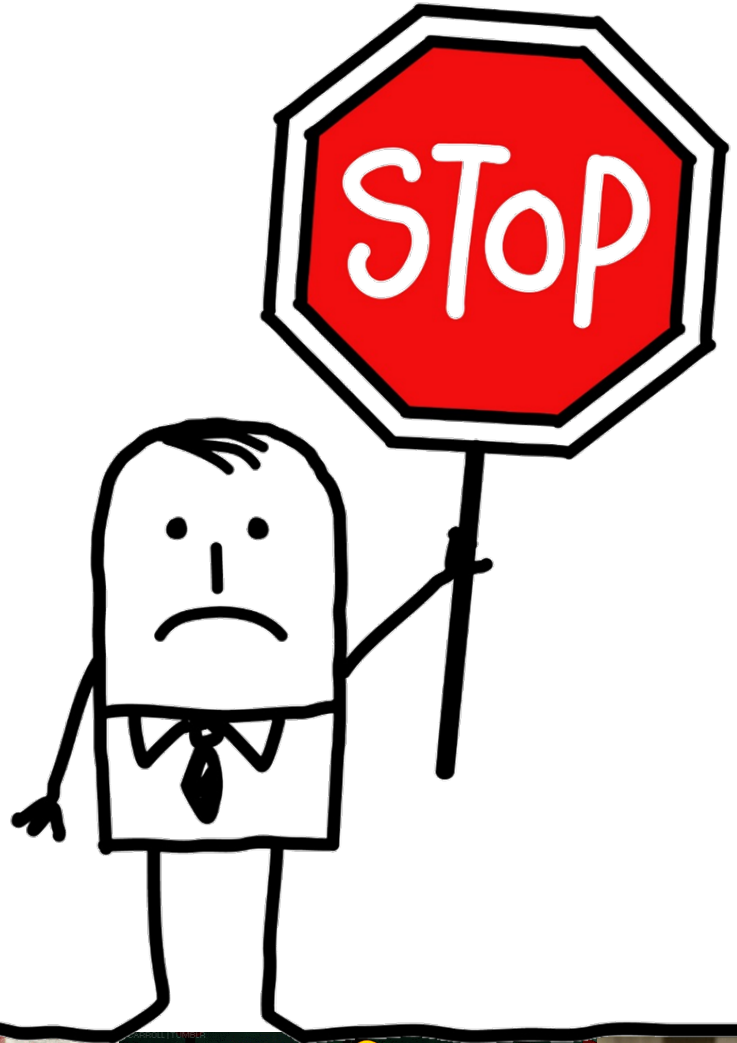
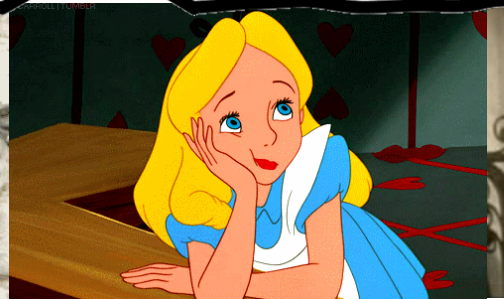
iGeo
Serbia Belgrade 2017

DO NOT TOUCH THE COMPUTER UNTIL TOLD TO DO SO





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Multimedia Test

iGeo MMT-working group 2017

Director of Tests: **Susan Lomas** (United Kingdom)
Committe Convenor: **Tim Schuring** (The Netherlands)
Editors: **Anna Wilson** (New Zealand), **Matrini Ruktanonchai** (Thailand) and **Cornelia Fiscutean** (Romania)
Contributions of: Australia, Belgium, Czech Republic, Estonia, Japan, Mongolia, Netherlands, New Zealand, Romania and Singapore

Instructions

- This test has **40 questions**.
- Look at every page and read the questions carefully.
- You have **50 minutes (native English) / 65 minutes (non-native English) to complete the test**. If you finish early wait silently until time is over.
- Each question is multiple-choice. Choose A, B, C, **or** D. **Only one answer is correct**.
- Some questions contain a short video clip or audio fragment. These are indicated by this icon: . **Click inside the video** frame to start it.
- Mark your choice on the **answer sheet** by making a circle around the letter that you want to select. If you make a mistake cross the selected letter and circle a new choice. If you believe there will be any confusion, also write the letter of your answer next to the question number.
- For navigation it is best to use the arrows on the keyboard to move the te next (↓ →) of previous (↑ ←) page. **DO NOT CLICK ON THE ESCAPE BUTTON, AS THAT ENDS THE PRESENTATION.**

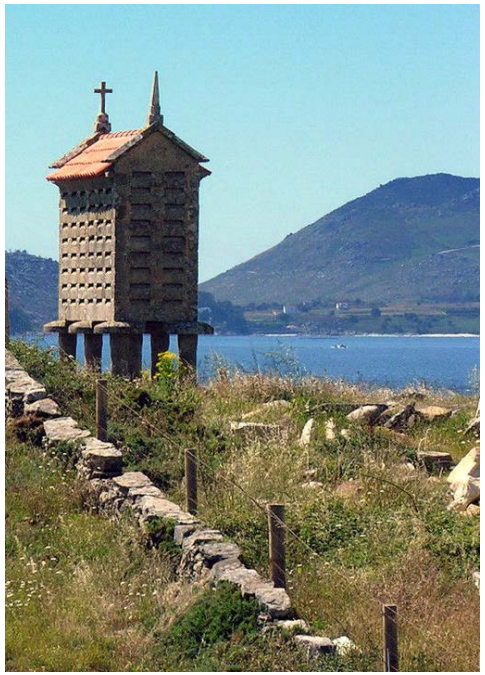
Q 01 In what country were these photographs taken?

.08	Colombia
.07	Chile
.61	Uruguay
.24	Venezuela

Q 02 **Built-up areas as seen in the picture are typically connected with:**

.54	urban sprawl
.06	ethnic enclaves
.07	downtown
.34	counterurbanization

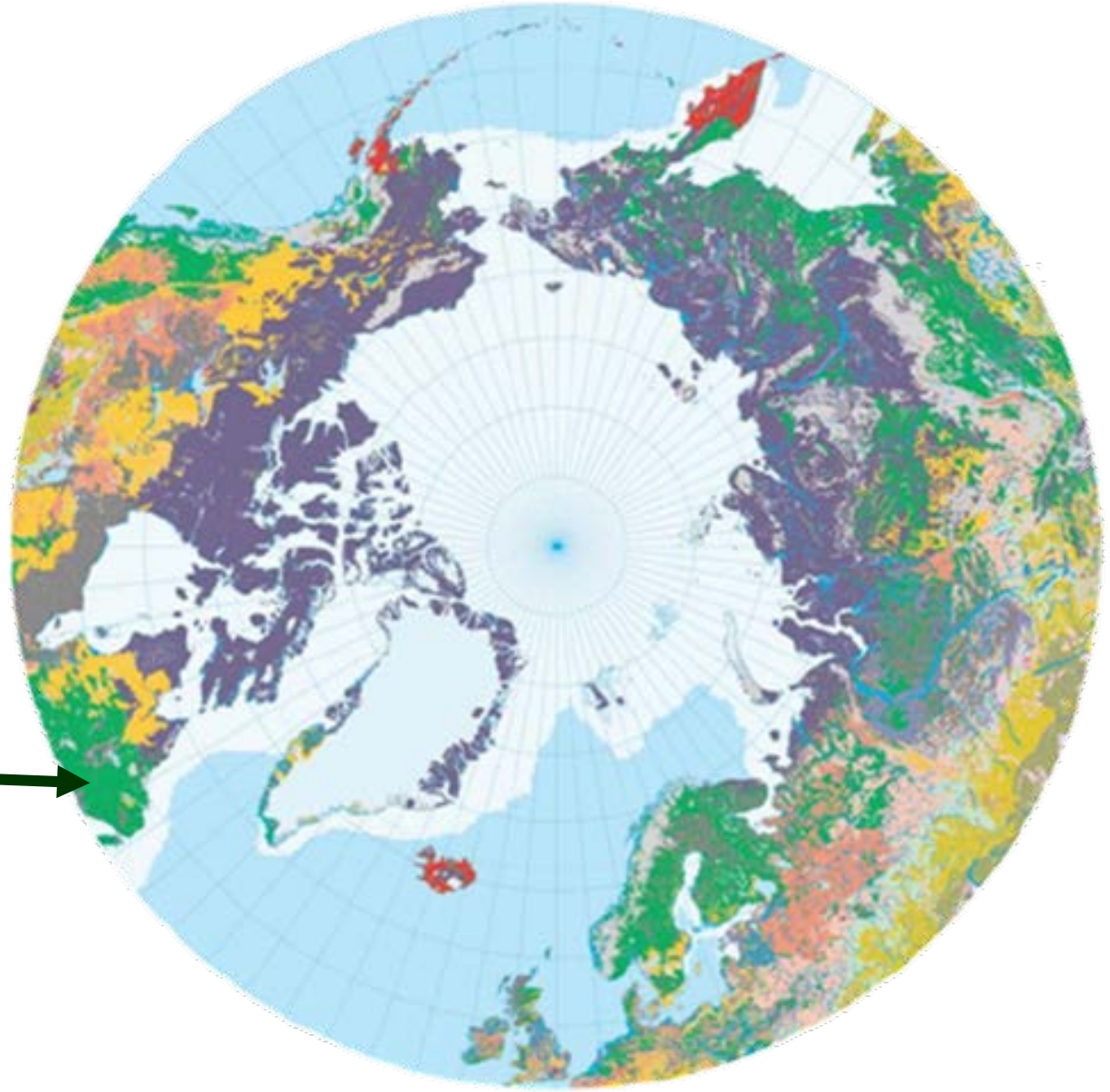
Q 03 The structures shown in the image typically found in Galicia (Spain) are:



.13	granaries
.53	burial places
.04	beehives
.29	shrines

http://esdac.jrc.ec.europa.eu/content/soil-atlas-northern-circumpolar-region

Q 04 Which soil picture corresponds to the green area of this soil map?



.03 soil picture A

.32 soil picture B

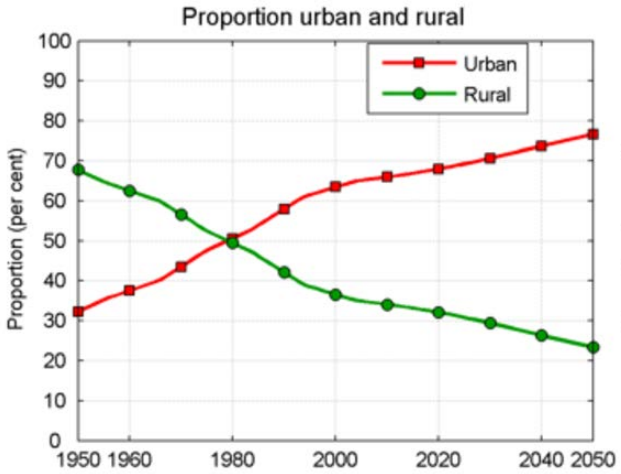
.26 soil picture C

.40 soil picture D

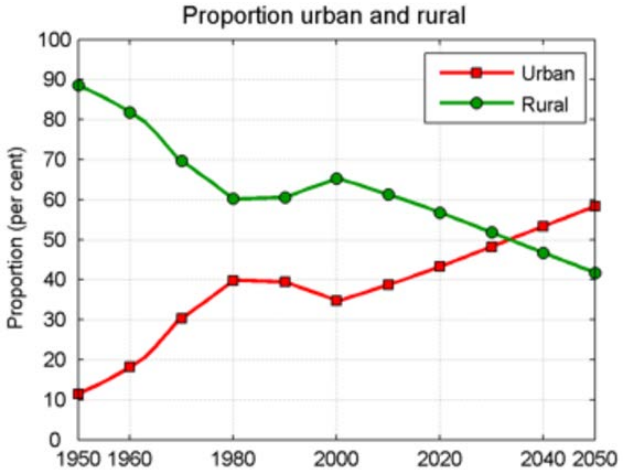
https://esa.un.org/Unpd/Wup/Country-Profiles/

Q 05 Urban-rural country profiles of: Egypt, Kenya, Tunisia and Zambia (in alphabetic order). Which diagram corresponds to Kenya?

