

Surname	Centre Number	Candidate Number
Other Names		0



GCSE

4242/04

**GEOGRAPHY
SPECIFICATION B
HIGHER TIER
UNIT 2
SECTION B**

A.M. WEDNESDAY, 12 June 2013

1 hour 30 minutes

For examiner's use only		
Part A	25	0
Part B	21	0
Part C	14	4
Total Marks	60	4

This paper is to be given out after Section A has been collected in.

ADDITIONAL MATERIALS

Resource folder.

INSTRUCTIONS TO CANDIDATES

Use black ink or black ball-point pen.

Write your name, centre number and candidate number in the spaces at the top of this page.

Answer **all parts of this question**.

Write your answers in the spaces provided in this booklet.

If additional space is required you should use the lined pages at the end of this booklet. The question number(s) should be clearly shown.

INFORMATION FOR CANDIDATES

The number of marks is given in brackets [] at the end of each question or part-question.

You are reminded that assessment will take into account the quality of written communication used in your answer that involves extended writing (**Part C**).

In addition, your ability to spell, punctuate and use grammar accurately will be assessed in your answer to **Part C**.

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The state of Bauchi is in Nigeria. It is suffering from desertification.

Part A: In this part you will consider the climate of Bauchi, the lives of the people who live there and the problem of desertification. 25 marks

Part B: In this part you will consider options for solving desertification in Bauchi. 21 marks

Part C: In this part you will advise the national government of Nigeria which option to choose to reduce desertification. 18 marks

Total 64 marks

Part A

You are advised to spend about 30 minutes on this part.

In this part you will consider the climate of Bauchi, the lives of the people who live there and the problem of desertification.

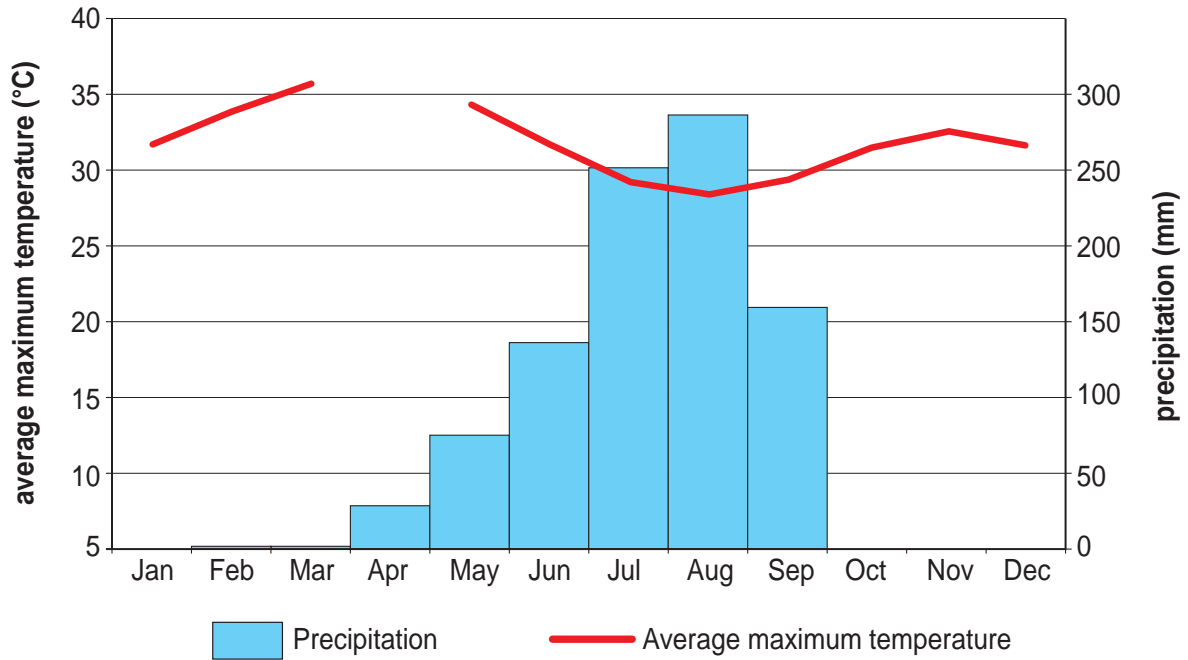
(a) Study the maps on **page 2** of the separate **Resource Folder**.

Describe the location of Bauchi state in Nigeria. [2]

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(b) Study the climate graph below. It shows the climate of the southern part of Bauchi.



(i) Complete the climate graph using the following information: [2]

April	Average maximum temperature (°C)	37
October	Rainfall (mm)	35

(ii) Describe the climate of Bauchi. [3]

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(iii) Explain **one** possible effect of this climate on people who live in Bauchi. [2]

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(c) Study the table of information on **page 3** of the separate **Resource Folder**. It shows a range of development indicators for Bauchi and Nigeria as a whole.

Use evidence from the table to compare the quality of life in Bauchi to Nigeria as a whole. [4]

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(d) Desertification is the process by which fertile land becomes desert, typically as a result of drought, deforestation or poor farming methods.

Desertification is a problem in Bauchi.

Study the graph on **page 4** of the separate **Resource Folder**.

(i) Describe the trend of rainfall from 1930 to 2007. [2]

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(ii) Explain how drought may lead to desertification. [2]

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(e) Study the diagram on **page 5** of the separate **Resource Folder**.

Explain how deforestation leads to desertification. [4]

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(f) Study the diagram on **page 6** of the separate **Resource Folder**. It shows how poor farming methods contribute to desertification.

(i) Choose **two** of these methods and explain how each may contribute to desertification. [2]

Method 1:

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Method 2:

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(ii) Suggest why farmers continue to use these poor farming methods even though they risk desertification. [2]

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25

End of Part A

Part B

You are advised to spend about 25 minutes on this part.

In this part you will consider options for solving desertification in Bauchi.

Option 1 An international option. A proposal to extend the Great Green Wall of trees

(a) Study the map and information on **page 7** of the separate **Resource Folder**.

(i) Describe the location of the Great Green Wall. [2]

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(ii) Explain **one** way that the Great Green Wall might be considered a sustainable development. [2]

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(iii) Suggest why the Great Green Wall might not prevent desertification. [2]

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Option 2 A national government option. A proposal to build the Kafin Zaki Dam.

(b) Study the photograph and information on **page 8** of the separate **Resource Folder**.

(i) Explain **one** potential advantage of the dam for the national government. [2]

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(ii) Other than the advantage you have given above, explain how the dam may benefit **local people**. [3]

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(iii) Explain **two** potential disadvantages of the dam. [4]

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Option 3 A local community option: Non Governmental Organisation (NGO) aided self-help projects.

(c) Study the photographs and information on **page 9** of the separate **Resource Folder**.

(i) Explain **one** potential problem for local self-help projects such as those shown on **page 9** of the **Resource Folder**. [2]

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(ii) Explain why the farming methods shown in the resource are examples of a sustainable solution. [4]

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End of Part B

Part C

You are advised to spend about 35 minutes on this part.

In this part you will advise the national government of Nigeria which option to choose to reduce desertification in Bauchi.

The options are:

- An international option: a proposal to extend the Great Green Wall of trees.
- A national government option: a proposal to build the Kafin Zaki Dam.
- A local community option: Non Governmental Organisation (NGO) aided self-help projects.

You may use one option or a combination of options. Use the Factfile on **page 10** of the separate **Resource Folder** to help you complete the following matrix and organise your ideas. You should spend **no more than 15 minutes** completing the matrix.

	Feature	Sustainable or not?				
<p>An international option: a proposal to extend the Great Green Wall of trees.</p>	<table border="1"> <tr><td></td></tr> <tr><td></td></tr> <tr><td></td></tr> <tr><td></td></tr> </table>					
<p>A national government option: a proposal to build the Kafin Zaki Dam.</p>	<table border="1"> <tr><td></td></tr> <tr><td></td></tr> <tr><td></td></tr> <tr><td></td></tr> </table>					
<p>A local community option: Non Governmental Organisation (NGO) aided self-help projects.</p>	<table border="1"> <tr><td></td></tr> <tr><td></td></tr> <tr><td></td></tr> <tr><td></td></tr> </table>					

Use the information in your matrix to help you write a letter to the national government of Nigeria. You may also use information from other parts of this paper and ideas of your own.

You should advise which option(s) it should choose to reduce desertification in Bauchi. You should comment on the sustainability of your plan. You should explain why you have made your choice and why you didn't recommend the other options.

You may use one option or a combination of options.

- An international option: a proposal to extend the Great Green Wall of trees.
- A national government option: a proposal to build the Kafin Zaki Dam.
- A local community option: Non Governmental Organisation (NGO) aided self-help projects.

To the national government of Nigeria.

[14+4]

Marks for spelling, punctuation and the accurate use of grammar are allocated to this question.

I am writing to advise you to:

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14	4

Continuation page only

Examiner
only

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**GEOGRAPHY
SPECIFICATION B
RESOURCE FOLDER UNIT 2, SECTION B
HIGHER TIER**

A.M. WEDNESDAY, 12 June 2013

RESOURCE FOLDER

This folder is for use with questions in **Unit 2, Section B Higher Tier**.

This folder need not be handed in with your answer.

How should Nigeria manage desertification?



A local community option: self-help irrigation project, Nigeria

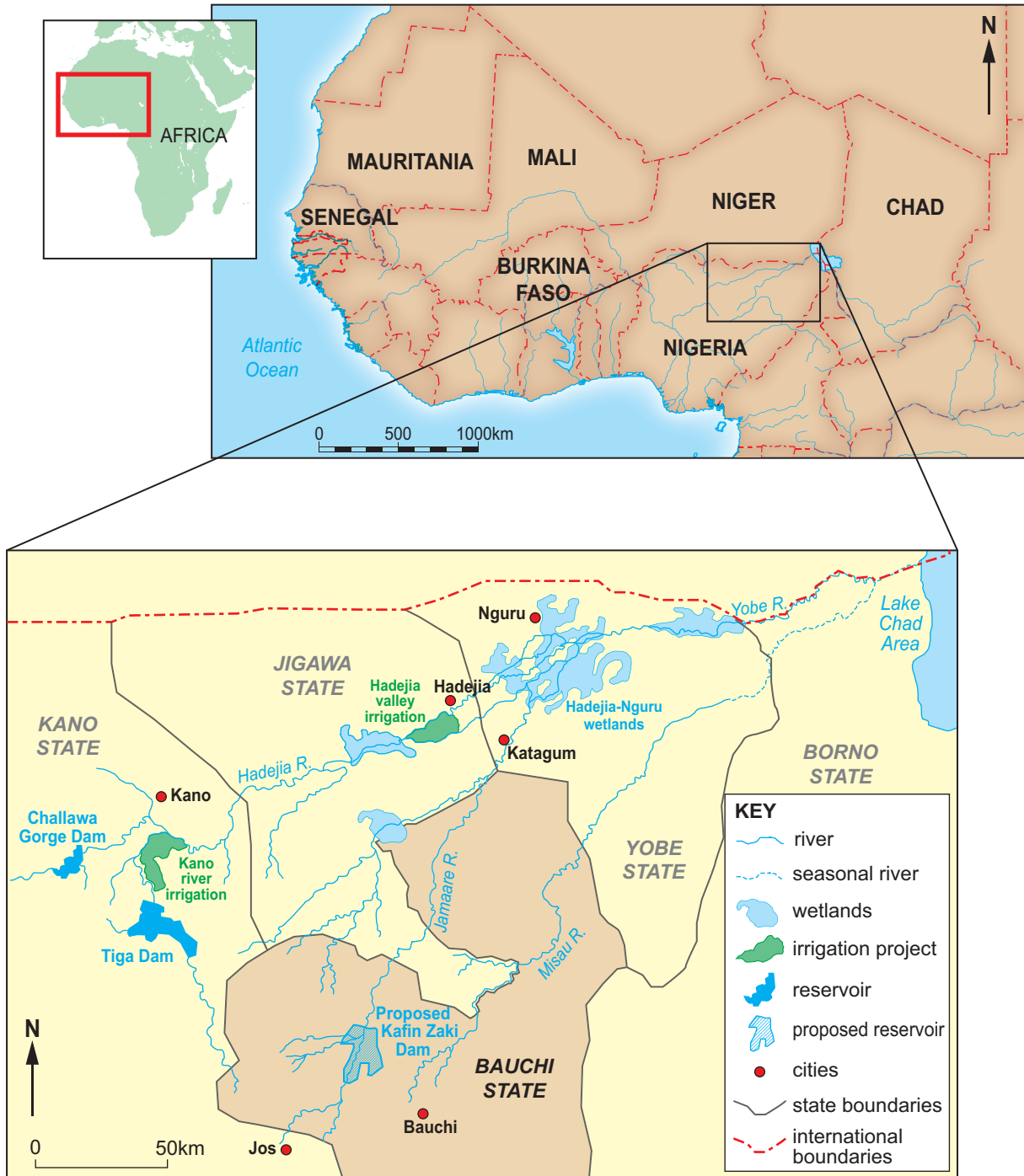


An international option: planting the Great Green Wall



A national option: The Kafin Zaki Dam

The location of Bauchi State

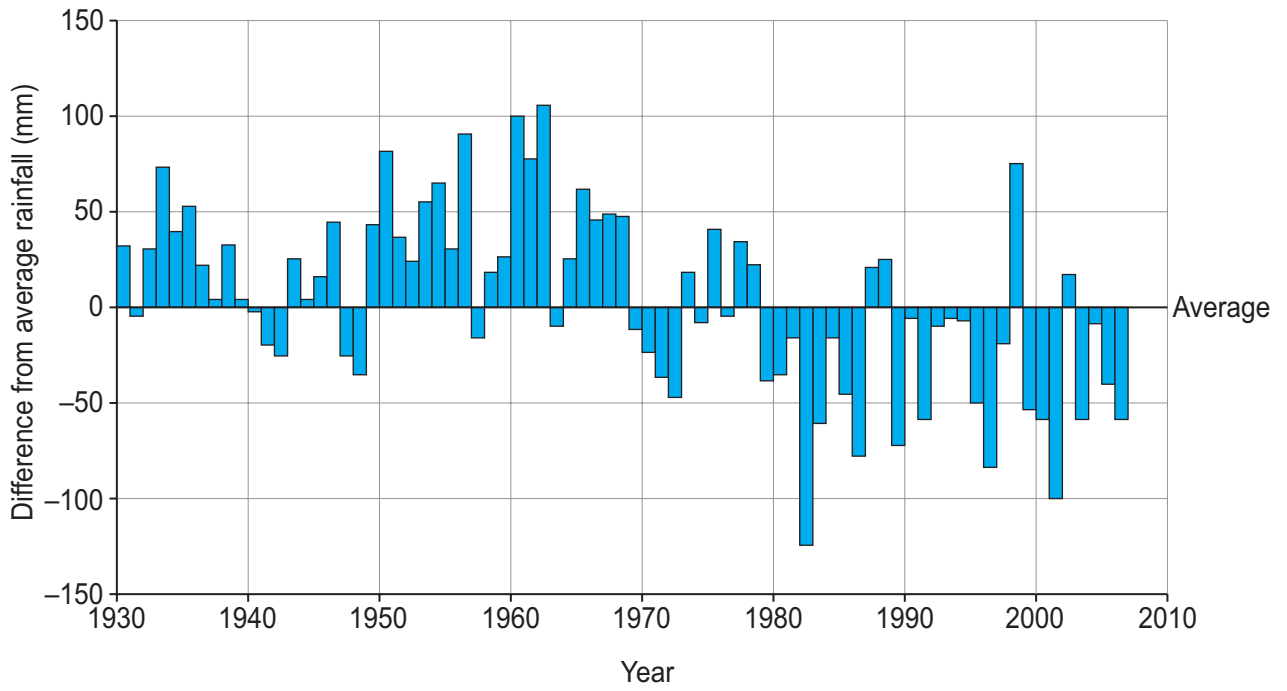


Indicators of development for the whole of Nigeria and of Bauchi state

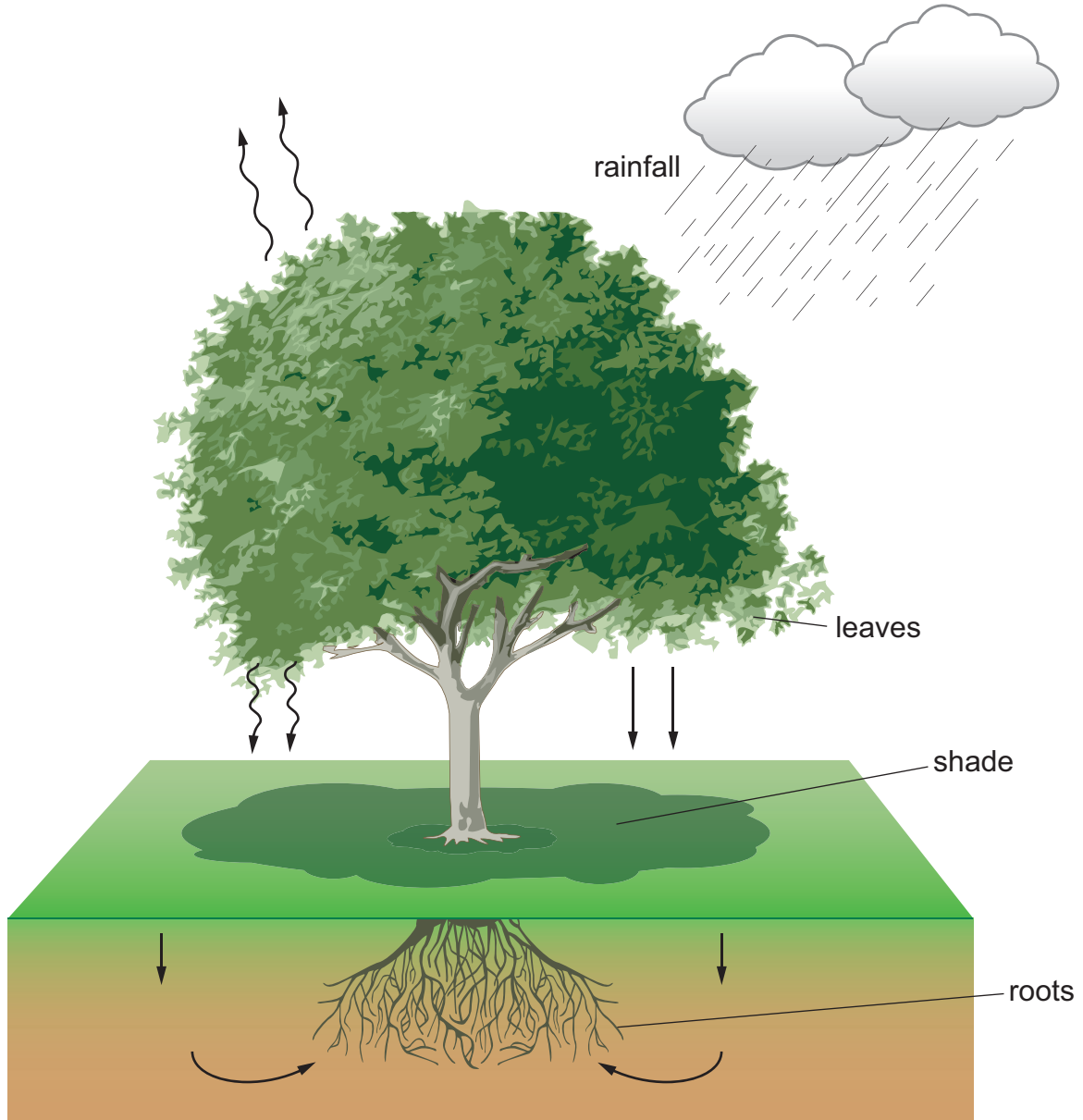
Indicator	Bauchi State	Nigeria
Gross National Product (GNP) per person \$US	167	1157
Adult literacy %	38.7	64.2
Life expectancy at birth	50	50
Access to improved drinking water %	35.2	49.1

Source: Human Development Report Nigeria 2008-2009 UNDP

How rainfall has varied in Bauchi

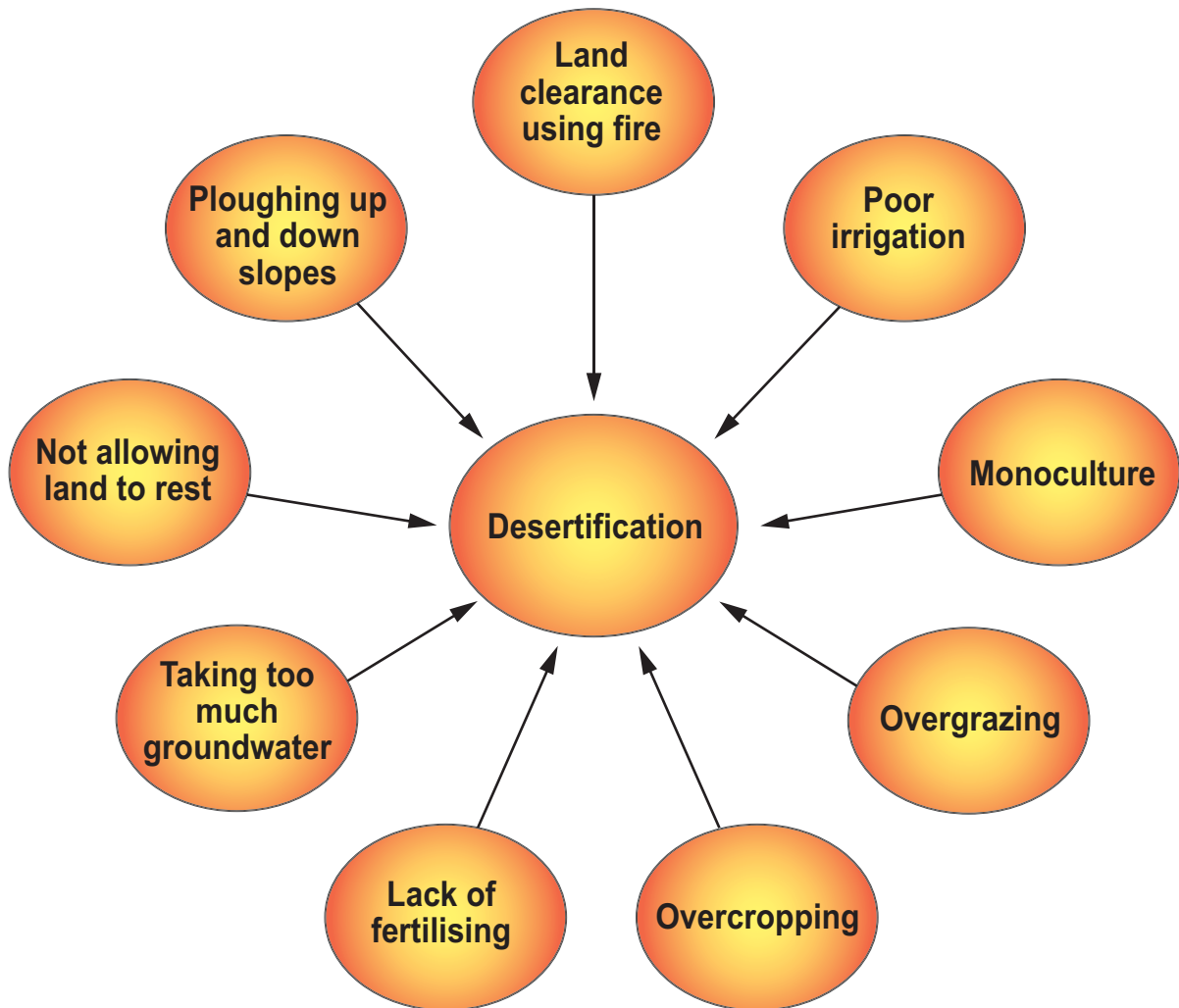


The potential of trees to prevent desertification



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How poor farming methods lead to desertification



Option 1: An international option: The Great Green Wall of trees

The Great Green Wall of trees



KEY

- hot desert
- semi desert
- savannah
- rain forest
- Great Green Wall

“Great Green Wall”

Total distance: **7,775 km**
 Total area: **11,662,500 hectares**

The Great Green Wall is a project developed by the African Union to reduce desertification. The project aims to create a green belt of trees and other plants as shown on the map.



© www.loe.org

many trees are used for firewood in rural areas

provides green space and parks

many trees are not maintained properly

people will be able to sell any wood or crops harvested from the project

Option 2: A national government option: A proposal to build the Kafin Zaki Dam



A dam similar to the one planned in Bauchi state.

Supporters of the dam say

- It would be designed with the potential to install hydro-electric power at a later date.
- It would irrigate a large area (120,000 hectares, about 4 times the area of Greater London).
- The dam would allow irrigation for cash crops like sugar cane.

Those against the dam say

- The dam will prevent the seasonal floods that farmers downstream depend upon for farming.
- It will cause the water table to drop.
- A lot of water will be lost to evaporation.

Option 3: A local community option: Non Government Organisation (NGO) aided self-help projects

1. Aid donors pay for drip irrigation systems to be set up. Drip irrigation is very efficient and only uses a little water.
2. Planting alternate rows of tall and short crops.



Source: <http://projects.csg.uwaterloo.ca>

Images: www.absoluteloveforchildren.org

Factfile

Great Green Wall

- International cooperation is required for this solution to be fully effective.
- Each part of the scheme costs very little money to set up.
- Further afforestation is difficult due to an increasing demand for farm land.
- Aid donors are sometimes hesitant to pay for cross border solutions.

Dam Project

- Abuja, the capital city, is only 300 km away and suffers from electricity shortages.
- The project would create many new jobs in farming in Bauchi.
- The Jamaare river provides essential water for agriculture downstream.
- The cost of the dam is around US \$117 million.

Farming projects

- Planting a variety of crops increases the reliability of food supplies.
- Schemes like this cost very little money.
- Some farmers can be reluctant to change farming methods.
- Global climate change is increasing the rate of desertification.