



GCE AS/A LEVEL

2110U10-1

TUESDAY, 13 MAY 2025 – AFTERNOON

GEOGRAPHY – AS UNIT 1

CHANGING LANDSCAPES

2 hours plus your additional time allowance

Surname

First name(s)

Centre Number

Candidate Number

2

ADDITIONAL MATERIALS

A calculator.

INSTRUCTIONS TO CANDIDATES

Use black ink, black ball-point pen or your usual method.

You may use a pencil for graphs and diagrams only.

Write your name, centre number and candidate number in the spaces on the previous page.

Write your answers in the spaces provided in this booklet.

**In Section A, answer EITHER questions 1 and 2
OR questions 3 and 4.**

Answer ALL questions in Section B.

If further space is required you should use the additional page(s) at the back 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 advised to divide your time accordingly.

(Turn over)

THIS PAPER REQUIRES THAT YOU MAKE AS FULL USE AS POSSIBLE OF APPROPRIATE EXAMPLES AND REFERENCE TO DATA TO SUPPORT YOUR ANSWERS. SKETCH MAPS AND DIAGRAMS SHOULD BE INCLUDED WHERE RELEVANT.

A plain page is available near the back of the booklet for you to add any relevant sketch maps and diagrams you may wish to include. The question number(s) should be clearly shown.

SECTION A: CHANGING LANDSCAPES

Answer EITHER questions 1 and 2 OR questions 3 and 4 from your chosen landscape.

Make the fullest possible use of examples and data to support your answers.

EITHER: COASTAL LANDSCAPES

Answer questions 1 AND 2 if this is your chosen landscape.

1 (a)(i) Use FIGURE 1 opposite to compare the beach profiles in Year 1 and Year 2. [5 marks]

(Turn over)

1 (a)(ii) Suggest ONE reason for the changing beach profile in FIGURE 1. [3 marks]

(Turn over)

1 (b) Examine the role of biotic processes in the formation of ONE coastal landform. [8 marks]

This image shows a blank sheet of white paper with horizontal black ruling lines. The lines are evenly spaced and run across the width of the page, typical of notebook or legal stationery. There are no margins, text, or other markings on the paper.

(Turn over)

(Turn over)

Additional space for Question 1(b) only:

(Turn over)

2 (a)(i) Use FIGURE 2 opposite to analyse the pattern shown. [5 marks]

[illegible]

(Turn over)

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

(Turn over)

2 (b) Assess the success of ONE strategy used to manage the impacts of human activity on coastal processes and landforms. [8 marks]

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

(Turn over)

Additional space for Question 2(b) only:

(Turn over)

OR: GLACIATED LANDSCAPES

Answer questions 3 AND 4 if this is your chosen landscape.

3 (a)(i) Use FIGURE 3 opposite to compare ice thickness in Year 1 and Year 4. [5 marks]

(Turn over)

3 (a)(ii) Suggest ONE reason for the changing ice thickness shown in FIGURE 3. [3 marks]

(Turn over)

3 (b) Examine the role of different processes in the formation of one fluvioglacial landform. [8 marks]

(Turn over)

Additional space for Question 3(b) only:

(Turn over)

4 (a)(i) Use FIGURE 4 opposite to analyse the pattern of cirque orientation. [5 marks]

(Turn over)

**4 (a)(ii) Suggest ONE reason for the pattern shown in
FIGURE 4. [3 marks]**

(Turn over)

4 (b) Assess the success of ONE strategy used to manage EITHER;

the impact of human activity on glacial processes and landforms

OR

the impacts of glacial processes and landforms on human activity. [8 marks]

[illegible]

(Turn over)

Additional space for Question 4(b) only:

(Turn over)

SECTION B: TECTONIC HAZARDS

Answer ALL questions.

Make the fullest possible use of examples and data to support your answers.

FIGURE 5a: Global earthquake data, 2022

MAGNITUDE	NUMBER OF EARTHQUAKES
9+	0
8.0-8.9	0
7.0-7.9	11
6.0-6.9	117
5.0-5.9	1603
4.0-4.9	13707

FIGURE 5b: Earthquake deaths, 2022

TOTAL GLOBAL DEATHS 2022: 1288
DEADLIEST EARTHQUAKE:
Afghanistan, 22 June 2022
Magnitude: 6.3
Deaths: 1107

(Turn over)

5 (i) Use FIGURE 5a to describe the relationship between earthquake magnitude and number of earthquakes.

[2 marks]

(Turn over)

5 (ii) Describe ONE data presentation method suitable for presenting the data on number of earthquakes in FIGURE 5a. [2 marks]

(Turn over)

- 5 (iii) Use FIGURE 5b to calculate the percentage of total global deaths due to the Afghanistan earthquake. Show your working and give your answer to ONE decimal place. [3 marks]**

6 (a) Use FIGURE 6a opposite to describe the pattern of earthquake intensity across east Afghanistan.

