



AUSTRALIAN GEOGRAPHY COMPETITION

2023 Year 10

Welcome to the 2023 Australian Geography Competition!

You have **30 minutes** to complete 40 questions.

NOTE: Due to the size of some graphics, you may need to scroll down the page to see the complete graphic.

Some questions require the use of a ruler or calculator. To use, click on the icon at the top right of the screen. To turn off, click the icon again.

If you want to enlarge a graphic or text, click on the magnifying glass at the top left of the screen.

There is a timer count-down at the top left of the screen.

The flag button at the bottom right of the screen can be used as a reminder for a question you flagged.

The tiles button in the top middle of the screen next to the question number takes you to the question overview.

The question overview shows a summary of questions not started, completed or flagged.

Progress summary

Show all	1 Answered	3 Not answered	36 Not read	1 Flagged
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Questions

Click a number to go to that question.

1	2	3	4	5	6	7	8	9
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Supported by

Australian Government Department of Education, THE UNIVERSITY OF MELBOURNE, UNSW SYDNEY, MONASH University, THE UNIVERSITY OF QUEENSLAND ST. LOUIS, Curtin University, Australian Institute for Disaster Resilience

Good luck!

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*note: on a question where this is more than one drop down to be answered, and only one list is visible, all answer options are the same for each of the drop downs

Question 1 of 40 

What is meant by biodiversity?

- interconnected biological processes in an ecosystem
- diverse ways of looking at biology
- the variety of living organisms and their ecosystems
- differences in the total mass of living organisms in an area

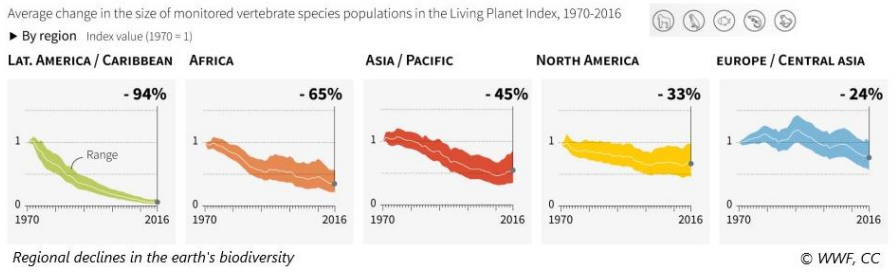
[Back](#)Flag [Next](#) Question 2 of 40 

What is the main cause of biodiversity loss in Australia? Click on the correct answer in the image below.

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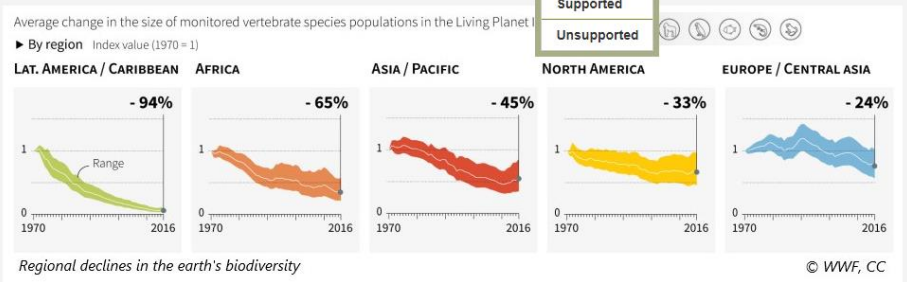
Using the graphs below, which region was most successful in reversing its decline in biodiversity between 2010 and 2016?

- North America
 Asia/Pacific
 Africa
 Europe/Central Asia



Are these statements relating to biodiversity changes between 1970 and 2016 supported or unsupported by the information in the graphs? Classify them by choosing the correct drop-down word.

- | Statement | Supported/Unsupported |
|--|-----------------------|
| 33% of North America's vertebrate species have become extinct. | <input type="text"/> |
| Developing countries have suffered the worst declines. | <input type="text"/> |
| China has improved its protection of biodiversity. | <input type="text"/> |
| The worst period for biodiversity loss has been since 2010. | <input type="text"/> |



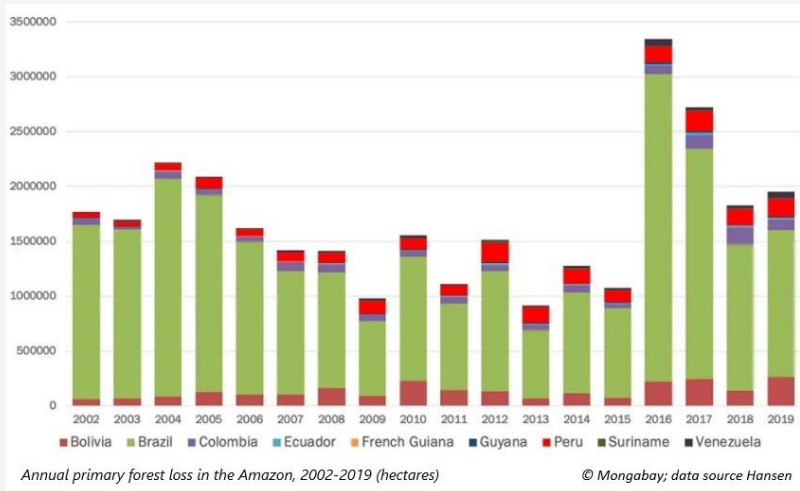


Question 5 of 40



Using the graph below, approximately how many hectares of primary forest were lost in Brazil in 2014?