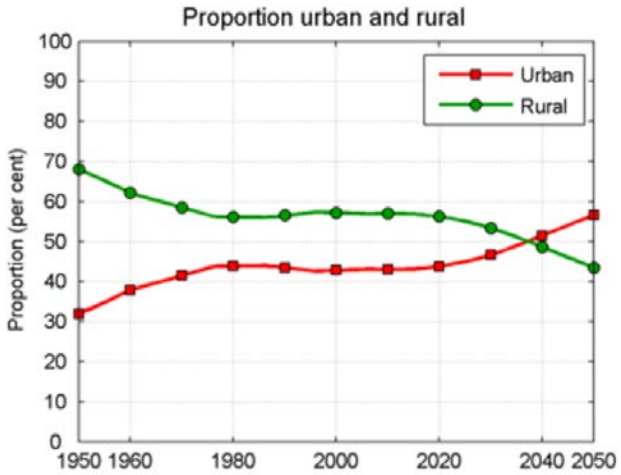
graph A



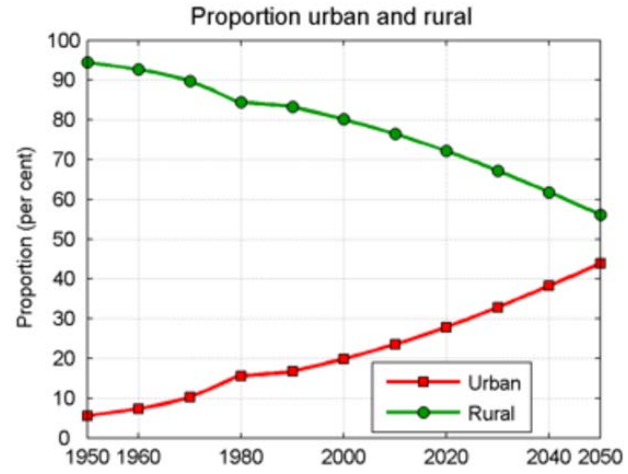
graph B



graph C



graph D



.03	graph A
.51	graph B
.29	graph C
.16	graph D

Q 06 This phenomenon is a result of:

before

after

.18	tsunami
.28	tectonic uplift
.04	coastal abrasion
.51	strong spring tide

Q 07 The table shows the storage and flow in the ecosystem of inorganic nutrients for savanna, temperate mixed forest, tropical desert and tropical rainforest.
What is the name of ecoregion 3?

	ecoregion 1	ecoregion 2	ecoregion 3	ecoregion 4
storage in soil (g/m²)	2680	40	35	2
storage in plants (above ground) (g/m²)	24	18	298	0.3
storage in plants (below ground) (g/m²)	9.7	3.5	8.0	0.5
storage in litter (g/m²)	1.5	2.0	4.0	traces
flow amount in litterfall (g/m²/y)	13.0	1.1	0.3	3.6

.13 **savannah**

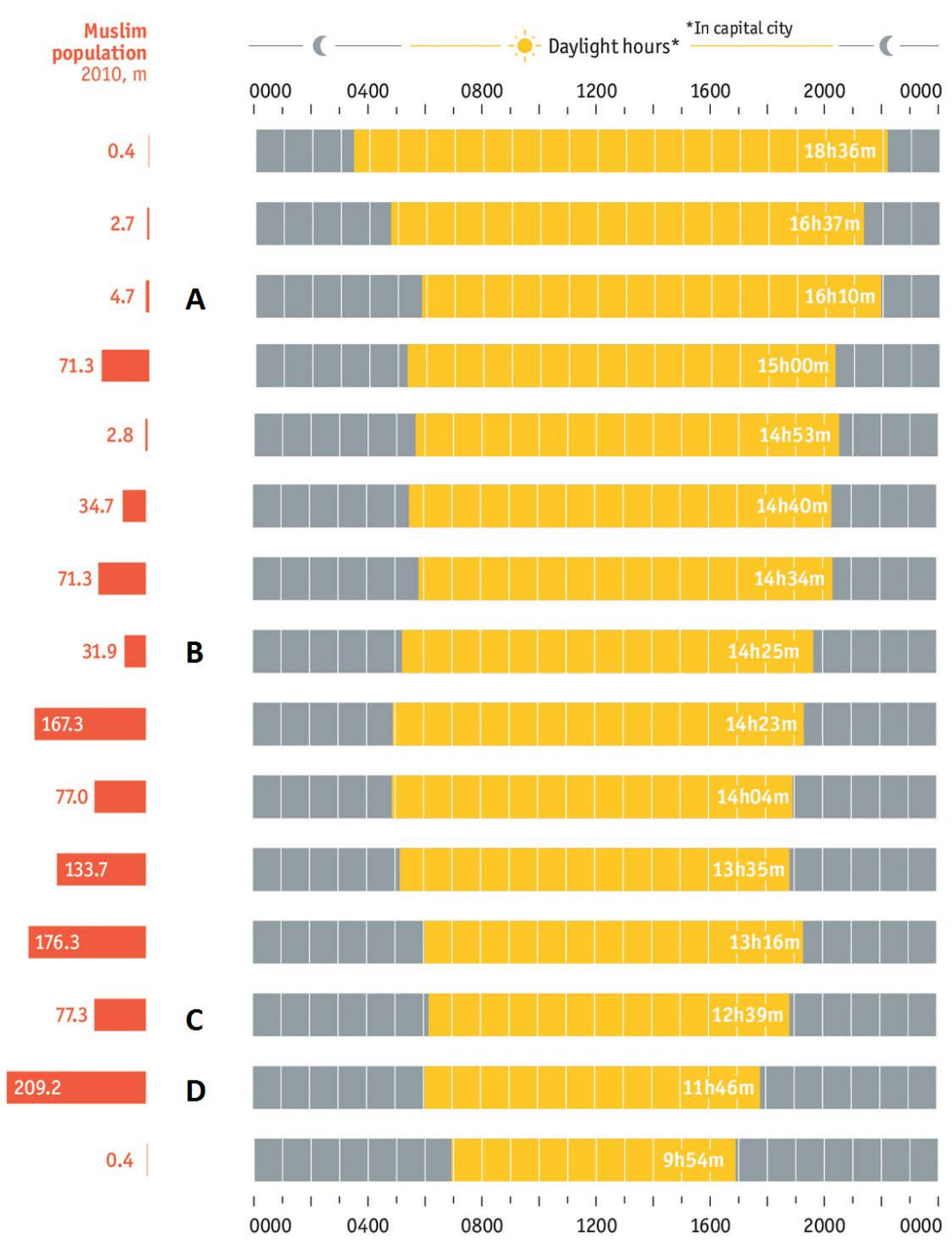
.20 **temperate mixed forest**

.06 **tropical desert**

.60 **tropical rainforest**

Economist.com Sources± Pew Research Center; timeanddate.com

Q 08 The figure shows Ramadan fasting hours around the world for the first full day of Ramadan in 2017 and the Muslim population in 2010.
Which bar represents Morocco?



.13 letter A

.73 letter B

.11 letter C

.03 letter D

Q 09 What instrument played a key role in solving the ‘longitude problem’; the problem of finding longitude at sea before advanced GPS?

A

B

C

D

.59	instrument A
.31	instrument B
.09	instrument C
.03	instrument D

Q 10 What is shown on this dynamic map?

.11 origins and migration of the Zika virus

.34 forest cutting and timber export

.10 livestock herding and export

.44 illegal ivory hunt and trading

Q 11 **Which area is expected to have the highest population growth rate from 2015 to 2030?**

Population of the world's major areas, 2015 and 2030.

Major area	Population (millions)	
	2015	2030
Africa	1 186	1 679
Asia	4 393	4 923
Europe	738	734
Latin America and the Caribbean	634	721
Northern America	358	396
Oceania	39	47

.86 **Africa**

.10 **Asia**

.00 **Europe**

.03 **Oceania**

Q 12 Which photo least illustrates the principles of ecotourism?

A

B

C

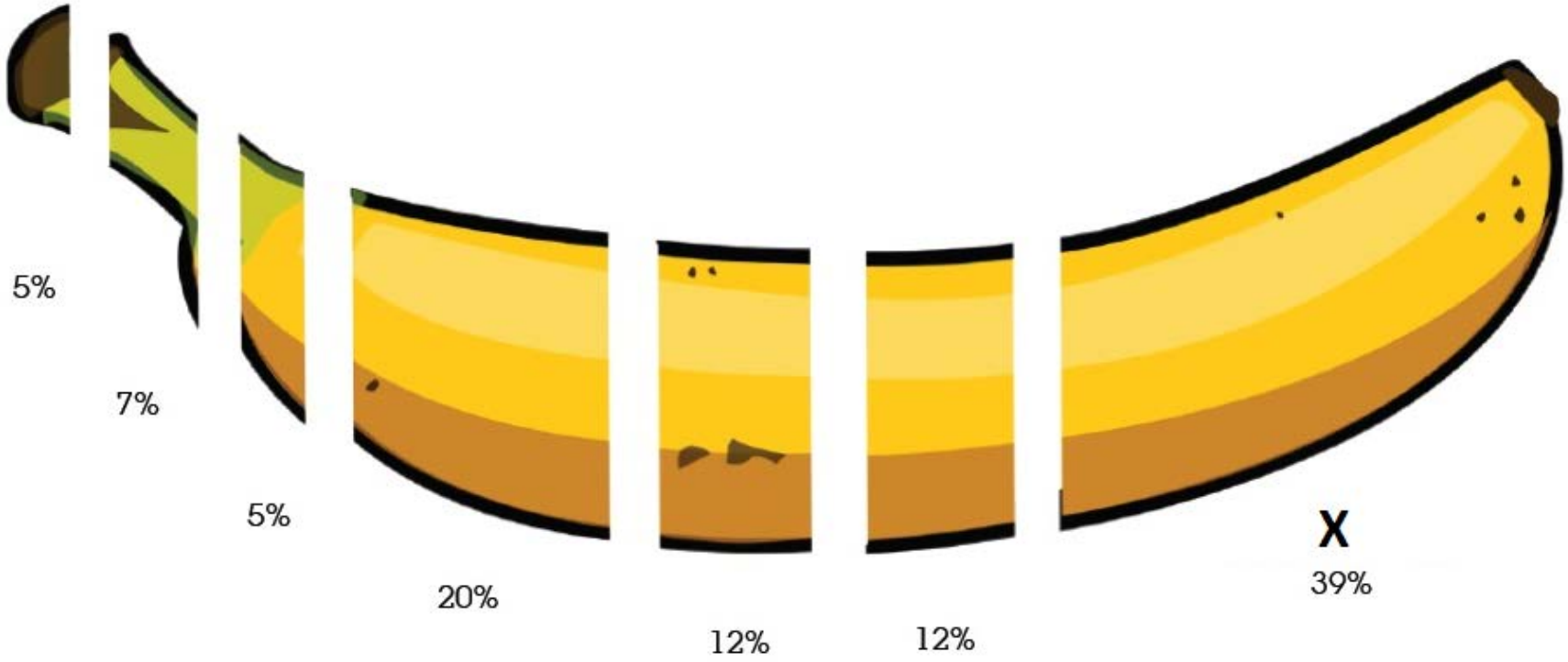
D

.06	photo A
.43	photo B
.08	photo C
.43	photo D

https://anangtawiah.com/2015/06/15/commodity-analysis-5-for-1-bananas/

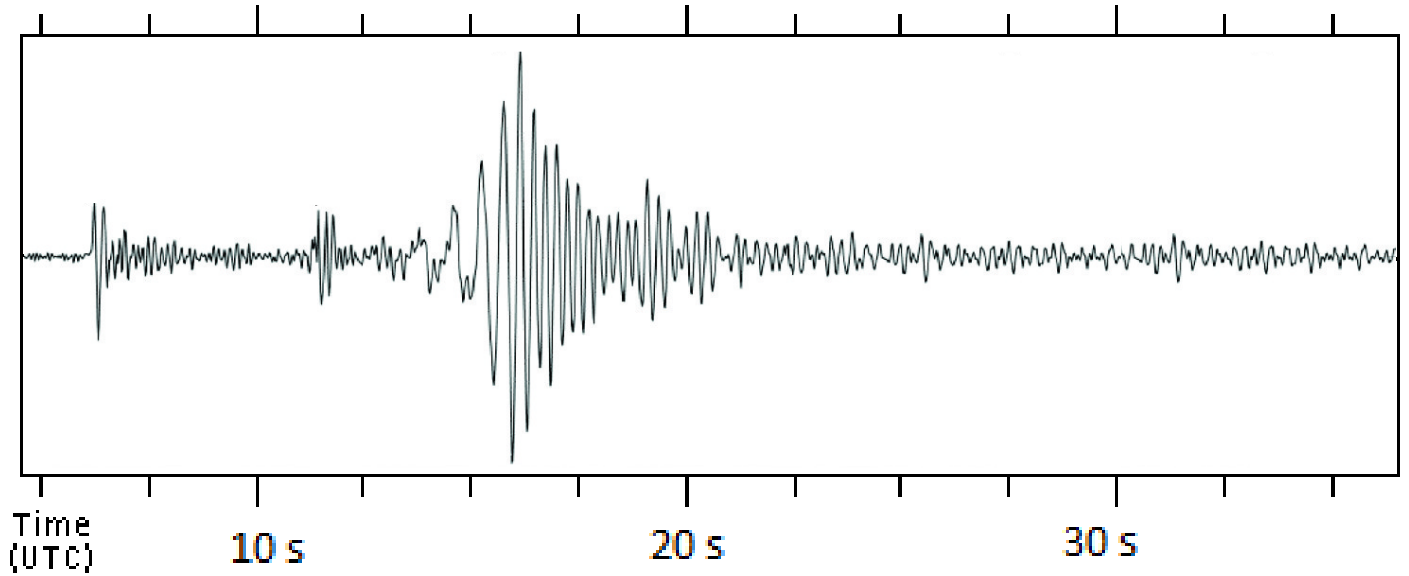
Q 13 The figure shows value breakdown of average banana imported into the Republic of Ireland in 2013.

What percentage is indicated with an X?



.36	transport
.48	retail
.09	ripening
.06	workers wages

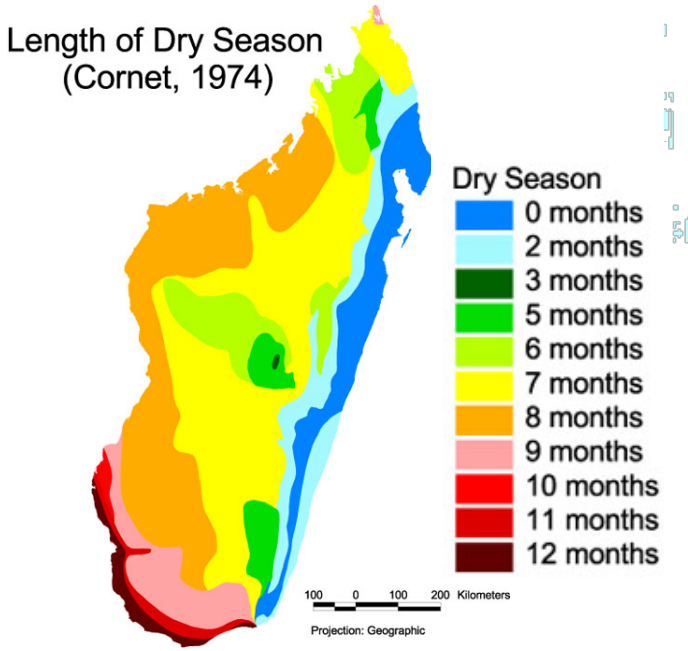
Q 14 **Figure 4 shows the seismic waves registered for an earthquake event. The first wave was registered at 01:00:06. Identify the time that the first S-waves were registered.**



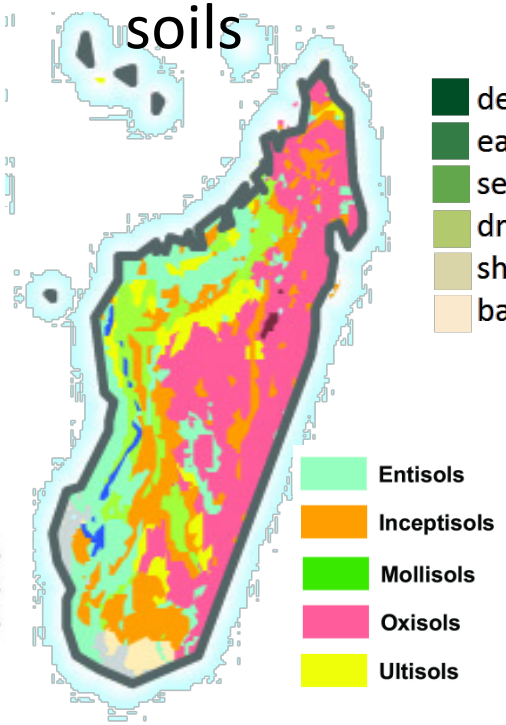
.09	01:00:07
.26	01:00:11
.42	01:00:14
.23	01:00:19

Q 15 Combining maps of Madagascar: Where is the Betsiboka River located?

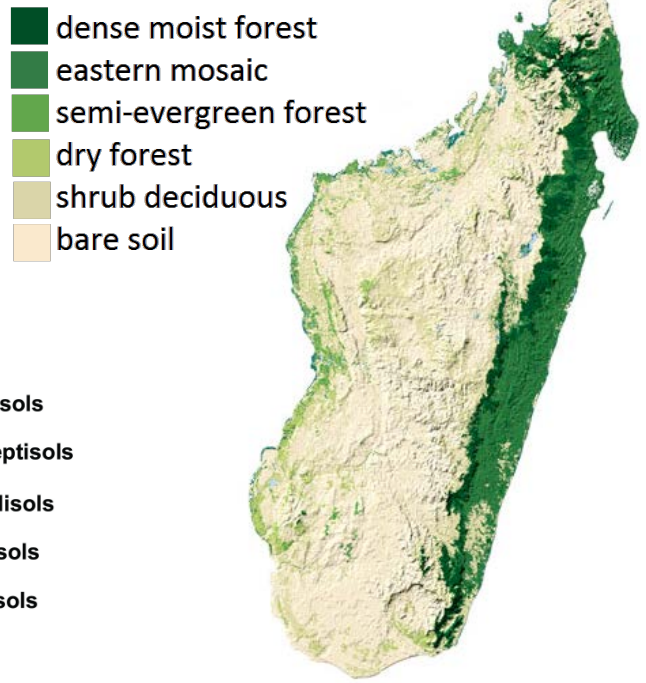
climate

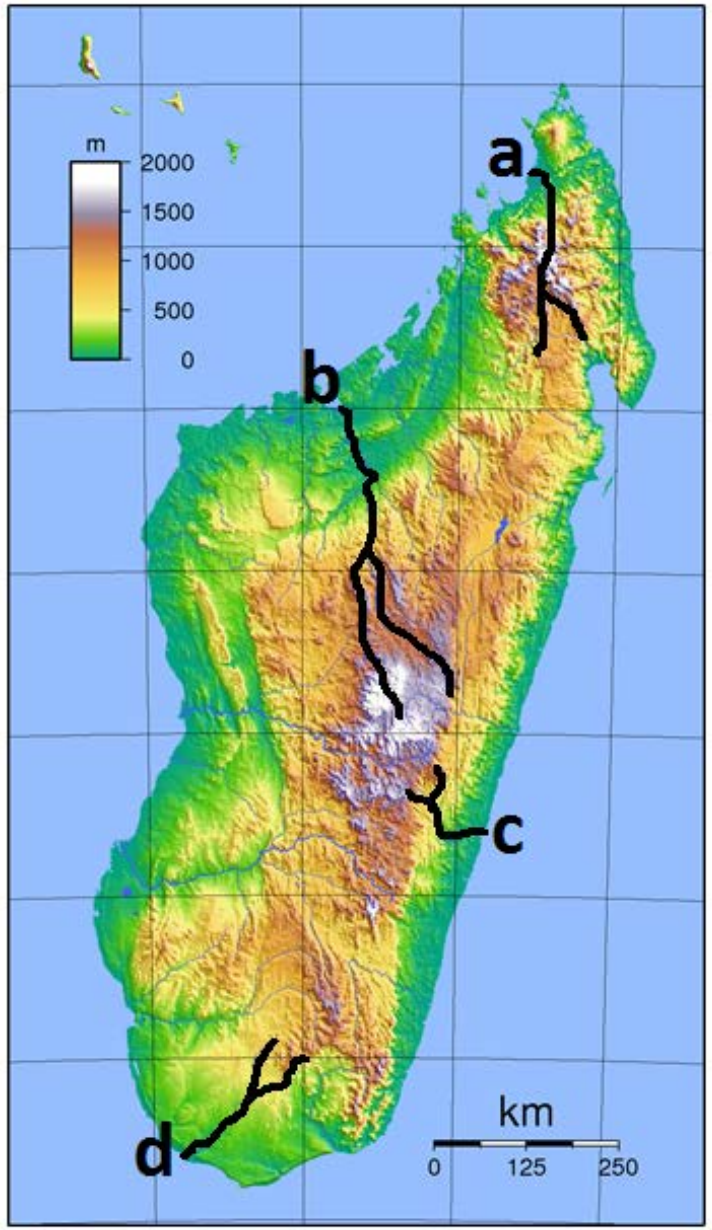


soils



land use





.18	river a
.38	river b
.14	river c
.30	river d

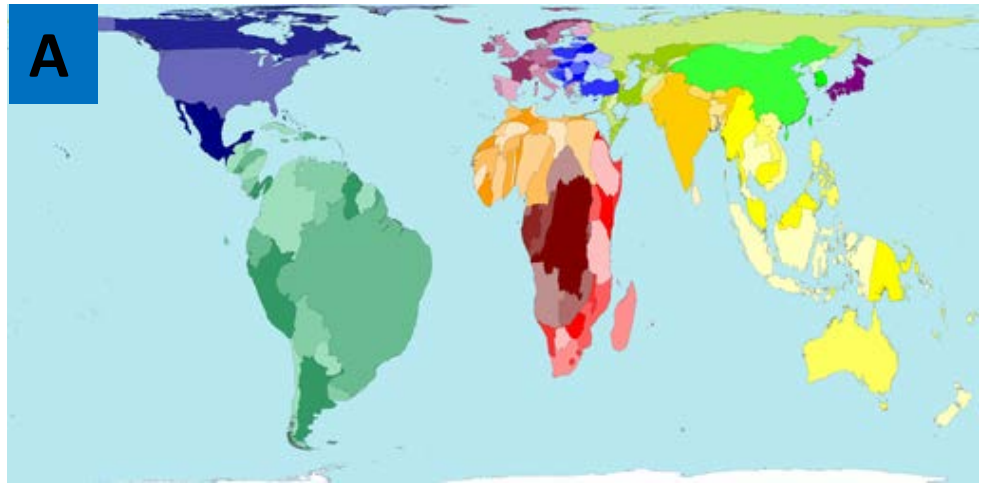
satellite image of Betsiboka Delta*

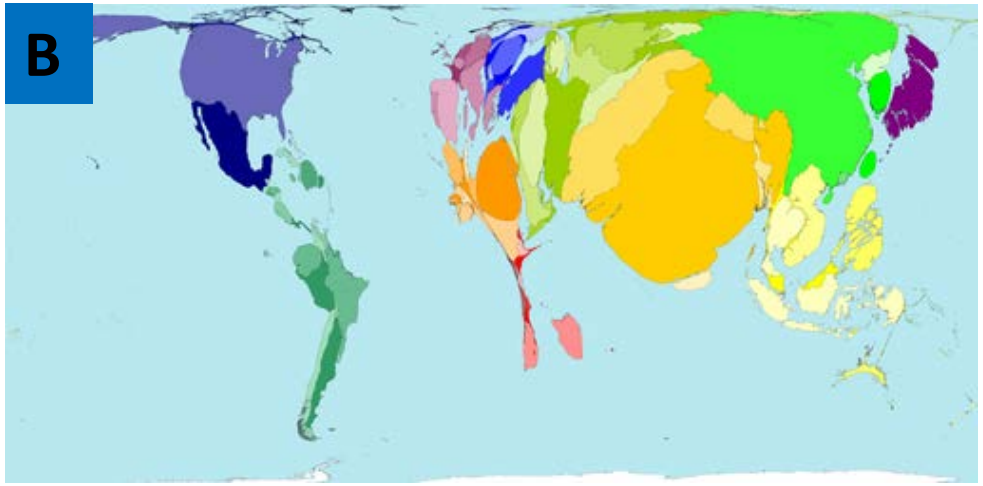
*random orientation

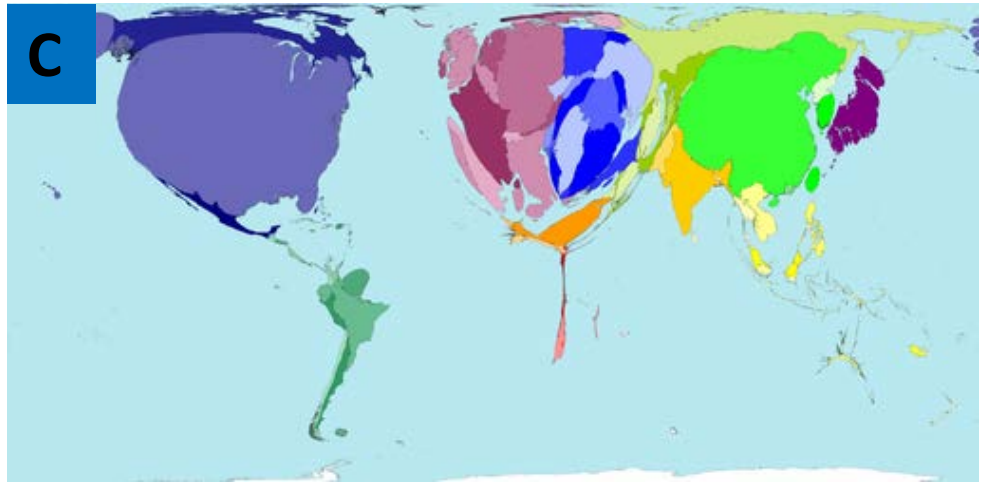
Q 16 4 maps on water, in alphabetic order: agricultural water use*, domestic water use*, industrial water use* and rainfall volume.

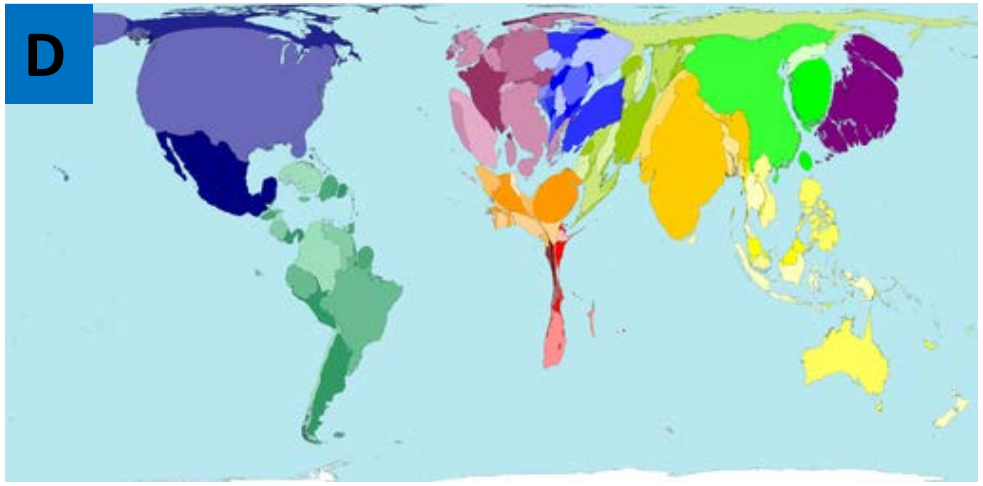
Which map is showing domestic water use?

* Territory size based on the proportion of all water used for specific purposes that was used there.



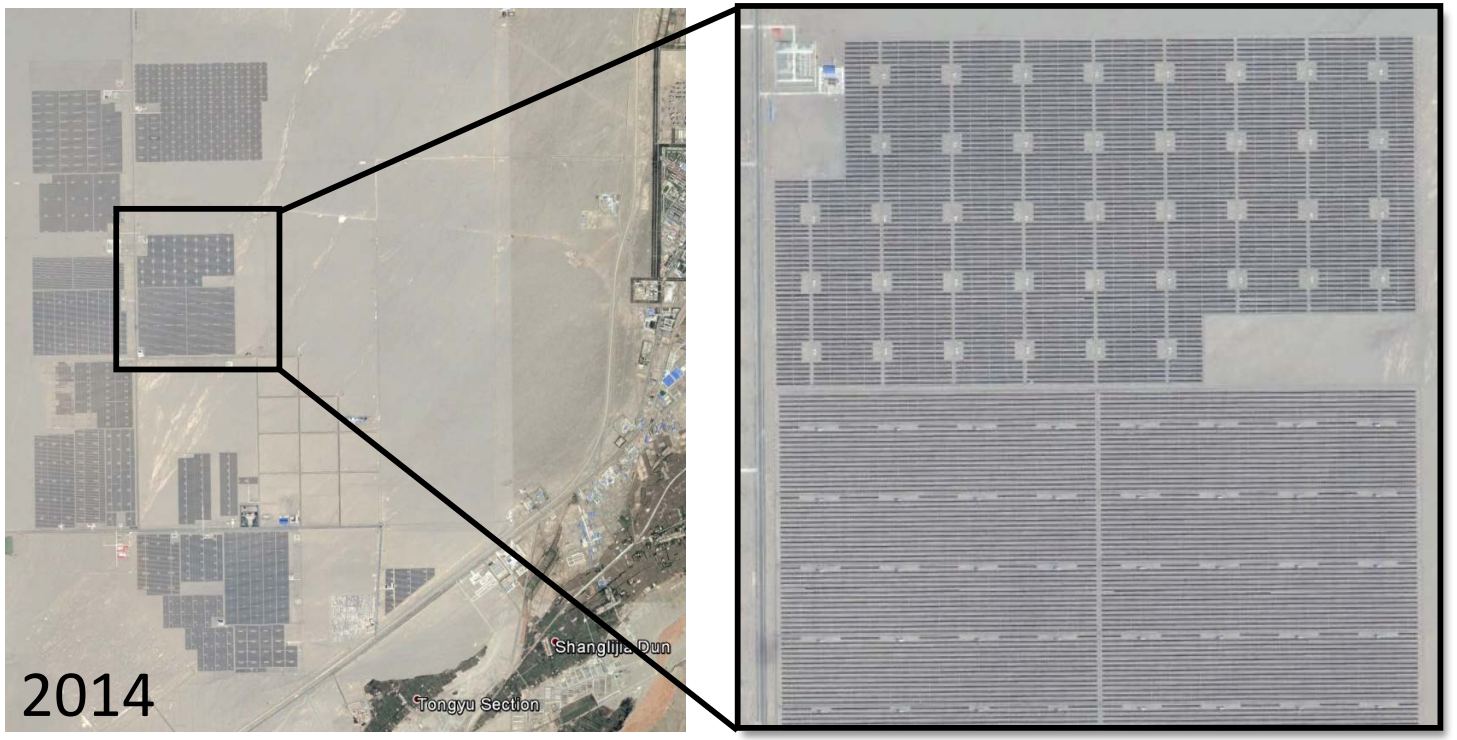






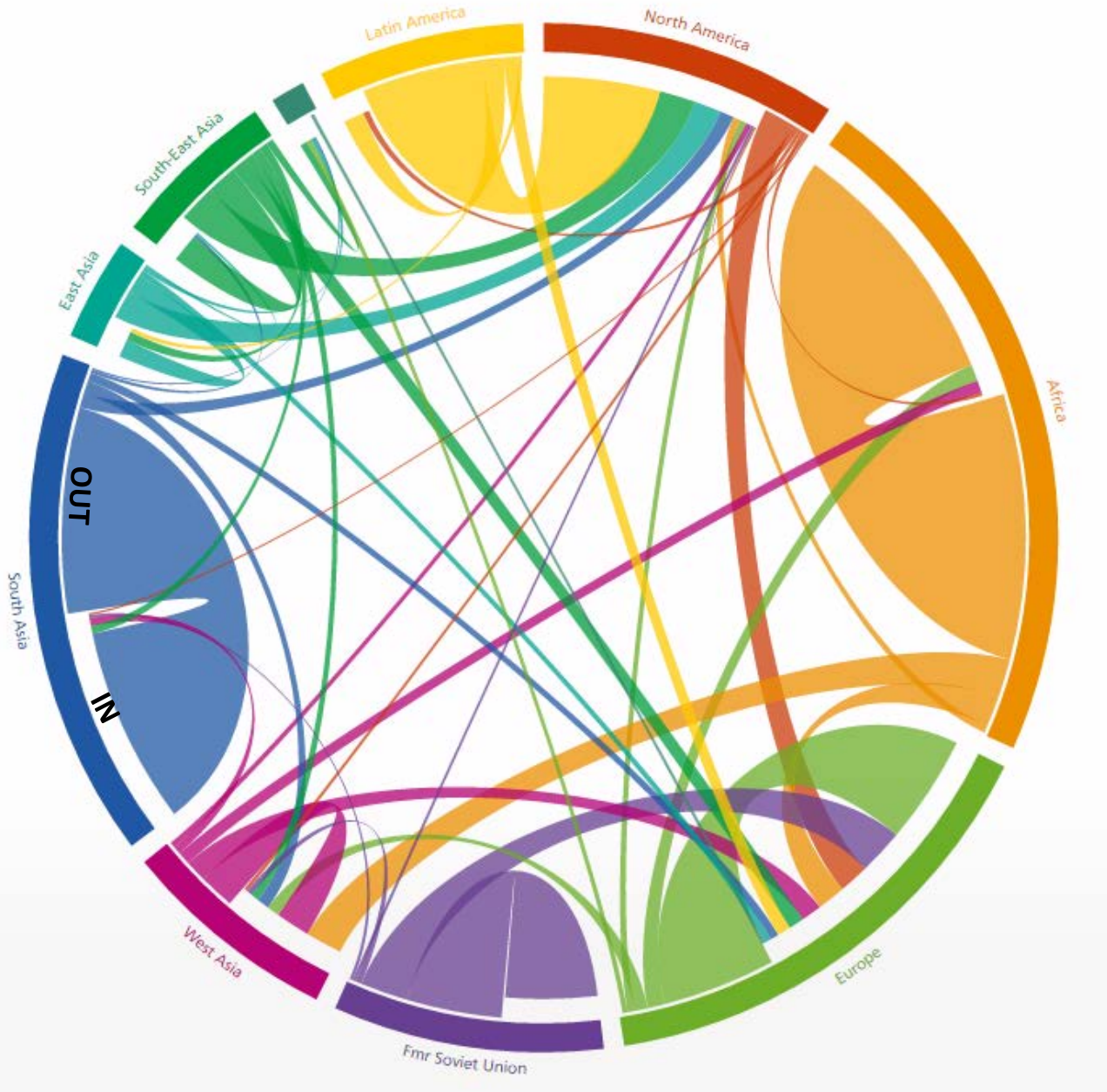
.02	map A
.13	map B
.43	map C
.43	map D

Q 17 The satellite images show the rapid growth of …



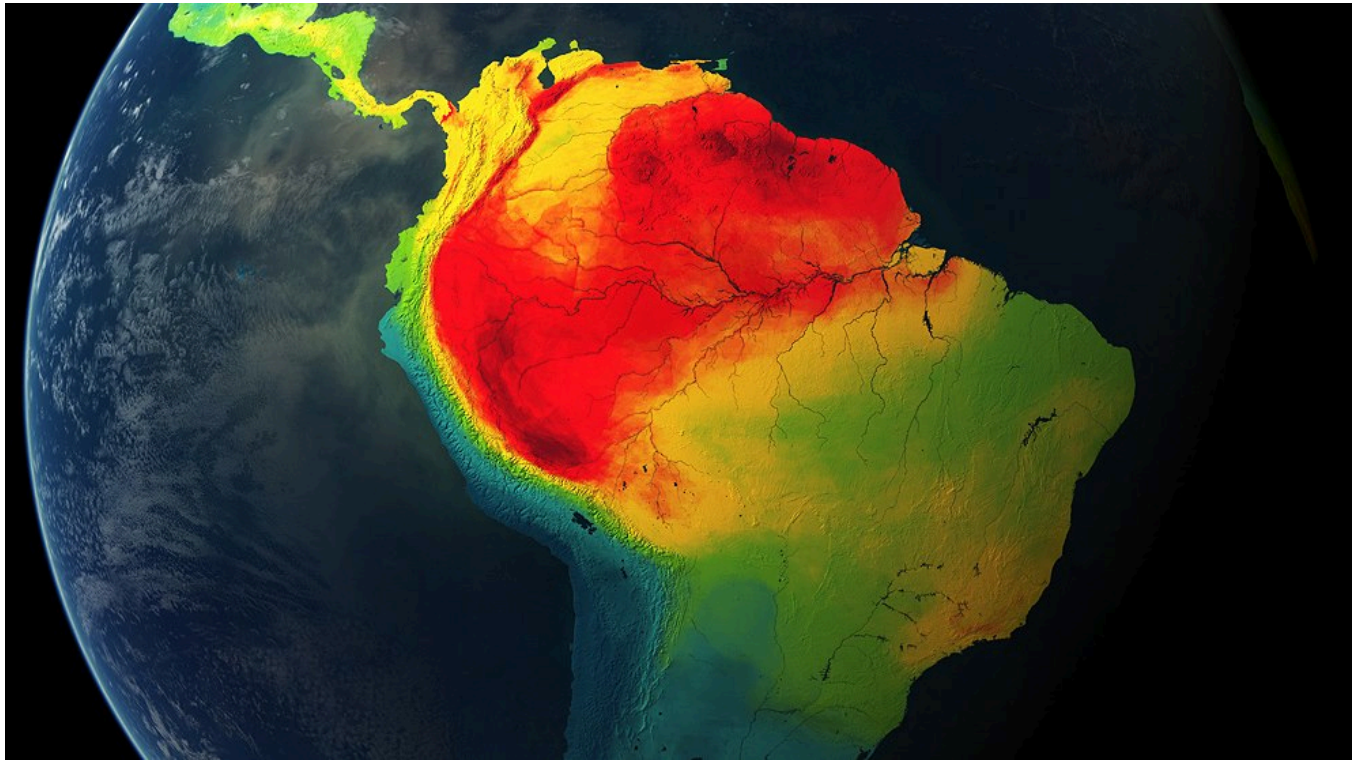
.06	data centres
.02	irrigated agriculture
.06	desalinisation factories
.86	solar farms

Q 18 This diagram shows world migration for which period?



.08	1945-1950
.19	1960-1965
.46	1990-1995
.27	2005-2010

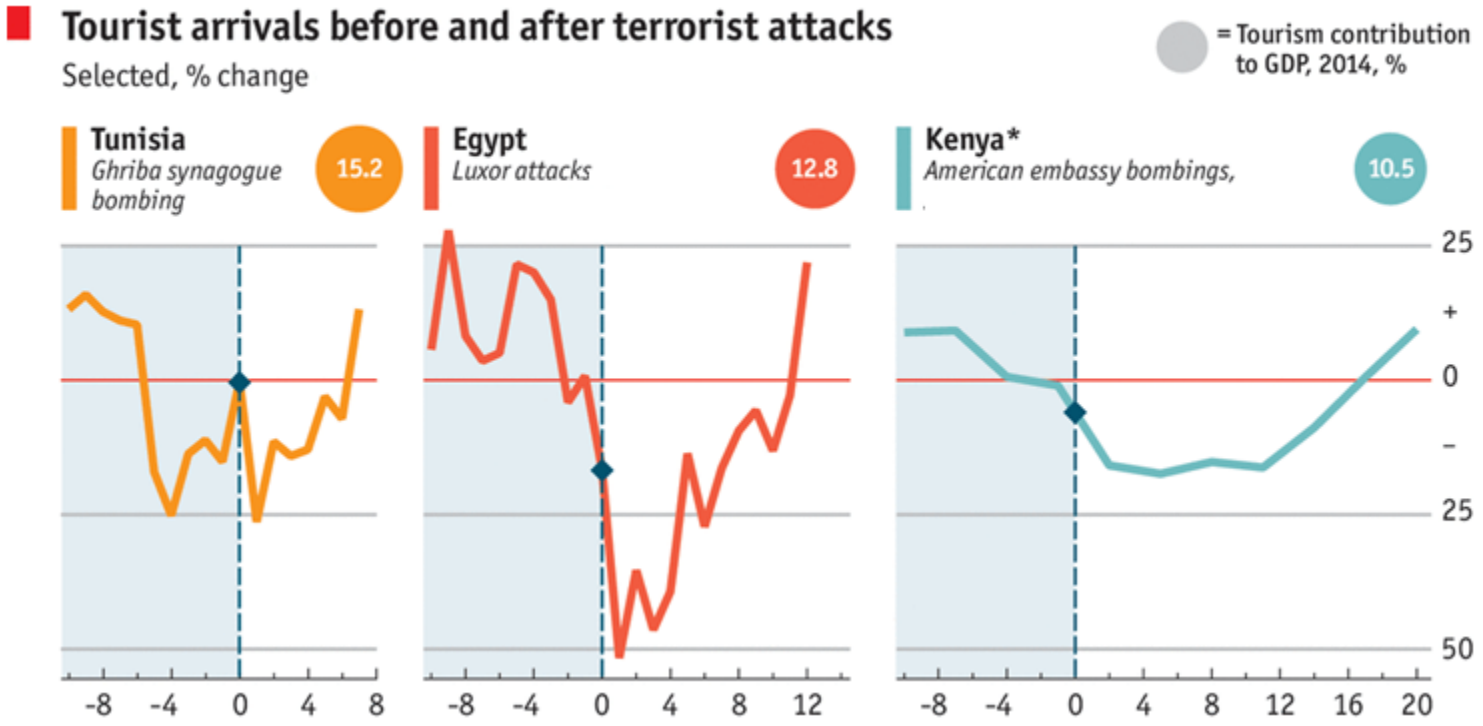
Q 19 **Which pattern is this map showing for Southern America?**



green/blue = low
yellow-red = high

.05	elevation
.26	mammal richness
.06	agricultural production
.63	annual rainfall

Q 20 What should be the unit of the horizontal axis for all three graphs?



.03 days before/after terrorist attack

.30 weeks before/after terrorist attack

.57 months before/after terrorist attack

.10 years before/after terrorist attack

Q 21 New Caledonia counts for about 25% of the world's nickel resources.
Which image is showing a nickel mine?

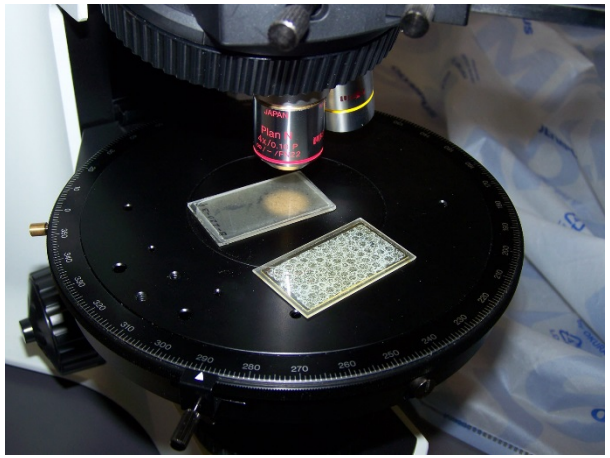
.24	image A
.24	image B
.46	image C
.27	image D

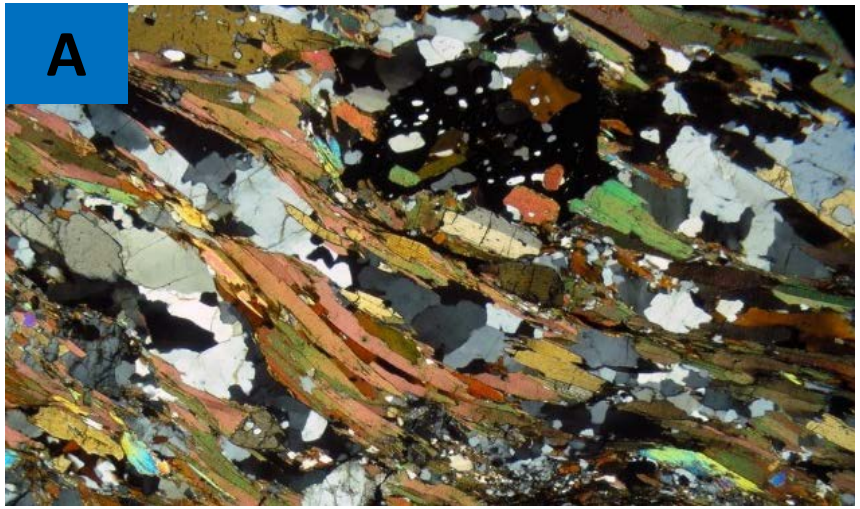
cartoon by Peter Oosterloo

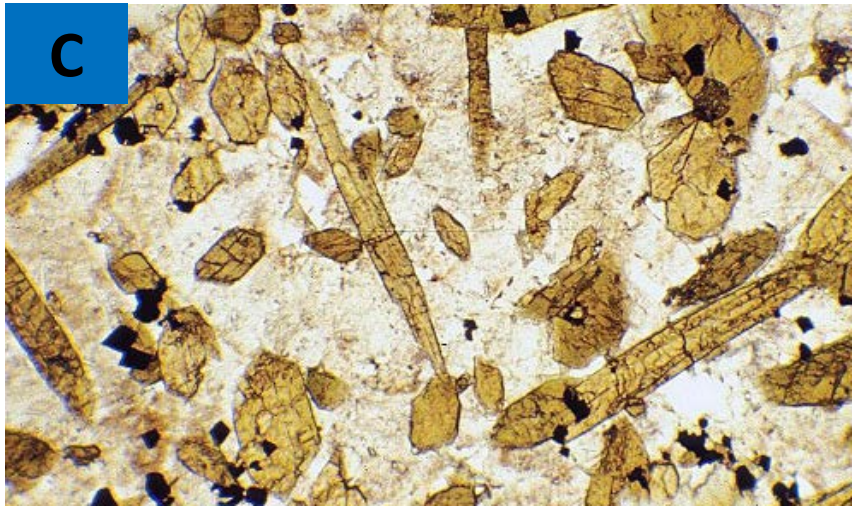
Q 22 What is critically depicted by this cartoon?

.07	deindustrialization
.64	gentrification
.17	urban blight
.11	counter-urbanisation

Q 23 Microscope images (so called thin sections) from 4 different types of rocks.
Which image is showing a metamorphic rock?







.51	image A
.29	image B
.09	image C
.12	image D

http://www.worldatlas.com/webimage/countrys/europe/sicily/sicilymaps.htm

Q 24 On which island of the Aeolian Islands has this image been taken?

.07	Alicudi
.08	Salina
.04	Stromboli
.81	Vulcano

Q 25 **Pile-dwellings. For what primary purpose are these dwellings built on stilts?**

building 1: Norway

building 2: Myanmar

.36	1 = protection against melting floods	2 = protection against seasonal floods
.03	1 = protection against melting floods	2 = protection against vermin
.56	1 = protection against soil subsidence	2 = protection against seasonal floods
.05	1 = protection against soil subsidence	2 = protection against vermin

https://www.nytimes.com/interactive/2017/05/12/world/europe/wannacry-ransomware-map.html

Q 26 What is this animated map showing?

.08 one year of tweets (Twitter) stating the word iGeo

.76 one day of a computer attack with ransomware

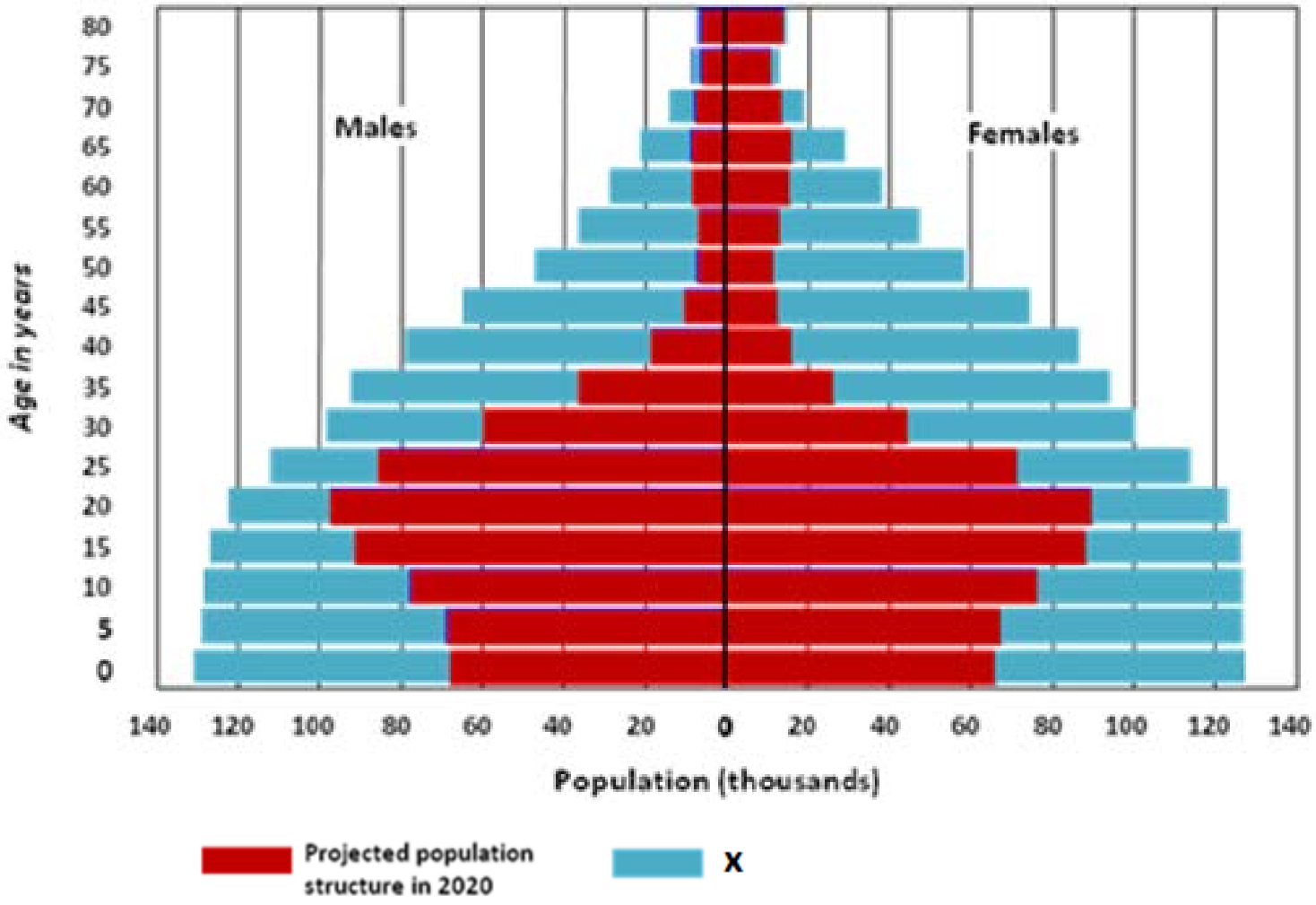
.02 one month of human-induced earthquakes

.14 one year of people getting infected by an influenza-virus

http://papp.iussp.org/sessions/papp101_s03/PAPP101_s03_060_040.html

Q 27 This population diagram shows the formation of a population chimney.
What is depicted by the area shaded in blue (unit x)?

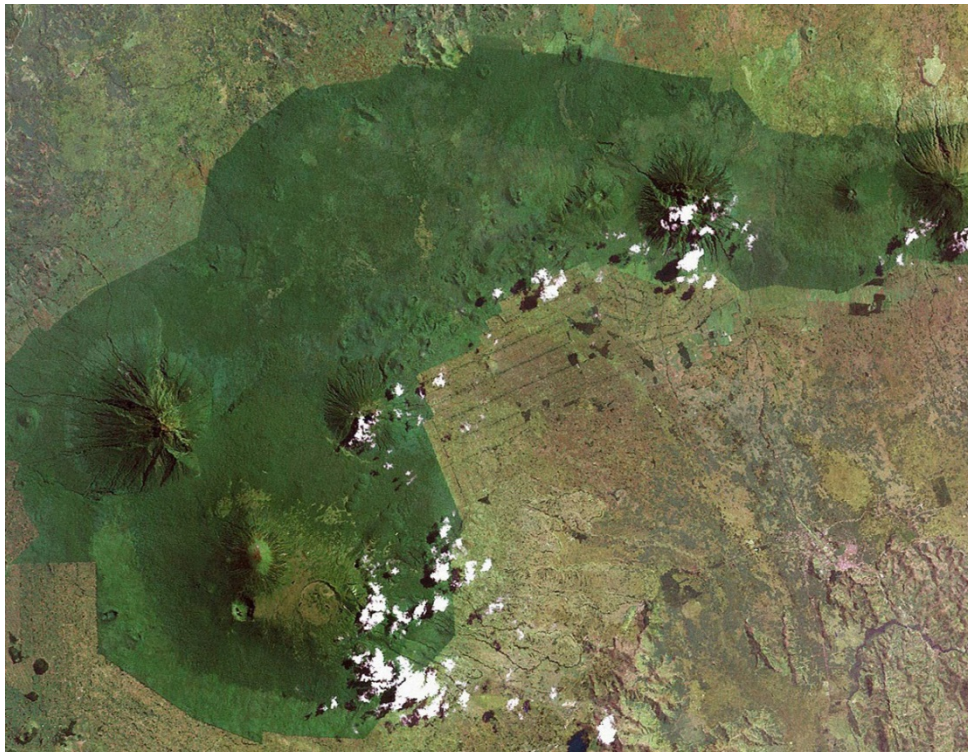
population diagram Botswana



.09	deaths due to civil war
.06	deaths due to migration
.53	deaths due to AIDS
.33	deaths due to famine

Landsat 8 NASA via https://www.nasa.gov/content/exploring-the-worlds-protected-areas-from-space Landsat TM 5 Satellite Sensor – 28.5m via http://lsagun169final.blogspot.nl/

Q 28 What is the dominant factor in determining land use in both satellite images?



.36	relief
.44	soil fertility
.09	micro-climate
.10	politics

Source: Youtube

Q 29

Four videos showing a religious ceremony.

Which video shows a ceremony where Hindus pray for early monsoon rains?

A

B

C

D

.01	video A
.10	video B
.18	video C
.71	video D

https://www.theguardian.com/cities/2017/may/12/blowing-wind-cities-poor-east-ends

Q 30 Many cities in the northern hemisphere have poor *east end districts*.
What can be considered to be a generalized reason for the concentration of poor groups always ending up in the east of these cities?

A list of cities with poor *eastern end districts* would include:
London
Paris
New York
Helsinki
Casablanca

.18 **downstream location at major river which took city's waste and smell eastward**

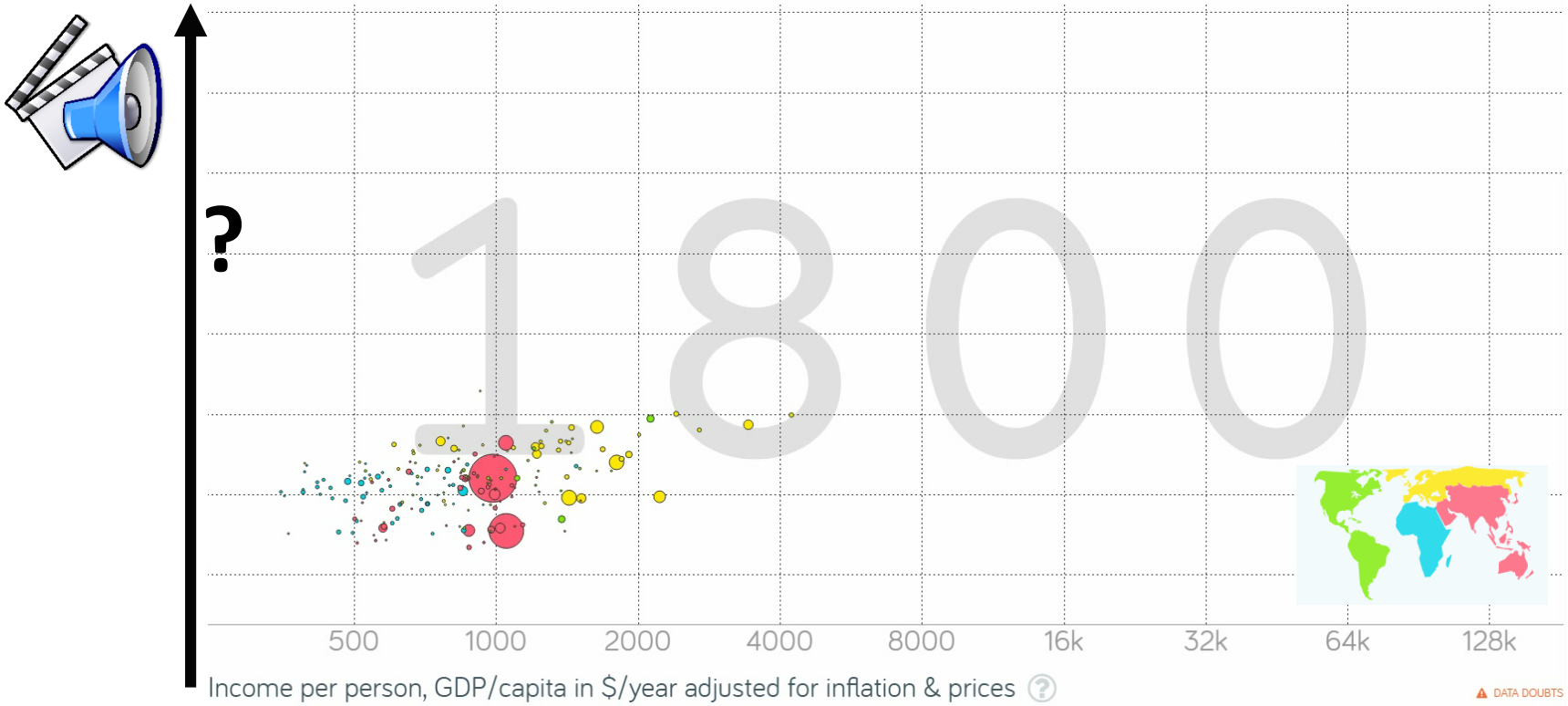
.01 **later sunrise in the east compared to the western part of these cities**

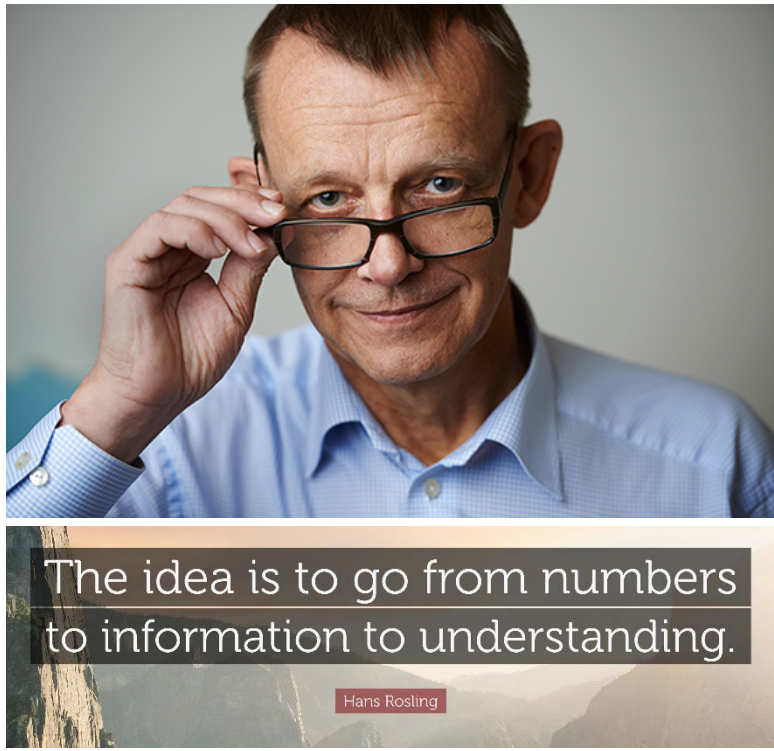
.76 **prevailing winds are westerlies, blowing pollution to the east**

.05 **distribution of the urban heat island, which is eastward biased**

http://www.gapminder.org

Q 31 What is depicted on the y-axis of this country-dot-animation?





.19 Y = housing price index (1980 = 100)

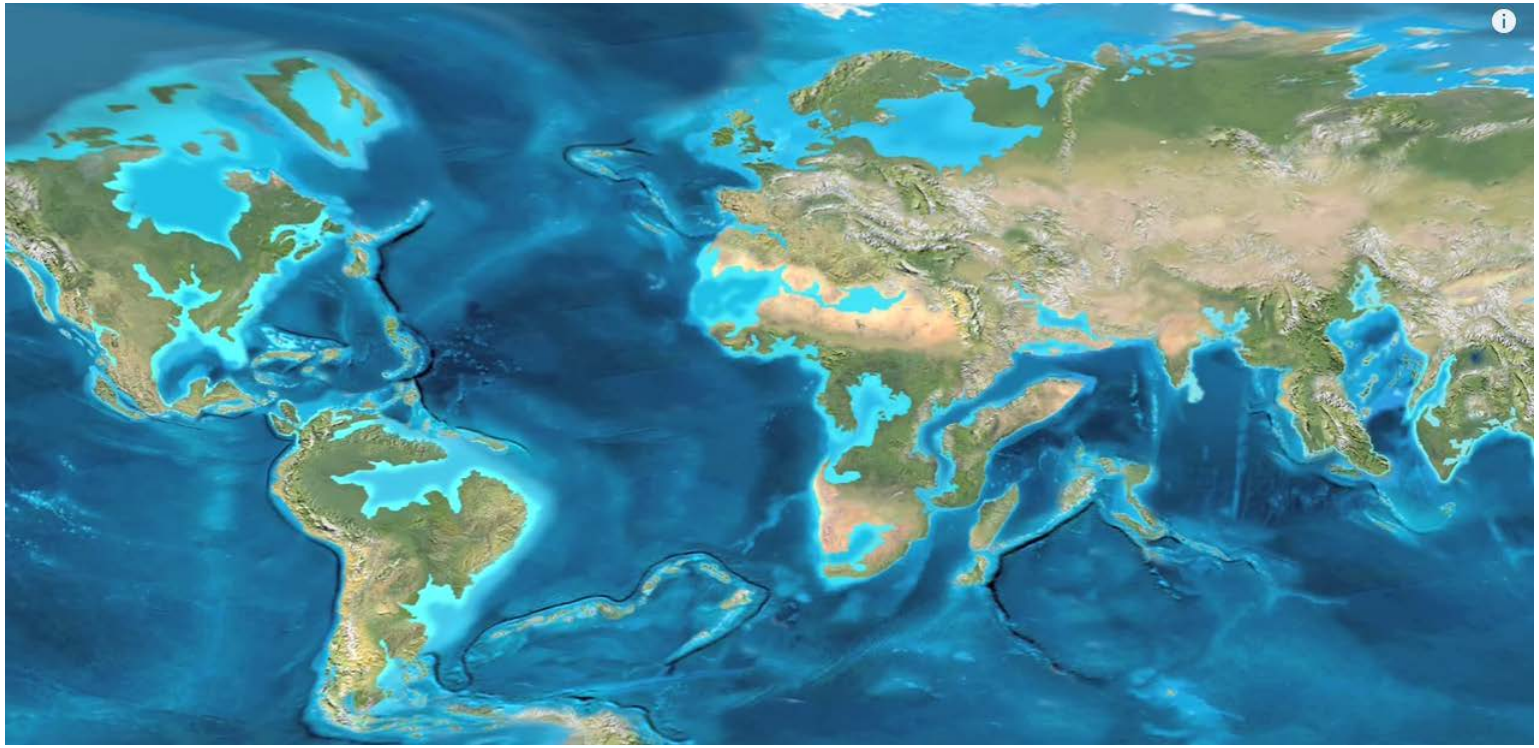
.16 Y = carbon emissions (CO2-equivalent tonnes per person)

.59 Y = life expectancy (years)

.06 Y = adult literacy rate (percentage)

https://www.reddit.com/r/pics/comments/1l8frj/earths_continents_in_100_million_years/

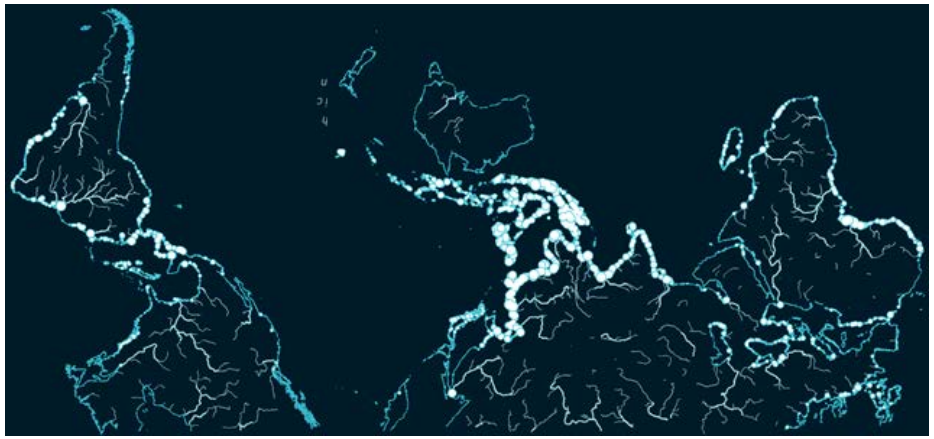
Q 32 The map is showing the earth continents …



