



Cambridge International Examinations
Cambridge International General Certificate of Secondary Education (9–1)

GEOGRAPHY

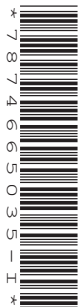
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Paper 4 Alternative to Coursework

October/November 2018

INSERT

1 hour 30 minutes



READ THESE INSTRUCTIONS FIRST

This Insert contains Figs. 1.1, 1.2 and 1.3 and Tables 1.1 and 1.2 for Question 1, and Figs. 2.2, 2.3 and Tables 2.1 and 2.2 for Question 2.

The Insert is **not** required by the Examiner.

This document consists of **8** printed pages.

Fig. 1.1 for Question 1

Crops grown in Kenya for export

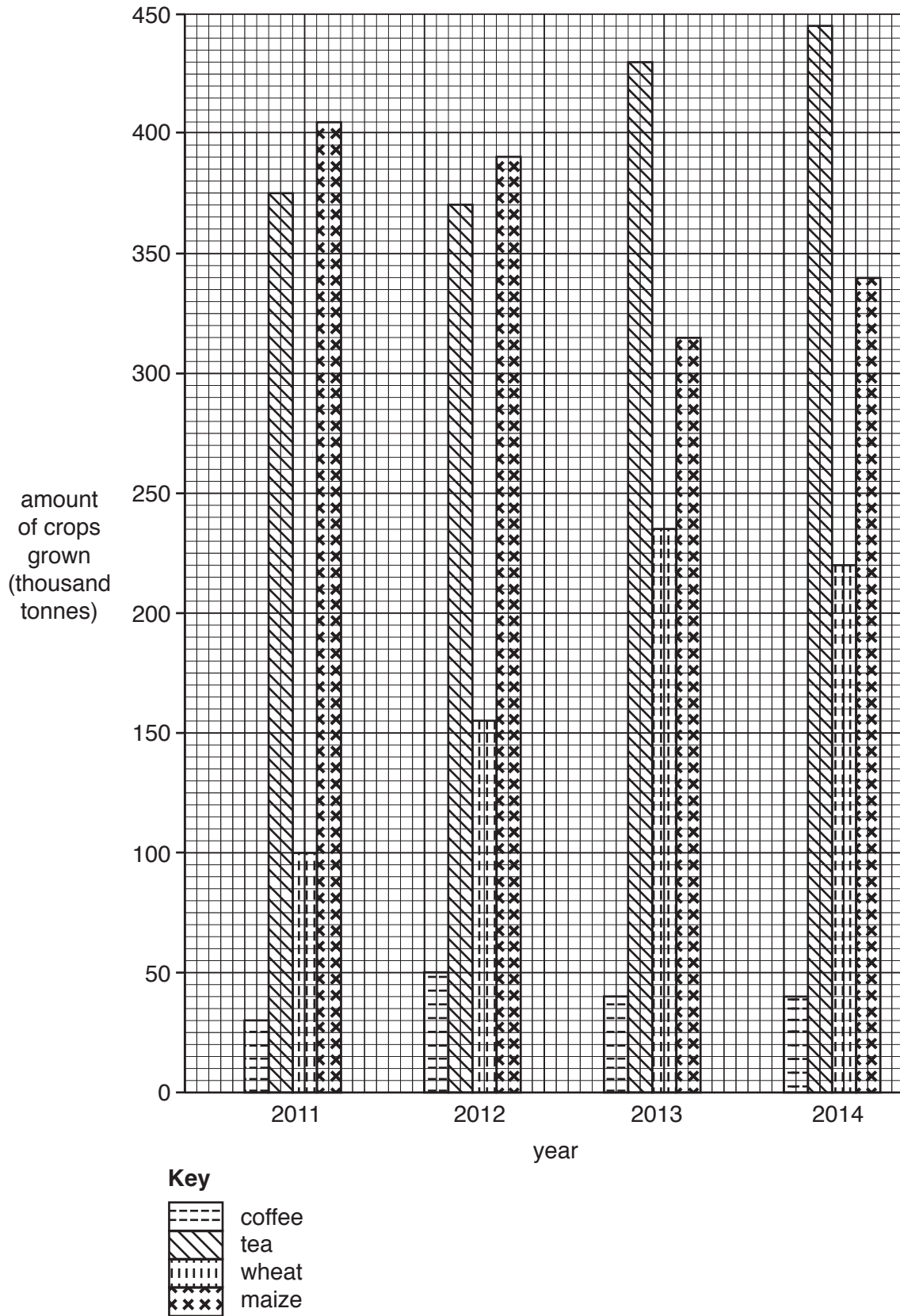


Fig. 1.2 for Question 1

Map and description of the fieldwork areas

The fieldwork was done in two areas of the Makueni district in the Eastern province of Kenya. The two villages in the north are located on higher land, which receives higher rainfall. The two villages in the south are in a lowland area with a dry climate. The main road between Nairobi and Mombasa goes through the Makueni district. Wote and Kibwezi are the main markets for farming produce.

Areas investigated

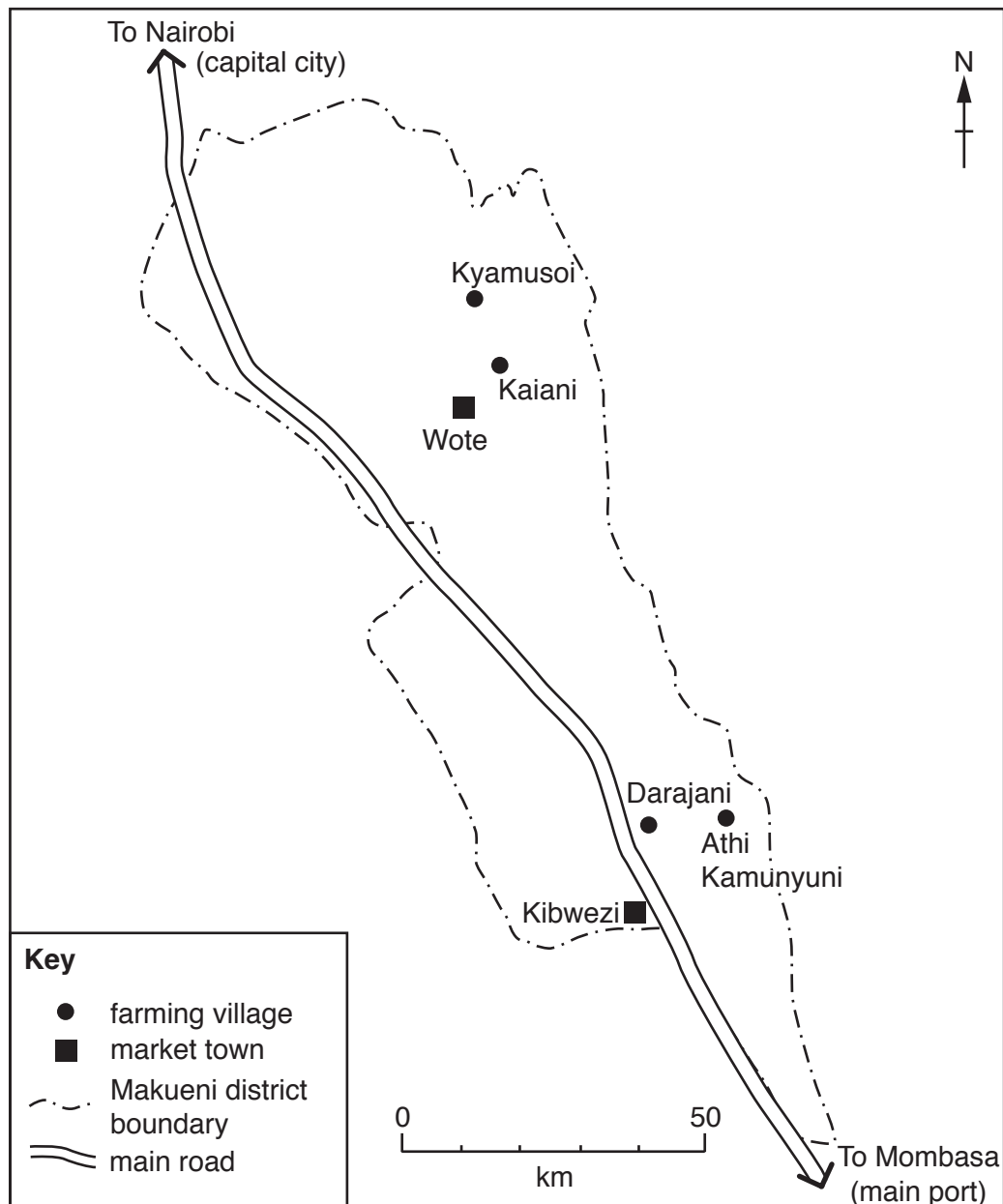


Fig. 1.3 for Question 1

Questionnaire for farmers

I am a student studying farming for my *Geography* examination. Please will you answer the following questions to help my study?