- 940,000
 1,100,000
 1,250,000
 1,500,000



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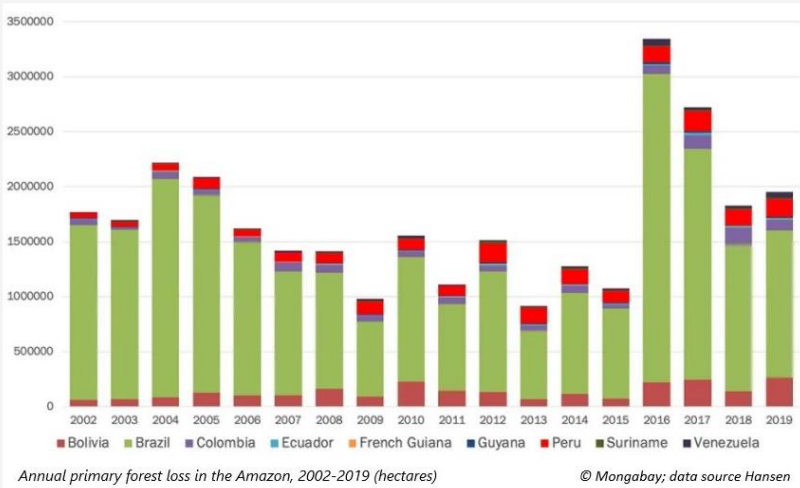


Question 6 of 40



What would be the main reason for the change in Amazonian forests in 2016, as seen in the graph?

- change of government protection policy in Brazil
 forest dieback because of climate change
 insect infestation from adjacent boreal forest
 forest fires set by Indigenous communities



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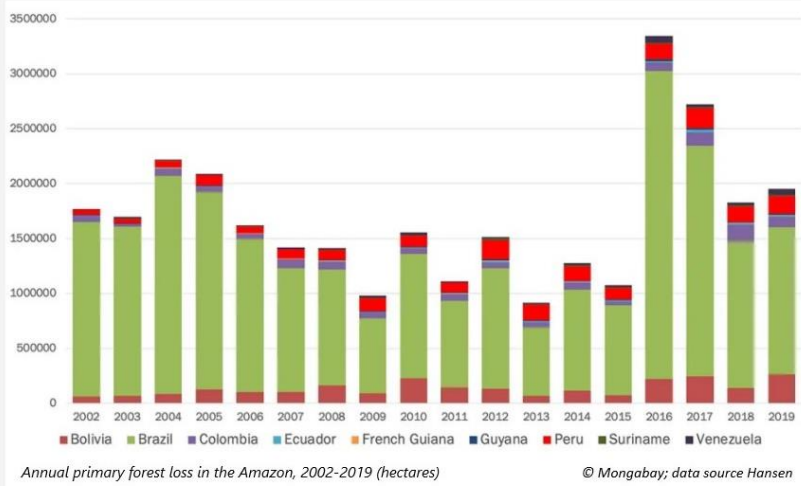
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Question 7 of 40

Why does the majority of the Amazonian forest loss occur in Brazil?

- The other Amazonian countries have much smaller areas of forest.
- The other Amazonian countries are more economically developed.
- The forest areas in the other Amazonian countries are too remote to reach.
- Other Amazonian countries do not allow the destruction of forest.



Question 8 of 40

What is the primary reason that countries such as Norway contribute to the Amazon Fund to preserve the rainforest?

- to reduce greenhouse gas emissions
- to protect local communities from harm
- to prevent the waste of valuable timber resources
- to ensure the survival of endemic species

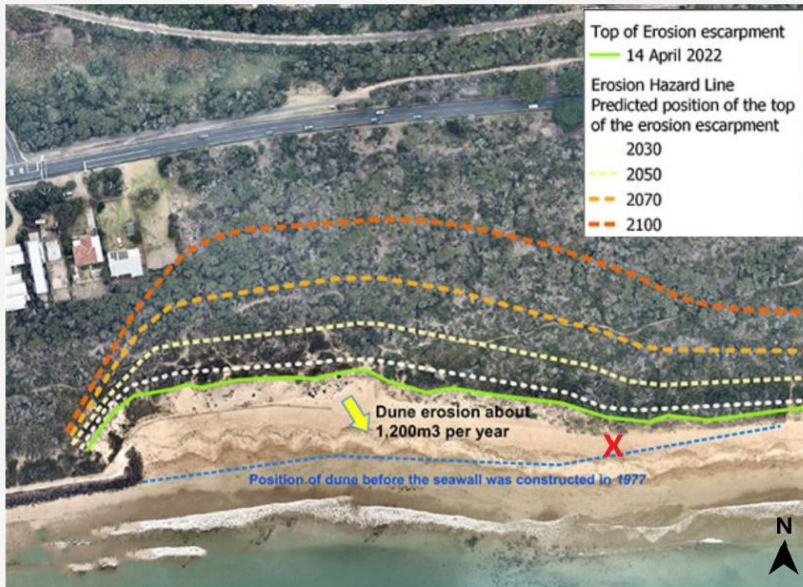


Question 9 of 40



Which process best explains the pattern of erosion shown in the image below?

- terminal scouring at the end of the seawall
- differential erosion of the beach material
- disruption of the pattern of swash and backwash
- longshore drift removing sand from the beach



Estimated erosion, Dog Beach, Point Lonsdale/Queenscliff, Vic

© State of Victoria, DELWP

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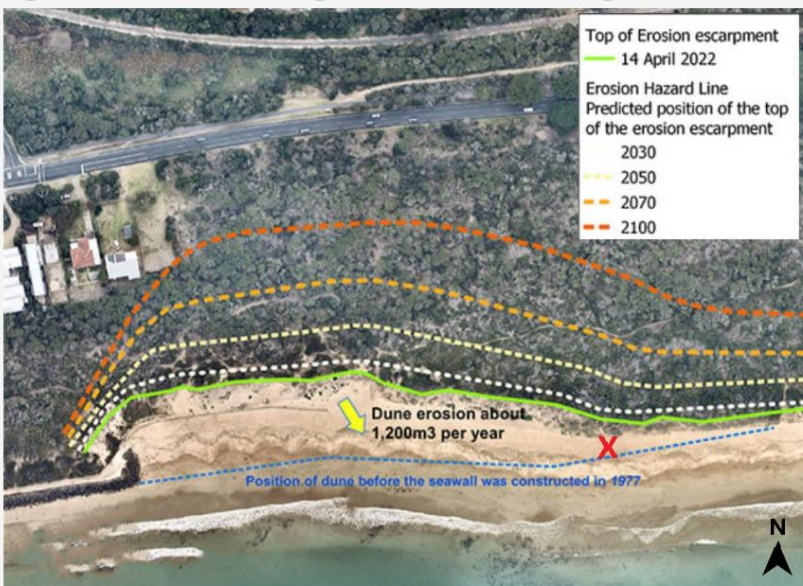


Question 10 of 40



What would be a short-term, soft-engineering strategy to lessen the erosion problem seen in the image?

- extending the sea wall
- constructing a groyne
- beach nourishment
- creating rock revetements



Estimated erosion, Dog Beach, Point Lonsdale/Queenscliff, Vic

© State of Victoria, DELWP

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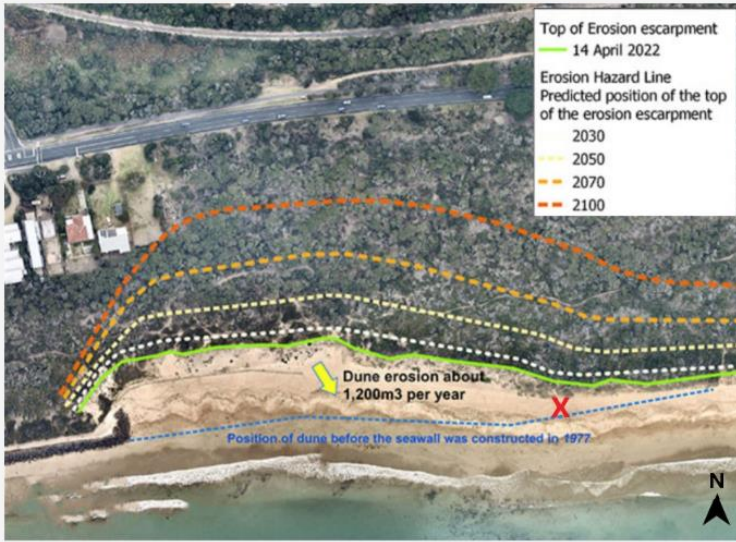
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Question 11 of 40

What would be the probable effects of constructing a groyne where the red X is marked on the image? Select all that apply.

- an increase in sediment deposition and a wider beach area to the west of the groyne
- no effect on sediment transport and beach morphology
- a decrease in sediment deposition and a narrower beach area to the west of the groyne
- a change in wave direction resulting in increased erosion on the east of the groyne



Estimated erosion, Dog Beach, Point Lonsdale/Queenscliff, Vic

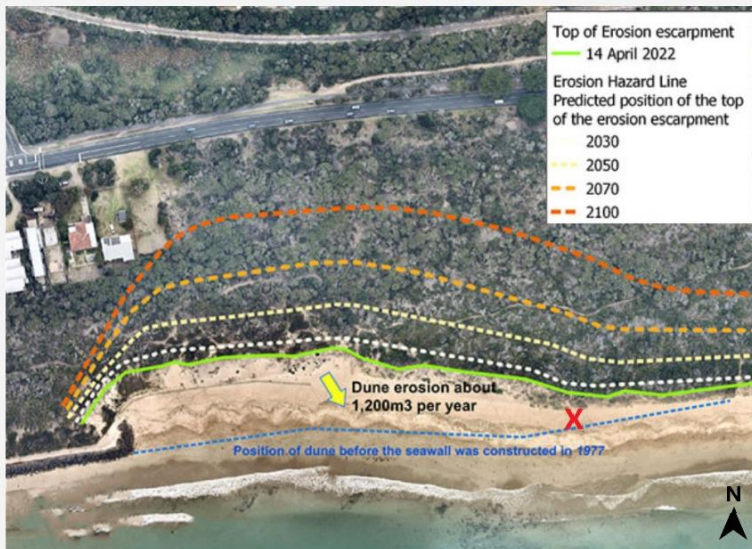
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Question 12 of 40

Which problem does the image highlight?

- natural wave erosion of beaches
- sea level rise
- rising values of coastal property
- development planning on coasts



Estimated erosion, Dog Beach, Point Lonsdale/Queenscliff, Vic

© State of Victoria, DELWP

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Question 13 of 40

Aboriginal peoples in Australia commonly manipulated the land to enhance food availability through:

- controlled burning
- irrigation systems
- crop rotation
- contour ploughing

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Question 14 of 40

CSIRO has studied the wide-ranging benefits associated with Indigenous land management. Classify these benefits by dragging and dropping the appropriate text into the table.

	Cultural and sociopolitical	Economic	Environmental	Health and well-being
Category				
	☐			
	☐			
	☐			
	☐			
Benefit example				
				Better diet reducing lifestyle risk factors
				Support for intergenerational transfer of knowledge
				Creation of saleable carbon credits
				Lower rates of weed infestation

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Question 15 of 40



Problem in farming area

© NSW DPI

Which of these human activities is most likely to have caused the problem shown in the image?

- clearing deep-rooted native vegetation
- building fences and gates
- planting improved pasture grasses
- anthropogenic climate change

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Problem in farming area

© NSW DPI

Which of these is a suitable response to the problem shown in the image?

- planting rows of pine trees
- irrigating the land more intensively
- ploughing the land to break the surface
- planting salt tolerant plants, e.g. saltbush

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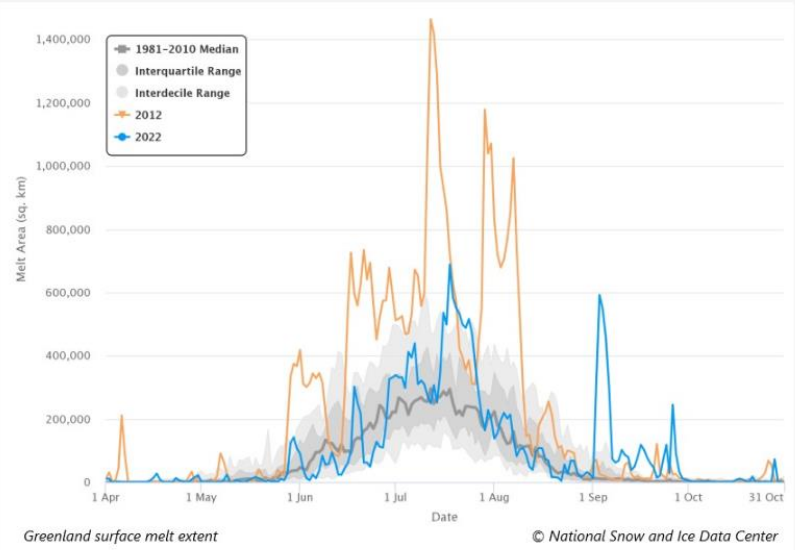
Which type of image is this?

- aerial
- satellite
- terrestrial
- macro

Question 18 of 40

Using the graph below, which of these statements is true?

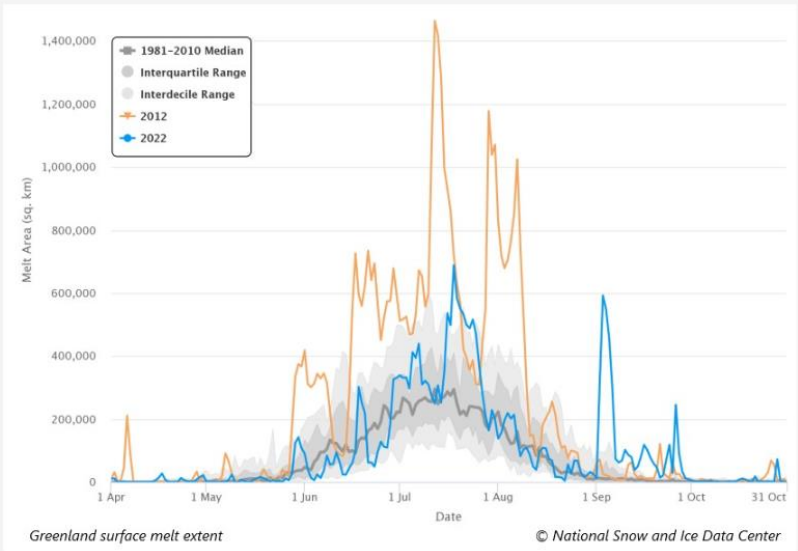
- The extent of ice melt in 2022 was greater than in 2012.
- The extent of ice melt in Greenland is naturally variable.
- The interdecile range is by definition smaller than the interquartile range.
- The extent of the ice melt increases each year.



Question 19 of 40

What are some of the effects in Greenland of the trend shown in the graph? Select all that apply.

- Mineral and hydrocarbon resources are becoming easier to exploit.
- Traditional hunting and fishing practices of the Inuit have been disrupted.
- Greenland's total land area is increasing.
- Increased sea ice is improving the polar bears' hunting in southern Greenland.



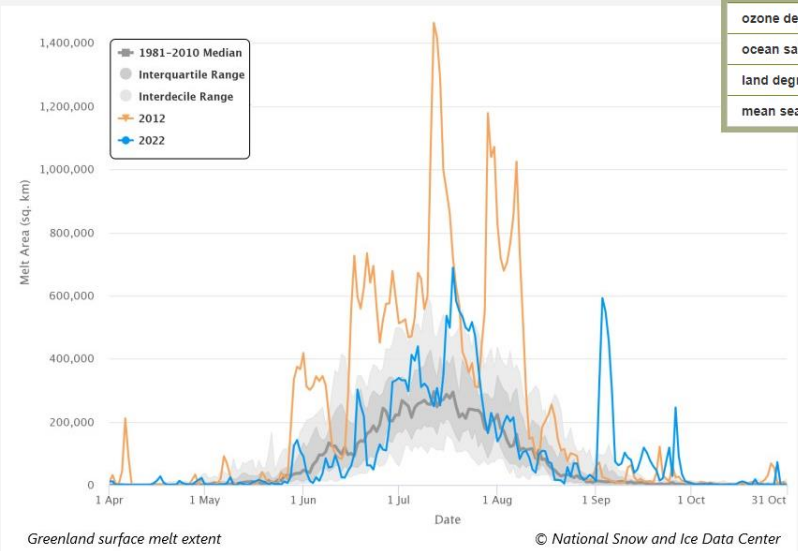
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Choose the drop-down text that correctly completes the sentence.

The trend shown in the graph is of interest to Pacific Island communities because it will lead to an increase in

- ozone depletion
- ocean salinity
- land degradation
- mean sea level



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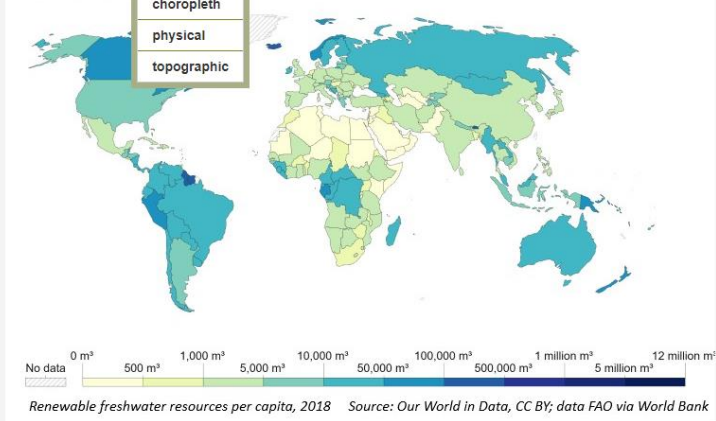


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The map below is a _____ map.

Renewable internal freshwater resources refer to internal renewable resources (internal river flows and groundwater from rainfall) in the country.



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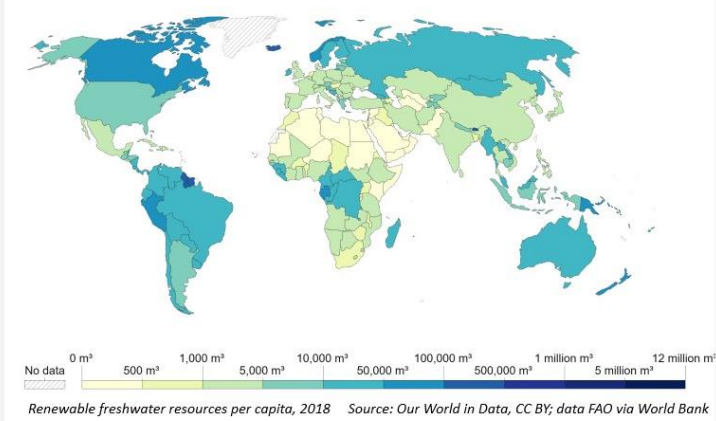
Question 22 of 40



Australia is classified in the medium range in the map below mainly because of its:

- low population
- high population
- low rainfall
- high rainfall

Renewable internal freshwater resources refer to internal renewable resources (internal river flows and groundwater from rainfall) in the country.



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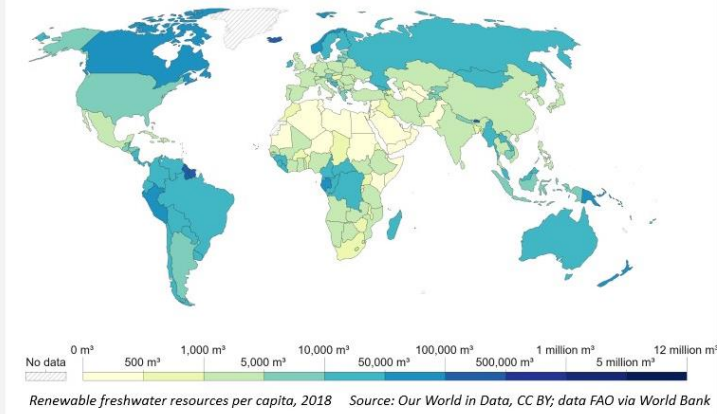
Question 23 of 40



Which is the most significant limitation of the data shown in the map?

- does not include country name labels
- does not show variation within countries
- missing data for one country
- does not show major dams

Renewable internal freshwater resources flows refer to internal renewable resources (internal river flows and groundwater from rainfall) in the country.



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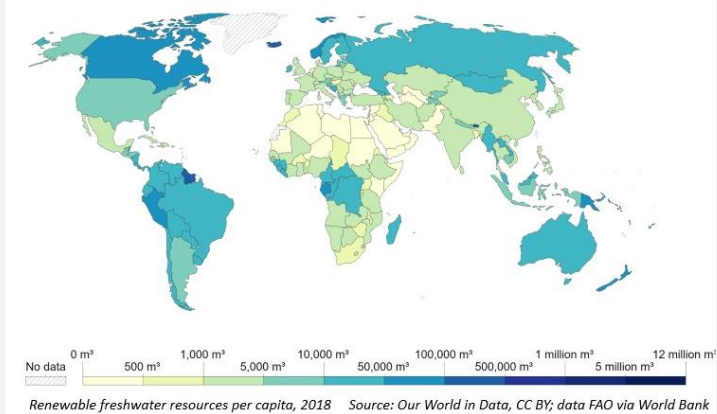
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India experiences more water stress than Egypt. What information is missing from the map that would explain this?

- rainfall
- water use
- population
- area

Renewable internal freshwater resources flows refer to internal renewable resources (internal river flows and groundwater from rainfall) in the country.



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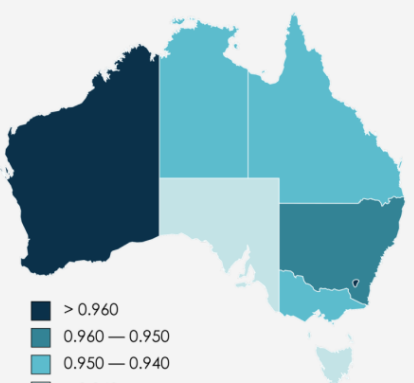
Question 25 of 40

Which of these initiatives are most likely to help reduce the risk of water scarcity for residents? Select all that apply.

- recycling water
- promoting water conservation measures
- privatising the water supply
- deregulating discharge from sewage treatment facilities

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> 0.960
 0.960 — 0.950
 0.950 — 0.940
 < 0.940

Human Development Index (HDI) scores by state, 2021
© A Hunter, CC BY SA 4.0; data Global Data Lab

Drag and drop these states in order from highest Human Development (HDI) score to lowest.

New South Wales

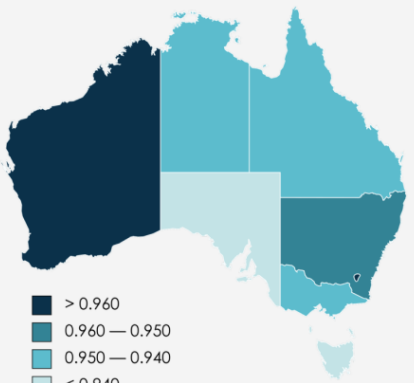
South Australia

Victoria

Western Australia

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life expectancy at birth
 expected years of schooling
 mean years of schooling
 gross income per capita

Human Development Index (HDI) scores by state, 2021
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Drag and drop the Human Development Index (HDI) scores to correctly match the countries below.

0.478 0.730 0.921 0.962

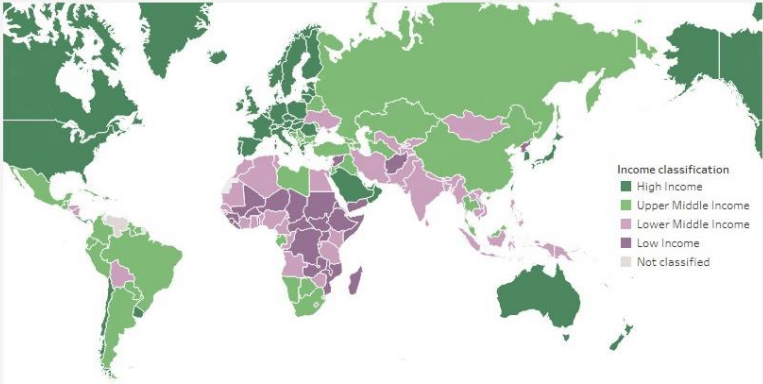
Country	HDI score
Afghanistan	<input type="text"/>
Fiji	<input type="text"/>
Switzerland	<input type="text"/>
USA	<input type="text"/>

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Using the map below, which of the following statements are correct? Select all that apply.

- Africa has a high number of low-income countries.
- Australia is an upper-middle-income country.
- Australia is wealthier than most of the countries in its region.
- The distribution of low-middle-income countries across the world is random.



World Bank country classification by income level, 2021 © World Bank, CC BY 4.0

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The EIU Liveability Index is another way of measuring the quality of life. It measures 30 factors in 5 categories. Drag and drop the category into the table below to correctly classify the selected factors.

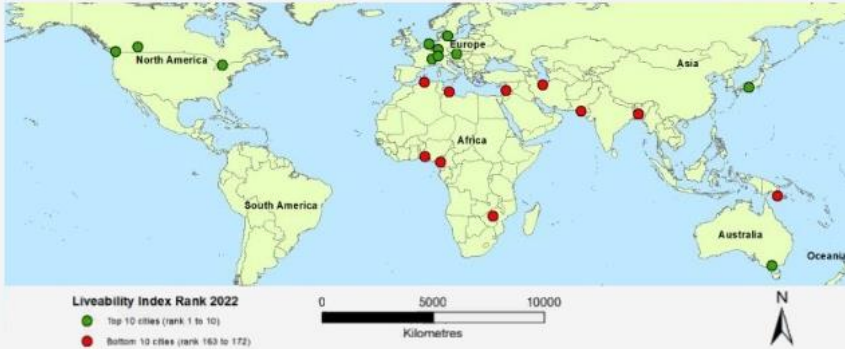
	Culture & environment Education Healthcare Infrastructure Stability
Category	Selected factor
<input type="text"/>	Availability of over-the-counter drugs
<input type="text"/>	Public education indicators
<input type="text"/>	Quality of water provision
<input type="text"/>	Social or religious restrictions
<input type="text"/>	Threat of civil unrest/conflict

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Which of these statements is correct based on the TWO maps below? (Scroll down to see all the maps.)

- Liveability and income level are not connected.
- A city's liveability has a strong correlation with its country's income level.
- It is probable that cities in a low-income country will have a high liveability rank.
- It is probable that cities in a high-income country will have a low liveability rank.



Global Liveability Index 2022: 10 most liveable and least liveable cities

Data source: Economist Intelligence Unit



World Bank country classification by income level, 2021

© World Bank, CC BY 4.0

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Based on the photo below, which of these factors could best be addressed to improve the liveability of Dharavi? Select all that apply.

- climate
- infrastructure
- environmental quality
- tradition and spiritual connection
- feeling of connection to family and community



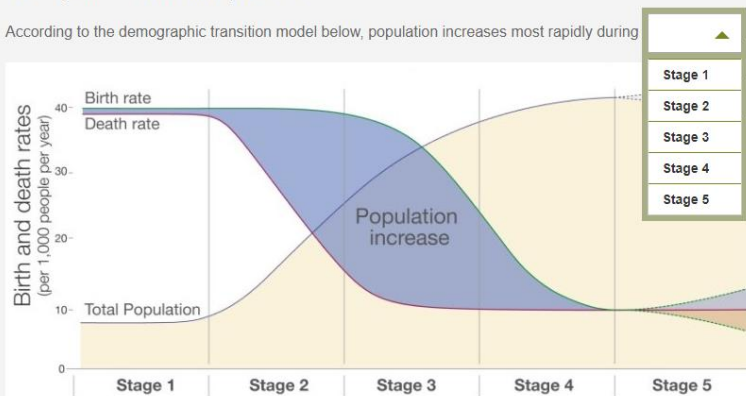
Dharavi, Mumbai, India

© Erin, CC BY 2.0

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Choose your answer from the drop-down text.

According to the demographic transition model below, population increases most rapidly during

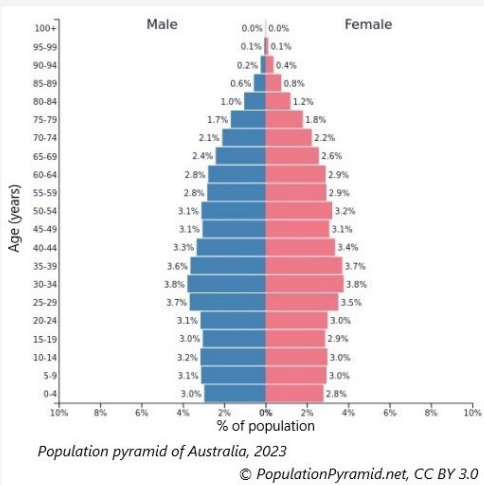
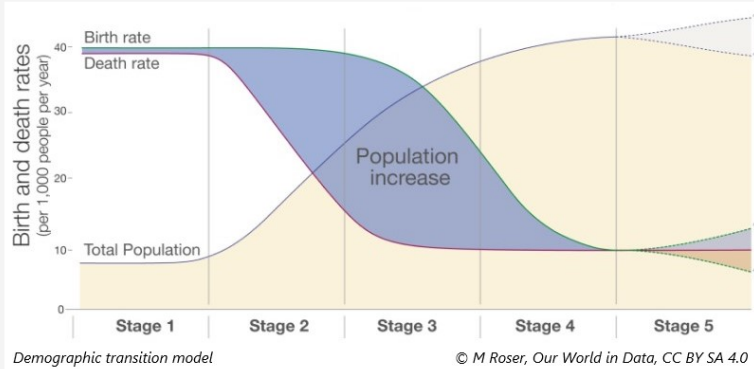


Demographic transition model

© M Roser, Our World in Data, CC BY SA 4.0

Stage 5 was added to the model to account for the declining population of some countries. What is the main reason for this decline?

- death rate from lifestyle diseases increasing
- availability of birth control
- large families no longer needed to support the elderly
- birth rate dropping below replacement level

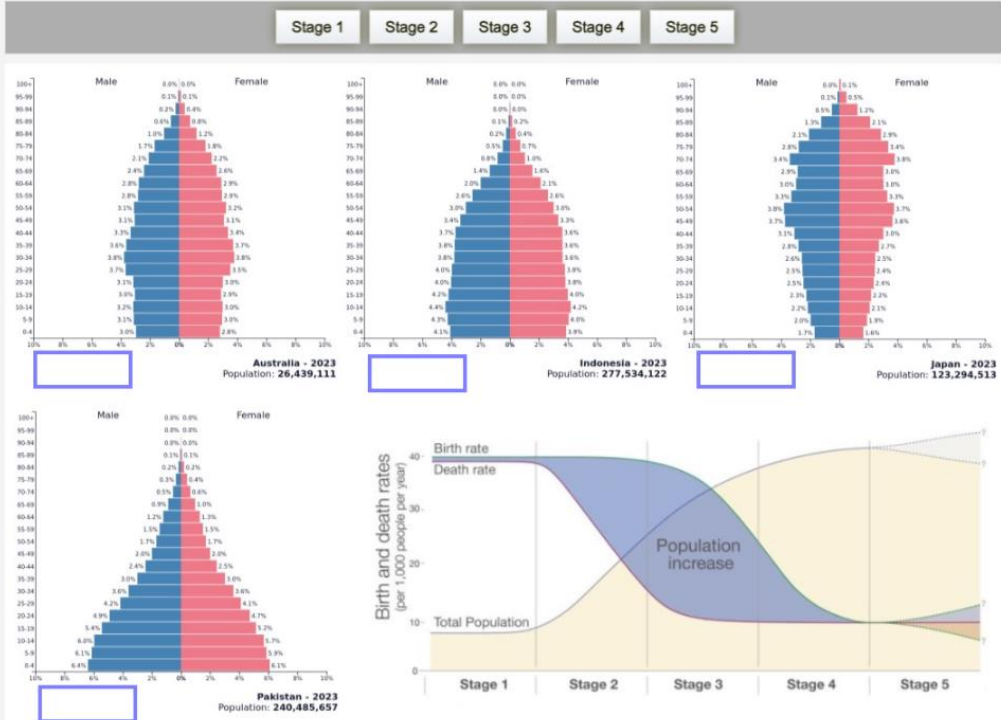


Based on its population pyramid, what is an accurate description of Australia's population structure in 2023?

- constrictive
- expansive
- stationary



Which stages of the demographic transition model are represented by the four population pyramids? Drag your answers below the appropriate graph.



Population pyramids of selected countries
© PopulationPyramid.net, CC BY 3.0

© M Roser, Our World in Data, CC BY SA 4.0

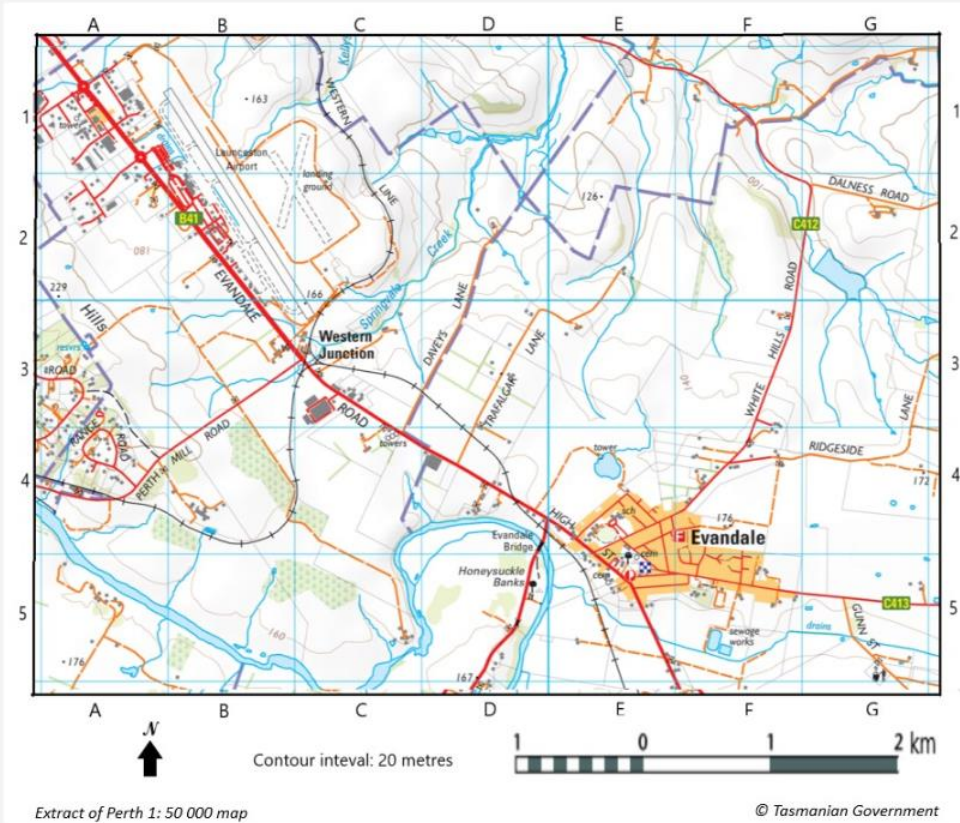
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Using the map, in approximately which direction would you be driving to go from Evandale to Western Junction?

- WNW
 SSE
 NNW
 ESE



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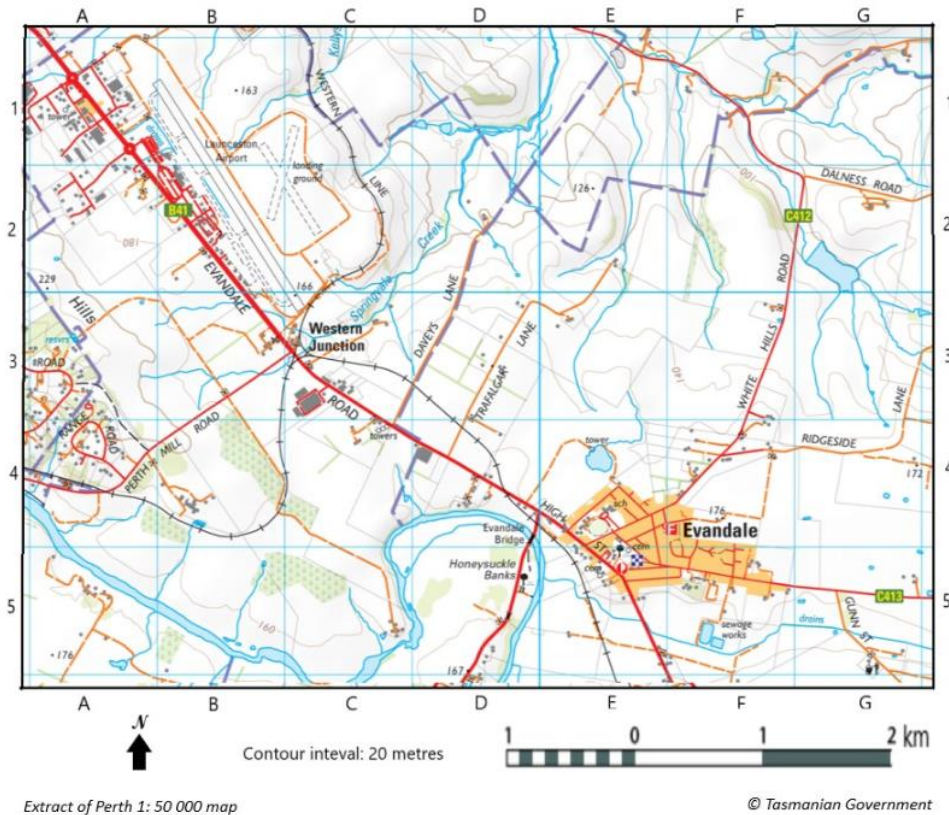
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Drag and drop the number that correctly completes the sentence. You may need to scroll down to see all the map.

