



AUSTRALIAN GEOGRAPHY COMPETITION

2024 Year 9 - answers

Welcome to the 2024 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.

For some questions you can expand the size of the graphic by clicking the arrow in the centre of the page.

Some questions may require the use of a 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 want to come back to. On the question overview page you can see which questions 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.

Supported by

Good luck!

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The screenshot shows a user interface for the competition. At the top, there's a navigation bar with a magnifying glass icon on the left and 'Instructions' in the center. Below this, a welcome message and a 30-minute timer are displayed. A note mentions scrolling for large graphics. The main area shows several question tiles, each with a timer, question number, and a flag icon. A 'Progress summary' section at the bottom shows a grid of question numbers (0-9) with status indicators for 'Answered', 'Not answered', 'Not read', and 'Flagged'. At the bottom right, there are logos for the Australian Government, The University of Melbourne, UNSW Sydney, Australian Institute for Disaster Resilience, and Flinders University.

*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

Drag and drop the correct label to best match the images of the aquatic biomes.

coral reef



estuary

© N D Pavan; CC-BY-SA 4.0



wetlands

© D Beckers; CC-BY-SA 2.0



freshwater

© J Brito; CC-BY-SA 2.0



marine

© Chris F; CC-BY-SA 2.0

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Question 2 of 40



Based on the map, in which biome are oil palm plantations located?

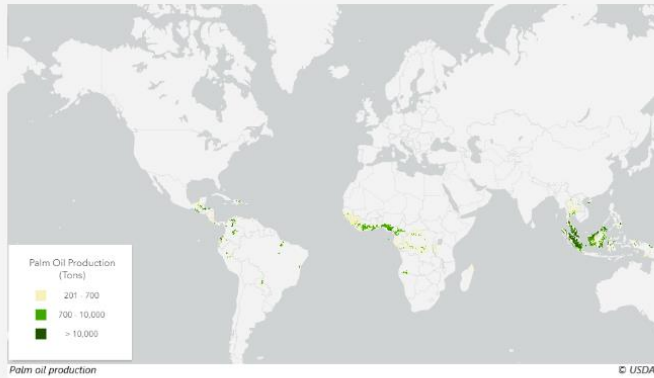
- tundra
- temperate forest
- desert
- tropical forest

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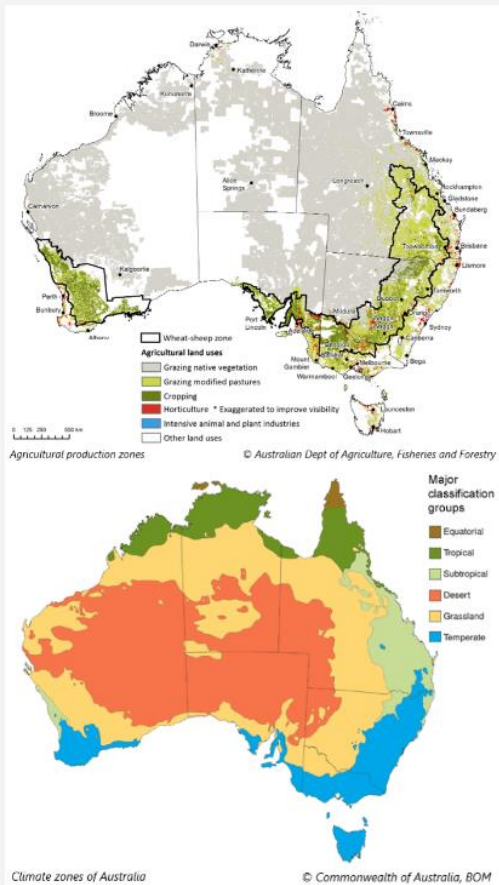


Which of these is a likely secondary effect of the establishment of oil palm plantations?

- loss of biodiversity
- reduced income for local communities
- increased soil fertility
- mitigation of climate change

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Question 4 of 40

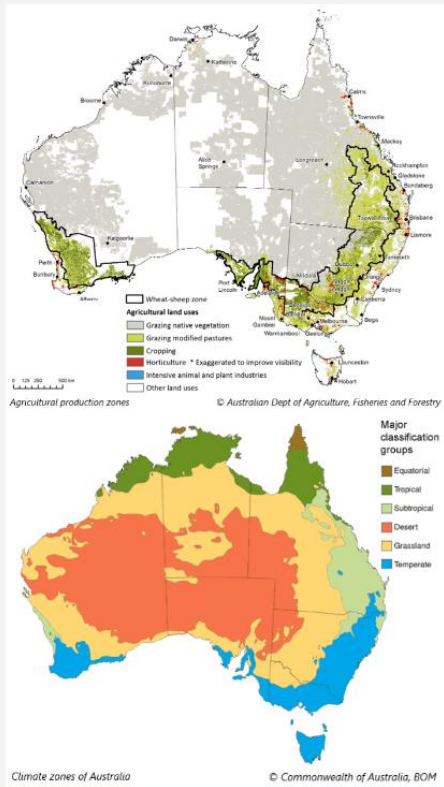


Using both maps, in which climate zone does grazing in Australia mostly occur?

- temperate
- desert
- grassland
- tropical

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Question 5 of 40



Drag a word into the sentence to correctly complete it.

- moderate
- weak
- non-existent

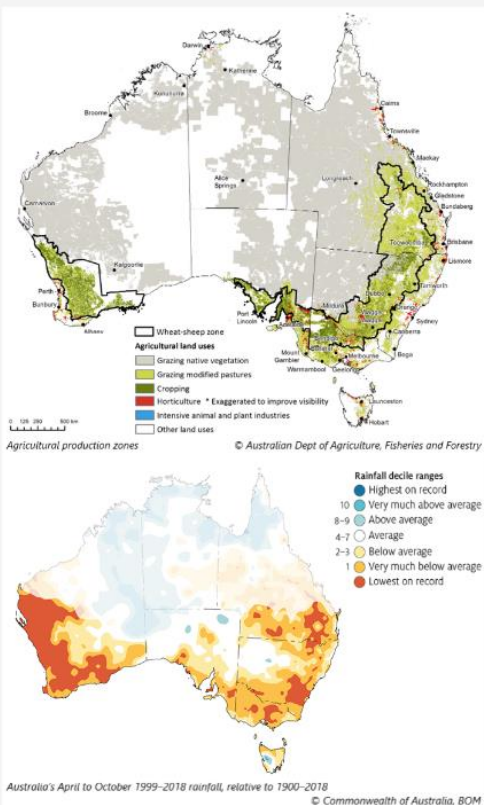
Based on the maps, the spatial relationship between temperate biomes and agricultural productivity is strong.

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Question 6 of 40



Based on both maps, identify which type of agriculture was most affected by the change in rainfall pattern.

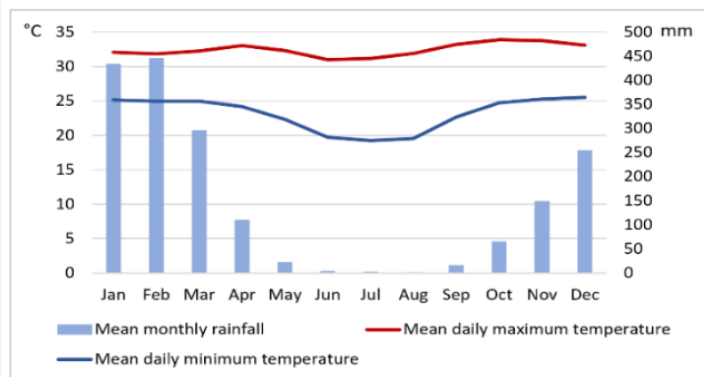
- cropping
- intensive animal and plant industries
- grazing native vegetation
- grazing modified pastures

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Question 7 of 40



Darwin climate graph

© CSIRO, from BOM data

Based on the graph, in which climate zone is Darwin located?

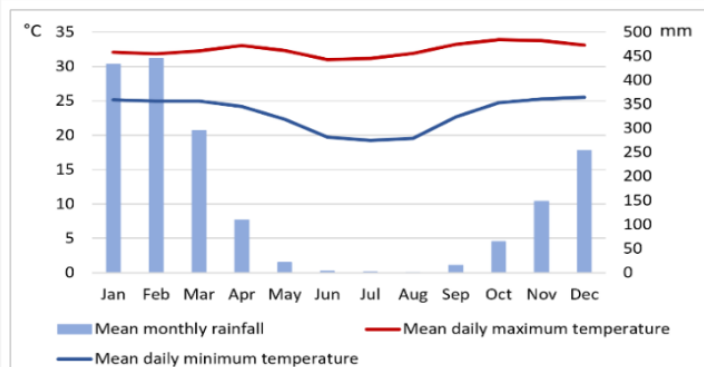
- polar
- tropical
- temperate
- desert

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Question 8 of 40



Darwin climate graph

© CSIRO, from BOM data

Using the graph, which is the driest season in Darwin?

- autumn
- winter
- summer
- spring

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Question 9 of 40

Average annual broadacre farm profit			Difference in profit	
	Climate conditions 1950-1999	Climate conditions 2000-2019	%	\$
Industry				
Cropping	201,000	130,100	-35.3	-70,900
Mixed	106,200	84,600	-20.3	-21,600
Sheep	33,400	27,300	-18.2	-6,100
Beef	50,300	48,000	-4.6	-2,300
Sheep-Beef	79,600	72,800	-8.6	-6,800
All farms	85,900	67,200	-21.7	-18,600

Effect of post-2000 climate on average farm business profits, by industry, holding non-climate factors constant © Australian Dept of Agriculture, Fisheries and Forestry

From the table, which agricultural industry had the greatest drop in profit from the change in climate conditions?

- cropping
- sheep-beef
- beef
- mixed
- sheep

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Average annual broadacre farm profit (\$)			Difference in profit	
	Climate conditions 1950-1999	Climate conditions 2000-2019	%	\$
State				
NSW	66,100	49,300	-25.5	-16,900
Vic.	36,200	22,800	-37.1	-13,400
Qld	75,500	64,900	-14.1	-10,700
SA	101,700	90,300	-11.2	-11,400
WA	226,000	167,600	-25.8	-58,300
TAS	74,300	69,000	-7.1	-5,300
NT	769,200	835,900	8.7	66,800

Effect of post-2000 climate on average farm business profits, by state/territory, holding non-climate factors constant © Australian Dept of Agriculture, Fisheries and Forestry

From the table, which state or territory had the greatest drop in profit from the change in climate conditions?

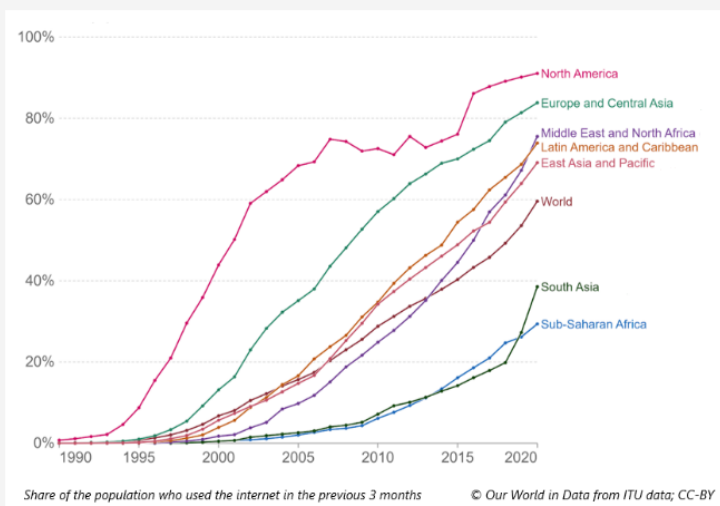
- NT
- Qld
- NSW
- SA
- WA

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Classify these causes of food insecurity as social, environmental or economic by dragging the term into the table.

economic environmental social

Cause	Classification
prolonged drought	environmental
interruptions to the supply chain	economic
armed conflict	social
tariffs on trade	economic
soil degradation	environmental

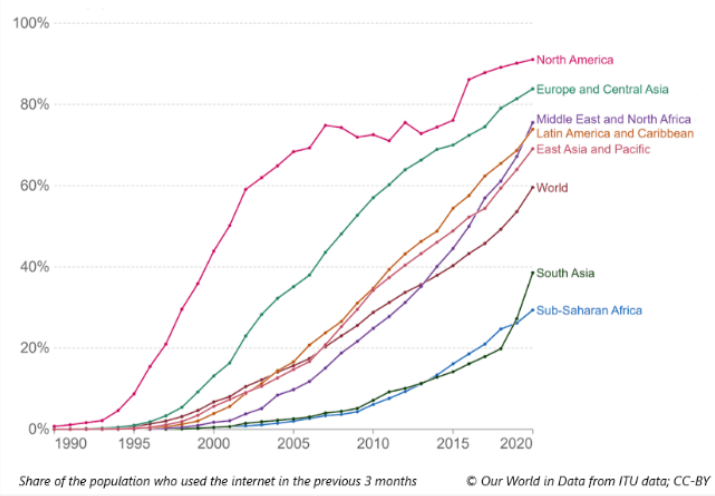


Using the graph, which region experienced the greatest growth in internet usage between 2018 and 2020?

- East Asia and Pacific
- Europe and Central Asia
- North America
- South Asia



Question 13 of 40



To which of these can the term 'digital divide' refer? Select all that apply.

- the unequal access to the internet based on factors such as income and education.
- the division between generations in understanding and using digital devices.
- the difference in internet access and speeds between urban and rural areas.
- the physical gap between the countries that have access to information technology services and those that do not.

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Question 14 of 40



Which statements best describe a '15-minute neighbourhood'? Select all that apply.

They are planned communities:

- where people can access key amenities by travelling no more than 15 minutes on foot or by bike
- with multiple land uses placed locally, reducing the need to drive
- where people must travel further than 15 minutes on foot or by bike to access key amenities
- where people must travel by private vehicle to access key amenities that are 15 minutes away

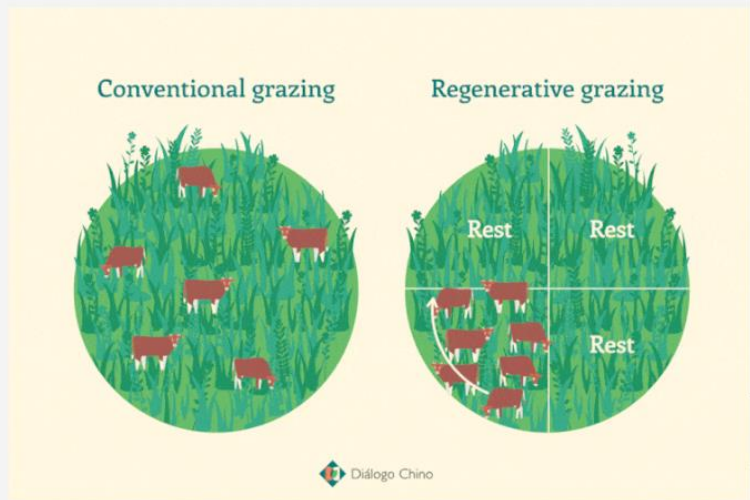
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The terms below are features of a 15-minute neighbourhood. Drag the terms into the table where they best match the definitions.

Term	Definition
proximity	short physical distance to services, goods, buildings and places
diversity	providing inhabitants with access to a wide range of services, goods and facilities
density	the concentration in a given area of a sufficient number of residents to make it profitable to do business and provide a variety of public services



Conventional vs regenerative grazing © D Kruzhinskaia, Diálogo Chino; CC-BY-NC-ND 4.0

Which of these best describes a benefit of regenerative grazing?

- Farms occupy a larger area.
- Cattle require less handling.
- Moving animals through pasture improves soil, plant and animal health.
- Cattle graze a pasture for an extended period.



Question 17 of 40



The Indigenous ranger in the photo is lighting fires to achieve which outcomes? Select all that apply.

- to help control intense fires
- to clear land for agriculture
- to release carbon dioxide
- to maintain diverse ecosystems



Prescribed burning

© 10 Deserts Project; Indigenous Desert Alliance

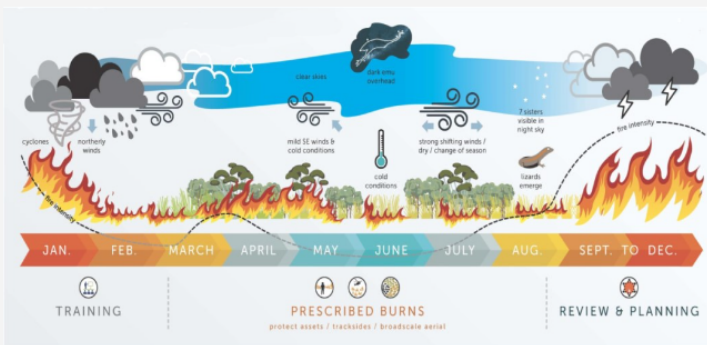
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Question 18 of 40



Seasonal fire management in the Australian deserts

© 10 Deserts Project; Indigenous Desert Alliance

According to the poster, the best time for prescribed burns in Australian desert regions is:

- when rain is expected shortly afterwards
- at the end of summer
- when the weather is cooler and more stable
- soon after cyclones

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Question 19 of 40



Forest loss © NASA Earth Observatory

At which scale is forest loss occurring in this video?

- local
- regional
- global
- national

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Question 20 of 40



Forest loss © NASA Earth Observatory

Which of these statements best explains why forest is being lost, as shown in the video?

- Climate change is causing forests to dry out and die.
- Forests are being cut down as the demand for timber increases.
- Farming such as cattle grazing is replacing forests.
- Forests naturally grow and decline due to seasonal temperature changes.

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Forest loss © NASA Earth Observatory

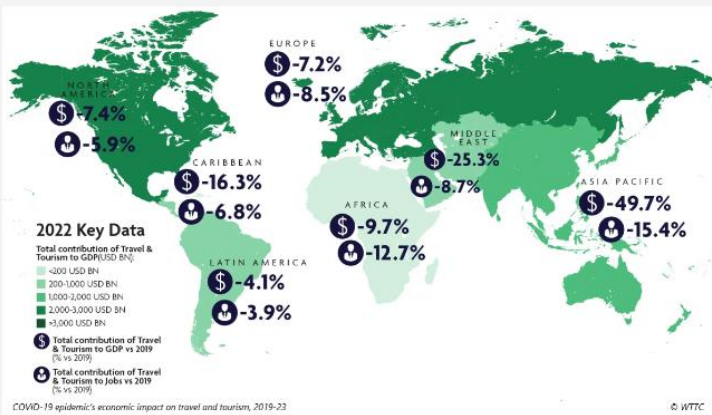
In which river basin is the forest loss shown in the video mainly occurring? Type your answer in the box.

Amazon River

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Using the map, which region experienced the greatest economic impact on travel and tourism from the COVID-19 epidemic?

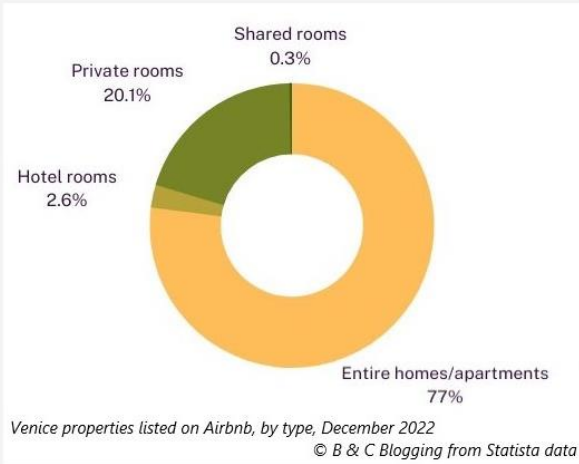
- Asia Pacific
- North America
- Caribbean
- Europe

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Which of these inferences is supported by the graph?

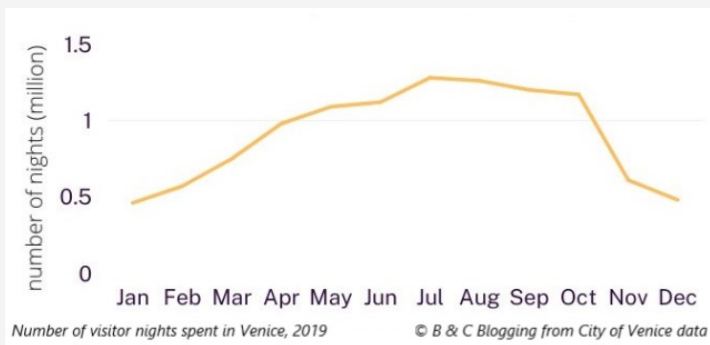
- Hotel rooms in Venice are likely to be expensive based on the demand from tourists.
- The supply of permanent accommodation in Venice may be negatively impacted by the tourism market.
- Private rooms are the preferred accommodation for tourists travelling on a budget.
- Tourists in Venice prefer to stay in serviced accommodation such as hotel rooms and private rooms.

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Based on the graph, which is the busiest tourist season in Venice?

- summer
- winter
- spring
- autumn

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	2008 Residents	2019 Residents	2008 Number of Restaurants	2019 Number of Restaurants	Var%2008–2019
Cannaregio	16,993	15,147	97	252	160%
Castello	15,140	12,868	83	233	181%
Dorsoduro	13,467	12,013	71	206	190%
San Marco	4169	3632	87	182	109%
San Polo	5060	4477	41	114	178%
Santa Croce	5471	4851	45	115	156%

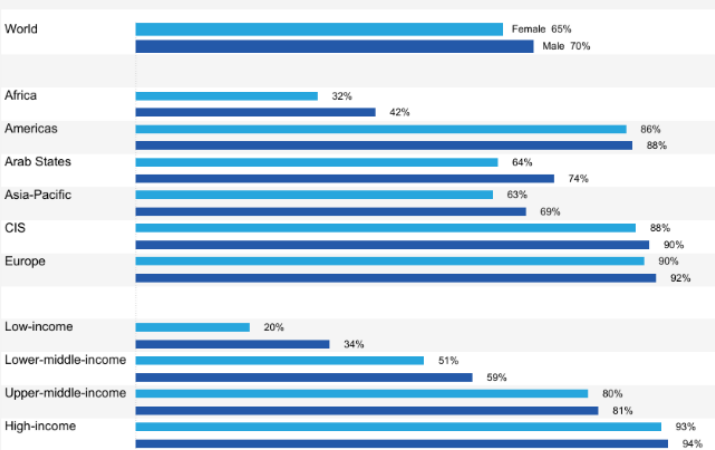
Number of residents and restaurants in Venice districts, 2008 and 2019
 © D Bertocchi et al from City of Venice data; CC-BY 4.0

Based on the table, select the most appropriate of these statements to explain the impact of tourism growth on Venice restaurants between 2008 and 2019.

- The growth in tourism has resulted in more restaurants opening in Dorsoduro than in any other district.
- The growth in tourism has resulted in a decline in the resident population and the closure of restaurants due to decreasing population.
- The growth in the number of restaurants and the decline in the resident population may result in insufficient workers to staff restaurants.
- The number of restaurants has doubled, creating more employment opportunities for a growing resident population.

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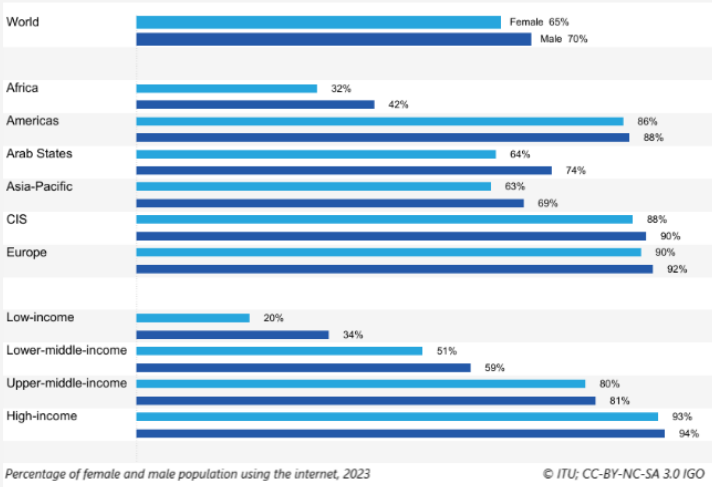
Percentage of female and male population using the internet, 2023
 © ITU; CC-BY-NC-SA 3.0 IGO

Using the graph, in which region was the gender digital divide proportionally the most significant?

- Africa
- World
- Arab States
- Europe

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Question 27 of 40



For this question you may use the on-screen calculator. Click on the icon in the top right corner.

Gender parity is achieved when the gender parity score is between 0.98 and 1.02. The score is defined as the share of women using the internet divided by the share of men using the internet.

Using the data in the graph, calculate the gender parity score for the Asia-Pacific.

Round your answer to two decimal places and type it in the space provided.

0.91

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How does the flow of water in the River Murray create connections between people and places? Select all that apply.

- The River Murray supplies drinking water to Adelaide.
- Native aquatic wildlife is able to breed.
- The plants and animals that live in the Basin's unique ecosystems depend on water to survive.
- First Nations Peoples' connection to Country relies on water to maintain traditional practices.
- The river provides water for agriculture, creating jobs.

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Match the most appropriate category of water use to each photo by dragging the term onto the photo.



Agriculture

© Australian Government, DCCEEW



Recreation

© Australian Government, MDBA



Tourism

© T Devereux; CC-BY 4.0



Environment

© Australian Government, MDBA

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Drainage division	Mean annual outflow (GL)
Northeast Coast	69 580
Southeast Coast	40 366
Tasmania	45 336
Murray-Darling	5 750
South Australian Gulf	787
Southwest Coast	5 925
Indian Ocean	3 481
Timor Sea	81 461
Gulf of Carpentaria	96 066
Lake Eyre	0
Bulloo-Bancannia	0
Western Plateau	≈ 1

Mean annual outflow to the sea from Australia's drainage divisions
 Data source: Western Plateau from WA Water and Rivers Commission; others from Australian National Land and Water Resources Audit



Australia's drainage divisions © Commonwealth of Australia

Which of these characteristics of the Murray-Darling drainage division are factors in its low outflow, compared with divisions with high outflows? Select all that apply.

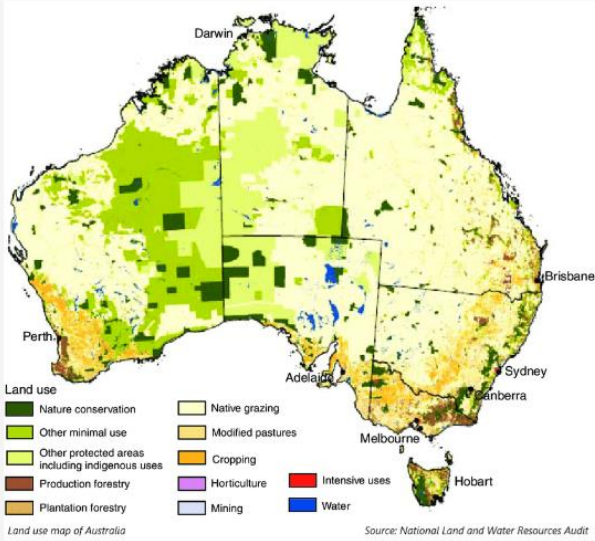
- higher irrigation allocations
- lower rainfall
- larger area
- number of dams

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Complete the sentence by dragging the correct term into the space.

isoline political topographic

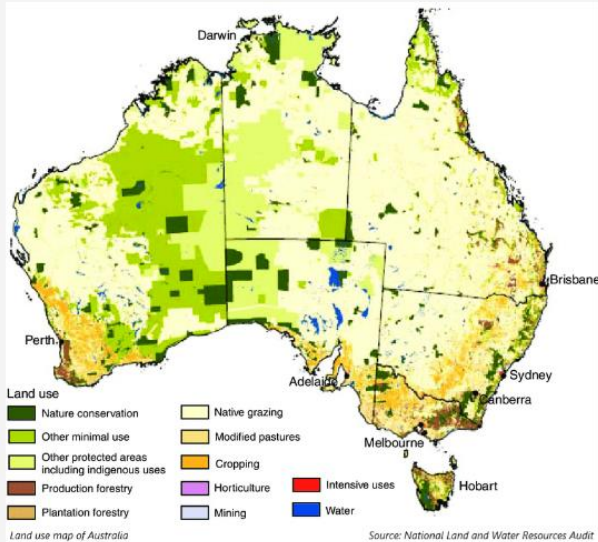
The map on the left is a **thematic** map.

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Using the map, what is the most prevalent land use in Queensland?

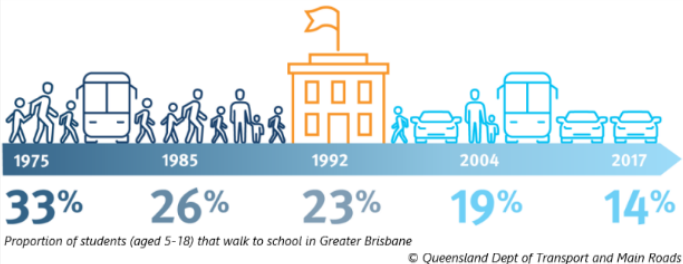
- other minimal use
- cropping
- modified pastures
- native grazing

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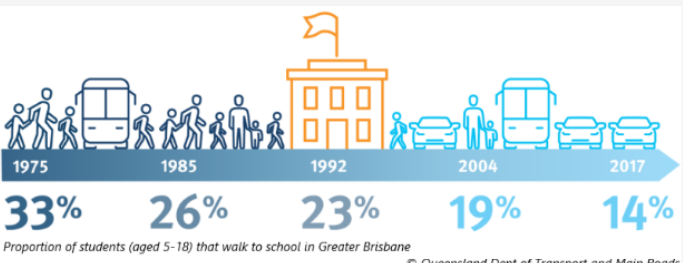
Proportion of students (aged 5-18) that walk to school in Greater Brisbane
© Queensland Dept of Transport and Main Roads

Which of these is a valid reason for the change in students walking to school shown in the infographic?

- quieter neighbourhoods
- urban sprawl
- traffic jams
- more bike lanes

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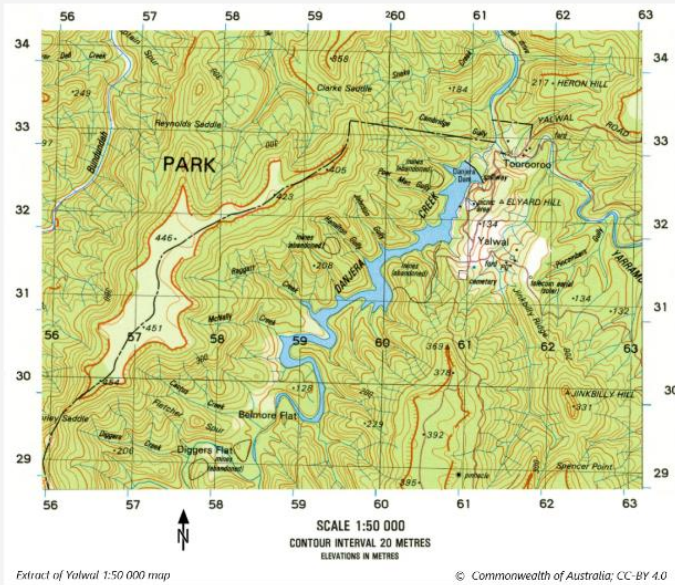


Proportion of students (aged 5-18) that walk to school in Greater Brisbane
© Queensland Dept of Transport and Main Roads

Which of these could lead to an increase in students walking to school? Select all that apply.

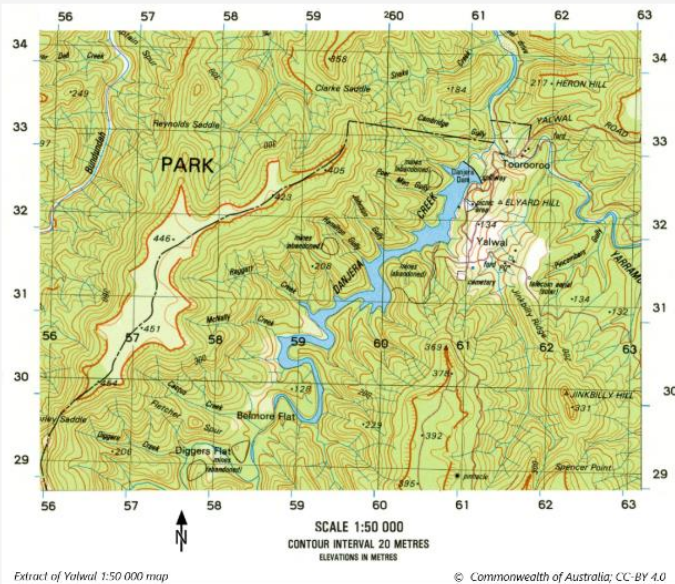
- improved pedestrian facilities
- improved public transportation
- more cars per household
- increased population density

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Using the map, what is the approximate height above sea level of Jinkbilly Hill (AR6229)?

- 310m
- 330m
- 370m
- 390m



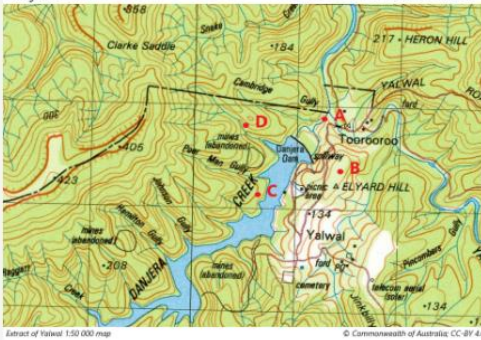
Based on the map, in which direction does Danjerra Creek flow?

- northeast
- southwest
- southeast
- northwest

Question 37 of 40



Danjera Dam © Shoalhaven Water



Extract of Yalwal 1:50 000 map © Commonwealth of Australia; CC-BY 4.0

At which point on the map was the drone camera when the photo was taken?

- Point A
- Point B
- Point C
- Point D

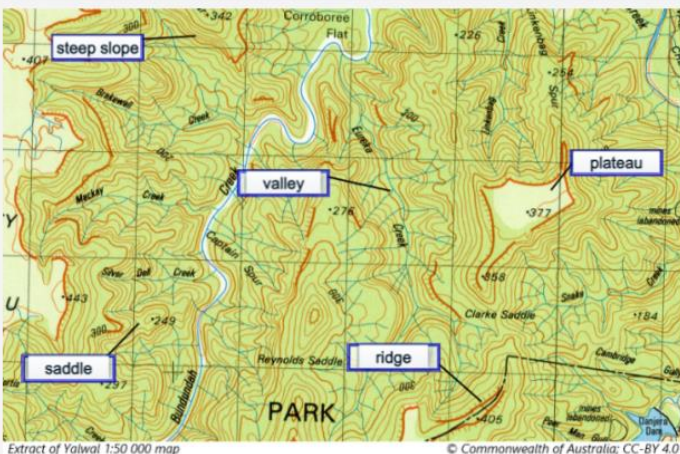
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Label the landforms by dragging the correct term onto the map.



Extract of Yalwal 1:50 000 map © Commonwealth of Australia; CC-BY 4.0

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Drag the causes of land degradation into the table against the most appropriate impacts, to make the best matching set.

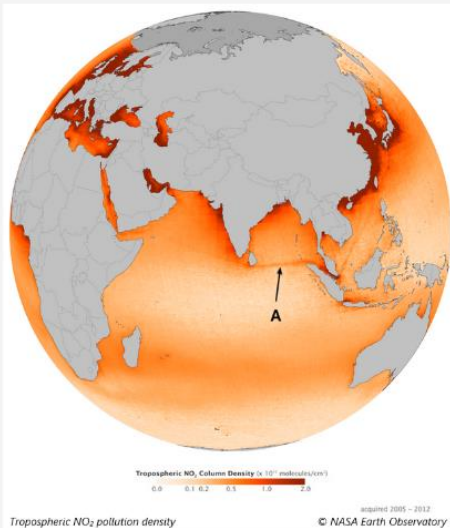
Cause	Impact
deforestation	desertification
poor irrigation practices	salinisation
excessive use of fertilizers	eutrophication
mining and construction work	erosion

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What is the reason for the NO₂ (nitrous oxide) pollution density at point A?

- a shipping lane
- air currents
- offshore drilling
- an aircraft route

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