assignment 01 on or before its due date. If you do not submit this compulsory assignment, **you will not be admitted to the examination**. During the semester, the Examination Section will provide you with information about the examination venue, date and time.

### How does this work in practice?

Students who qualify for a supplementary, aegrotat or special examination should note that the structure of the examination paper and the scope (guidance) of the examination might vary slightly from semester to semester. Students who have the opportunity to write a supplementary, aegrotat or special examination are not registered for the semester in which they write the examination; they are still registered for the semester in which they wrote the examination for the first time. They will therefore not receive any tutorial matter via the official channels for the semester in which they write the supplementary, aegrotat or special examination. The implication of this is that you will not receive the tutorial letter with examination guidelines for the semester in which you will write the supplementary, aegrotat or special examination. If you are writing a supplementary, aegrotat or special examination, you have to contact your lecturer to arrange that a copy of the tutorial letter with the examination guidelines should be sent to you to help you to prepare for the examination.

If illness prevents you from writing an examination, you may apply at the Examination Section for an aegrotat or special examination at the end of the next semester. Full particulars on, and the requirements for aegrotat and special examinations are provided in the booklet *my Studies @ Unisa*. Please do not apply for an aegrotat and special examination at the Department of Geography and do not send your medical certificate to the lecturer who is responsible for this module.

### Examination period

This module is offered in a semester period of 15 weeks. This means that if you are registered for the first semester, you will write the examination in May/June 2013 and the supplementary examination will be written in October/November 2013. If you are registered for the second semester, you will write the examination in October/November 2013 and the supplementary examination will be written in May/June 2014.

During the semester, the Examination Section will provide you with information regarding the examination in general, examination venues, examination dates, and examination times.

### **Examination paper**

You should work through the study material and the activities in the study guide at a regular pace to prepare yourself properly for the examination. Please keep in mind that the semester is very short. Do not wait until a few days before the examination because you think that you will be able to master all the material by "cramming". This method of study will not work for this module.

You will write one examination paper of **two** hours for this module. The examination paper will consist of multiple-choice questions and questions that will require written answers of varying length. The examination paper will count 75% towards your final mark. The other 25% of your final mark is a semester mark that will be calculated from the marks you obtain for Assignments 01, 02 and 03.

### **Previous examination papers**

Previous examination papers are available on *myUnisa*.

### **Tutorial letter with information on the examination**

To help you in your preparation for the examination, you will receive a tutorial letter that will explain the format of the examination paper, give you examples of questions that you may expect and set out clearly what material you have to study for examination purposes.

## **11 FREQUENTLY ASKED QUESTIONS**

The *my Studies @ Unisa* brochure contains an A-Z guide of the most relevant study information.

## **12 CONCLUSION**

We hope that you will find the module interesting and rewarding. We shall do our best to make your study of this module successful. You will be well on your way to success if you start studying early in the semester and resolve to do the assignments properly.

We trust you will enjoy this module and that the knowledge and skills you acquire will motivate you to continue your studies in Geography and learn even more about world issues and how they could be solved.

# 13      WORKSHEET

## WORKSHEET FOR SEMESTER 01

STUDENT NUMBER: \_\_\_\_\_

### ASSIGNMENT 02

1		3
2		1
3		2
4		3
5		1
6		



		8
7		



		15
8		5
9		2
	TOTAL	40

Comment:

**WORKSHEET FOR SEMESTER 02**  
**STUDENT NUMBER:** \_\_\_\_\_  
**ASSIGNMENT 02**

1		8
2		2
3		2
4		2



5		6
6		2
7		8



8		8
9		2
	<b>TOTAL</b>	<b>40</b>

Comment:

