

Question 1

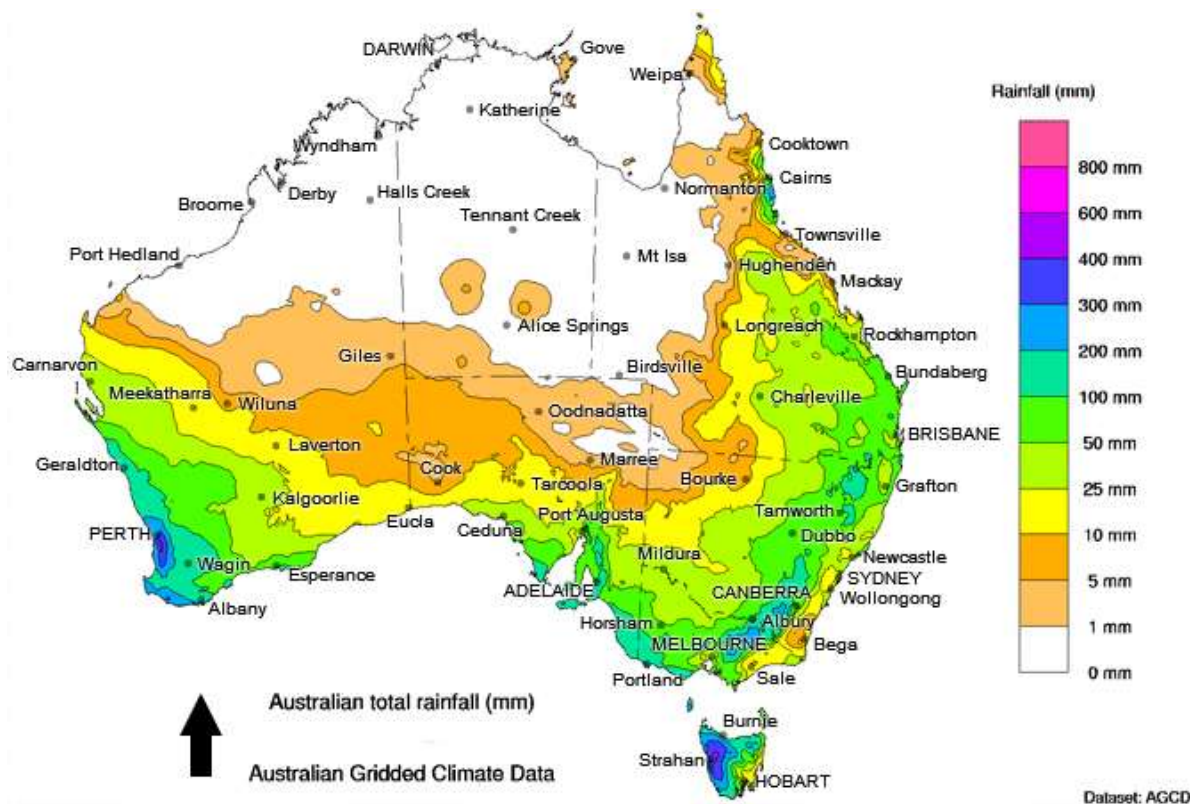
This document has been uploaded so that teachers or students can look over the questions that students have answered correctly or incorrectly. They contain none of the interactive elements of the online competition. Some of the wider graphics are missing their edges but the skill/knowledge required by the student to answer the question remains clear.

1. How much rain did Kalgoorlie (WNW of Perth) receive in the month presented in the map?

- 31 mm 1
- 65 mm 2
- 127 mm 3
- 209 mm 4

Australian total rainfall for selected month in 2021

© Commonwealth of Australia, Bureau of Meteorology



Question 2

2. Given the pattern of rainfall, from which season is the data in the map?

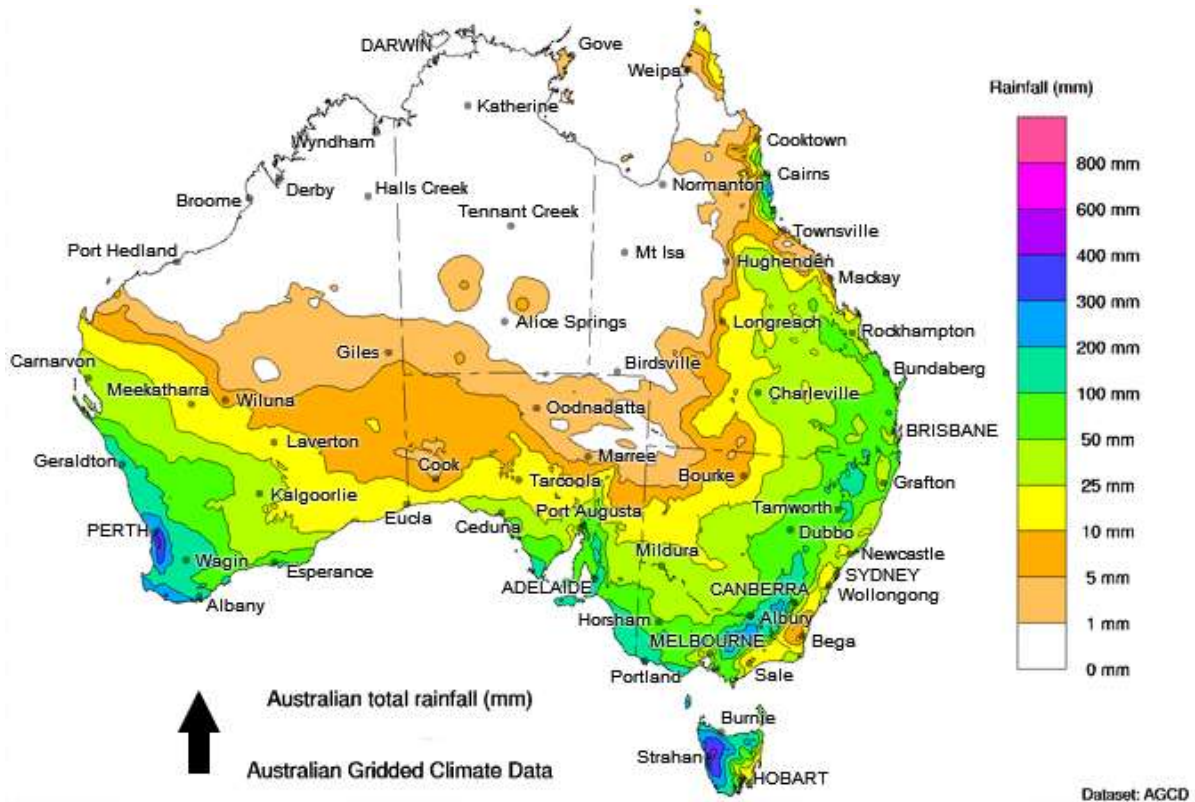
Drag and drop the answer.

summer autumn winter spring

The map is for a month in winter.

Australian total rainfall for selected month in 2021

© Commonwealth of Australia, Bureau of Meteorology



Question 3

3. Which of these is the definition of water scarcity?

- one of the resources provided by nature 1
- not enough water to meet standard demands 2
- areas with low rainfall 3
- a finite amount of water; once used it cannot be used again 4

Question 4

4. What are the steps in the formation of a rain shadow? Number the events in the table in the correct sequence.

Enter the numbers in the boxes.

Order	Rain shadow formation steps
<input type="text" value="3"/>	On the far side of the mountain range, the air has lost most of its moisture and warms as it descends.
<input type="text" value="2"/>	The moist air cools as it rises, condensing and producing rain.
<input type="text" value="4"/>	This warmer, drier air means rain is less likely on the far side of the mountain range.
<input type="text" value="1"/>	Moist prevailing winds blowing in from the ocean rise up when they are blocked by a mountain range.

Question 5

5. Australia has three major landform regions, as shown on the map.
Which landform regions match the descriptions in the table?

Eastern Uplands

Western Plateau

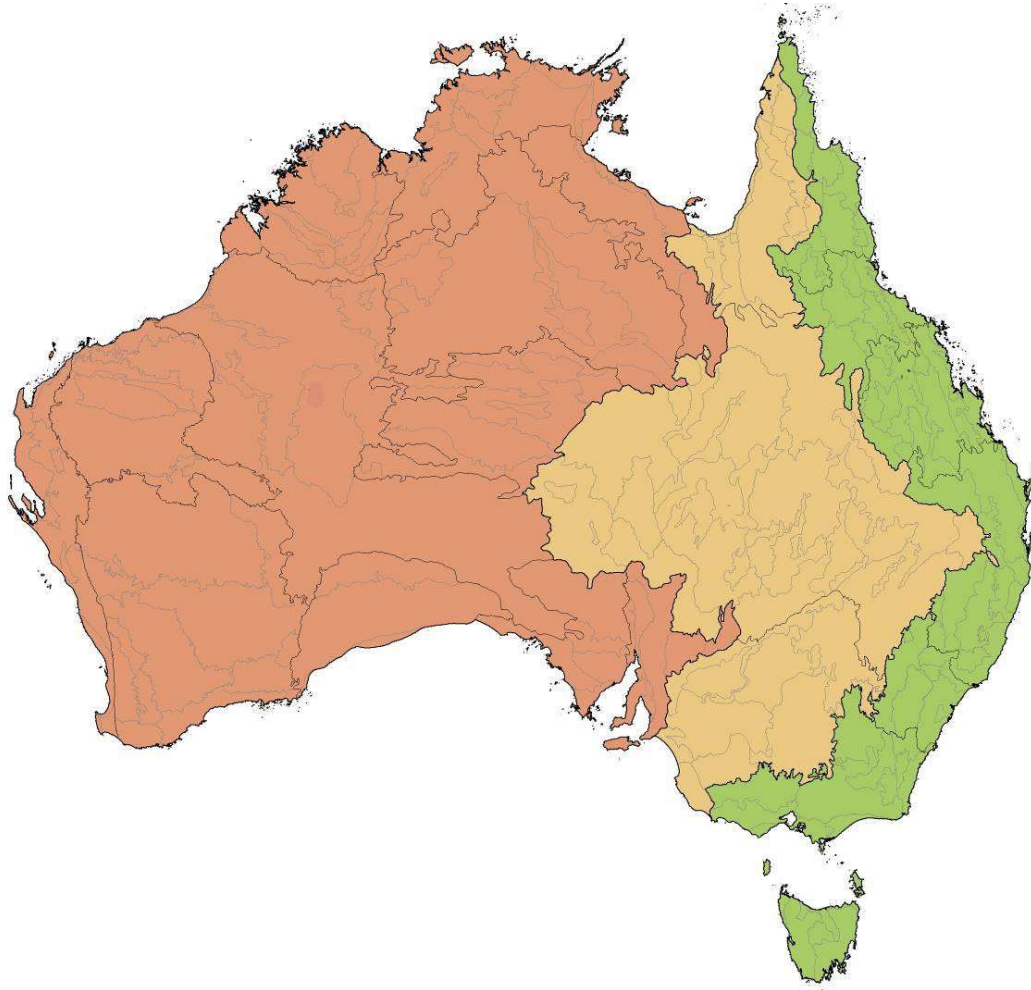
Interior Lowlands

Landform region	Description
Interior Lowlands	a large area of very flat, low-lying plains
Eastern Uplands	a series of high plateaus with a steep escarpment on the coastal side and a gentler slope inland
Western Plateau	a vast area of relatively flat tablelands including stony and sandy deserts

Map is on next page in the pdf.

Landform regions of Australia

© Australian Collaborative Land Evaluation Program



Question 6

6. Which type of landform is depicted inside the black circle on the map?

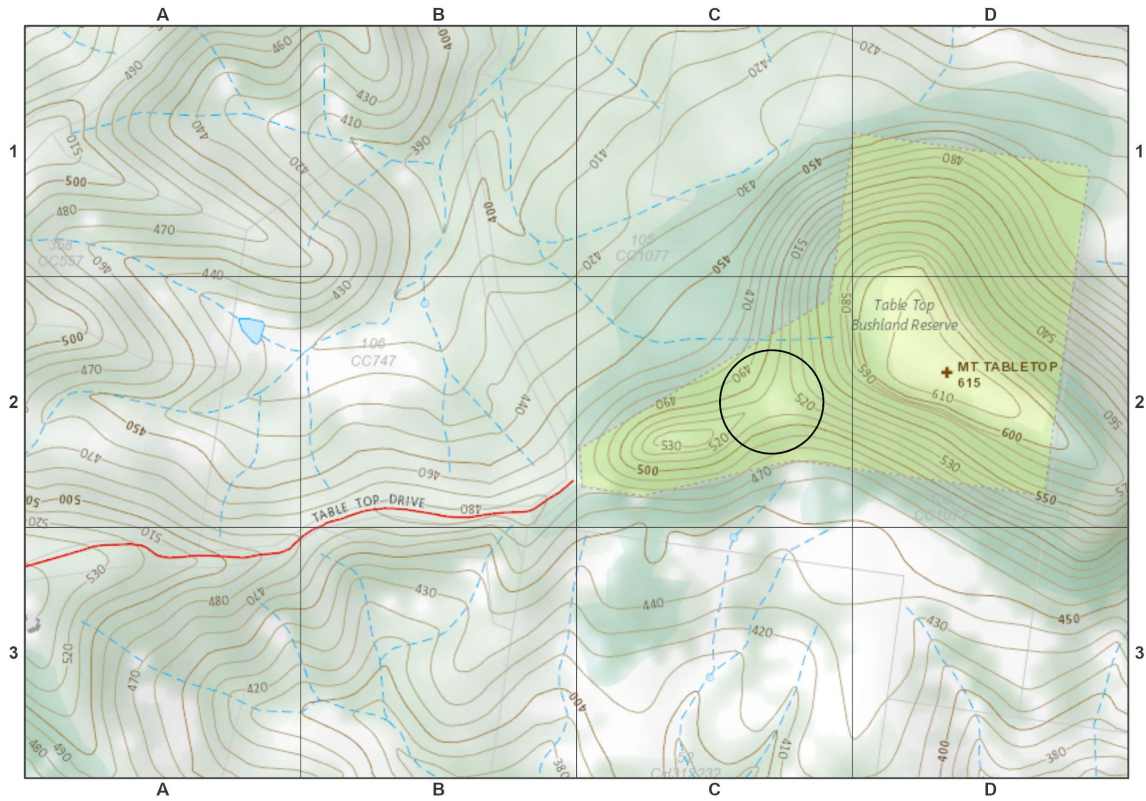
Choose the answer from the drop-down menu.

- cliff
- saddle
- valley
- spur

The landform shown inside the black circle is a .

Mount Tabletop map extract

© State of Queensland, Department of Resources



Question 7

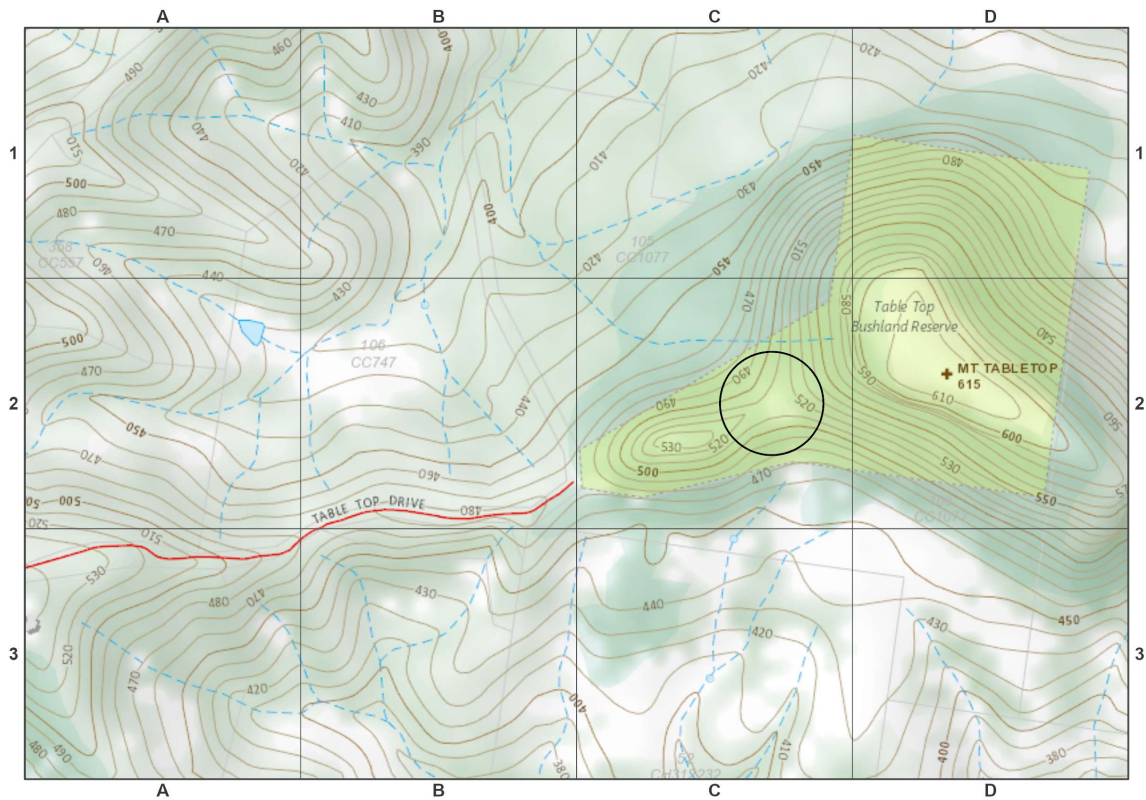
7. What is the height of the highest point on the map?

Enter the number in the box.

615 m

Mount Tabletop map extract

© State of Queensland, Department of Resources



Question 8

8. Which labels match the features of a volcano marked A to E in the diagram?

Drag and drop the answers.

caldera lava magma side vent igneous rock

Label A

Label B

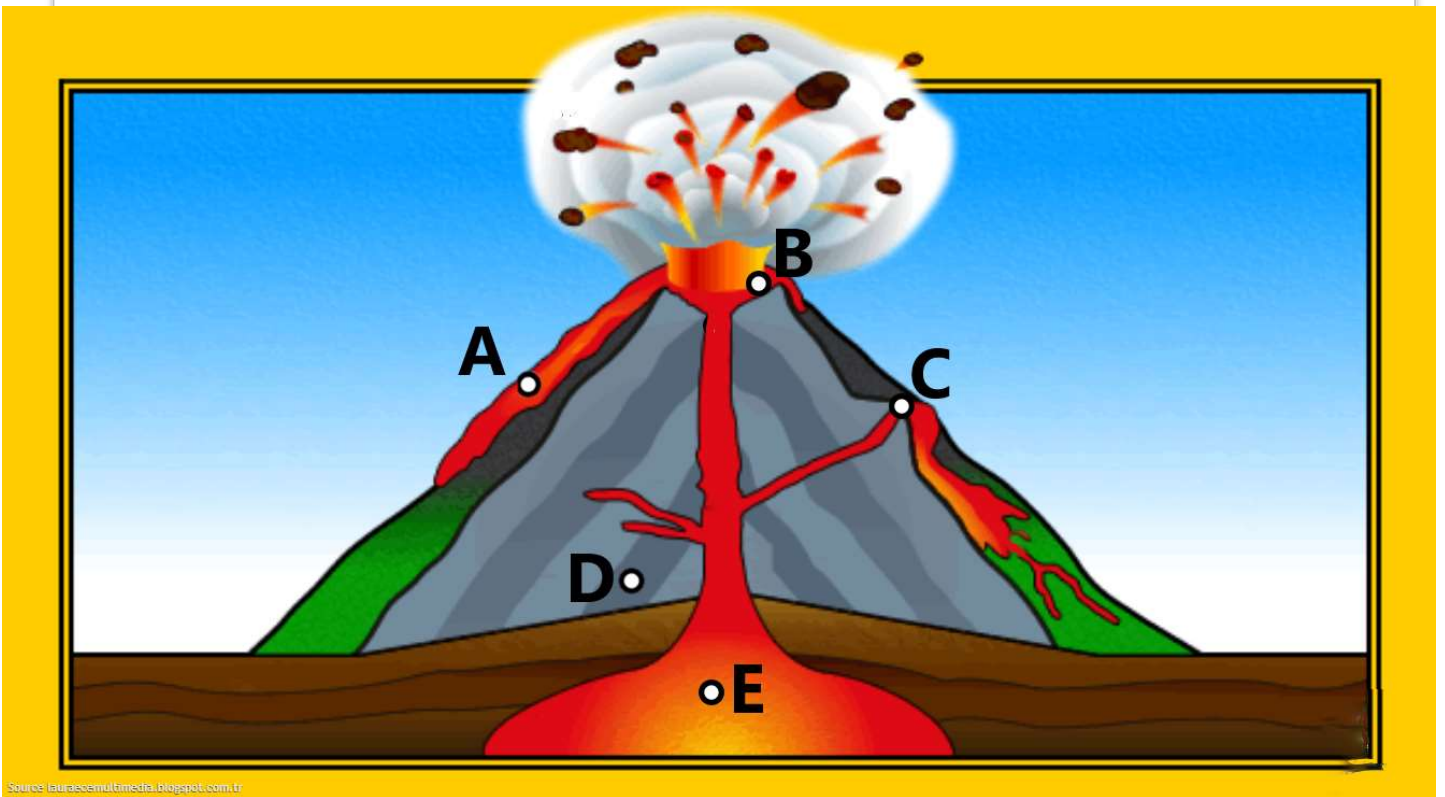
Label C

Label D

Label E

Cross section of a volcano

Source: Western Oregon University



Source: lauraesemultimedia.blogspot.com.tr

Question 9

9. Which three of these are types of volcano?

Select ALL correct options

shield volcano 1

cinder cones 2

shell volcano 3

lava domes 4

Question 10

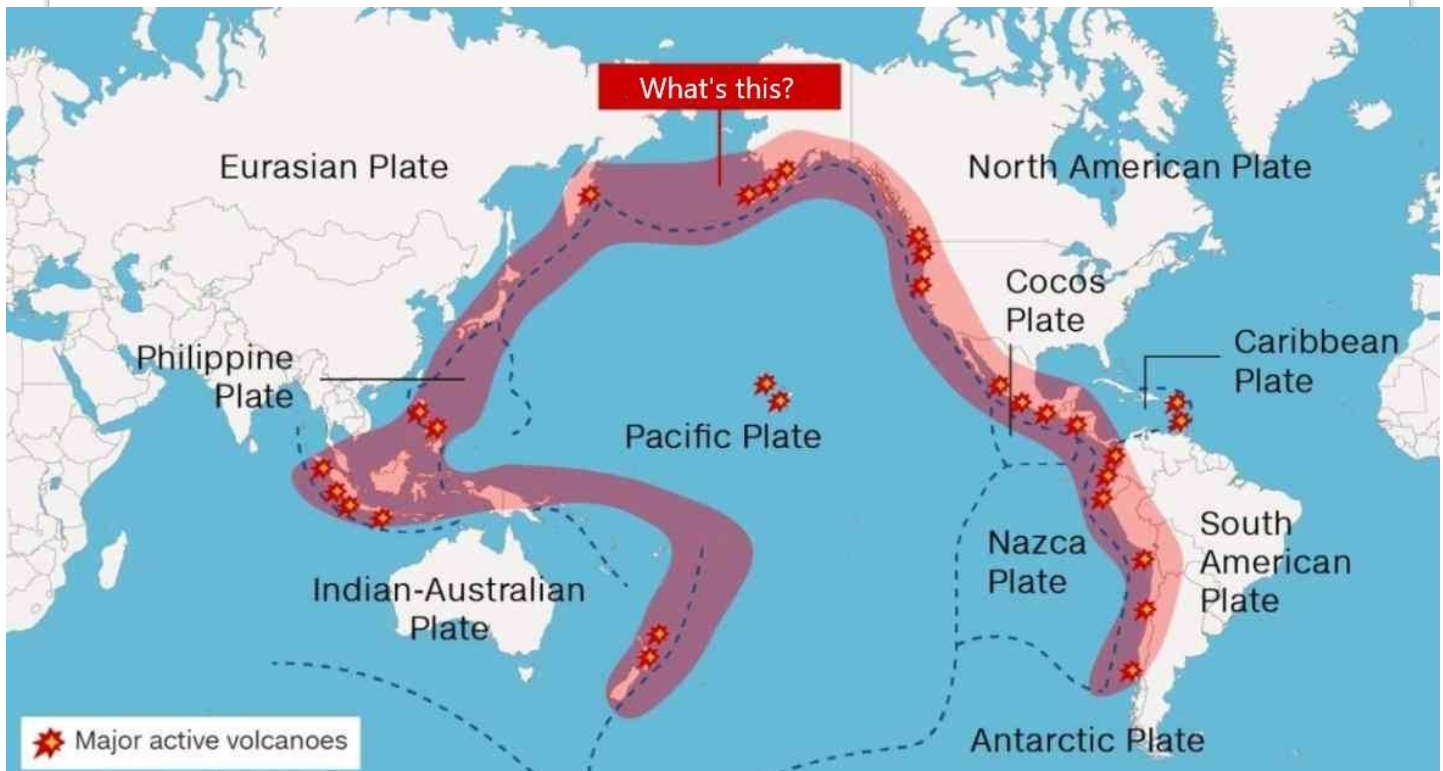
10. What is the name given to the area of high seismic activity (volcanic eruptions and earthquakes), shaded pink on the map?

Choose the answers from the drop-down menus.

The area is commonly called the Ring of

Map showing area of high seismic activity

© U.S. Geological Survey



Question 11

11. What is the main cause of the phenomenon highlighted on the map?

volcanoes 1

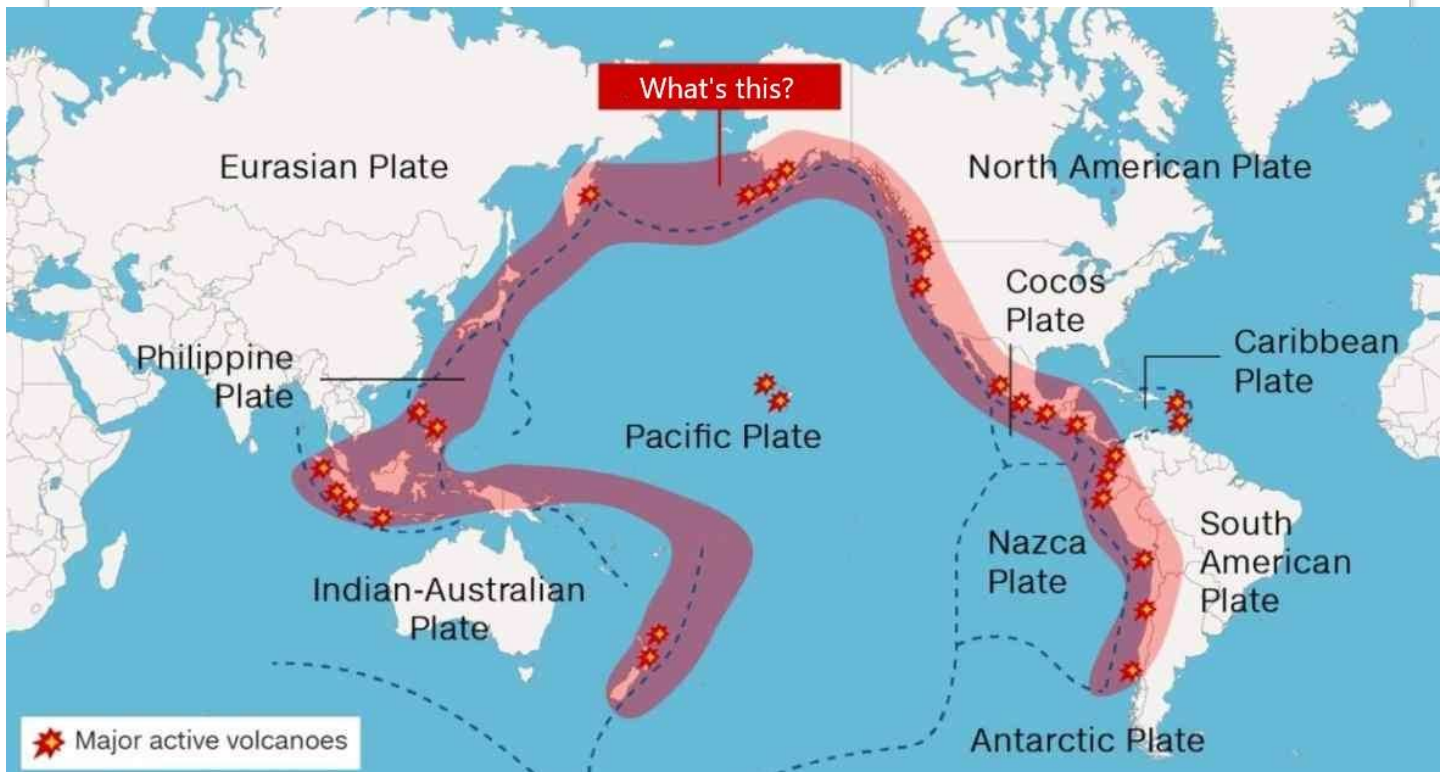
plate convergence 2

plate divergence 3

hot spots 4

Map showing area of high seismic activity

© U.S. Geological Survey



Question 12

12. Which of these form part of government countermeasures to reduce the death toll in the event of a Tokyo earthquake?

Select ALL correct options

strategies to tackle business continuity 1

support for voluntary disaster management organisations 2

upgrading the seismic resistance of buildings 3

increasing the number of buildings with fire proofing in densely populated areas 4

Question 13

13. Which of these environmental problems was most likely to have been caused by the clearing shown in the image?

acid rain

1

desertification of surrounding land

2

siltation of waterways

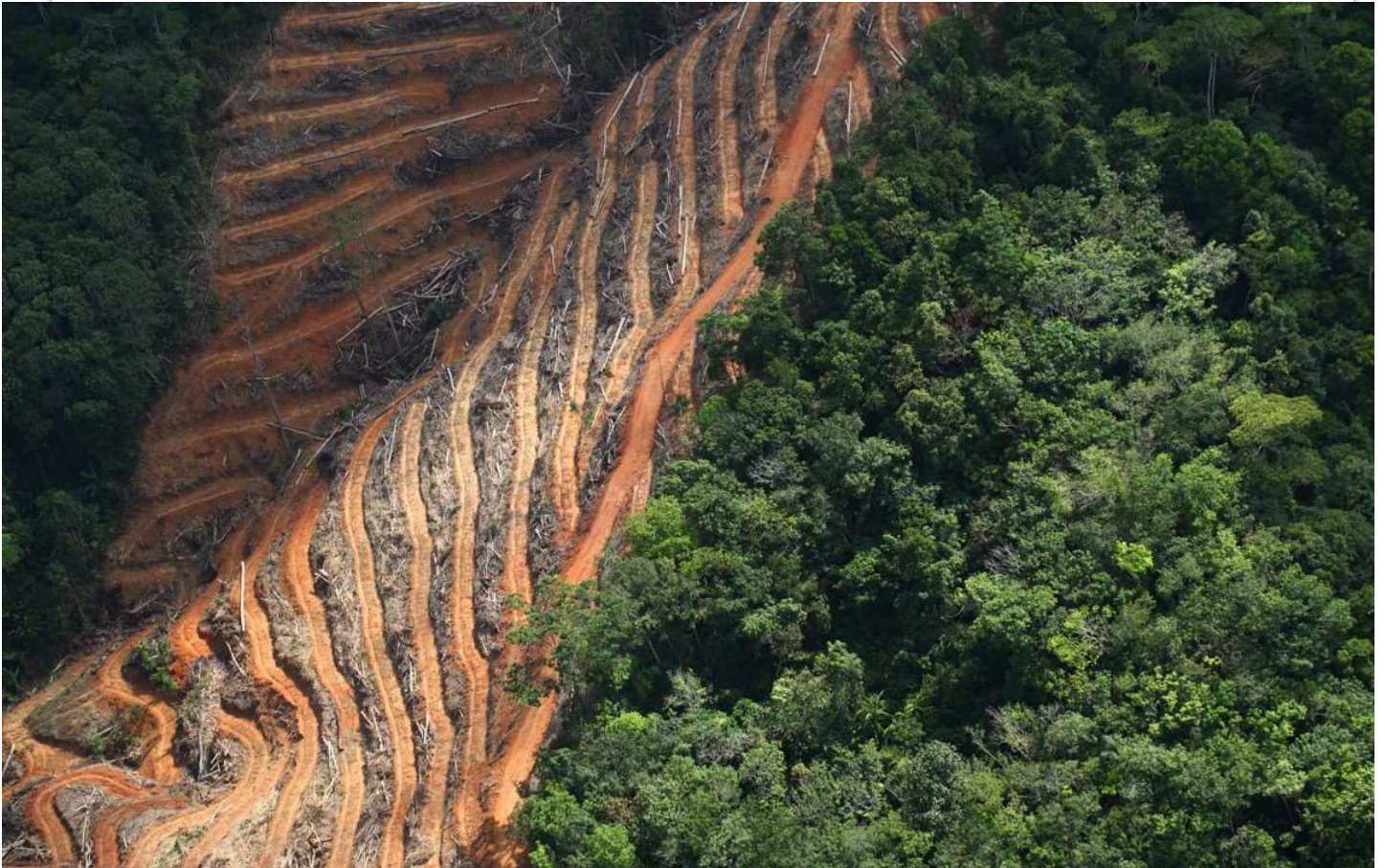
3

salinisation

4

Land clearing for oil palm plantation, Sabah, Malaysia

© Mongabay.com



Question 14

14. Which of these geographical concepts is best illustrated in the photo?

scale 1

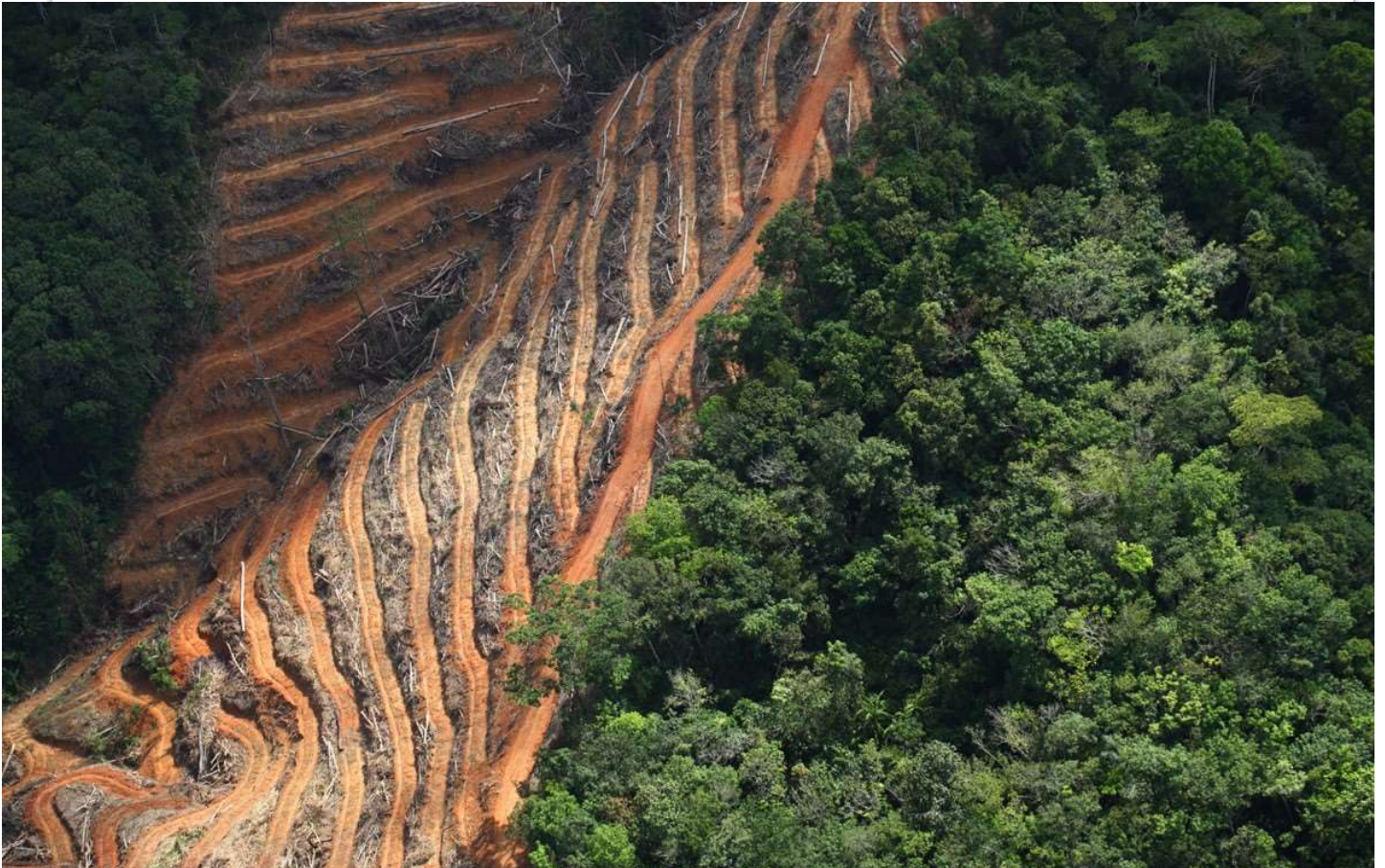
space 2

change 3

place 4

Land clearing for oil palm plantation, Sabah, Malaysia

© Mongabay.com



Question 15

15. Look at the lower panel of the diagram.

Are the illustrated management strategies hard or soft engineering?

Choose the answers from the drop-down menus.

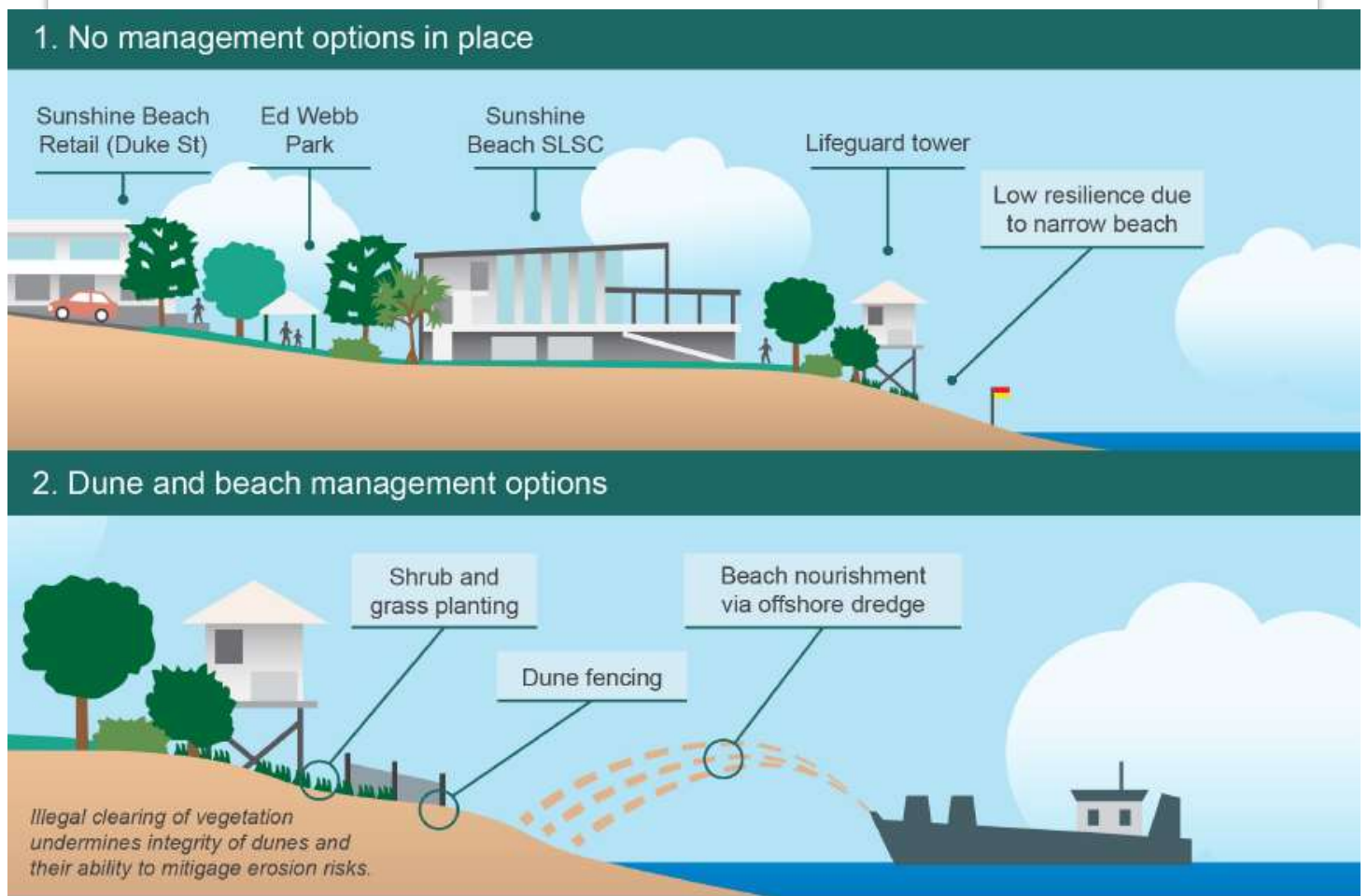
Shrub and grass planting is **soft** engineering.

Dune fencing is **hard** engineering.

Beach nourishment is **soft** engineering.

Dune and beach management measures, Sunshine Beach, Qld

© Noosa Council



Question 16

16. Implementing all the strategies shown in the lower panel of the diagram would result in:

improved access to the SLSC 1

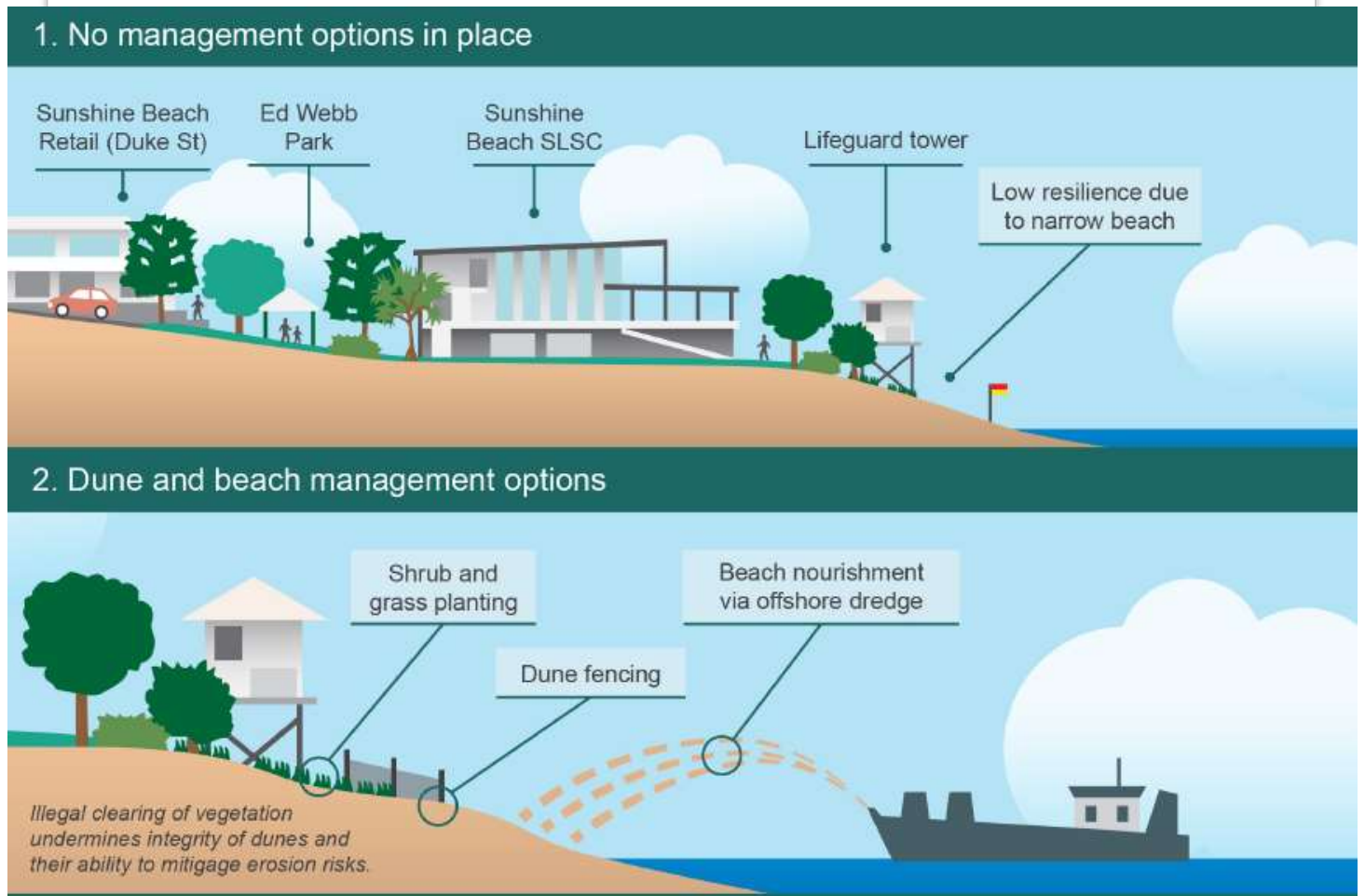
restoration of dune succession 2

erosion at the base of lifeguard tower 3

improved resilience to erosion 4

Dune and beach management measures, Sunshine Beach, Qld

© Noosa Council



Question 17

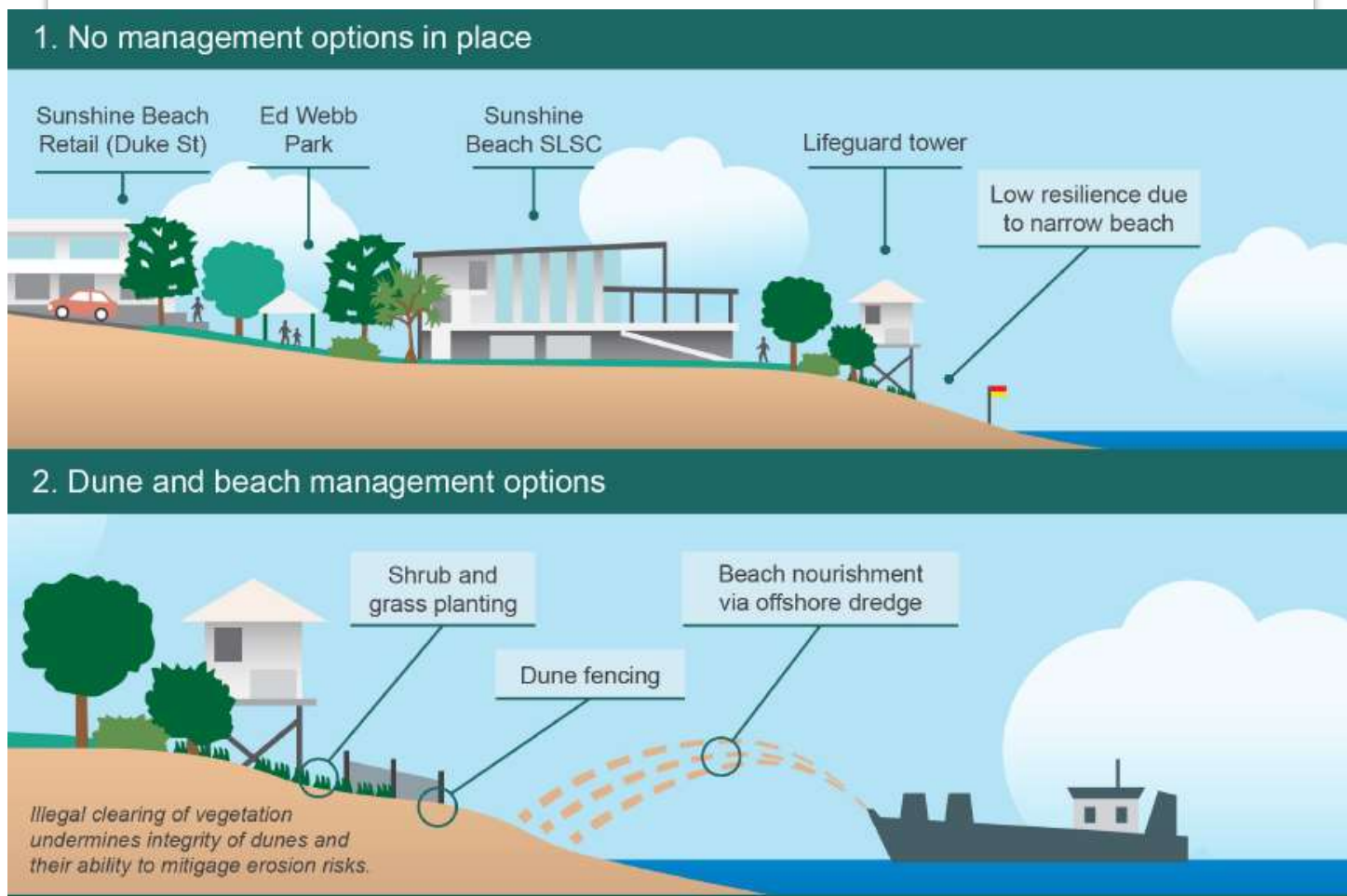
17. In the table, classify the impacts of Sunshine Beach’s management to indicate if they are mainly environmental, social or economic.

Choose the answers from the drop-down menus.

Classification	Impact of beach management
Economic	Tourism operators will benefit as more tourists are attracted.
Environmental	Vegetated dunes provide habitats for native species.
Social	Local residents can make more use of the beach for recreation.
Environmental	Offshore dredging will stir up sediment affecting marine life.
Economic	Damage to infrastructure from sea encroachment will be less likely.

Dune and beach management measures, Sunshine Beach, Qld

© Noosa Council



Question 18

18. Watch the video. In which year was more land in northern Australia affected by fires?

2004

1

2019

2

[Video loaded separately - see North_Aust_HotSpots_edited.mp4](#)

A comparison of two extreme fire condition years in Northern Australia

© Charles Darwin University; North Australia and Rangelands Fire Information

Question 19

19. Using the video, in which month in 2004 was the most land burnt in northern Australia?

September

1

October

2

November

3

December

4

Video loaded separately - see [North_Aust_HotSpots_edited.mp4](#)

A comparison of two extreme fire condition years in Northern Australia

© Charles Darwin University; North Australia and Rangelands Fire Information

Question 20

20. Australia's First Nations peoples have used fire as a management tool for their country for thousands of years.

Which word best describes their approach to land management?

careful 1

custodial 2

destructive 3

vigilant 4

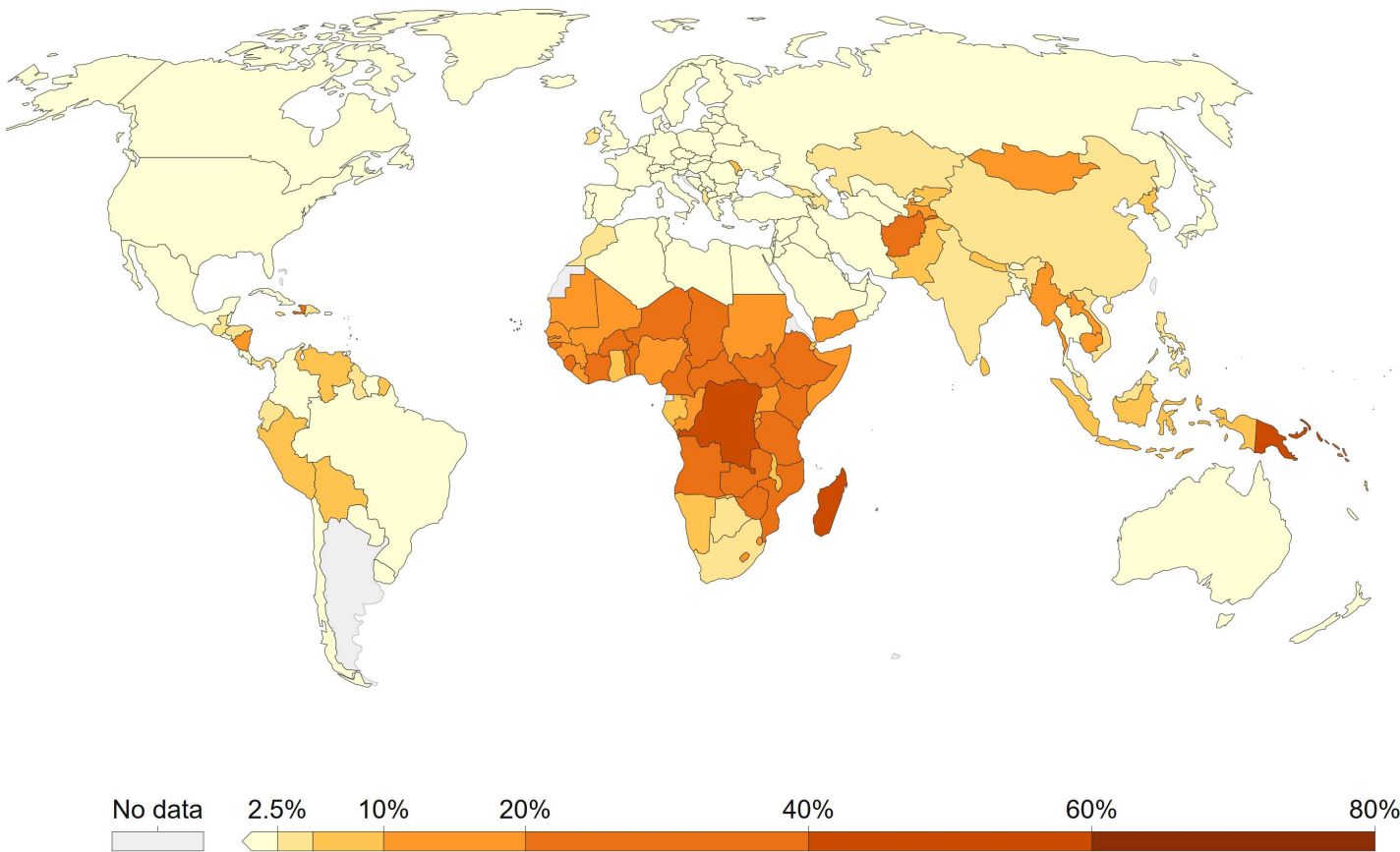
Question 21

21. Based on the map, what is one reason why people have more access to an improved water source?

- higher GDP per capita 1
- larger land area 2
- population density 3
- higher population 4

Share of the population without access to an improved water source, 2020

© Our World in Data, CC BY



Question 22

22. In 2020 approximately 2 billion of the world's 7.8 billion people did not have access to safely managed drinking water.

What percentage of the world's population was that?

Round the answer to the nearest whole number and enter in the box.

You may use a calculator.

%

Question 23

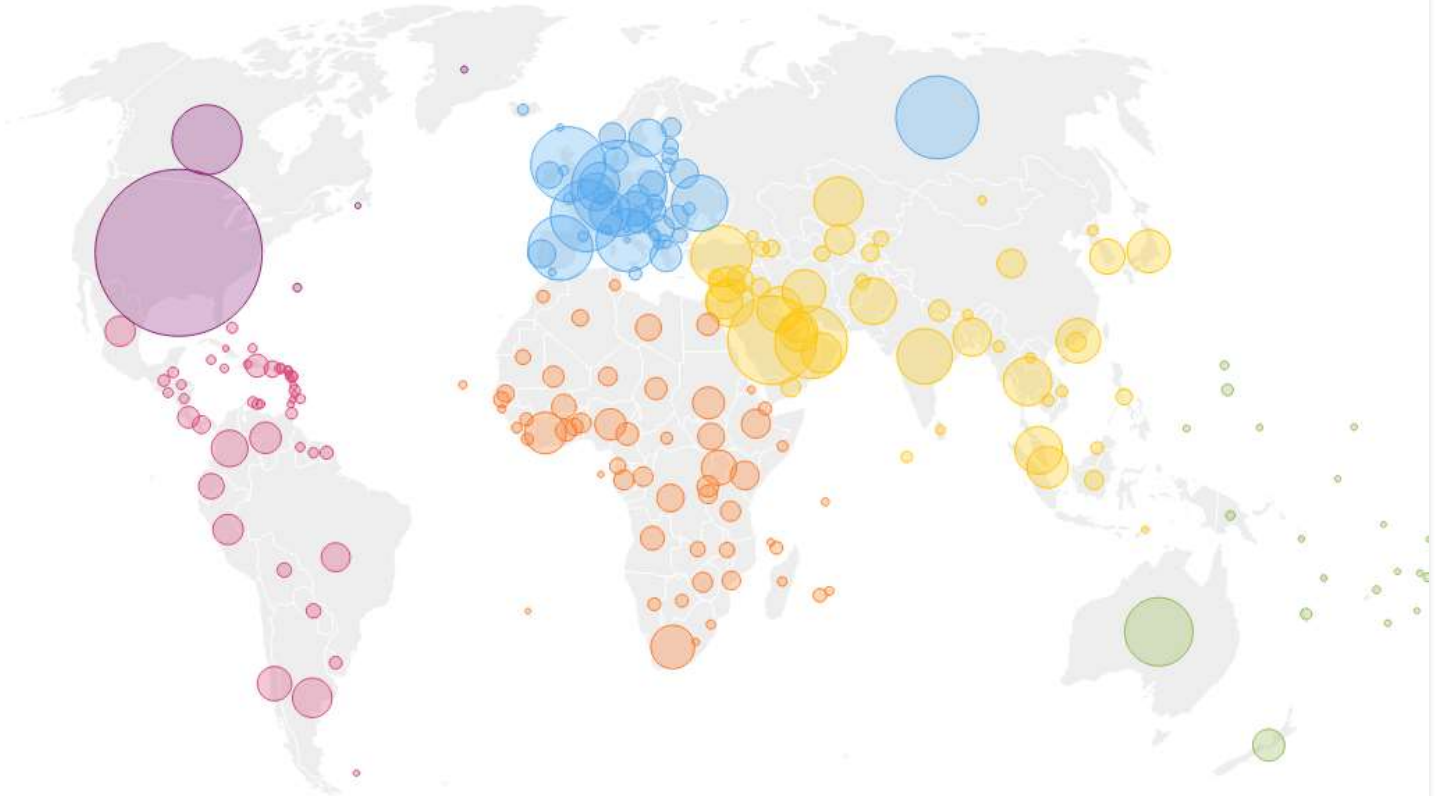
23. Based on the map, the majority of international migration is to:

- high-income countries 1
- countries with warm climates 2
- developing countries 3
- countries in Africa 4

Total number of international migrants in a country, 2020

© UN International Organization for Migration

Circles are sized based on the total number



Question 24

24. Which three of these factors contributed to the population distribution shown in the map?

Select ALL correct options

availability of space to expand

1

more temperate climate

2

proximity to job opportunities

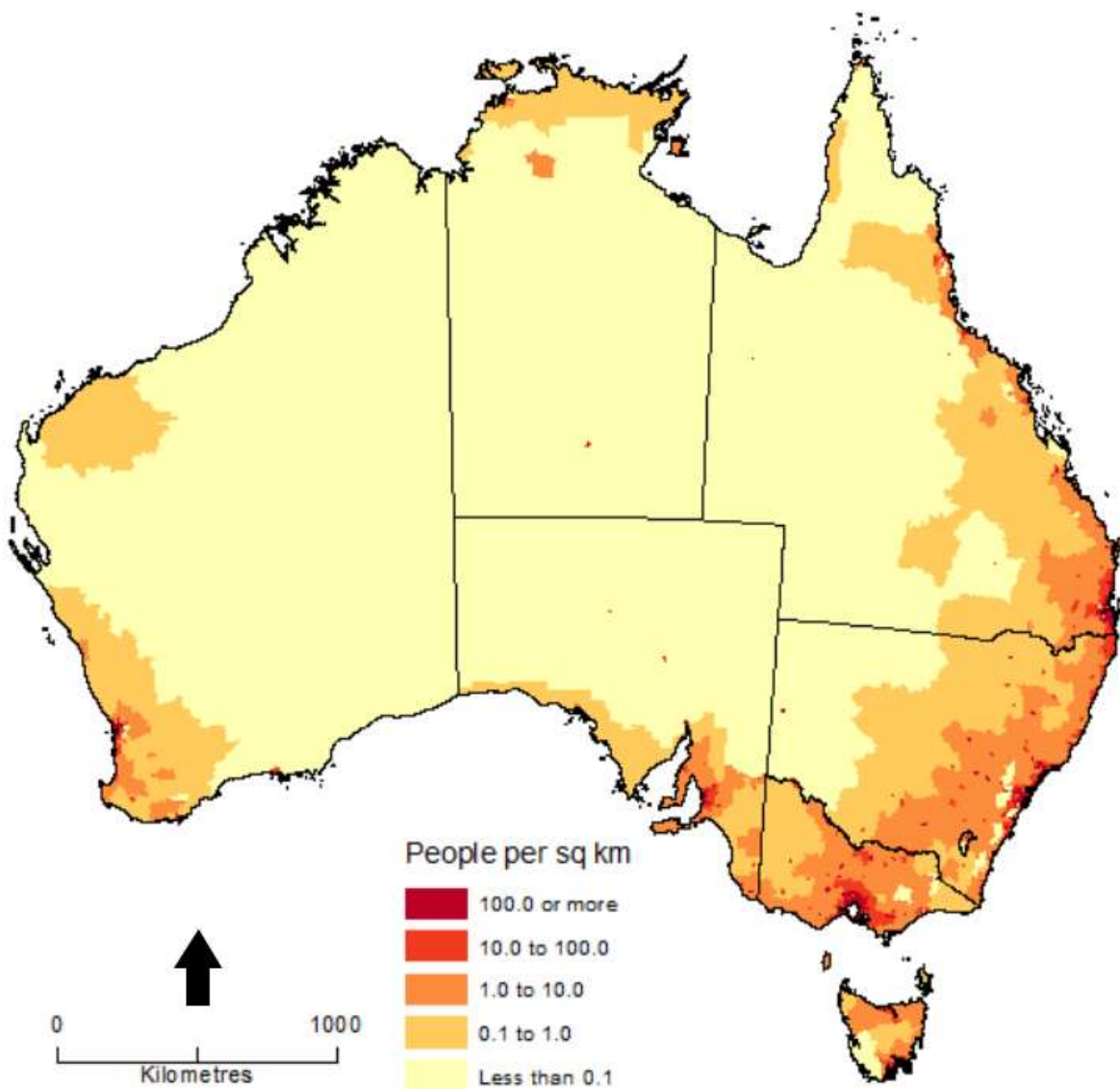
3

availability of water resources

4

Population density, Australia, June 2018

© Commonwealth of Australia, Australian Bureau of Statistics



Question 25

25. Classify the liveability factors below as to whether they can easily be measured quantitatively (in numbers) or are usually measured qualitatively (in words).

Choose the answers from the drop-down menus.

Liveability factor	Measurement
feelings of community connection	qualitative ▾
environmental quality	quantitative ▾
infrastructure	quantitative ✓
traditional and spiritual associations	qualitative ▾
climate	quantitative ✓

Question 26

Animation file loaded separately – see Sydney_Landsat.gif

26. Which phenomenon is illustrated in the satellite image animation of western Sydney?

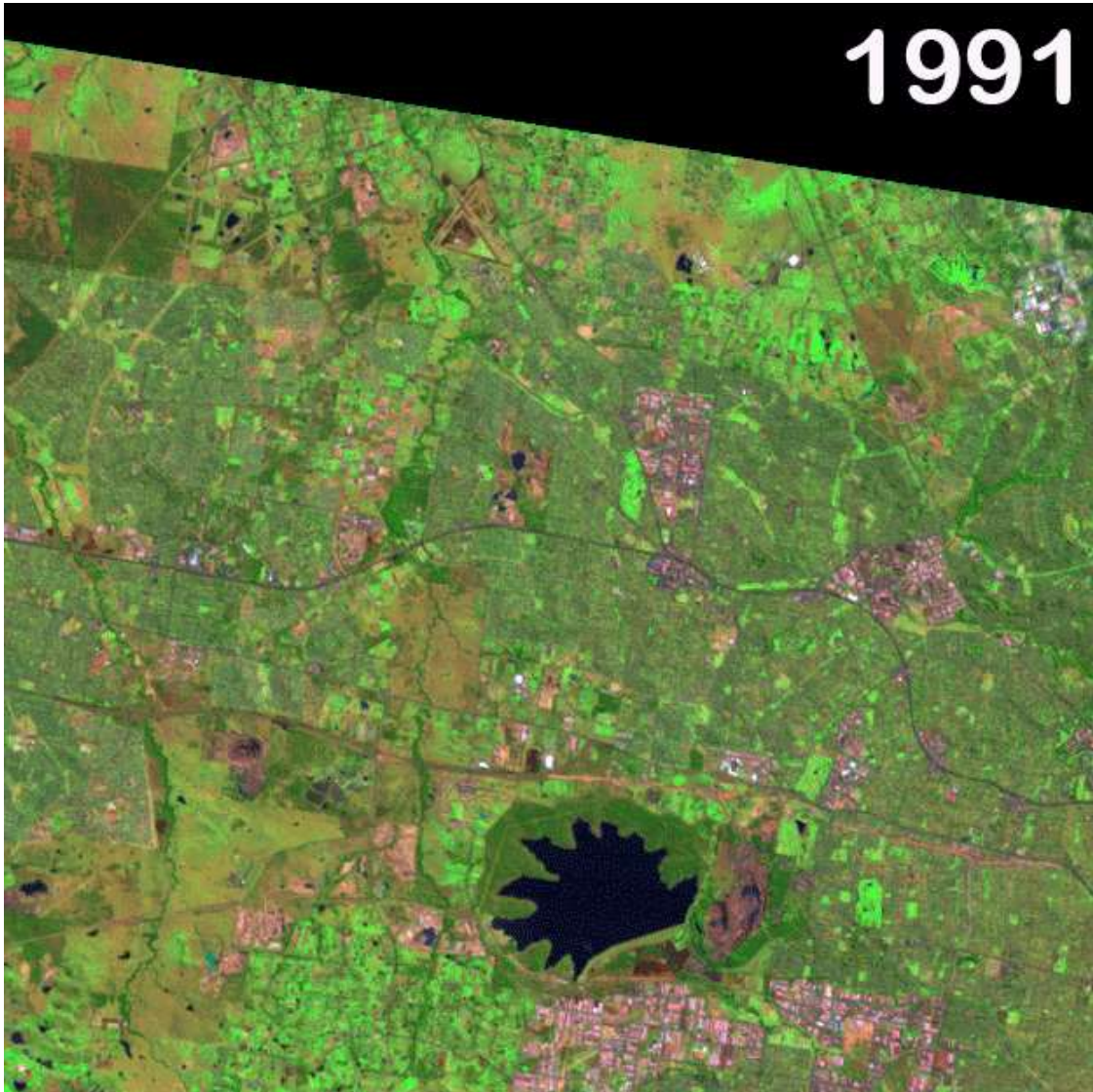
Choose the answer from the drop-down menu.

- edge expansion
- rural-urban migration
- tree change
- urban sprawl

The animation represents .

Western Sydney, 1991, 2002, 2019

Source images © U.S. Geological Survey



Question 27 [Animation file loaded separately – see Sydney_Landsat.gif](#)

27. Which is the most sustainable and efficient transport strategy to address impacts arising from the changes seen in the animation?

walking

1

ride-share service

2

private cars

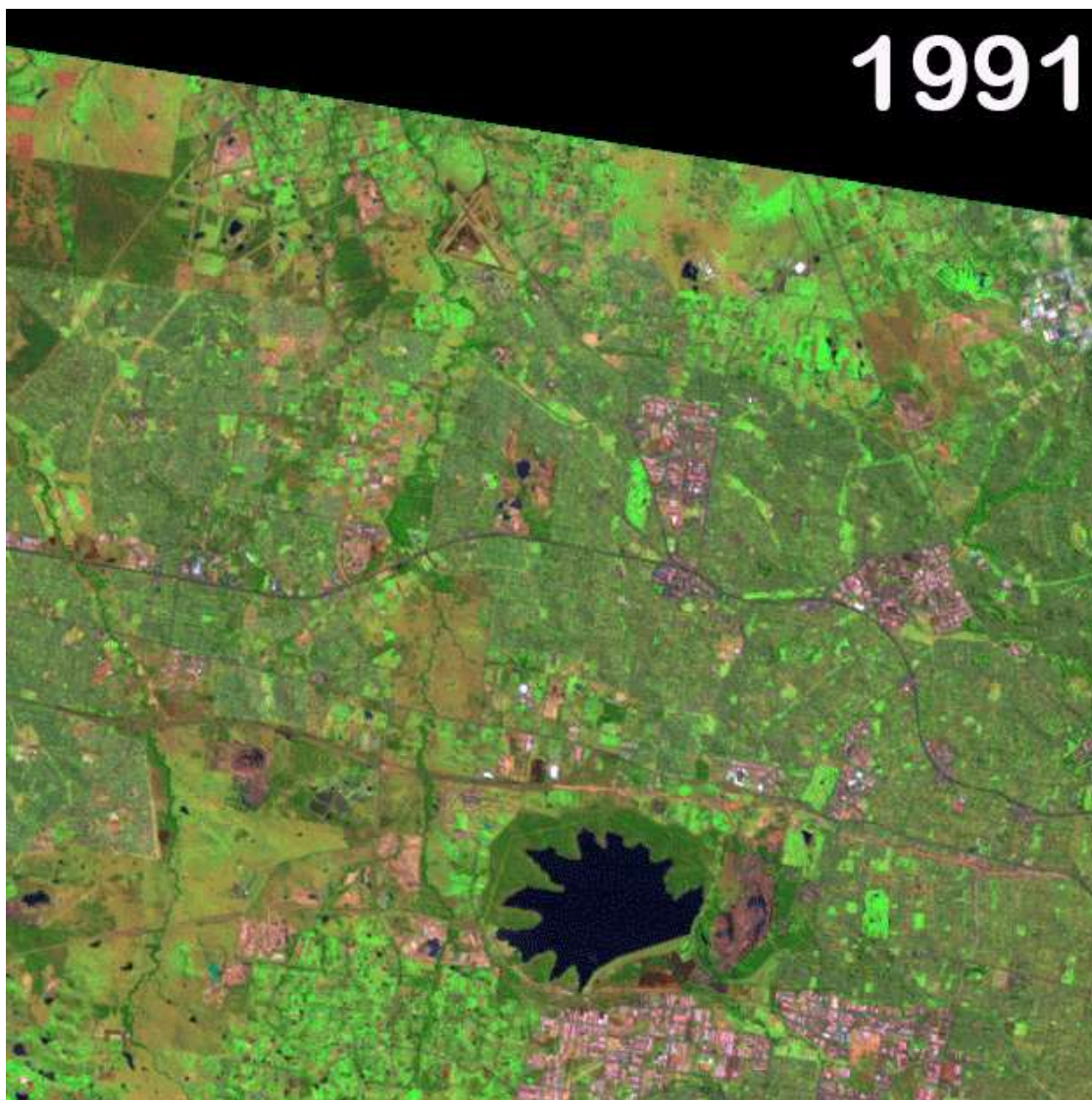
3

public transport

4

Western Sydney, 1991, 2002, 2019

Source images © U.S. Geological Survey



Question 28

28. What is the most likely reason for the migration flow in the 20-24 years age group, as seen in the graph?

Students are moving to the City of Sydney to be close to its two universities.

1

People moving to the City of Sydney have many dependants aged 20-24.

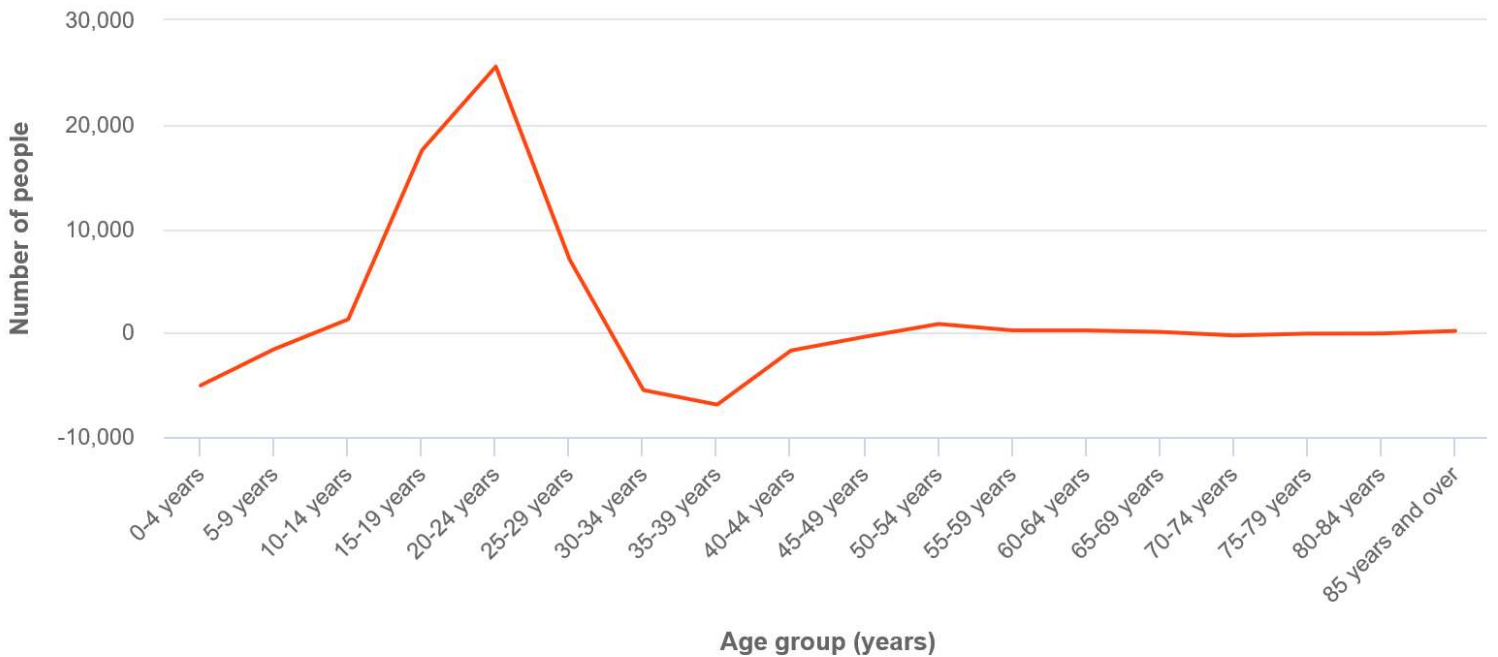
The City of Sydney is a well-known tourist destination.

3

The City of Sydney has high quality health facilities.

Vet migration by age group, City of Sydney, 2016-2021

© .id (informed decisions)



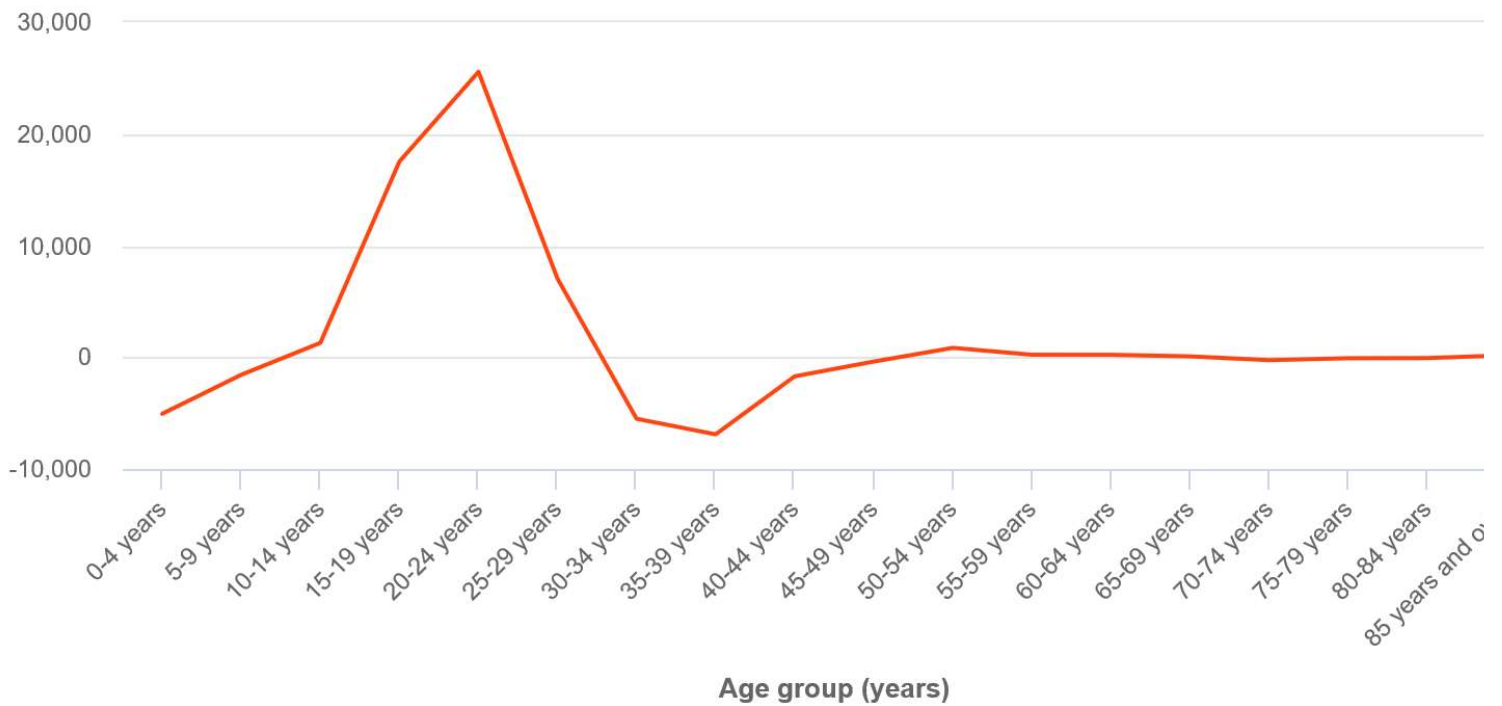
Question 29

29. What is the most likely reason for the migration flow of people in their 30s and 40s, as seen in the graph?

- The City of Sydney is not a popular tourist destination for that age group. 1
- People that age are likely to be settled in their permanent careers.
- Young families seek housing opportunities elsewhere. 3
- Many people leave the City of Sydney after completing University.

Migration by age group, City of Sydney, 2016-2021

© .id (informed deci



Question 30

30. Which term is used to describe an urban area comprising a number of towns and cities that have grown and merged into one continuous urban area?

gentrification 1

concentration 2

megacity 3

conurbation 4