[5 marks]

(Turn over)

Study FIGURES 6b and 6c opposite, below and opposite the following page:

FIGURE 6c: Quote from Al Jazeera, 22 June 2022

“The biggest issue is how to reach the (rural) sites. Nestled in rocky, unpaved mountains, they are further away from the capital cities and the road conditions can be difficult. The remoteness of these poor villages and their homes of mud and wood were cited as a major cause of the fatalities.

Residents in remote (rural) areas in the East searched for victims by digging with their bare hands through the rubble.

It was not clear if heavy rescue equipment was being sent, or if it could even reach the area. With only a handful of airworthy planes and helicopters, any immediate response to the latest catastrophe is limited. Flights had to be halted due to torrential rain, hail and cloud.”

Source: At least 1,000 killed after strong earthquake jolts Afghanistan | News | Al Jazeera

(Turn over)

6 (b) Use FIGURES 6b and 6c to examine reasons why people in rural areas may be at higher risk during earthquakes in Afghanistan. [9 marks]

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

(Turn over)

Additional space for Question 6(b) only:

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and extend across the width of the page. There are no margins, text, or other markings on the paper.

(Turn over)

FIGURE 6e: DATA ON PROGRESS OF RECOVERY, JULY AND SEPTEMBER 2022

RESPONSE	% PEOPLE IN NEED THAT RECEIVED HELP	
	17 July 2022	30 September 2022
Emergency shelter (tents)	12	96
Food supplies	19	34
Treatment for malnourished children	6	77
Water treatment kits	19	100
Medical assistance (disease prevention)	17	28

Source:

UNOCHA OCHA_SitRep_Earthquake_Response_3Nov2022.pdf

(Turn over)

6 (c) Use FIGURE 6d opposite and FIGURE 6e on page 36 to analyse the success of the recovery effort.

[7 marks]

(Turn over)

(Turn over)

6 (d) Use FIGURES 6a to 6e to examine the relative importance of the physical and human factors which affected the response to this earthquake.

[10 marks]

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

(Turn over)

Additional space for Question 6(d) only:

(Turn over)

7 (a) Outline how quality of governance may influence vulnerability to tectonic hazards. [8 marks]

(Turn over)

Additional space for Question 7(a) only:

(Turn over)

7 (b) Explain why the characteristics of Earth's mantle result in plate movement. [8 marks]

(Turn over)

Additional space for Question 7(b) only:

(Turn over)

7 (c) Describe TWO social impacts of a named volcanic eruption. [10 marks]

(Turn over)

Additional space for Question 7(c) only:

(Turn over)

END OF PAPER

(Turn over)

Question Number	Additional page, if required for diagrams. Write the question number(s) in the left-hand margin.

(Turn over)

Question Number	Additional page, if required for diagrams. Write the question number(s) in the left-hand margin.

(Turn over)

QUESTION NUMBER	ADDITIONAL PAGE, IF REQUIRED. WRITE THE QUESTION NUMBER(S) IN THE LEFT-HAND MARGIN.

(Turn over)

QUESTION NUMBER	ADDITIONAL PAGE, IF REQUIRED. WRITE THE QUESTION NUMBER(S) IN THE LEFT-HAND MARGIN.

(Turn over)

[illegible]

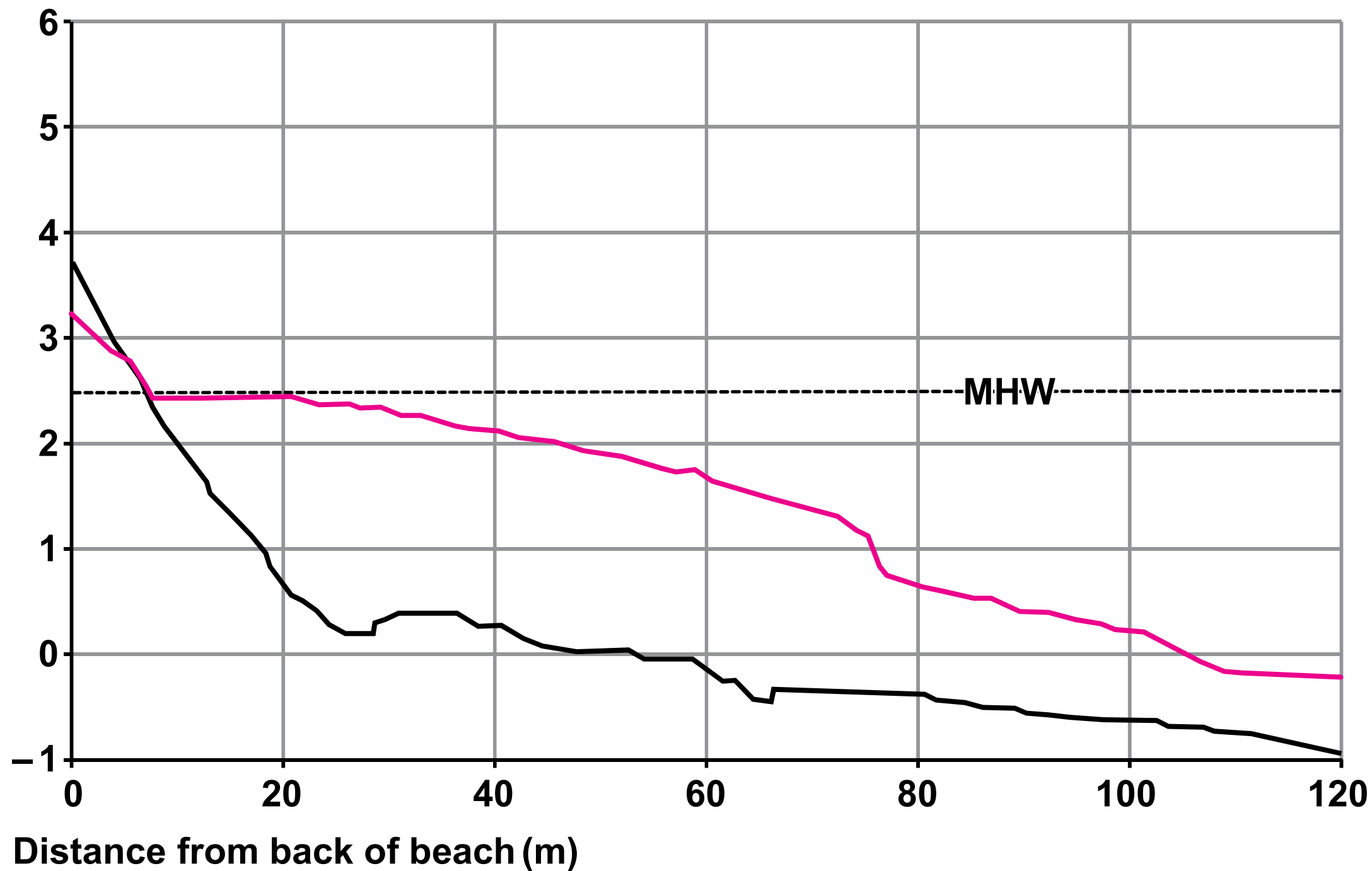
(Turn over)

QUESTION NUMBER	ADDITIONAL PAGE, IF REQUIRED. WRITE THE QUESTION NUMBER(S) IN THE LEFT-HAND MARGIN.

For Examiner's use only		
Question	Maximum Mark	Mark Awarded
Either 1 and 2 or 3 and 4	16	
	16	
	16	
	16	
5	7	
6	31	
7	26	
Total	96	

FIGURE 1: CHANGES TO THE BEACH PROFILE BETWEEN YEAR 1 AND YEAR 2, GÂVRES, FRANCE

Height (metres above sea level)

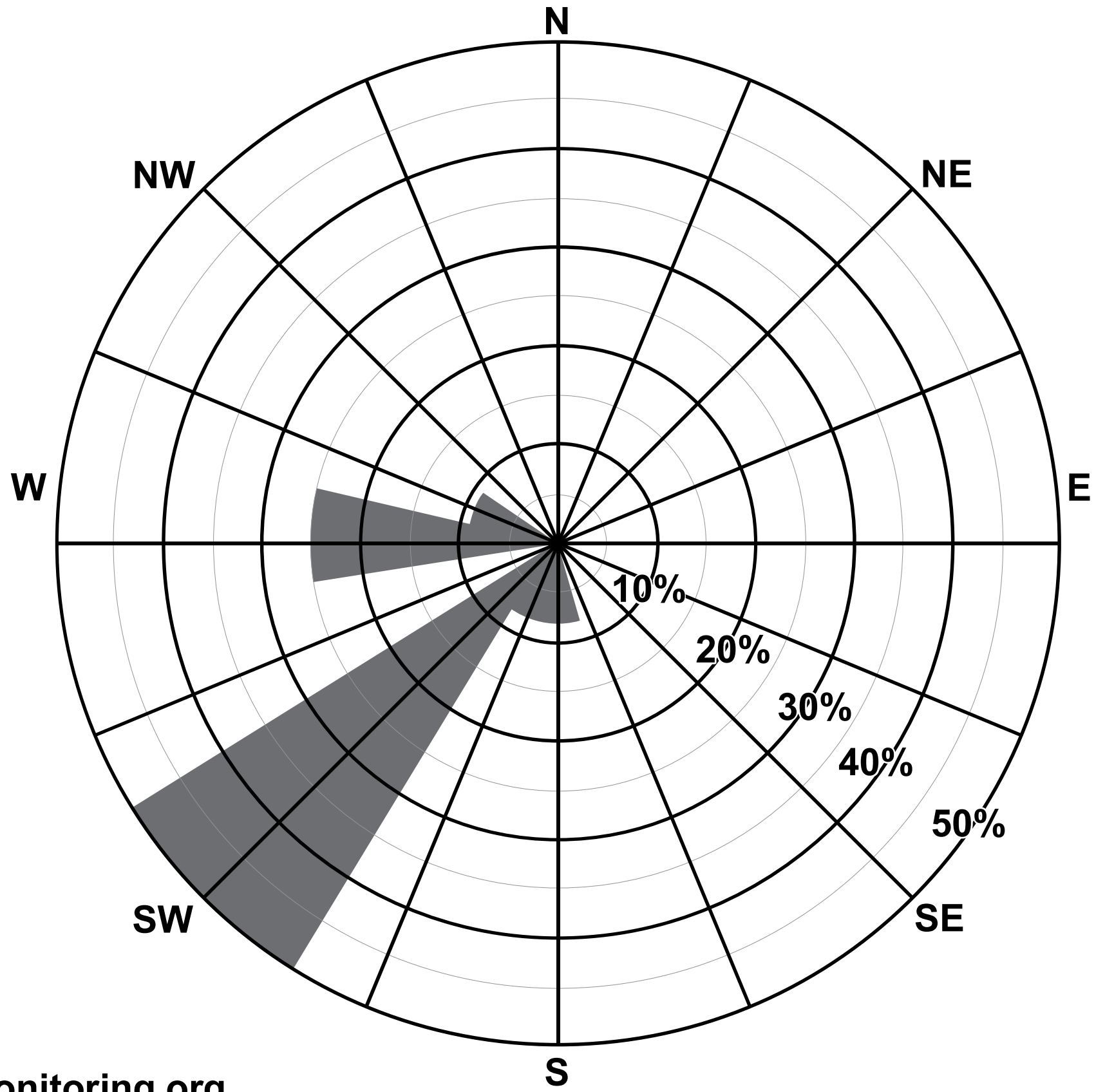


KEY: — Year 1 — Year 2

MHW – Mean high water mark

FIGURE 2: ROSE DIAGRAM TO SHOW ANNUAL WAVE DIRECTION AT RHYL FLATS OFFSHORE WIND FARM, WALES

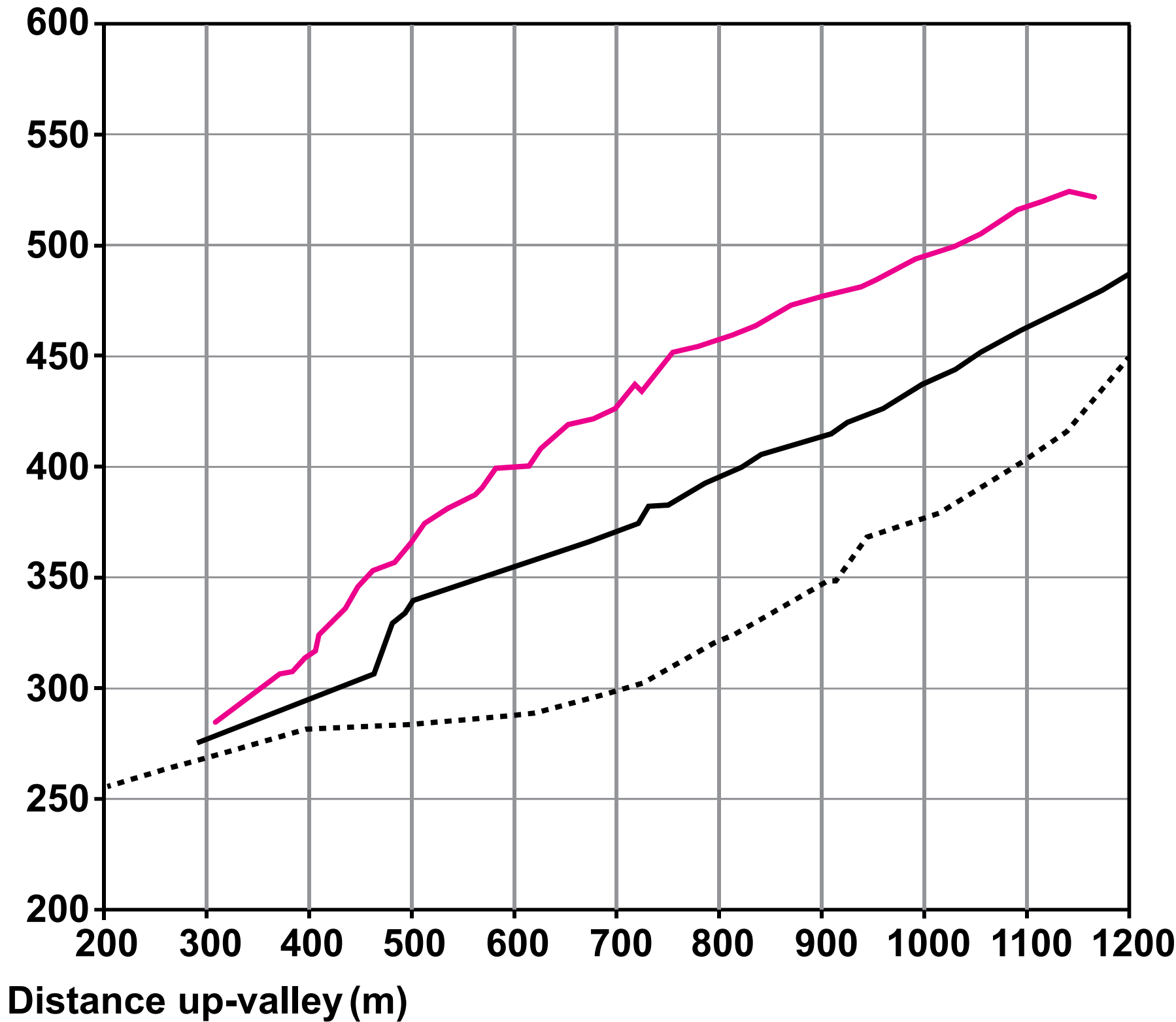
The rose diagram shows the percentage of waves coming from different directions over a 1-year period.



Source: coastalmonitoring.org

FIGURE 3: CHANGES IN ICE THICKNESS OVER A 4-YEAR PERIOD, FRANZ JOSEF GLACIER, NEW ZEALAND

Elevation (metres
above sea level)

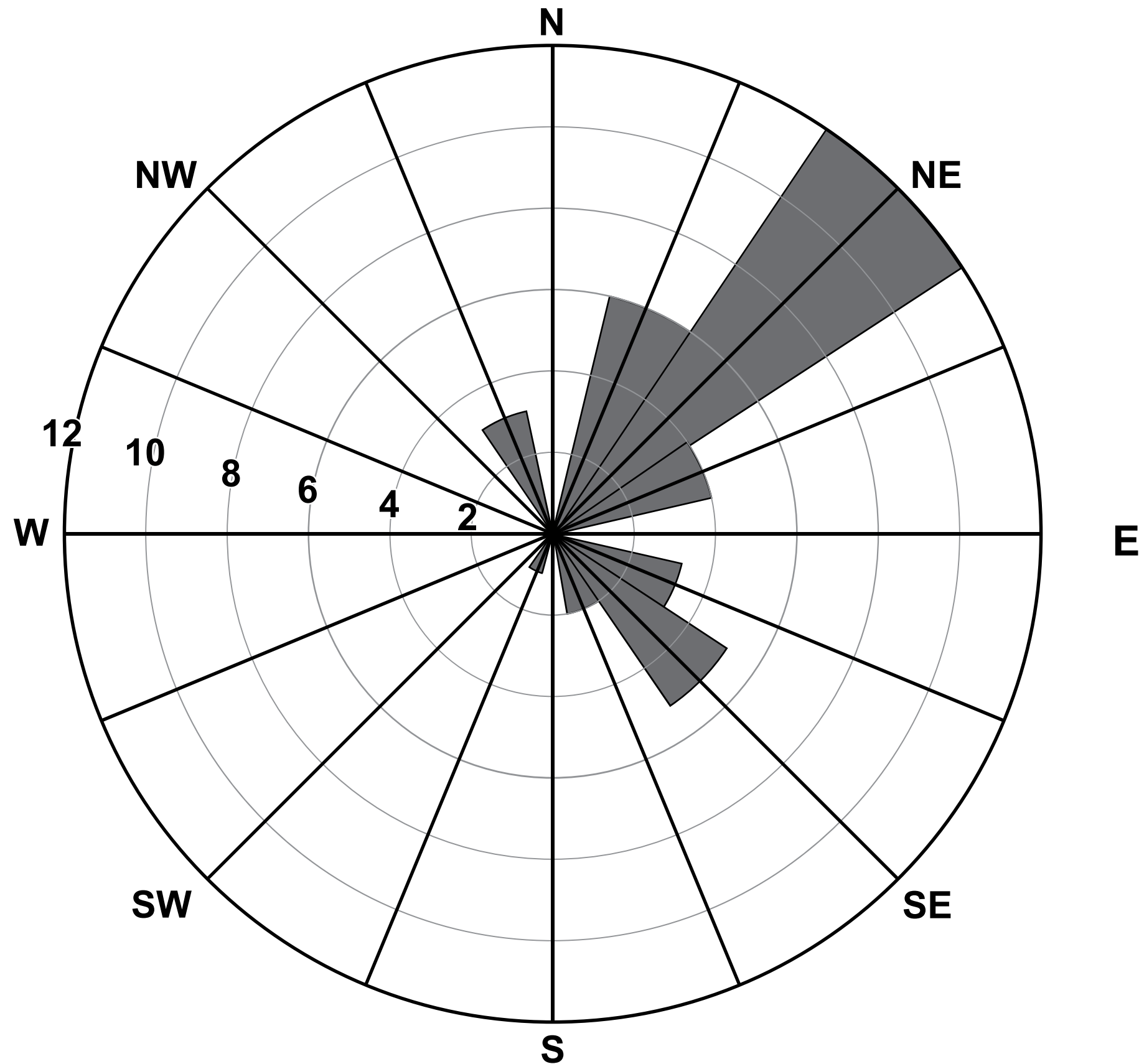


Key: — Glacier surface Year 1 — Glacier surface Year 4 Bedrock

Adapted from: <https://www.researchgate.net>

FIGURE 4: ROSE DIAGRAM TO SHOW CIRQUE ORIENTATION, LAKE DISTRICT, ENGLAND

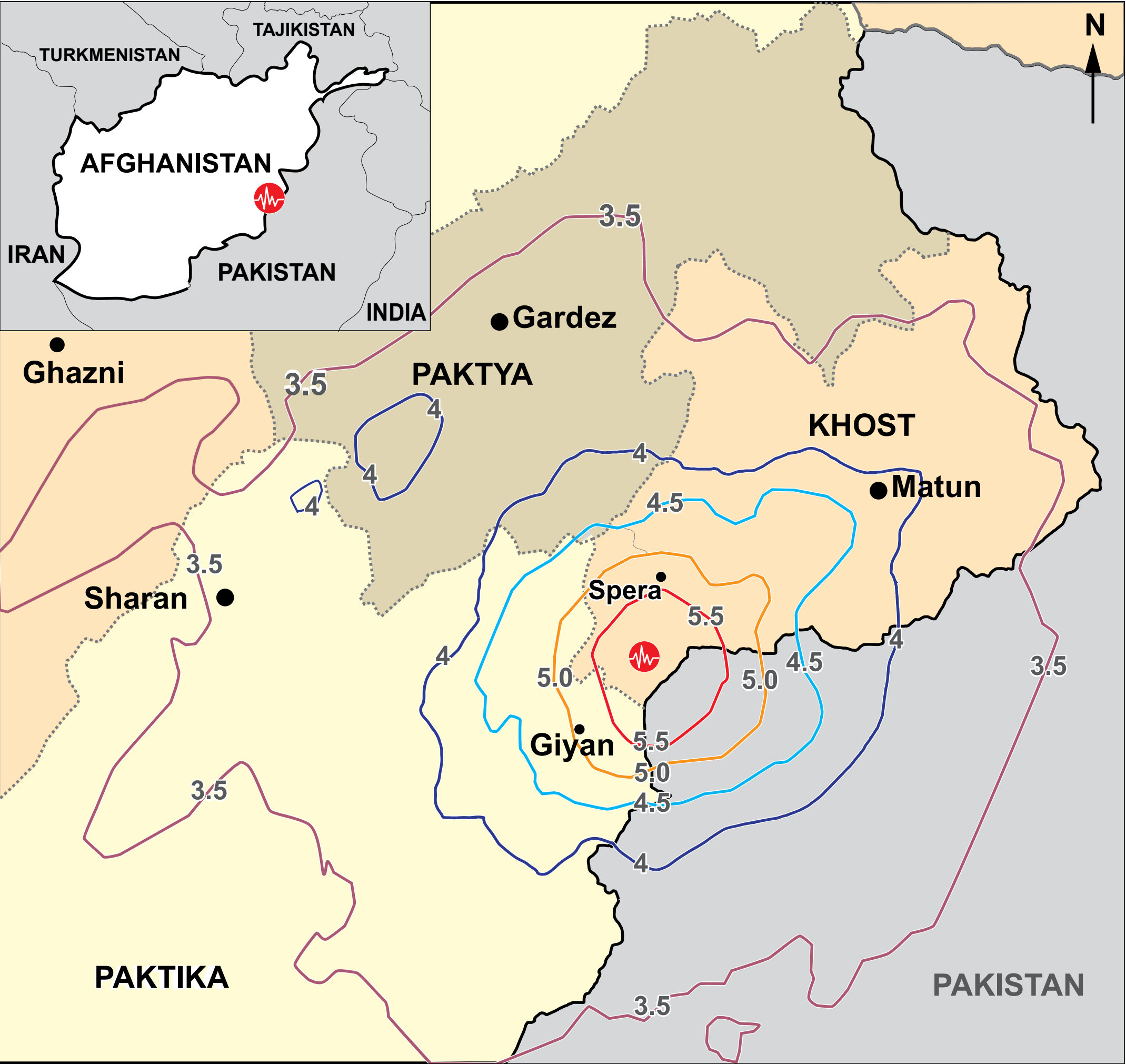
The rose diagram shows the number of cirques facing in different directions in the Lake District.



Total number of cirques = 36

Source: Collard, R. (1988) The Physical Geography of Landscape

FIGURE 6a: EARTHQUAKE INTENSITY, EAST AFGHANISTAN, JUNE 2022



Key:

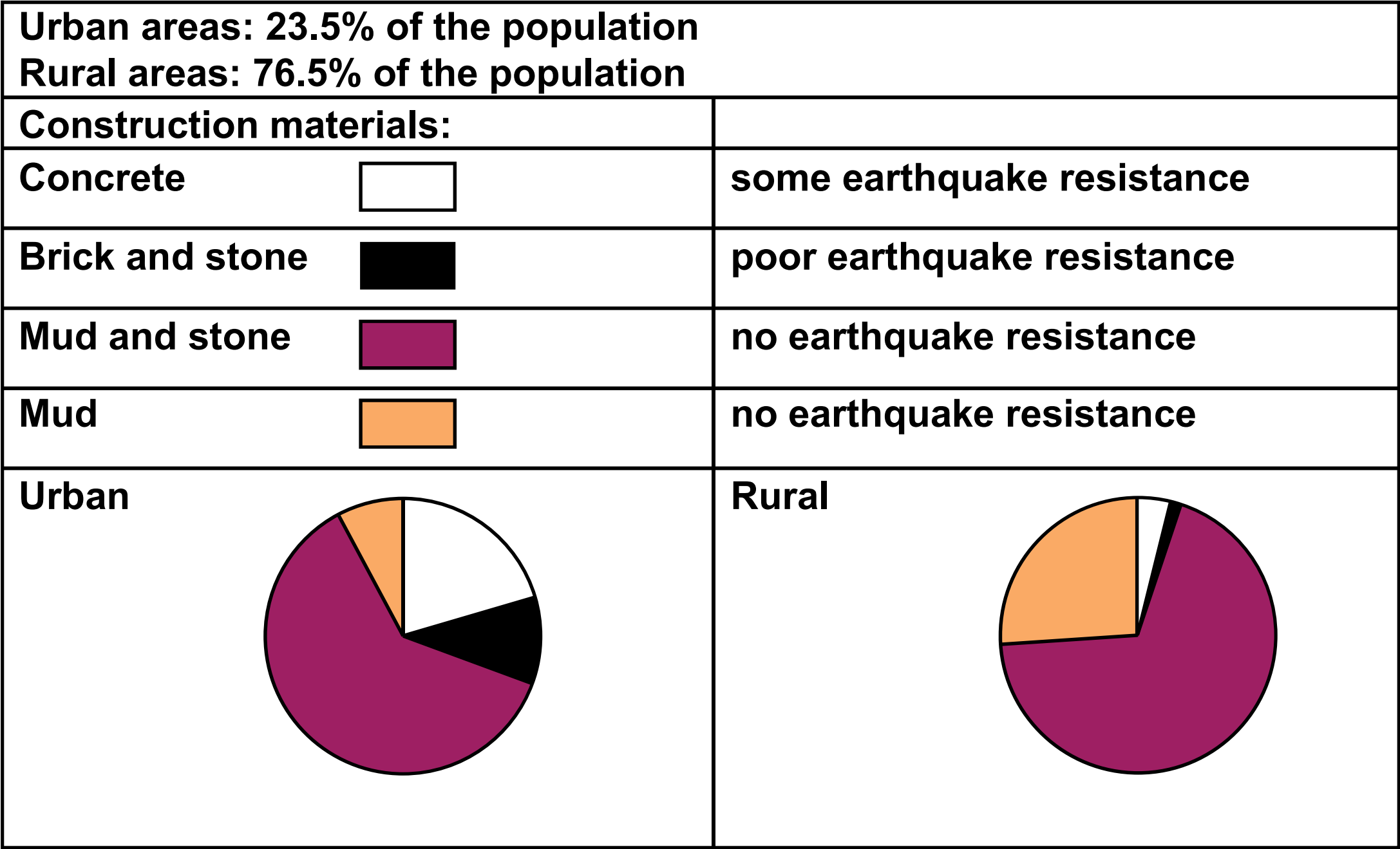
Intensity	Description
5.5	very strong
5	strong
4.5	moderate
4	moderate
3.5	light

- Epicentre
- City
- Village
- border of province

0 50 km

scale

FIGURE 6b: CONSTRUCTION MATERIALS USED FOR BUILDINGS IN AFGHANISTAN



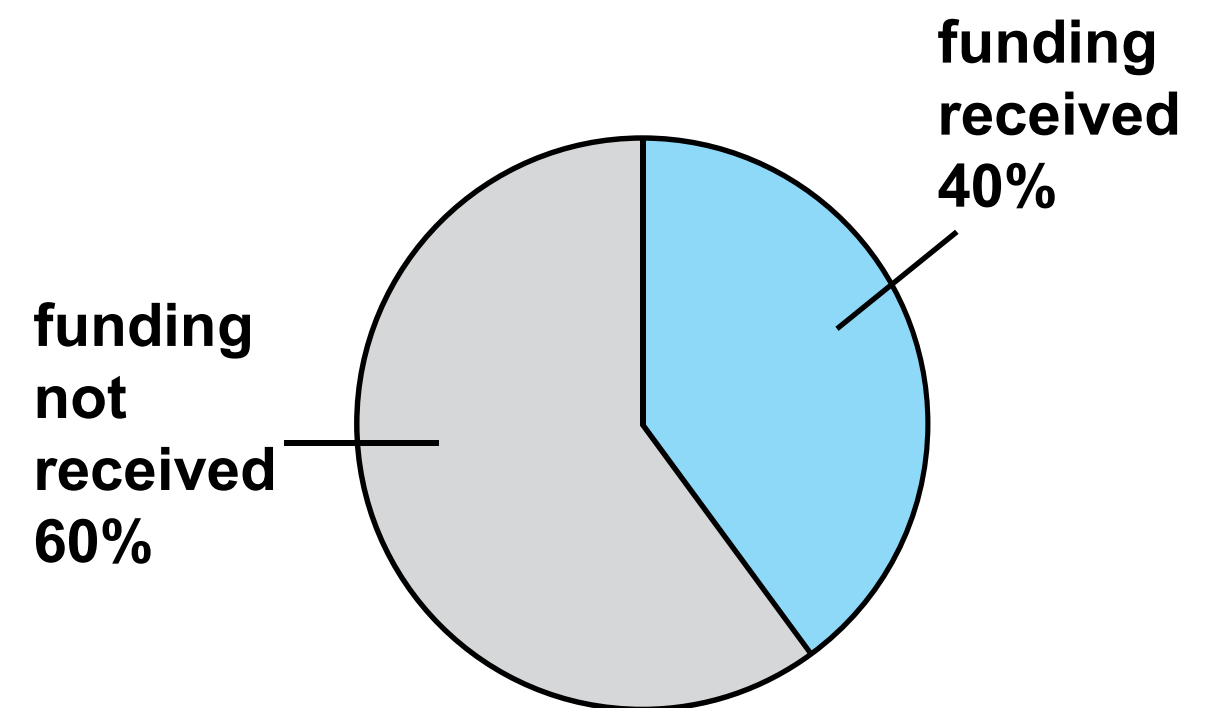
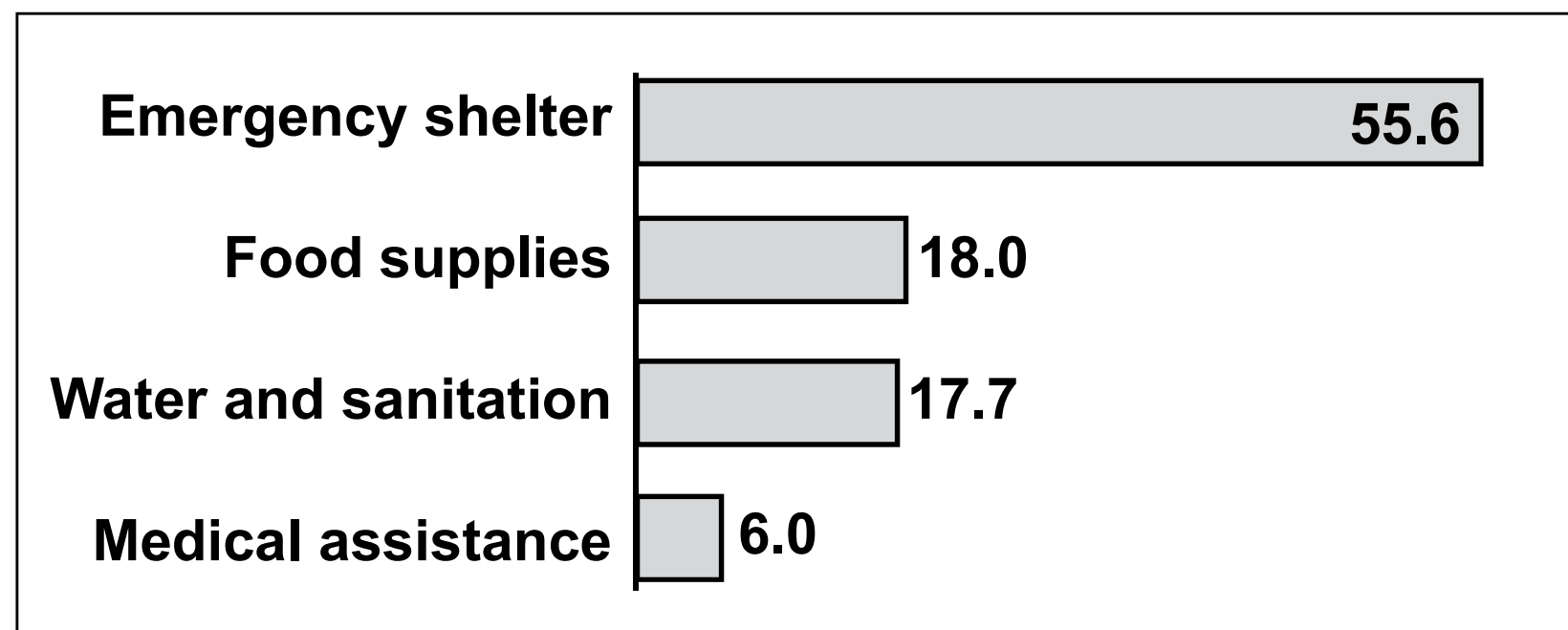
Source: Afghanistan Housing Profile-11October2017.pdf (unhabitat.org)

FIGURE 6c: QUOTE FROM AL JAZEERA, 22 JUNE 2022



Source: At least 1,000 killed after strong earthquake jolts Afghanistan | News | Al Jazeera

FIGURE 6d: FUNDING (US\$ MILLION) REQUIRED FOR RECOVERY FROM THE AFGHANISTAN EARTHQUAKE, 17 JULY 2022



Source: UNOCHA ocha_sitrep_no.1_earthquake_response_17jul2022_final.pdf