- 150 170 190 200

The plantation shown in grid square C5 on the map is approximately metres above sea level.



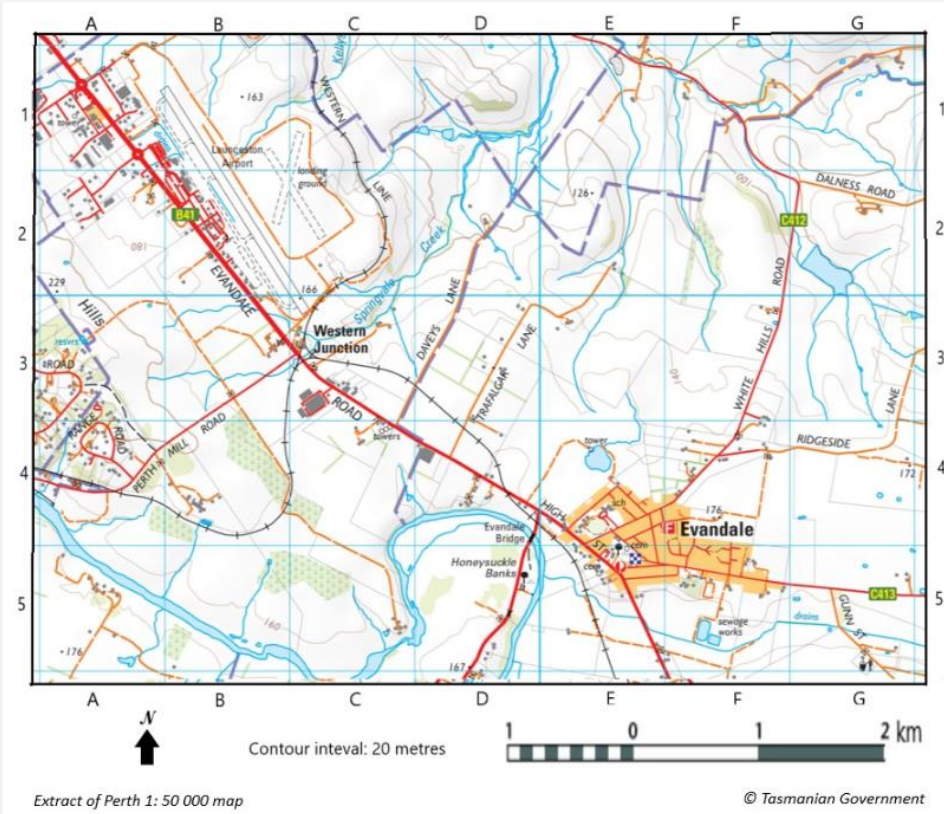
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Which of these is located in grid square G2 on the map?

- farm dam
 hydroelectric station
 lagoon
 swamp



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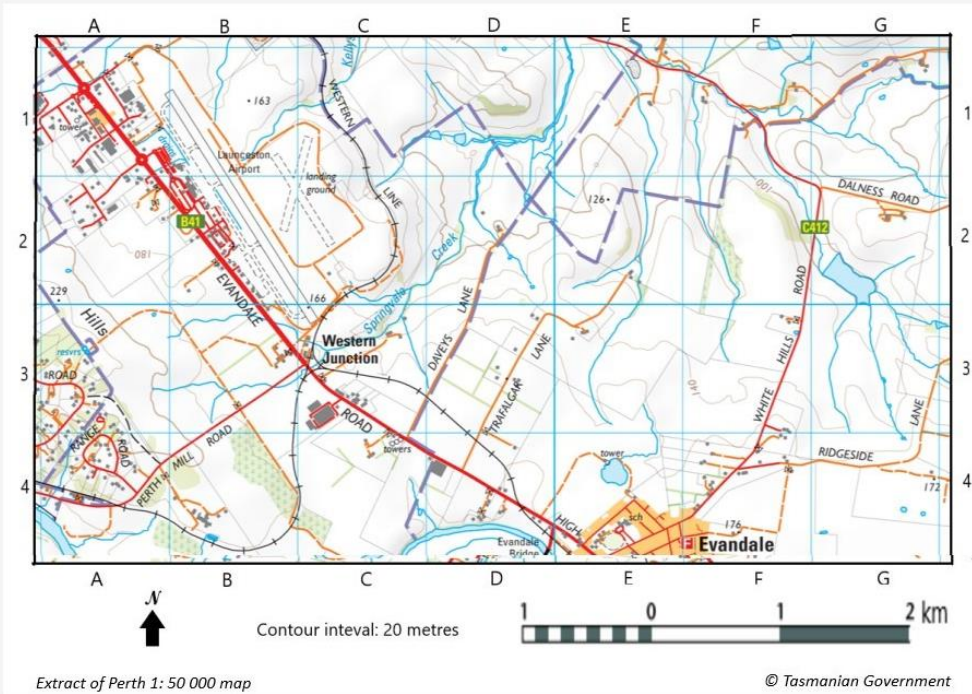
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Drag and drop the number that correctly completes the sentence. You may use the on-screen ruler - click on the symbol in the top right corner, drag and rotate it.

- 1.2 2.1 3.2 4.3

Using the map below, the length of Launceston Airport's main runway (see B1) is approximately km.



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