

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.

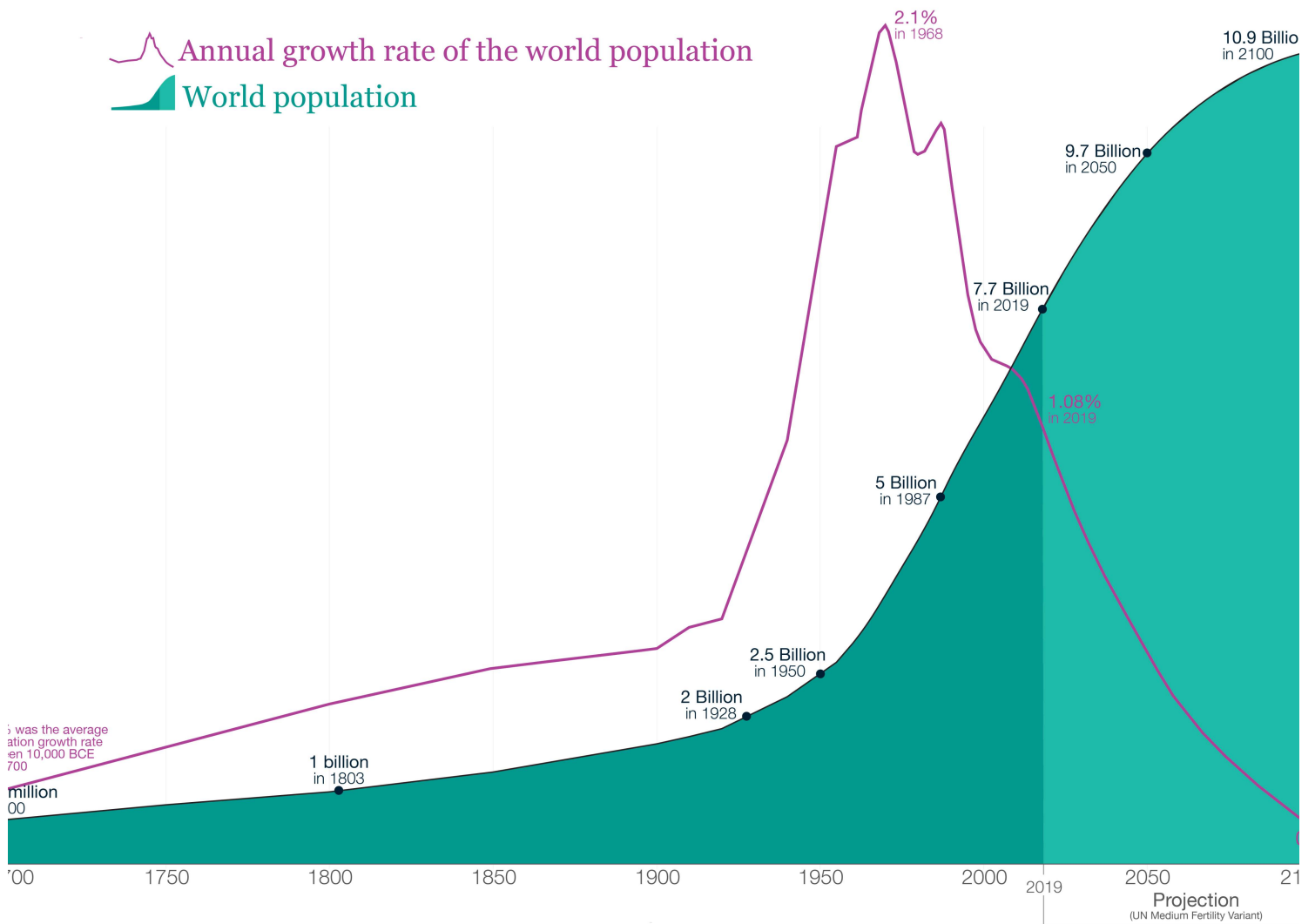
Question 1

1. What accounts for the dramatic change in the world's population growth rate from the 1930s to the 1960s, as shown in the graph?

- The birth rate and death rate decreased. 1
- The total fertility rate increased. 3
- Infant mortality and life expectancy increased. 2
- Health improved and mortality declined. 4

World population growth, 1700-2100

© M Roser, Our World in Data, (



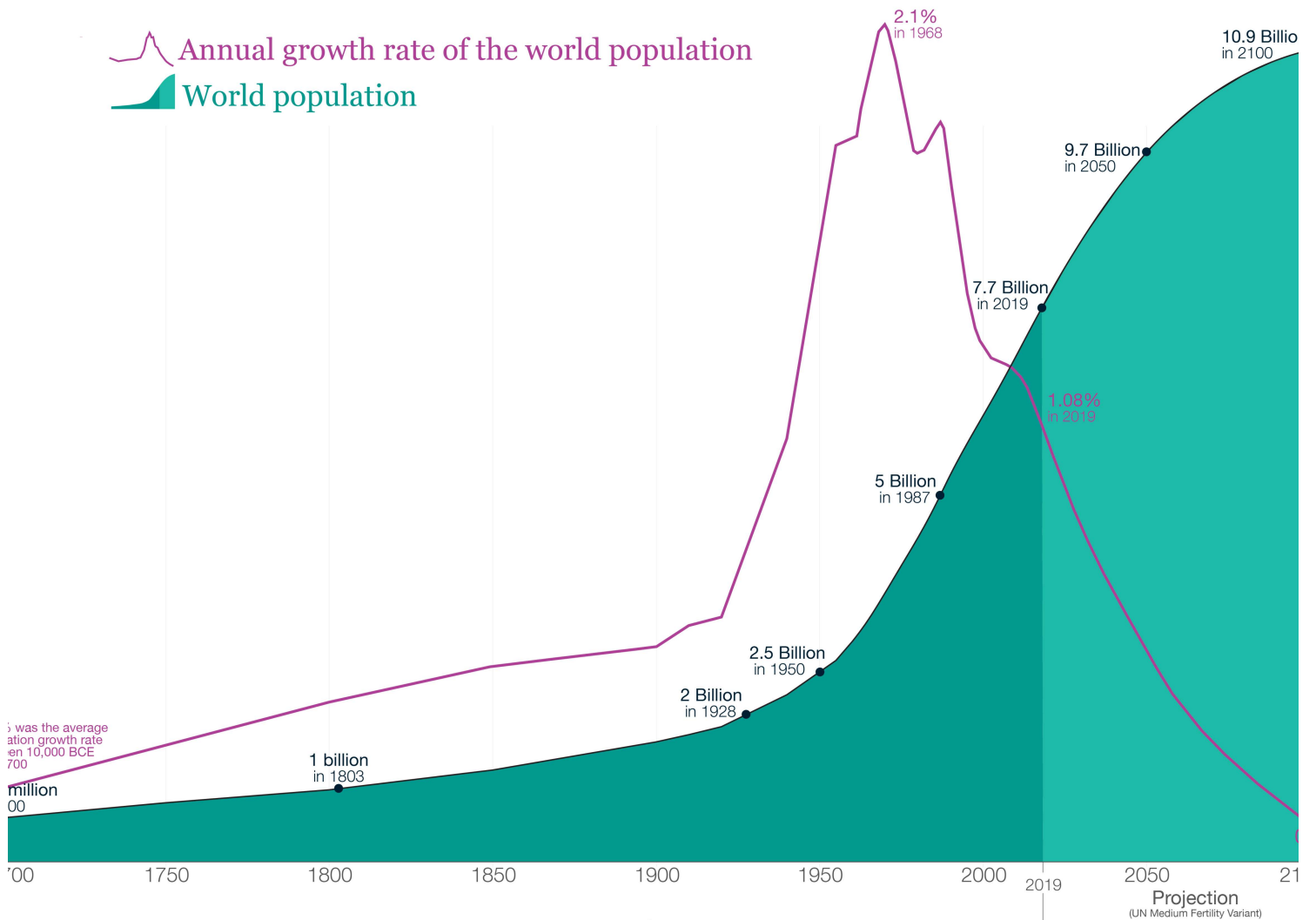
Question 2

2. What is the explanation for the increase in world population given that the annual growth rate is declining, as shown in the graph?

- population wealth 1
- population distribution 2
- population density 3
- population momentum 4

World population growth, 1700-2100

© M Roser, Our World in Data, (



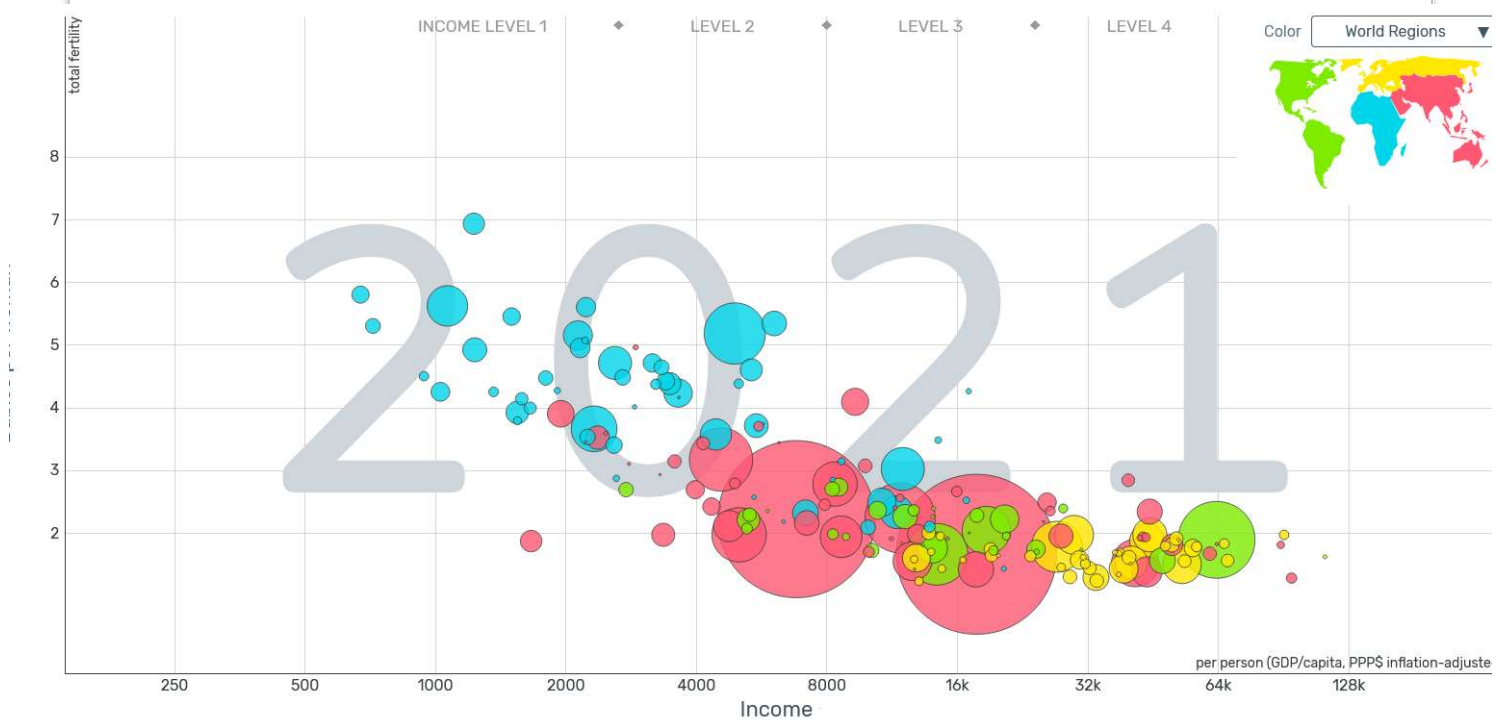
Question 3

3. Which type of graph is this?

- infographic 1
- ternary graph 2
- scatter plot 3
- rose diagram 4

total fertility relative to income

© Gapminc



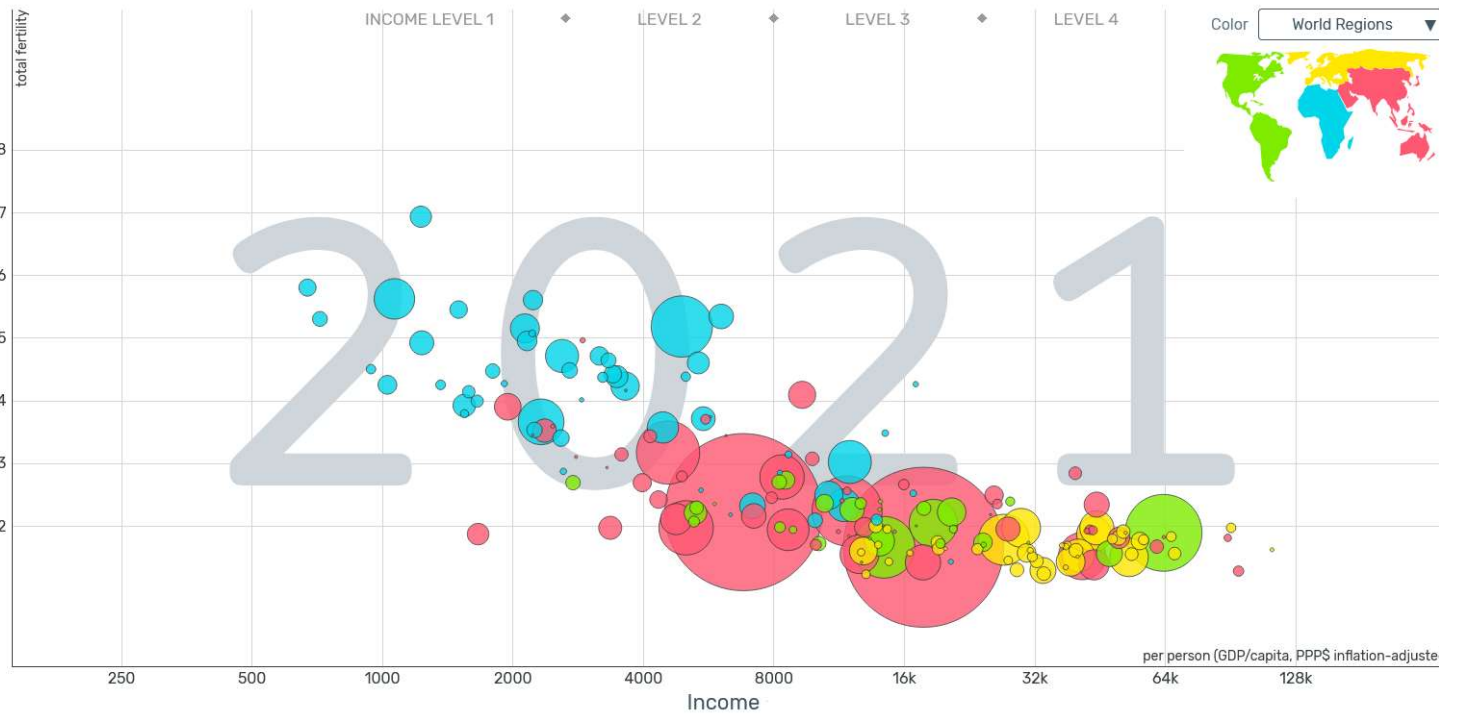
Question 4

4. What is the correct description of the correlation shown in the graph?

- positive 1
- no correlation 2
- perfect 3
- negative 4

total fertility relative to income

© Gapminc



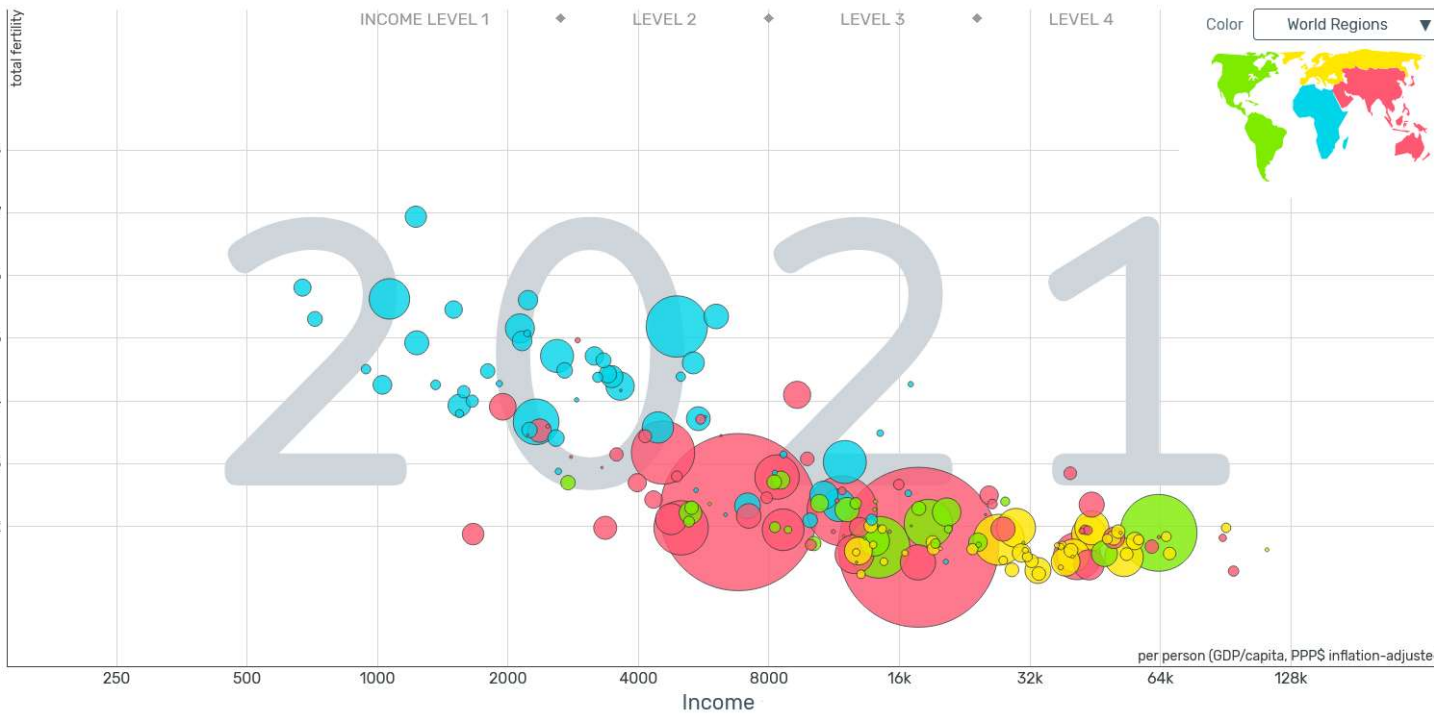
Question 5

5. Using the graph, in which region does the highest proportion of countries have a fertility rate below replacement level?

- Asia/Pacific 1
- The Americas 2
- Africa 3
- Europe 4

total fertility relative to income

© Gapminc



Question 6

6. Which of these influences on fertility in high-income countries is contrary to the relationship shown in the graph?

Higher-income earners lose a larger amount of money if they focus on child rearing rather than their careers. 1

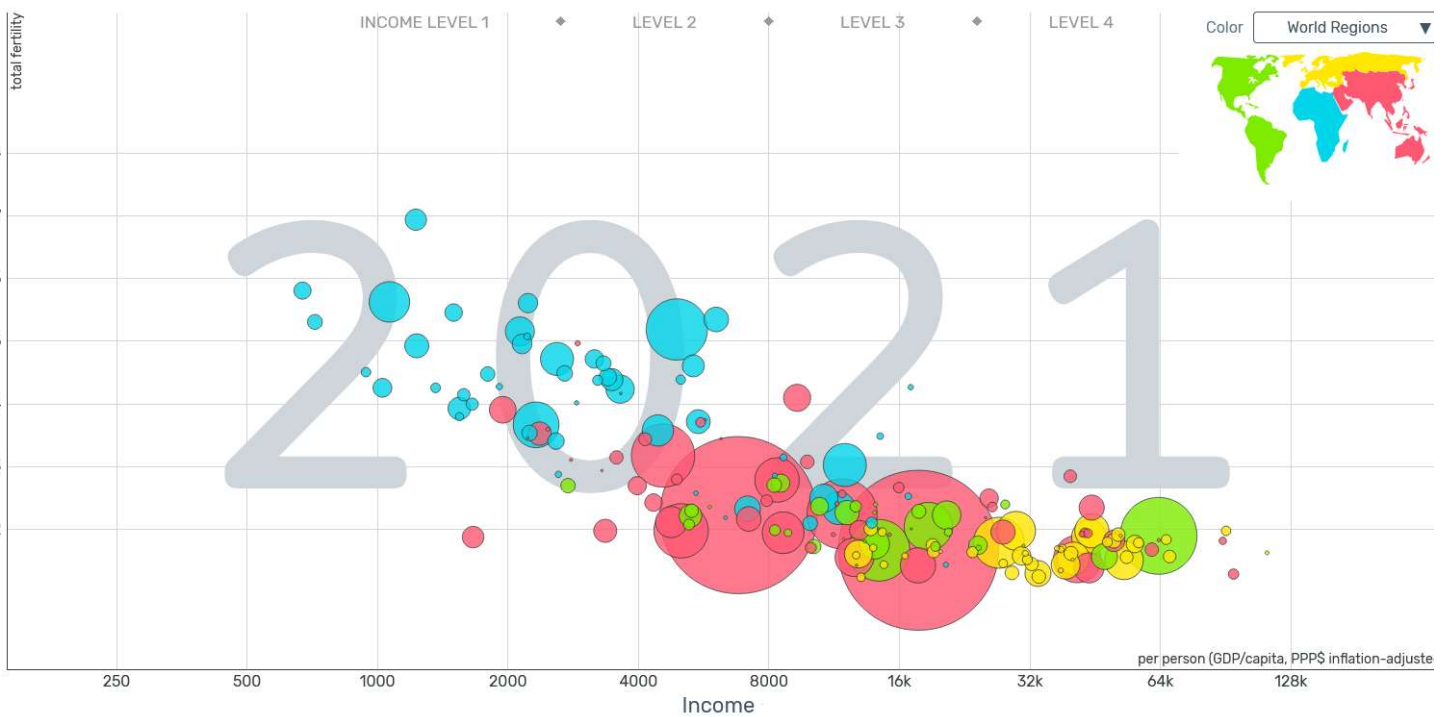
Employment instability contributes to fertility postponement in families. 2

Higher-income parents value quality over quantity and choose to spend their resources on fewer children. 3

Women who can economically sustain themselves have less incentive to get married. 4

total fertility relative to income

© Gapminc



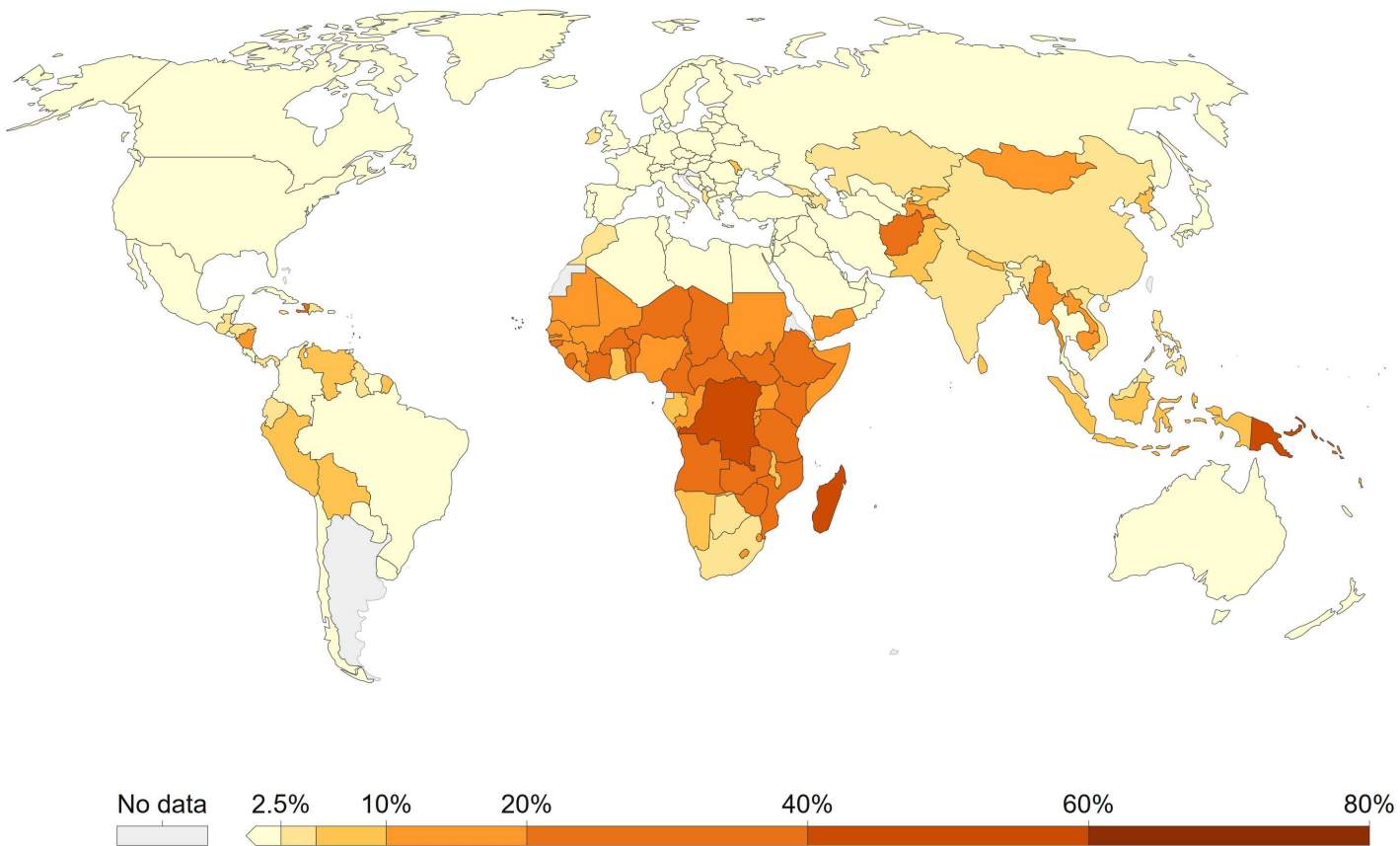
Question 7

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

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

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

© Our World in Data, CC BY



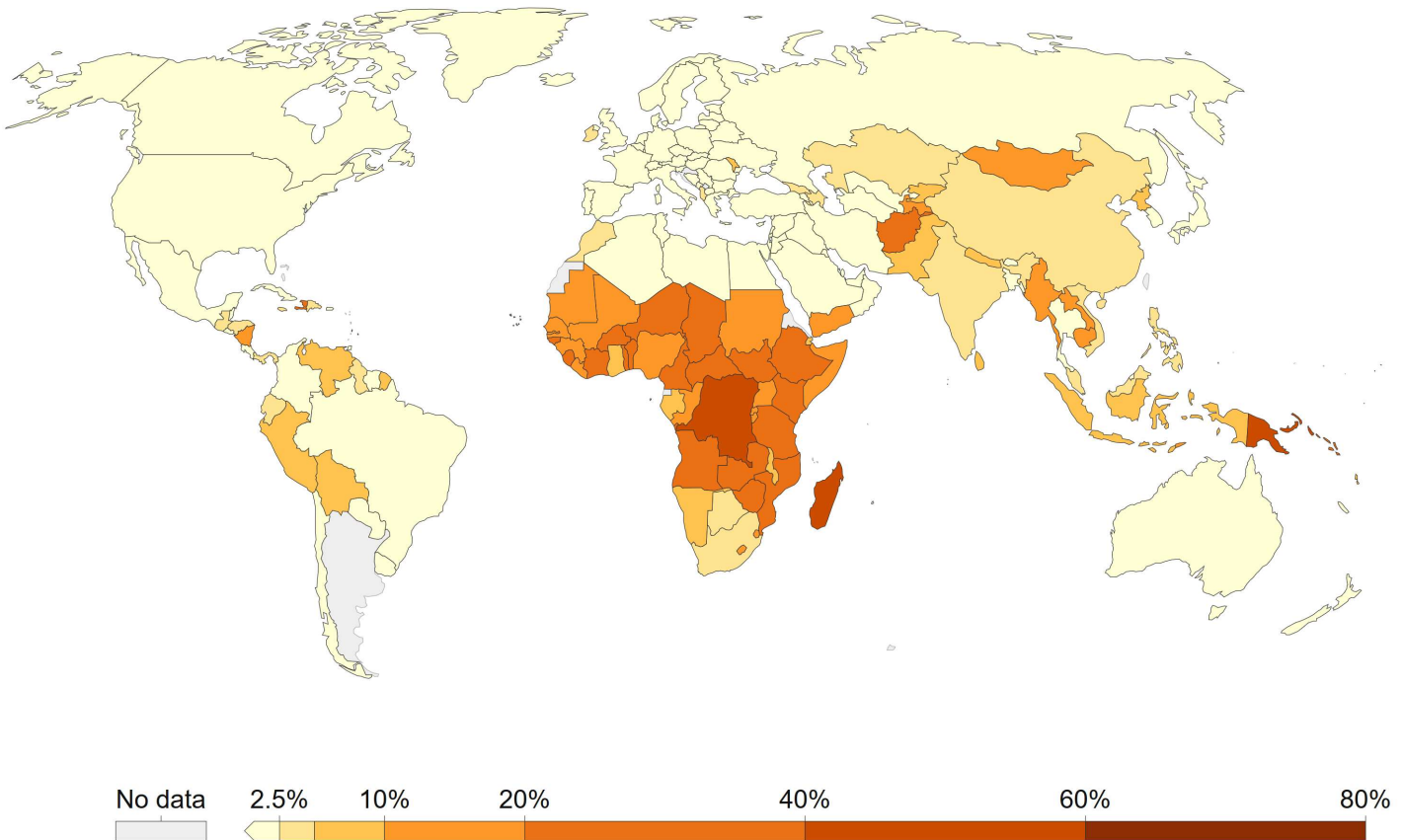
Question 8

8 Which type of map is this?

- choropleth 1
- cadastral 2
- topographic 3
- political 4

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

© Our World in Data, CC BY



Question 9

9. 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.

26 %

Question 10

10. Unsafe drinking water is a leading risk factor for deaths from:

- heart disease 1
- diabetes 2
- malnutrition 3
- infectious diseases 4

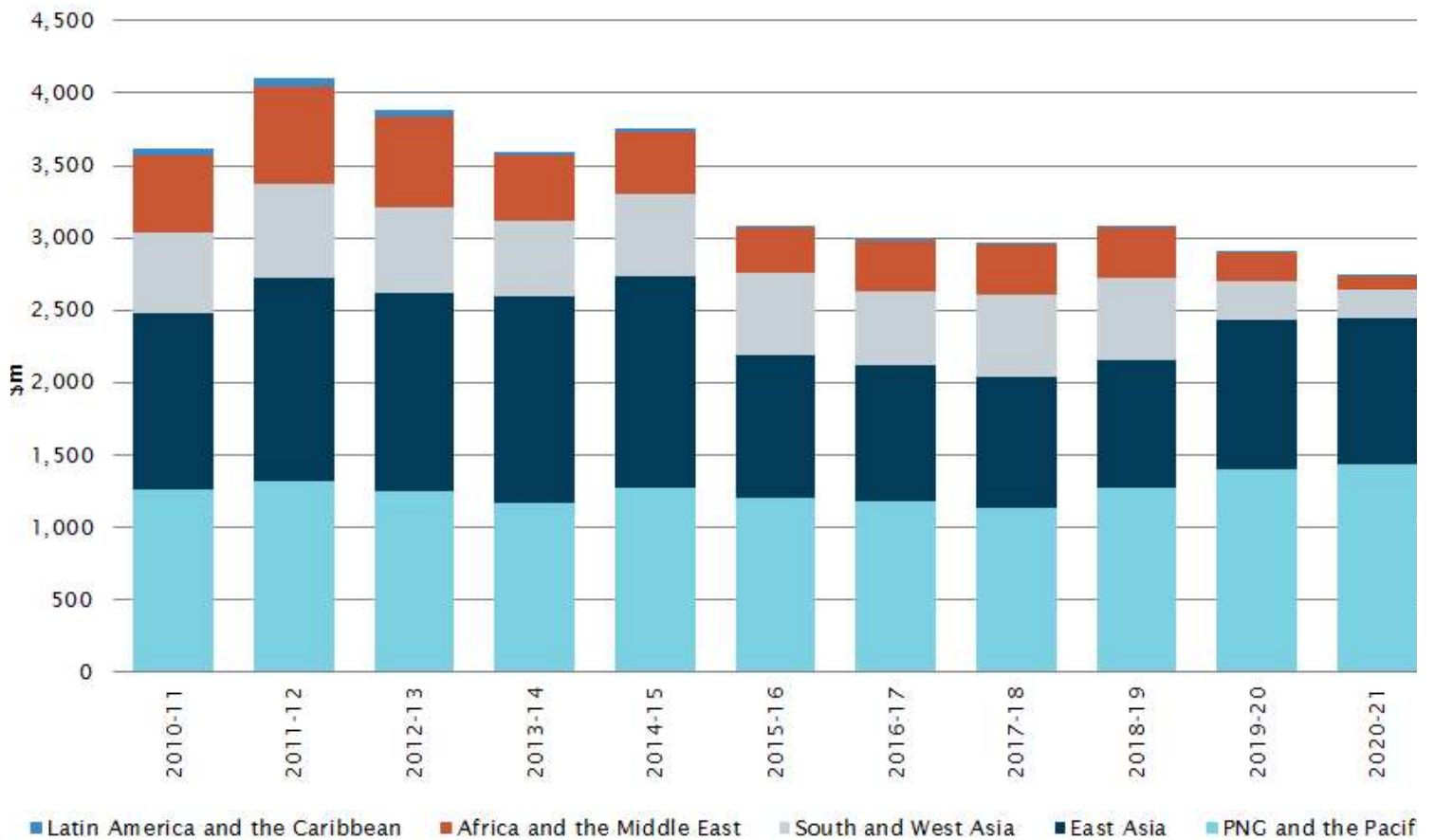
Question 11

11. Using the graph, approximately how much Australian aid did PNG and the Pacific receive in 2018-19?

Round the answer to 2 decimal points and enter the number in the box.

\$ 1.25 billion Accepted any number between 1.20 and 1.30

Australian bilateral aid flows by region, 2010-11 to 2020-21 (constant 2020 \$AU) © Commonwealth of Australia, Parliamentary Li



Question 12

12. Based on the graph, Australian aid to which region was reduced by the largest amount in the aid cuts of 2015-16?

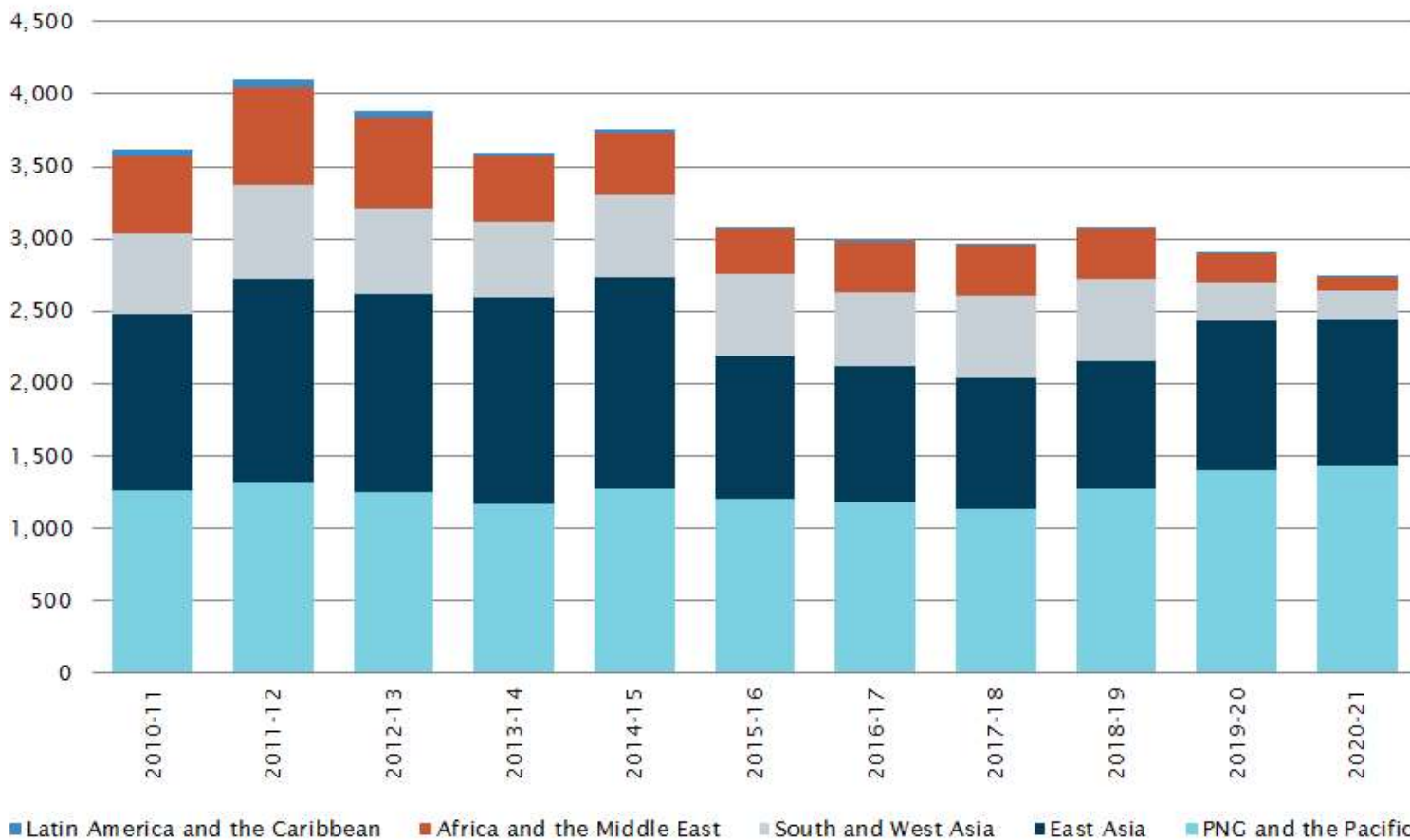
Latin America and the Caribbean 1

East Asia 2

PNG and the Pacific 3

South and West Asia 4

Australian bilateral aid flows by region, 2010-1 to 2020-21 (constant 2020 \$AU) © Commonwealth of Australia, Parliamentary Lib



Question 13

13. Select the statement which best explains why Australia allocates the majority of its bilateral aid to the PNG and Pacific region.

- Other regions have more capacity to lift themselves out of poverty and do not need as much aid from Australia. 1
- It is easy for Australia to run development programmes in nearby locations. 2
- The region is the most economically disadvantaged in the world and therefore need the most funding. 3
- It is in Australia's security and economic interests that the region is stable and resilient. 4

Question 14

14. 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 15

15. The incorporation of First Nations led burning into land management practices in northern Australia has mainly resulted in:

- fewer fires but more canopy fires 1
- rainforest replacing savannah 2
- savannah replacing eucalyptus woodlands 3
- a reduction in the extent and intensity of bushfires 4

Question 16

16. The triangles on the map represent which type of hazard?

storm surges 1

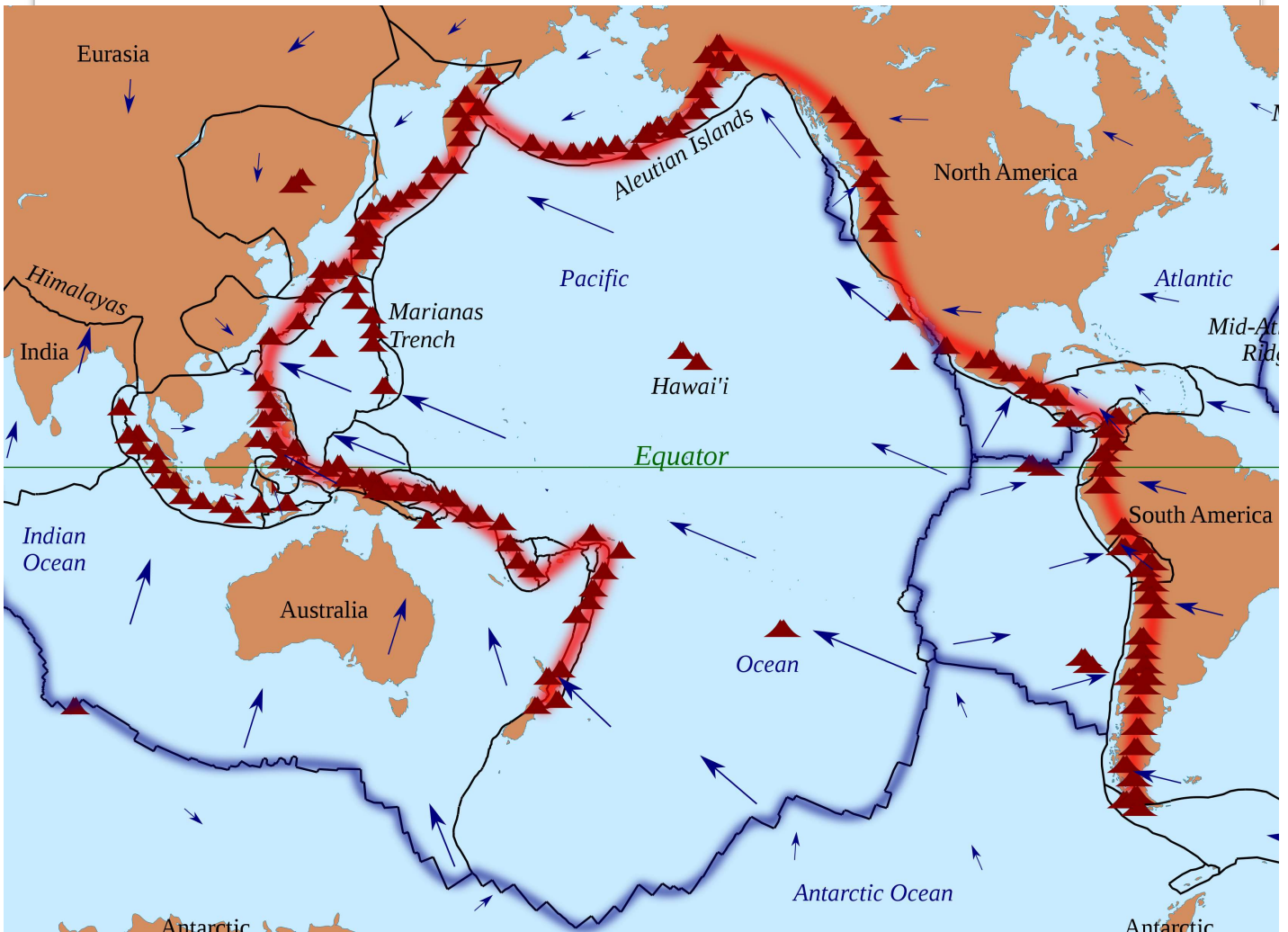
tsunamis 2

earthquakes 3

volcanoes 4

Pacific Ring of Fire (shaded in red)

© Astroskiandhike, CC SA-4.0



Question 17

17. Which types of boundary are evident along the plate margins of the Pacific Ring of Fire?

Select ALL correct options

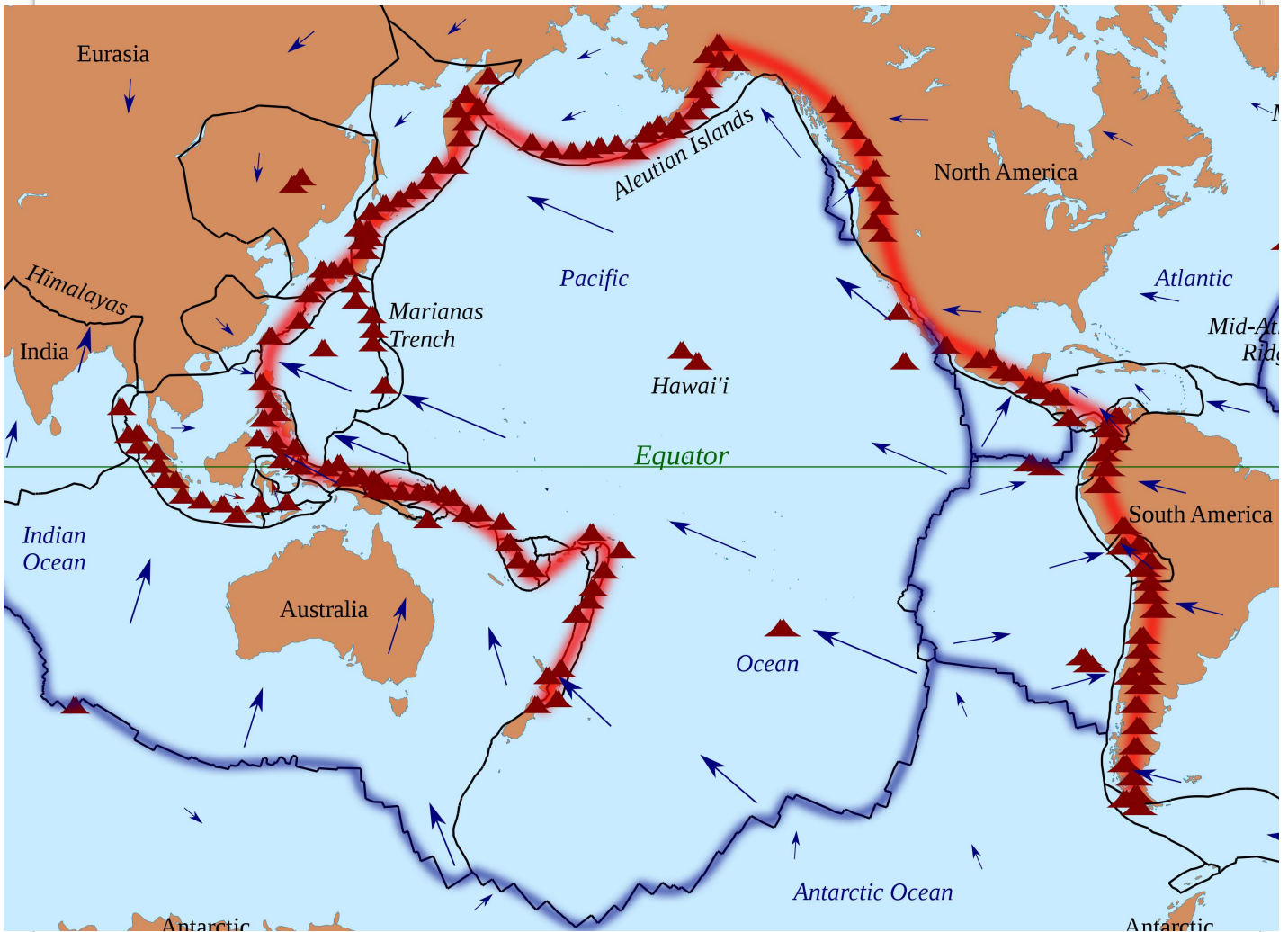
divergent 1

convergent 2

transform 3

Pacific Ring of Fire (shaded in red)

© Astroskiandhike, CC SA-4.0



Question 18

18. Which process is occurring at the Aleutian Islands?

rift valley formation

1

movement parallel to the boundary

2

plate subduction

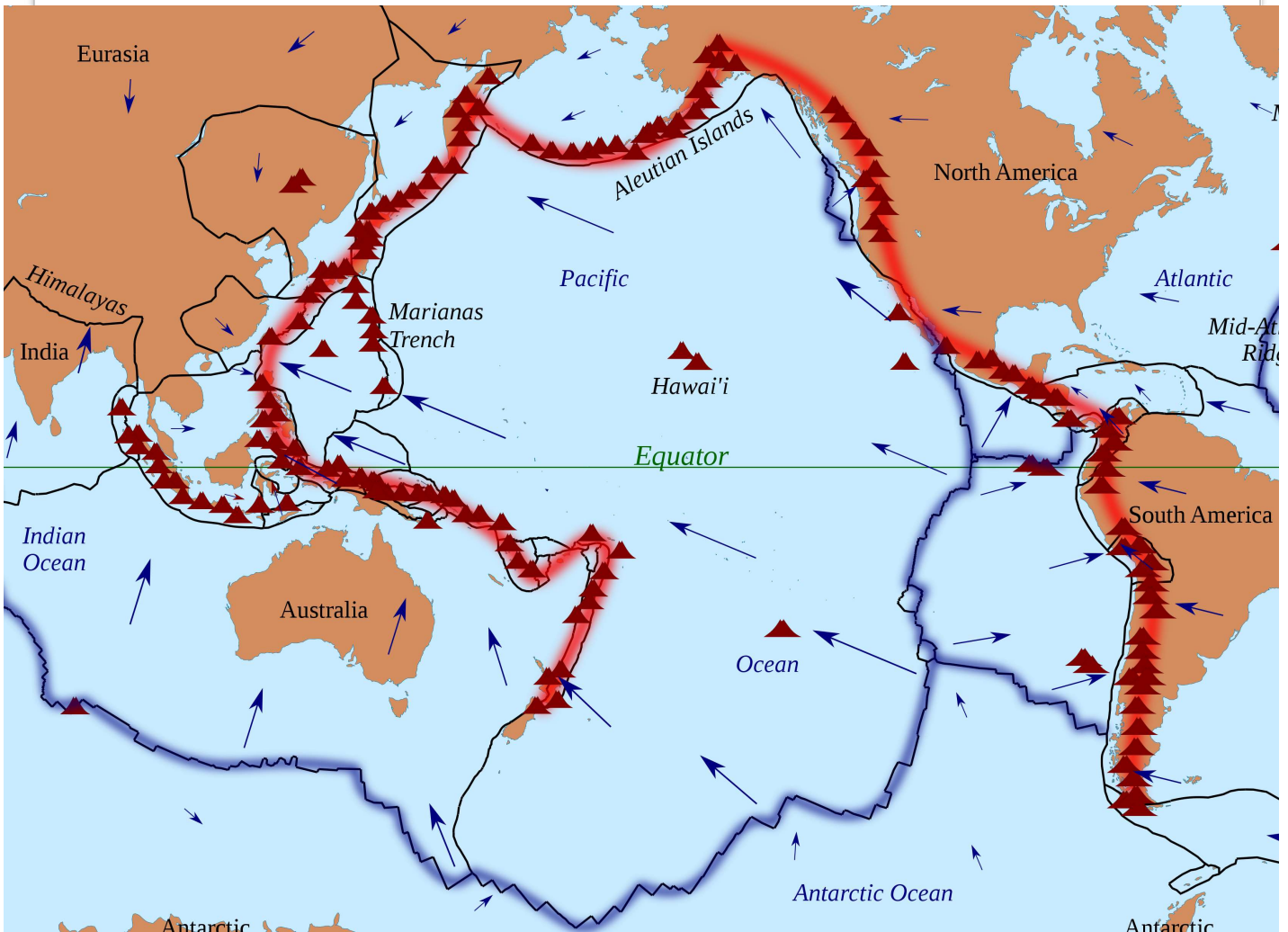
3

new crust development

4

Pacific Ring of Fire (shaded in red)

© Astroskiandhike, CC SA-4.0



Question 19

19. What causes the hazard at Hawaii?

a hot spot with rising plumes of magma

1

violent seafloor movement with displacement of seawater

2

an oceanic plate descending below another oceanic plate

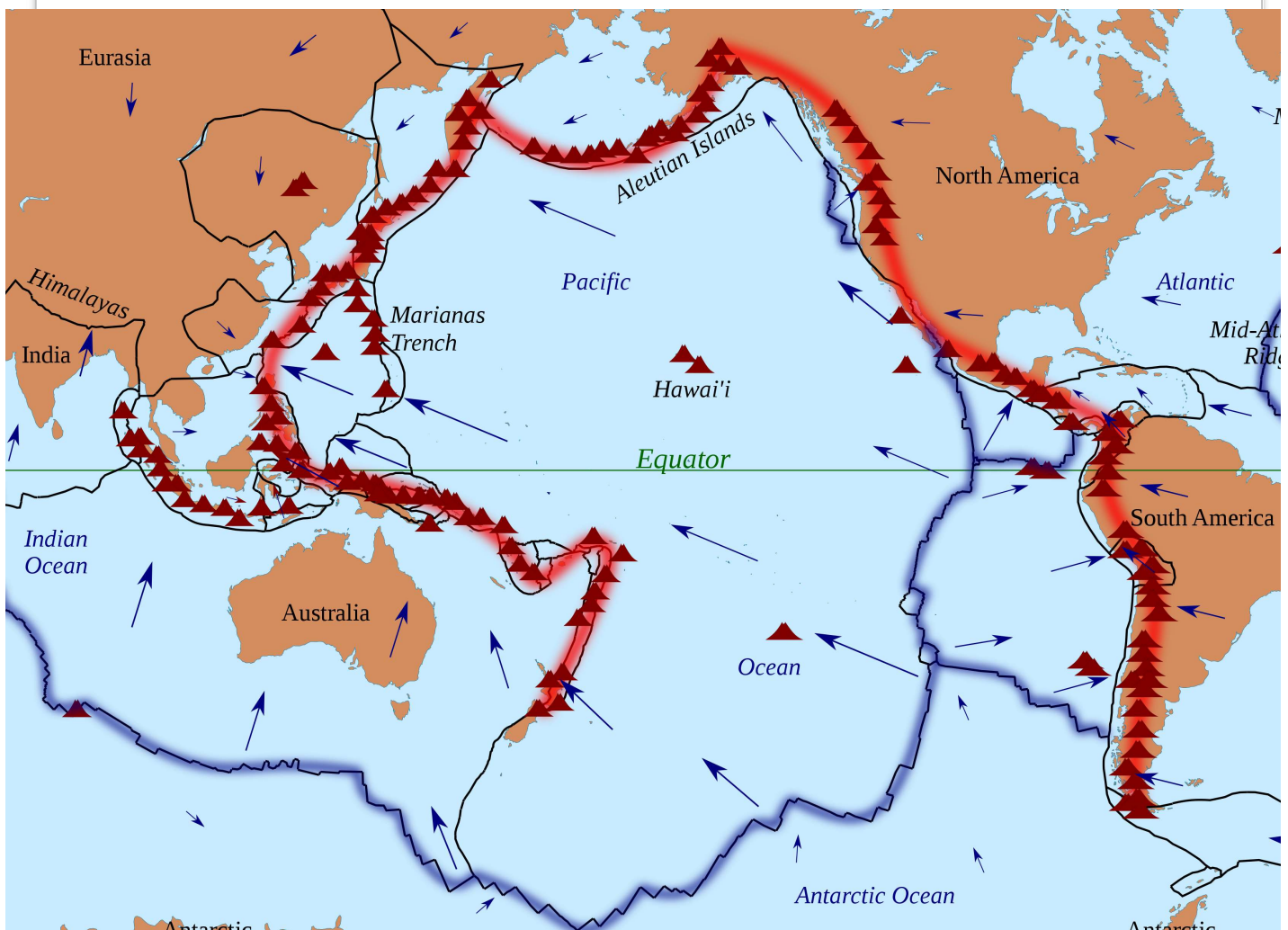
3

a sudden movement along a fault

4

Pacific Ring of Fire (shaded in red)

© Astroskiandhike, CC SA-4.0



Question 20

20. 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
- increasing the number of buildings with fire proofing in densely populated areas 2
- upgrading the seismic resistance of buildings 3
- support for voluntary disaster management organisations 4

Question 21

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

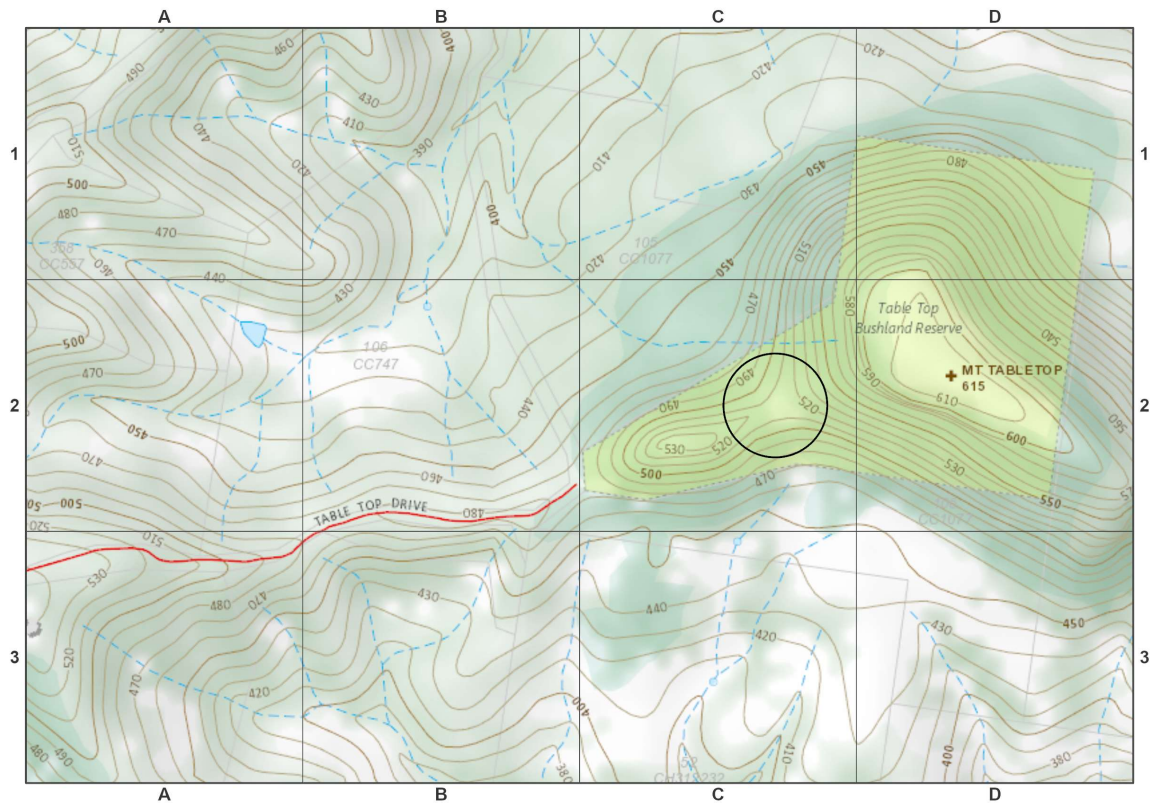
Choose the answer from the drop-down menu.

The landform shown inside the black circle is a .

- cliff
- saddle
- valley
- spur

Mount Tabletop map extract

© State of Queensland, Department of Resources



Question 22

22. Which 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

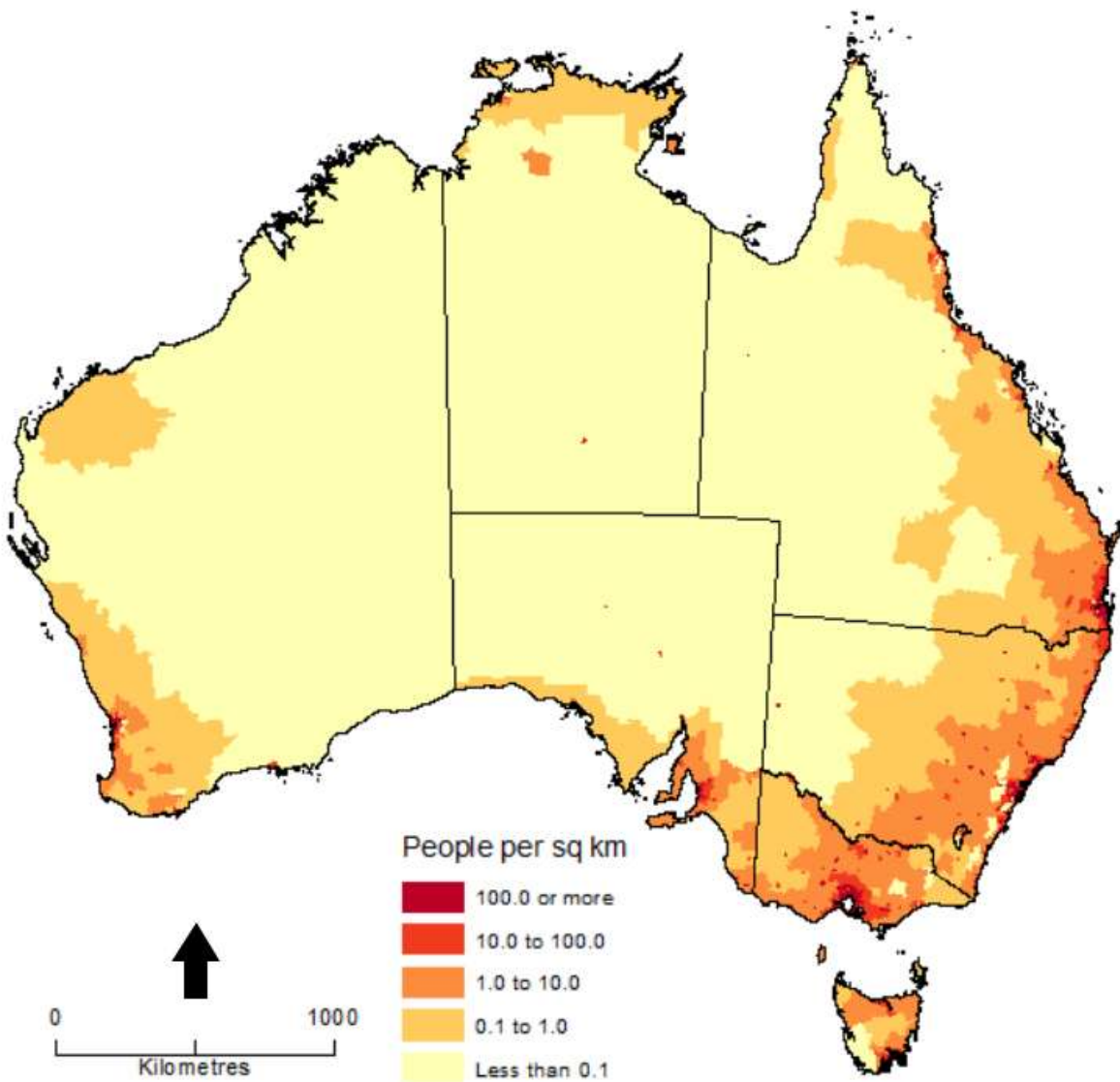
3

availability of water resources

4

Population density, Australia, June 2018

© Commonwealth of Australia, Australian Bureau of Statistics



Question 23

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

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

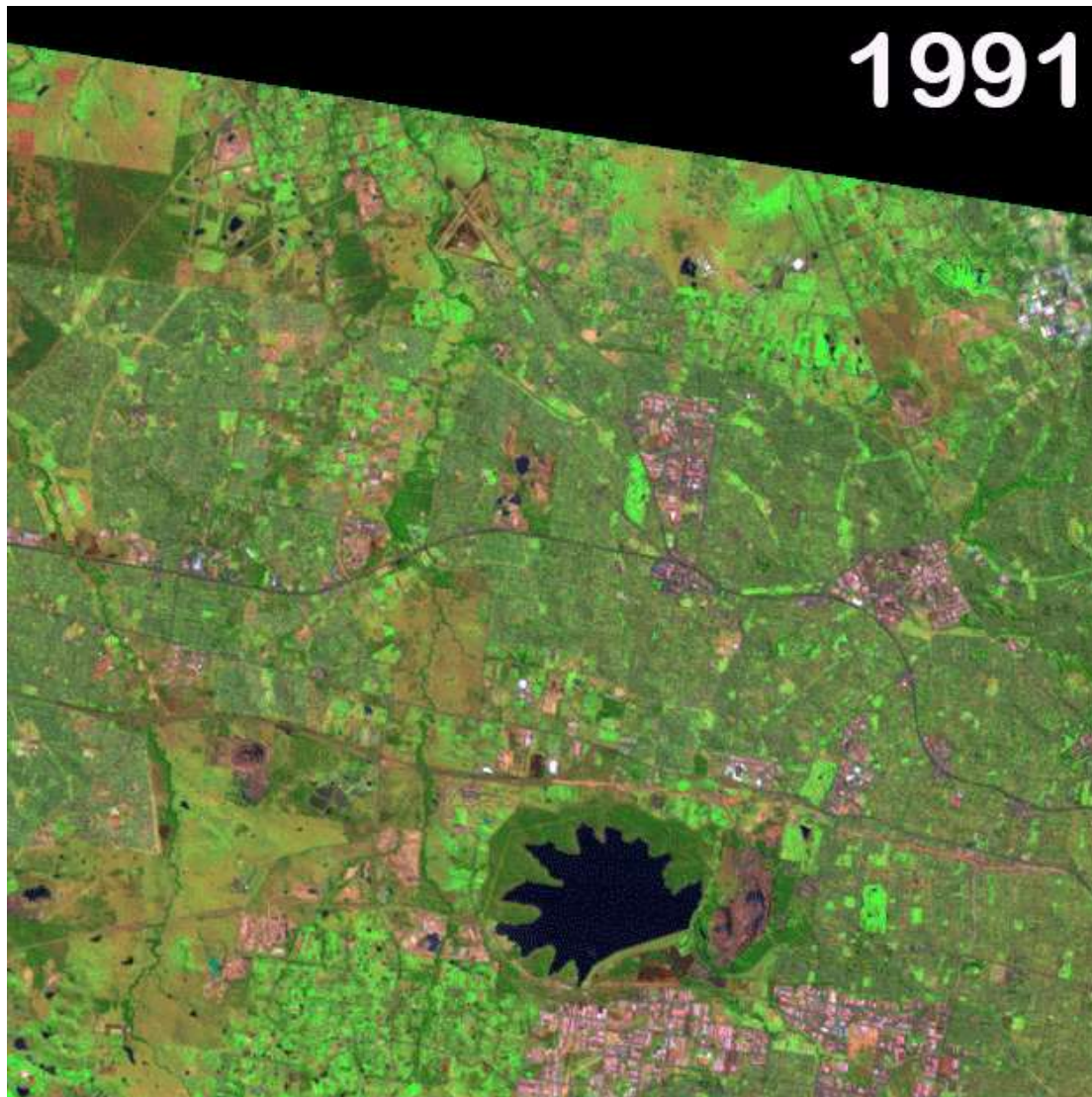
Choose the answer from the drop-down menu.

The animation represents

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

Western Sydney, 1991, 2002, 2019

Source images © U.S. Geological Survey



Question 24

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

public transport

1

walking

2

ride-share service

3

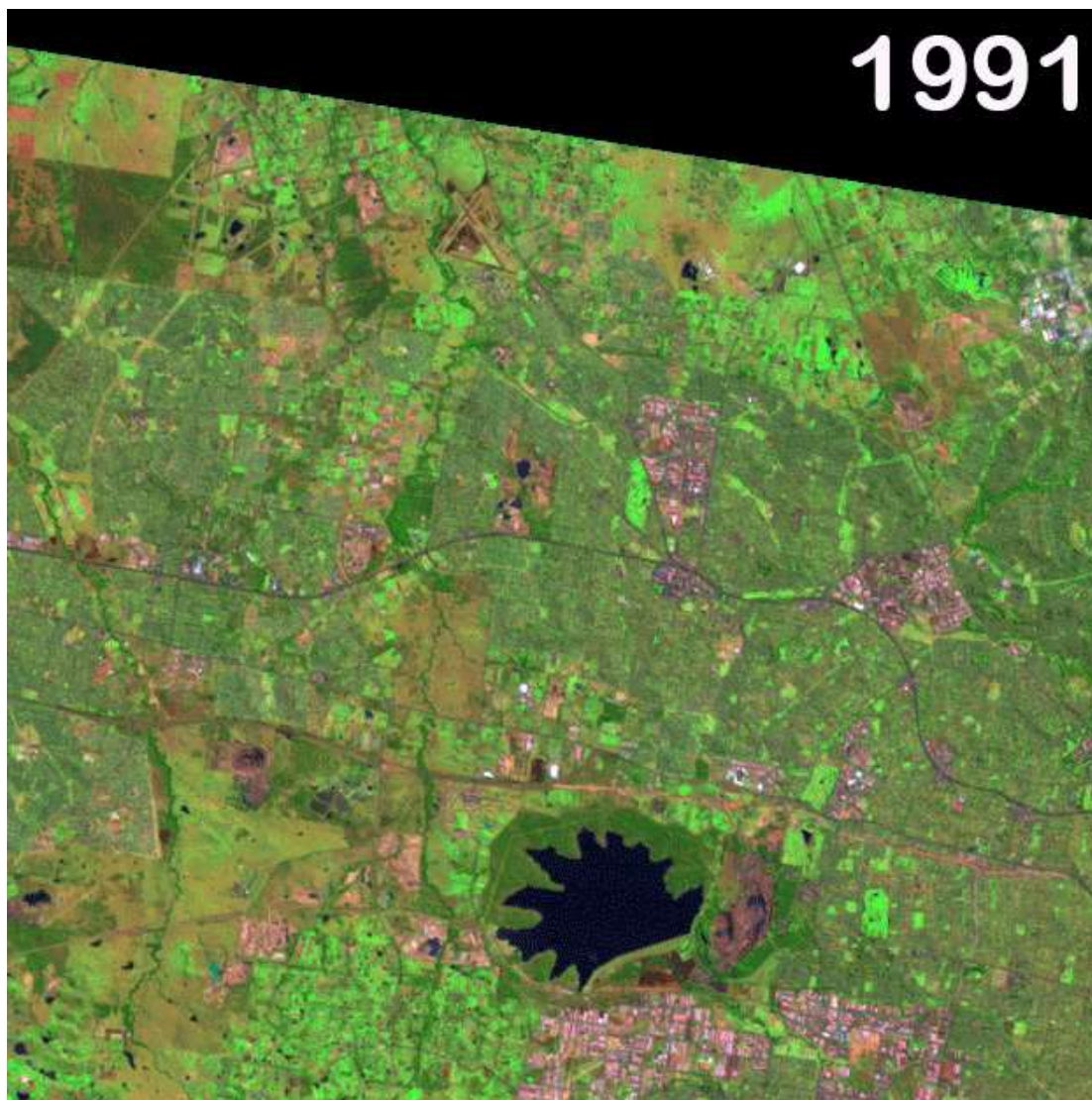
private cars

4

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

Western Sydney, 1991, 2002, 2019

Source images © U.S. Geological Survey



Question 25

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

The City of Sydney has high quality health facilities.

1

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

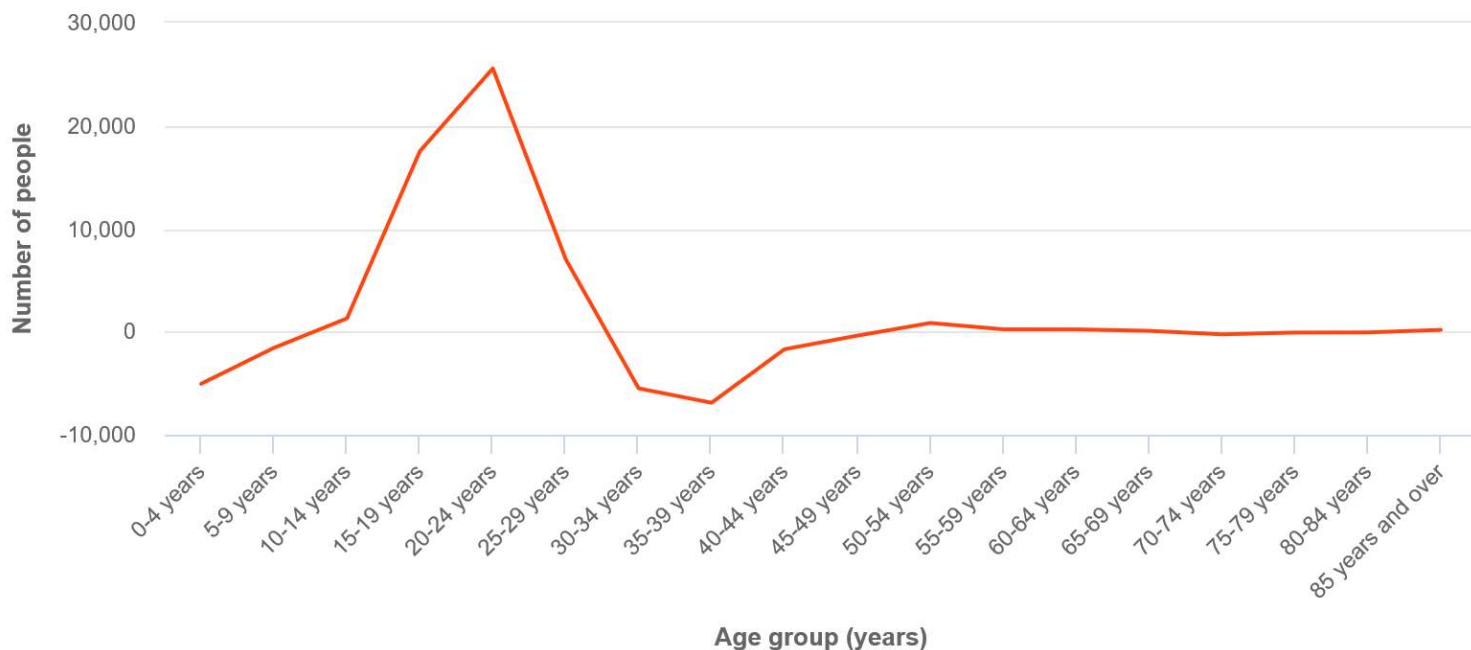
The City of Sydney is a well-known tourist destination.

3

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

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

© .id (informed decisions)



Question 26

26. 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

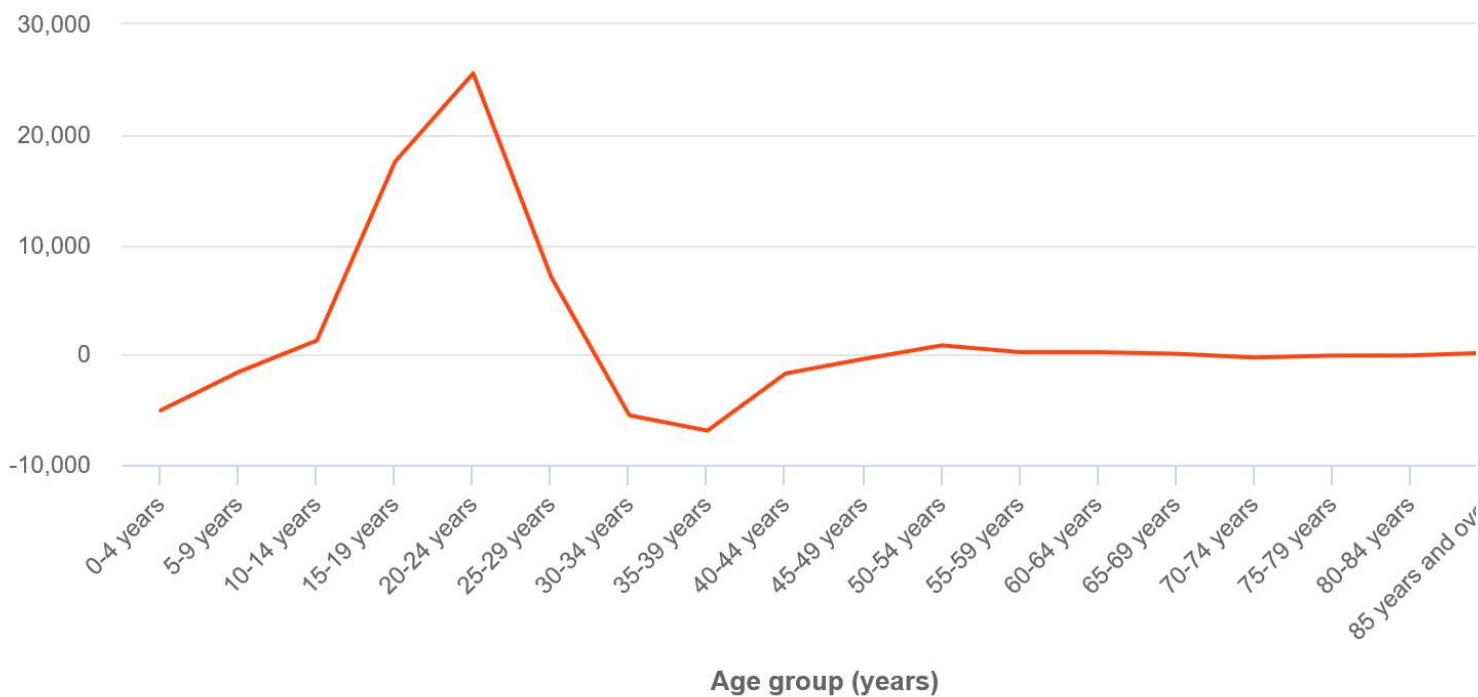
People that age are likely to be settled in their permanent careers. 2

Many people leave the City of Sydney after completing University. 3

Young families seek housing opportunities elsewhere. 4

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

© .id (informed decis



Question 27

27. Which of these impacts of growing coastal populations are environmental?

Select ALL correct options

- increased runoff of sediment and nutrients 1
- filling in coastal lagoons 2
- increased property prices 3
- destruction of mangroves 4

Question 28

28. 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.

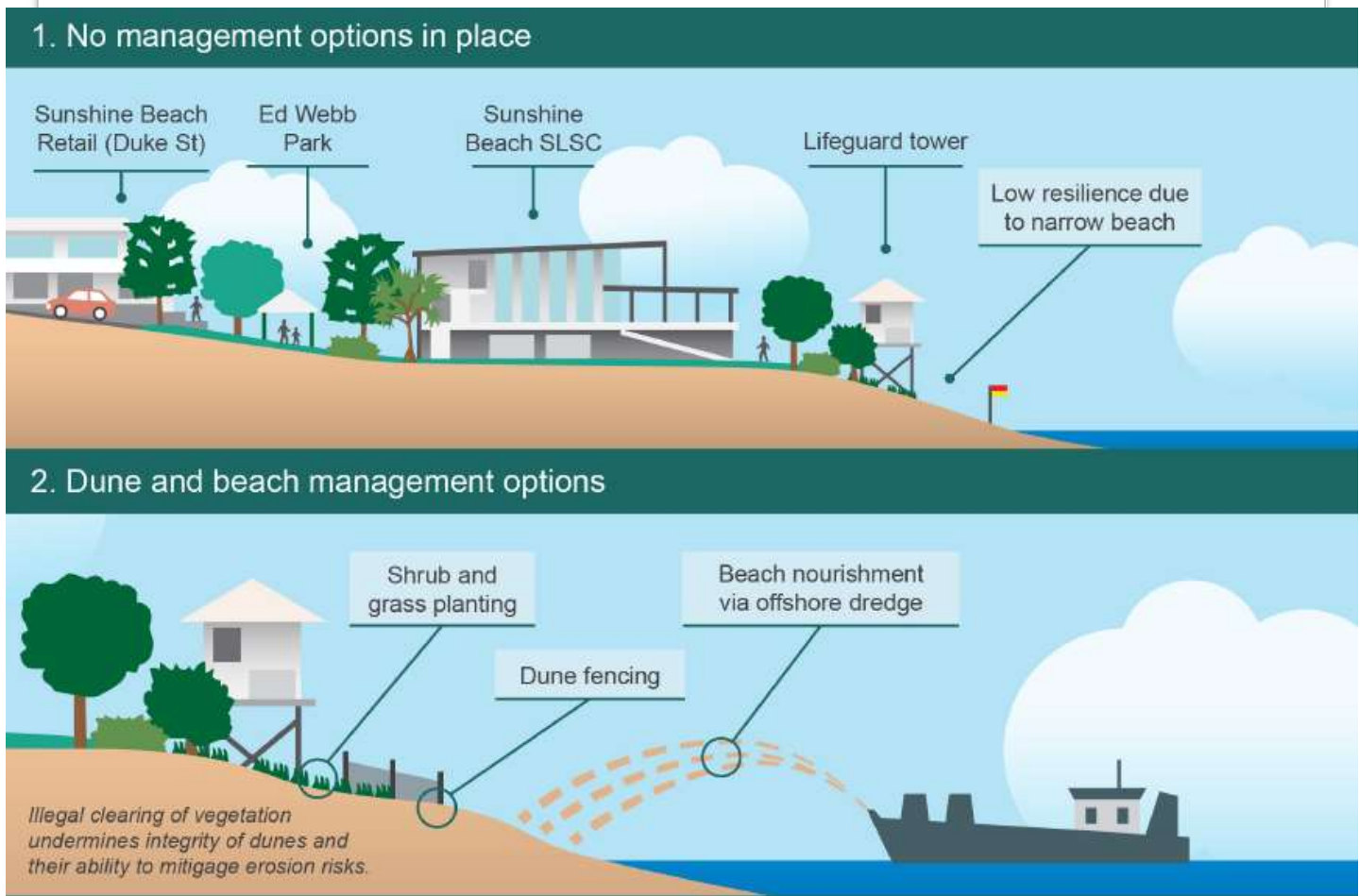
Shrub and grass planting is **soft** v engineering.

Dune fencing is **hard** v engineering.

Beach nourishment is **soft** v engineering.

Dune and beach management measures, Sunshine Beach, Qld

© Noosa Council



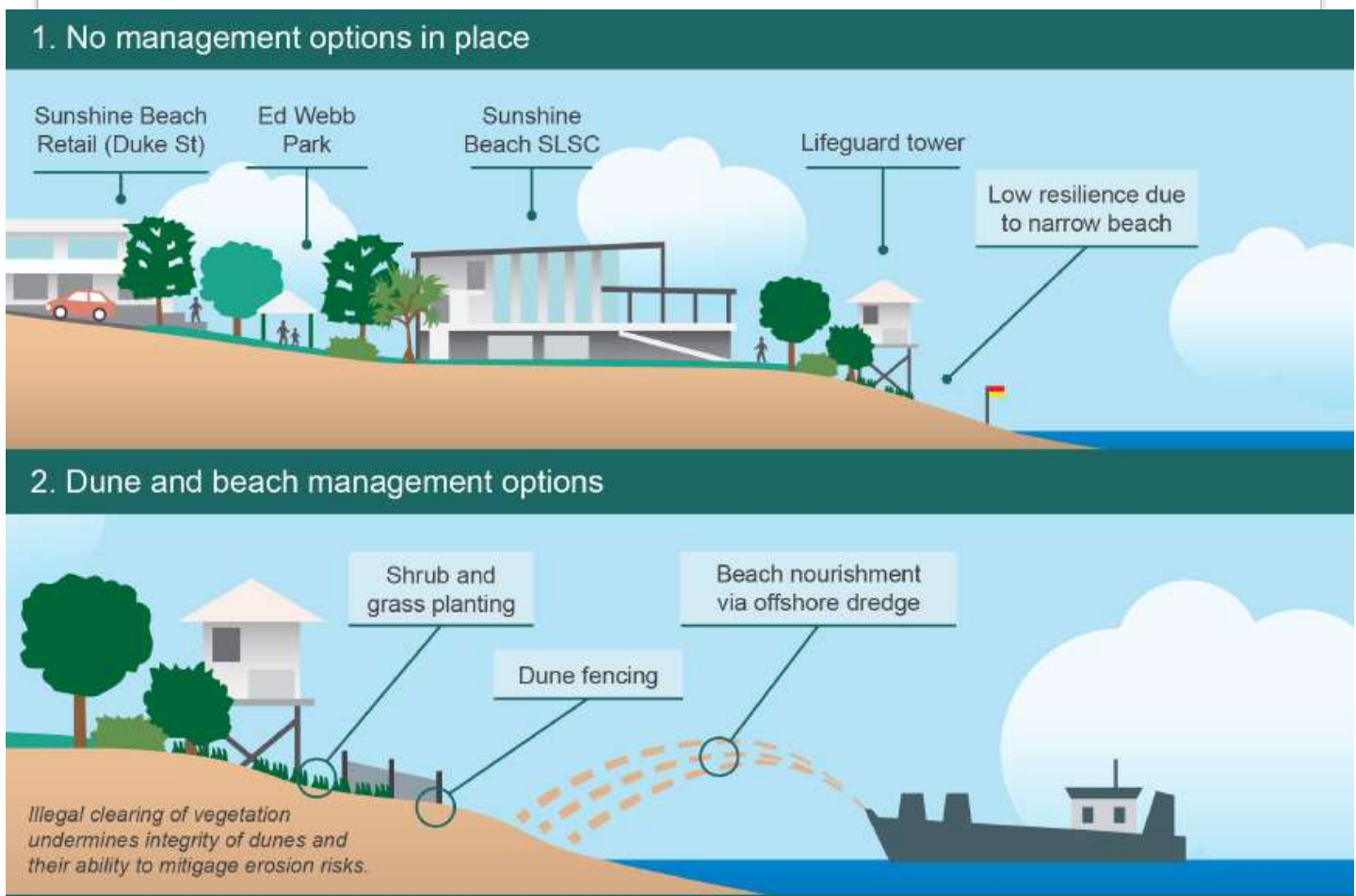
Question 29

29. 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
- improved resilience to erosion 3
- erosion at the base of lifeguard tower 4

Dune and beach management measures, Sunshine Beach, Qld

© Noosa Council



Question 30

30. 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.

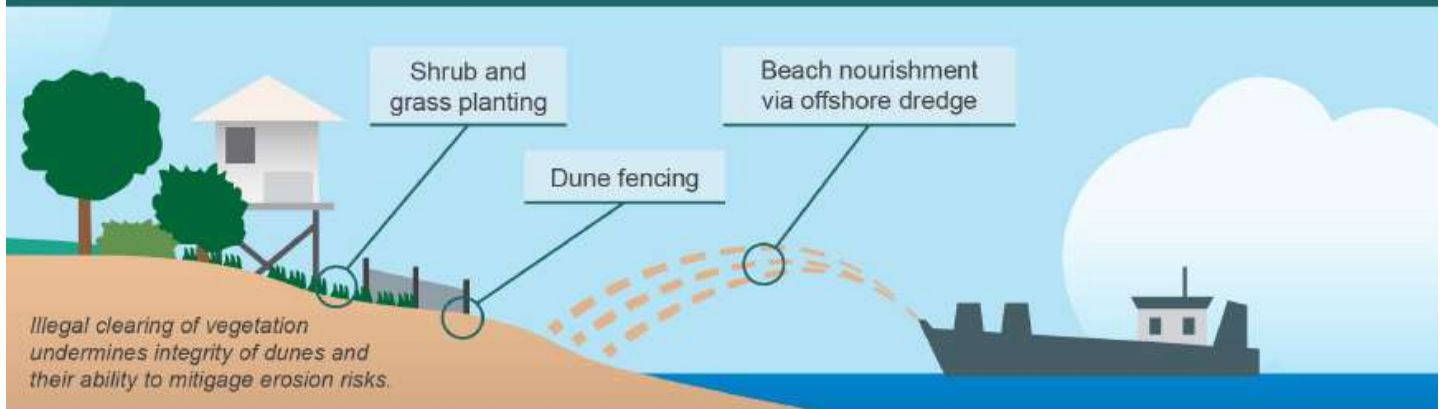
Dune and beach management measures, Sunshine Beach, Qld

© Noosa Council

1. No management options in place



2. Dune and beach management options



Question 31

31. Which environmental world views match the definitions?

Drag and drop the answers.

anthropocentric ecocentric egocentric biocentric

Term	Definition
anthropocentric	regarding human beings as the central and most important part of the world
biocentric	regarding all living components of the environment as equally important
ecocentric	placing value and importance on all elements of the ecosystem

Question 32

32. Which world view is evident in the image?

ecocentric

1

egocentric

2

biocentric

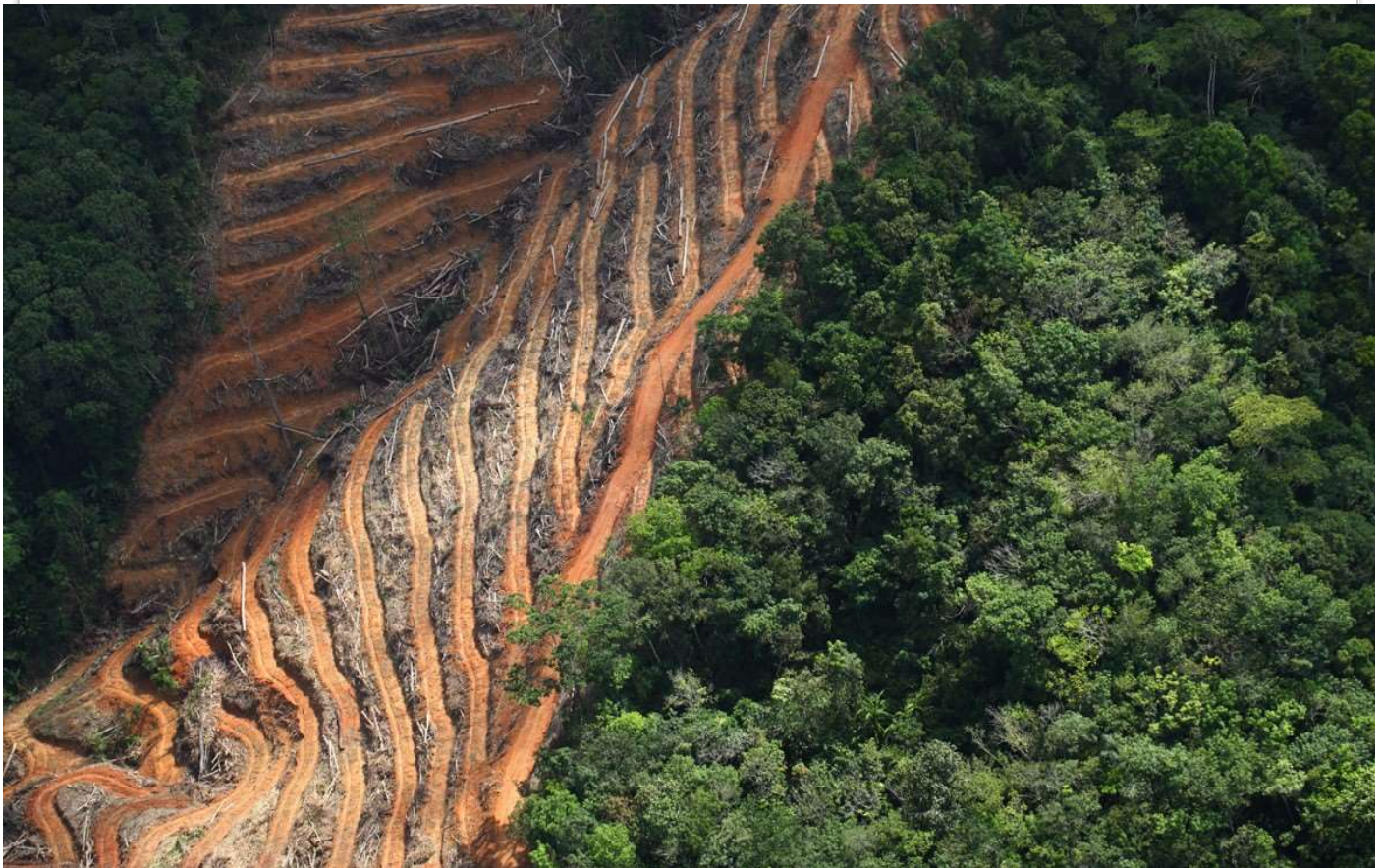
3

anthropocentric

4

Land clearing for oil palm plantation, Sabah, Malaysia

© Mongabay.com



Question 33

33. 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

salinisation

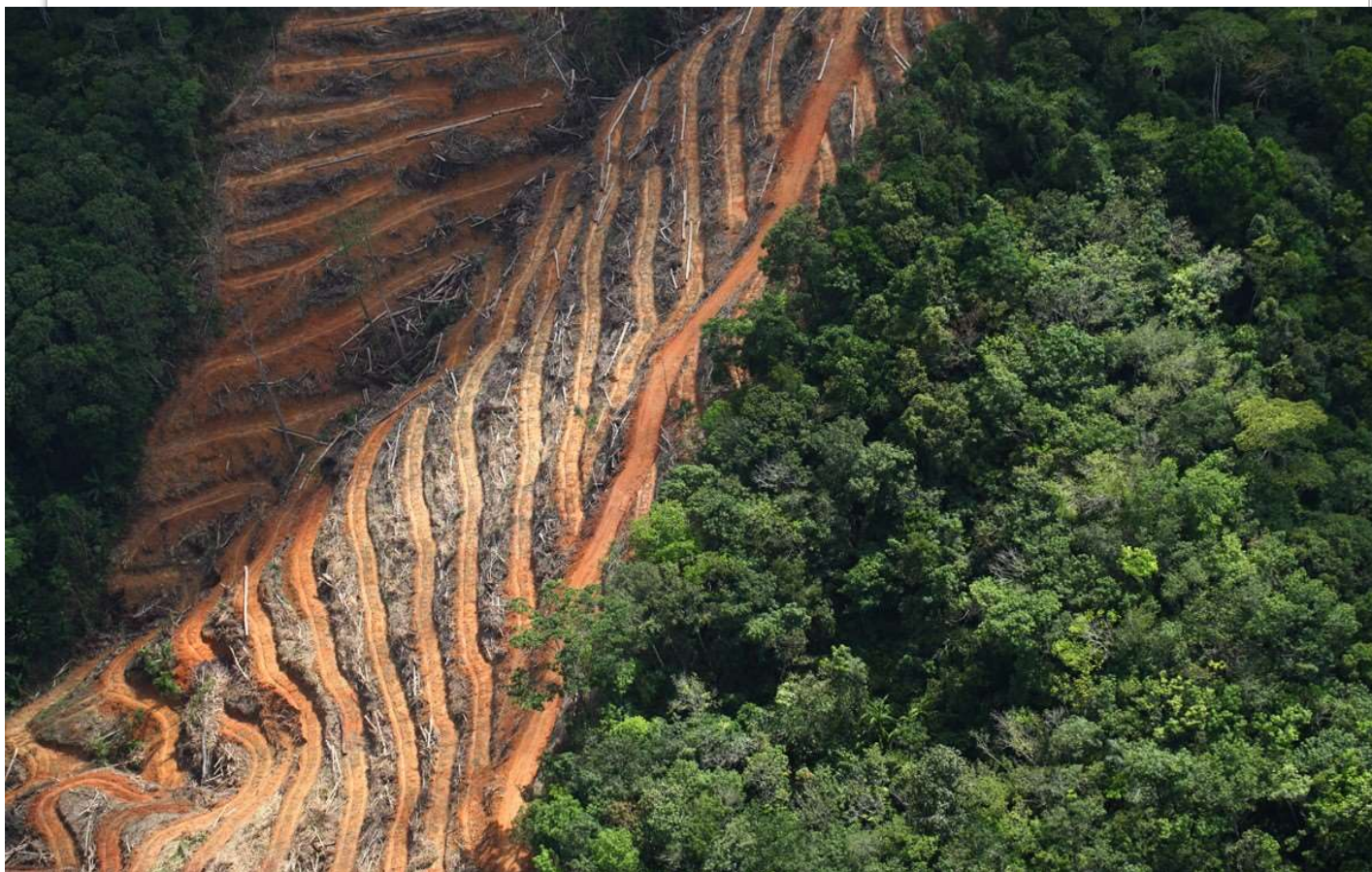
3

siltation of waterways

4

Land clearing for oil palm plantation, Sabah, Malaysia

© Mongabay.com



Question 34

34. Which land cover change has occurred in the northwest section of the images since 1969?

urban growth and rangeland modification 1

mining and land reclamation 2

land reclamation and irrigation 3

land drainage and urban growth 4

Near Busselton, 1969

Near Busselton, 2017

© Commonwealth of Australia, Geoscience Australia

© CNES



Question 35

35. Based on the two images, which of these is the WA Environmental Protection Authority likely to see as potentially the major concern arising from the mining in the southeast section?

contaminants entering the Ramsar-listed Vaase Estuary via the Sabina River 1

noise and dust pollution affecting close neighbours 2

loss of land productivity due to soil disturbance 3

clearing of extensive areas of endangered tuart woodlands 4

Near Busselton, 1969

Near Busselton, 2017

© Commonwealth of Australia, Geoscience Australia

© CNES



Question 36

36. Which of these are environmental benefits from the establishment of the Tuart Forest National Park in the northeast section of the image?

Select ALL correct options

restricting the flow of traffic into the regional township of Busselton

1

providing protection for the Vasse Estuary

2

providing a visual barrier to the mine

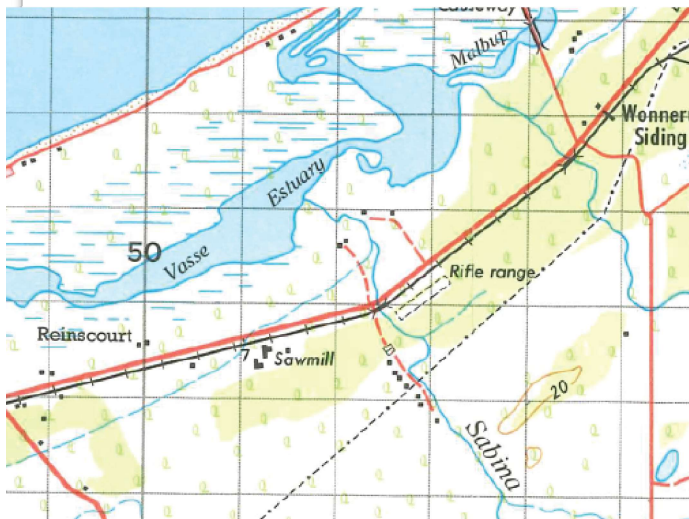
3

protecting the biodiversity of the area from future land cover change

4

Near Busselton, 1969

© Commonwealth of Australia, Geoscience Australia



Near Busselton, 2017

© CNES



Question 37

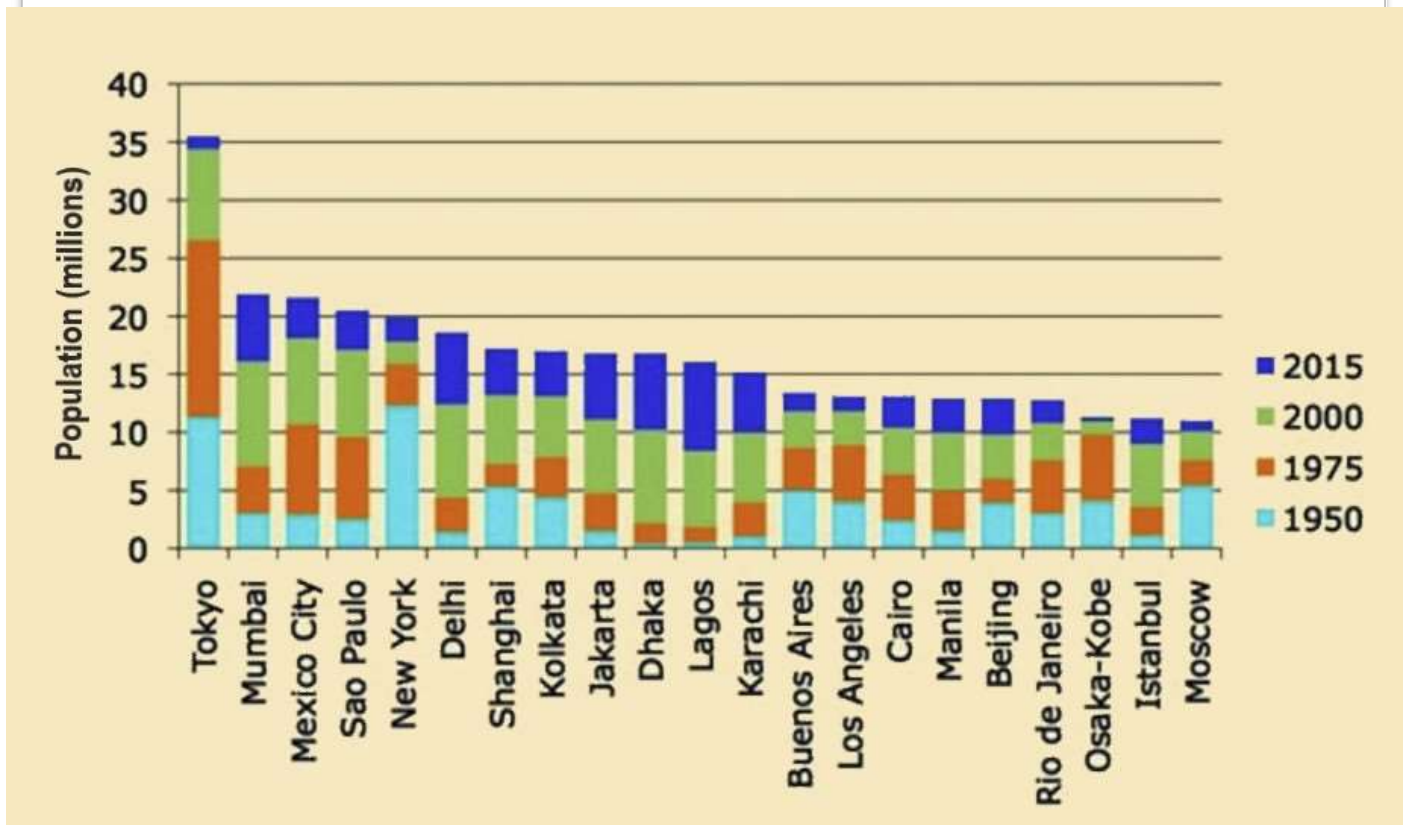
37. Using the graph, what was the most populous city in the world in 1950?

Enter the answer in the box.

New York

The world's megacities, 2015

Source: ISDS



Question 38

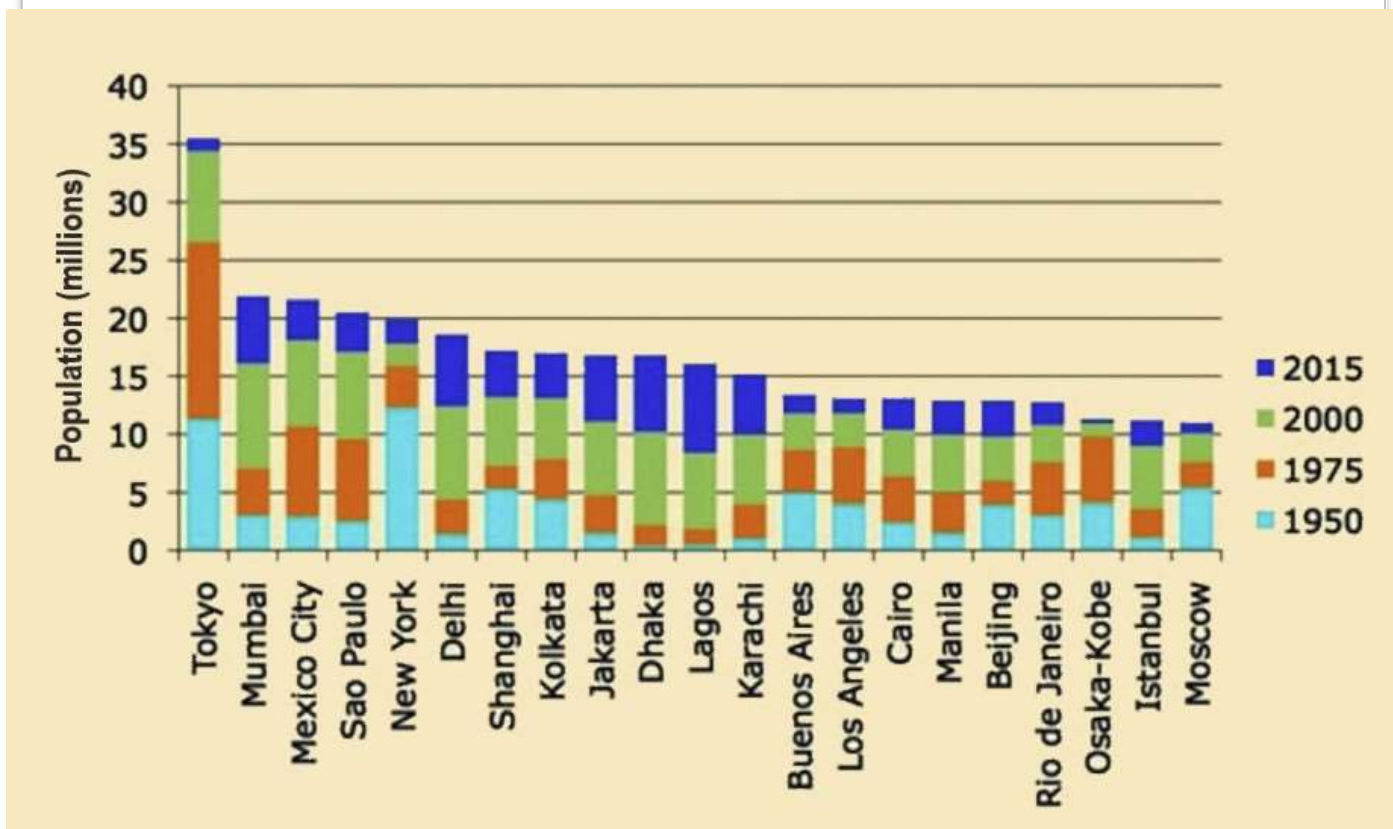
38. Using the graph, which megacity had the highest growth rate between 2000 and 2015?

Enter the answer in the box.

Lagos

The world's megacities, 2015

Source: ISDS



Question 39

39. What is the main driver of population growth in megacities in less developed countries?

- international immigration 1
- natural increase 2
- rural-urban migration 3

Question 40

40. Which captions best match the characteristics of Lagos illustrated in the photos?

Drag and drop the answers.

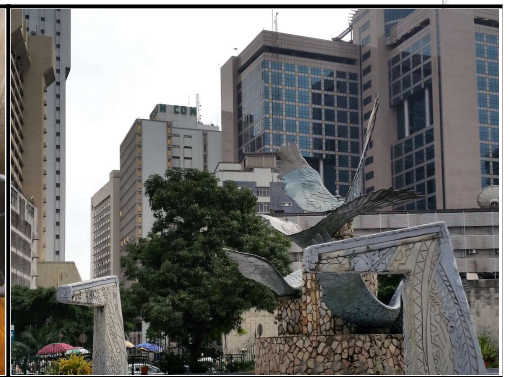
- Governance issues
- Economic strength
- Cultural diversity
- Inadequate infrastructure
- Informal settlements
- Informal economy



[Dashed box for answer]



[Dashed box for answer]



[Dashed box for answer]



[Dashed box for answer]



[Dashed box for answer]



[Dashed box for answer]

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