1. What is the size of your farm?

..... hectares (ha)

2. How much of your land is used to grow crops?

..... ha

3. How much of your land is used to keep animals?

..... ha

4. Do you keep more cattle or more goats?

.....

5. Which of the following farming difficulties do you suffer from? You may choose more than one.

- low or unreliable rainfall
- occasional very heavy rainfall which can cause flooding
- pests and diseases
- little access to seeds and fertilisers due to poor transport links
- little opportunity to sell produce and low market prices
- lack of credit facilities or cheap loans

Thank you for your help.

Table 1.1 for Question 1

Results of questionnaire

	Farming villages			
	in the north of Makueni		in the south of Makueni	
	Kyamusoi	Kaiani	Darajani	Athi Kamunyuni
average farm size (ha)	15	9	4	10
average amount of land used for crops (ha)	7	4	1	2
average amount of land used for animals (ha)	8	5	3	8
keep more cattle or more goats	cattle	cattle	goats	goats

Table 1.2 for Question 1

Answers to Question 5 in questionnaire

Farming difficulty	Number of answers	Percentage
low or unreliable rainfall	20	15
occasional very heavy rainfall which can cause flooding	14	10
pests and diseases	27	20
little access to seeds and fertilisers due to poor transport links	30	22
little opportunity to sell produce and low market prices	18	13
lack of credit facilities or cheap loans	28	20
total	137	100

Fig. 2.2 for Question 2

Diagram of flowmeter

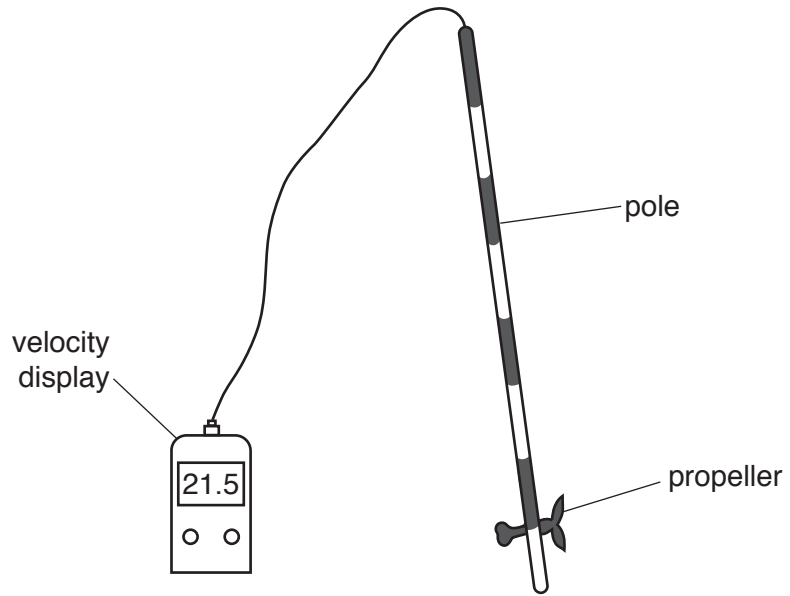


Fig. 2.3 for Question 2

A student using a flowmeter in the river



Table 2.1 for Question 2

Results of fieldwork

Meander			Straight section		
Distance from bank (m)	Velocity (m/sec)	Average length of pebbles (cm)	Distance from bank (m)	Velocity (m/sec)	Average length of pebbles (cm)
0.5	0.28	4	0.5	0.30	8
1.0	0.30	8	1.0	0.33	12
1.5	0.37	11	1.5	0.35	18
2.0	0.42	12	2.0	0.40	5
2.5	0.44	8	2.5	0.53	10
3.0	0.51	14	3.0	0.42	13
3.5	0.59	16	3.5	0.41	8
4.0	0.63	17	4.0	0.37	11
4.5	0.58	15			

Table 2.2 for Question 2

Results of measurements of pebble size

Straight section shown in Fig. 2.1

Average size of pebbles (cm)	Number of pebbles
1 to 5	4
6 to 10	14
11 to 15	17
16 to 20	5

Straight section further downstream

Average size of pebbles (cm)	Number of pebbles
1 to 5	9
6 to 10	21
11 to 15	8
16 to 20	2

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