.08	… 0.1 million years from now
.18	… 1 million years from now
.44	… 10 million years from now
.31	… 100 million years from now

https://www.theoceancleanup.com/sources/

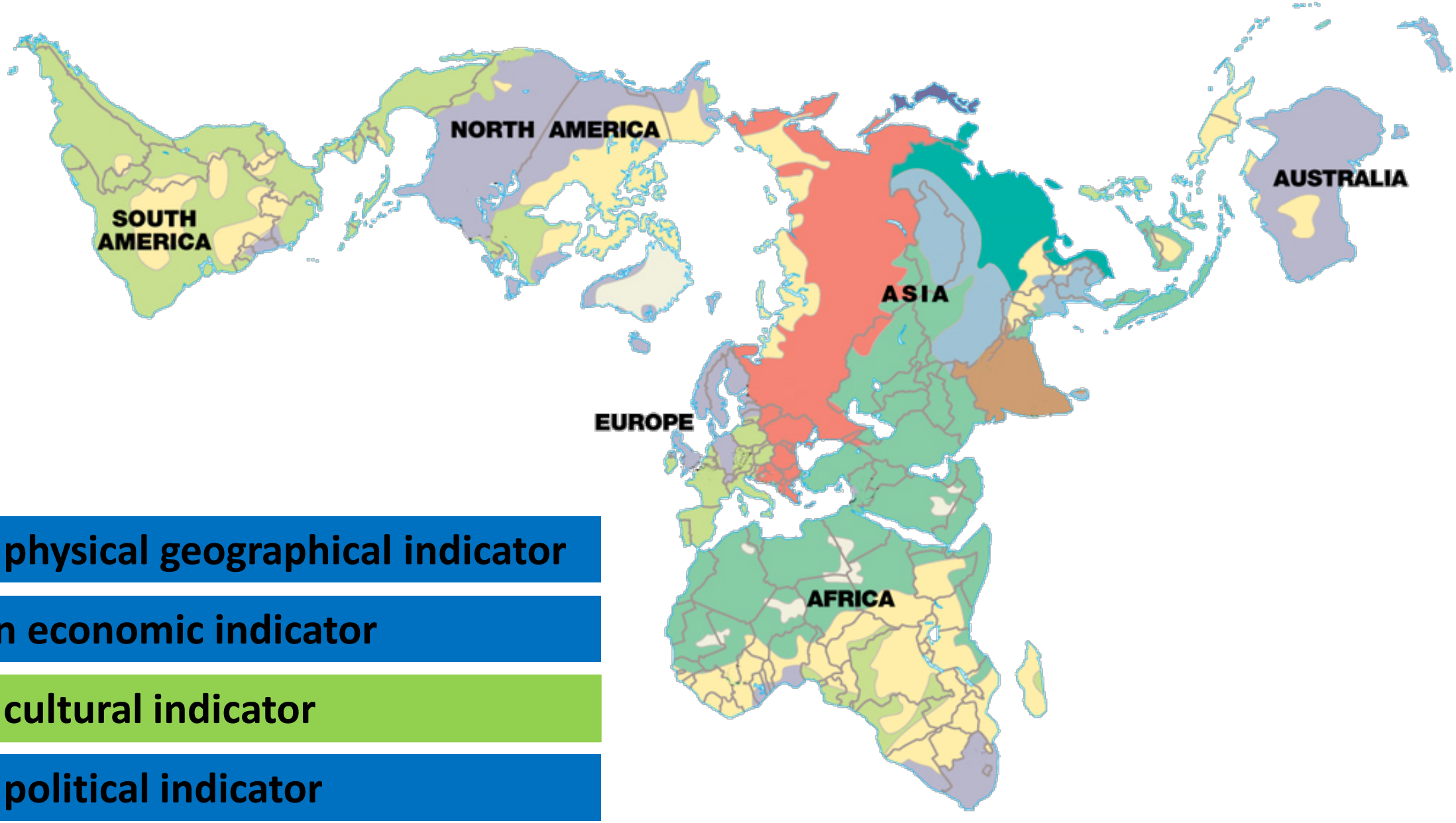
Q 33 Which image relates best to this dot-map?



.31	image A
.32	image B
.29	image C
.08	image D

http://wps.prenhall.com/ca_ph_knox_geography_1/15/3999/1023994.cw/index.html

Q 34 Areas on this map are based on:



.16 a physical geographical indicator

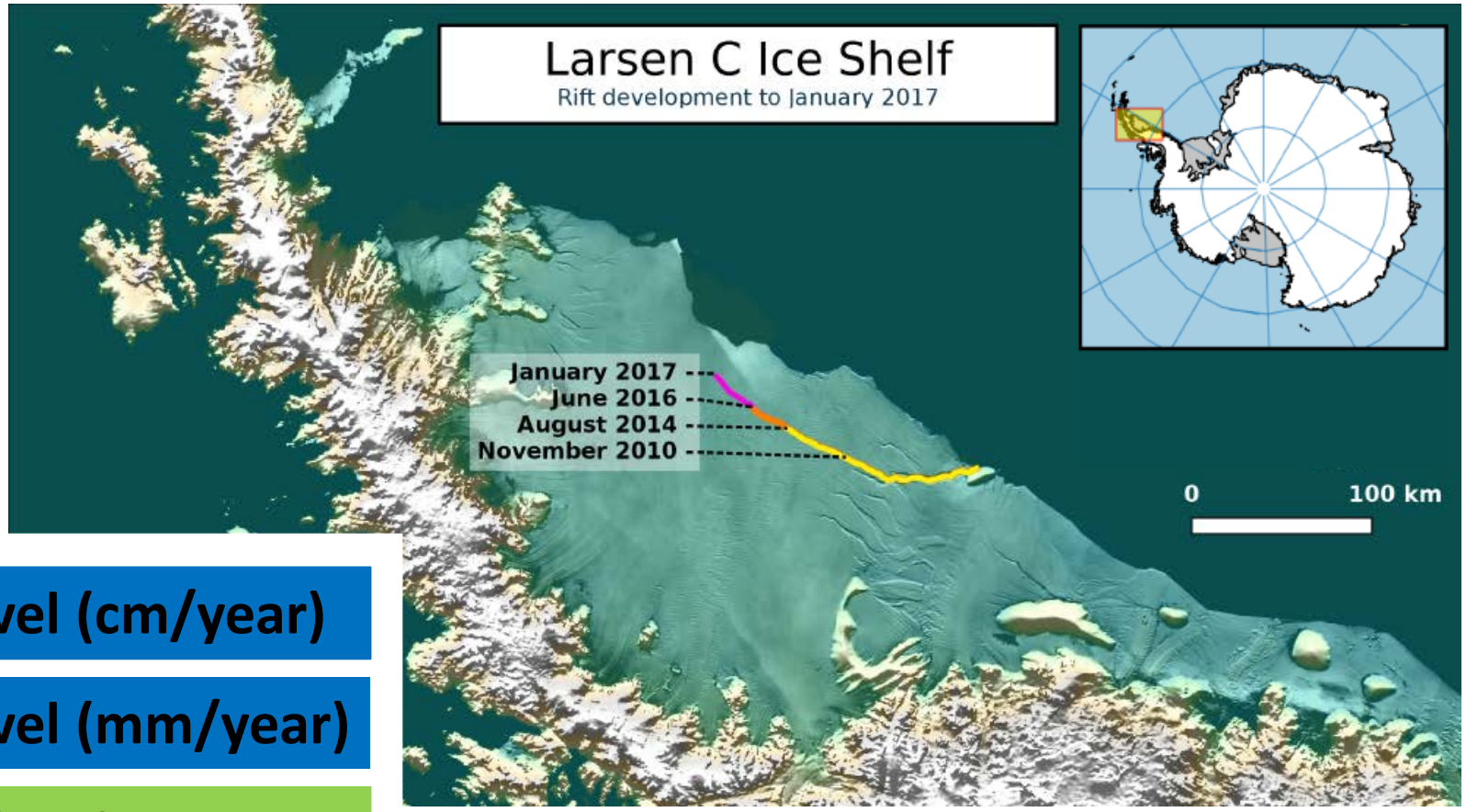
.08 an economic indicator

.74 a cultural indicator

.02 a political indicator

http://abcnews.go.com/Technology/iceberg-size-delaware-break-off-antarctic-ice-shelf/story?id=44598633

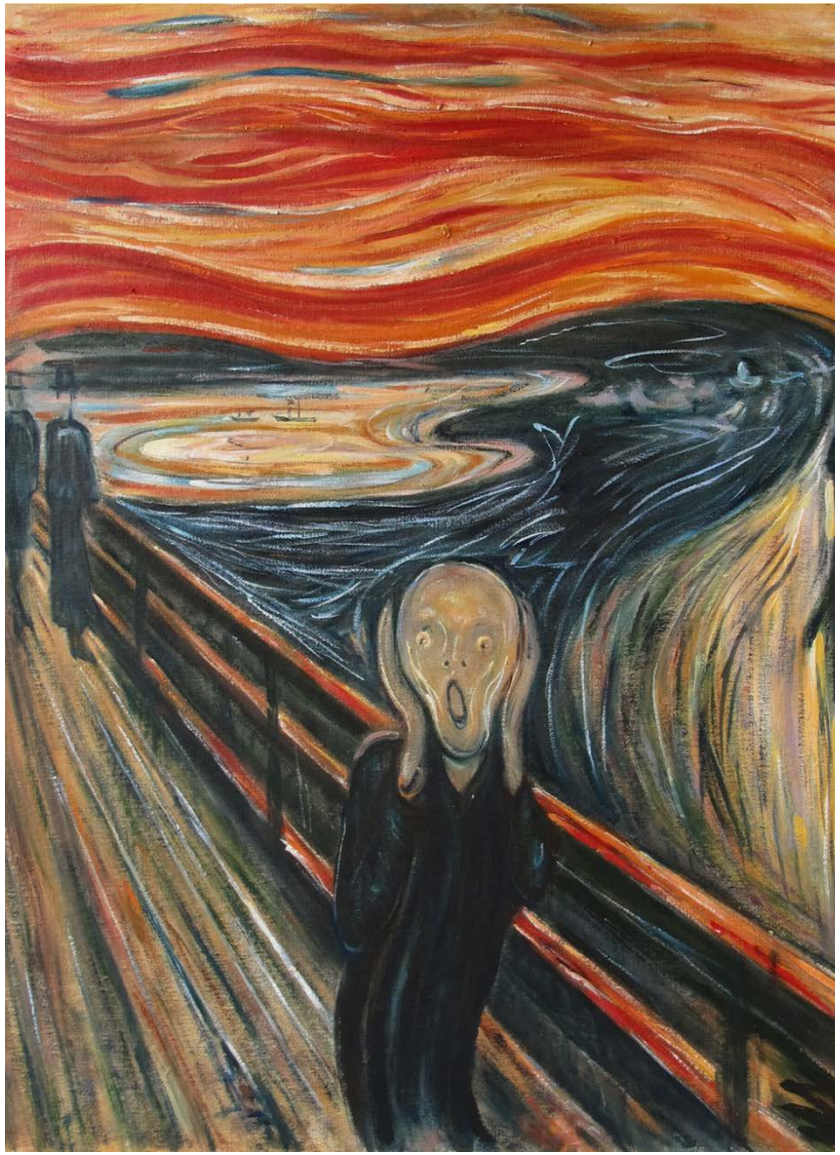
Q 35 A large part of sea ice of the Larsen C ice shelf broke off just some weeks ago. This created one of the largest icebergs ever, which will be melting for some years.
How will global sea level change by melting of this giant iceberg?



.12	increase of global sea level (cm/year)
.49	increase of global sea level (mm/year)
.37	no change of global sea level
.02	decrease of global sea level

https://en.wikipedia.org/wiki/The_Scream

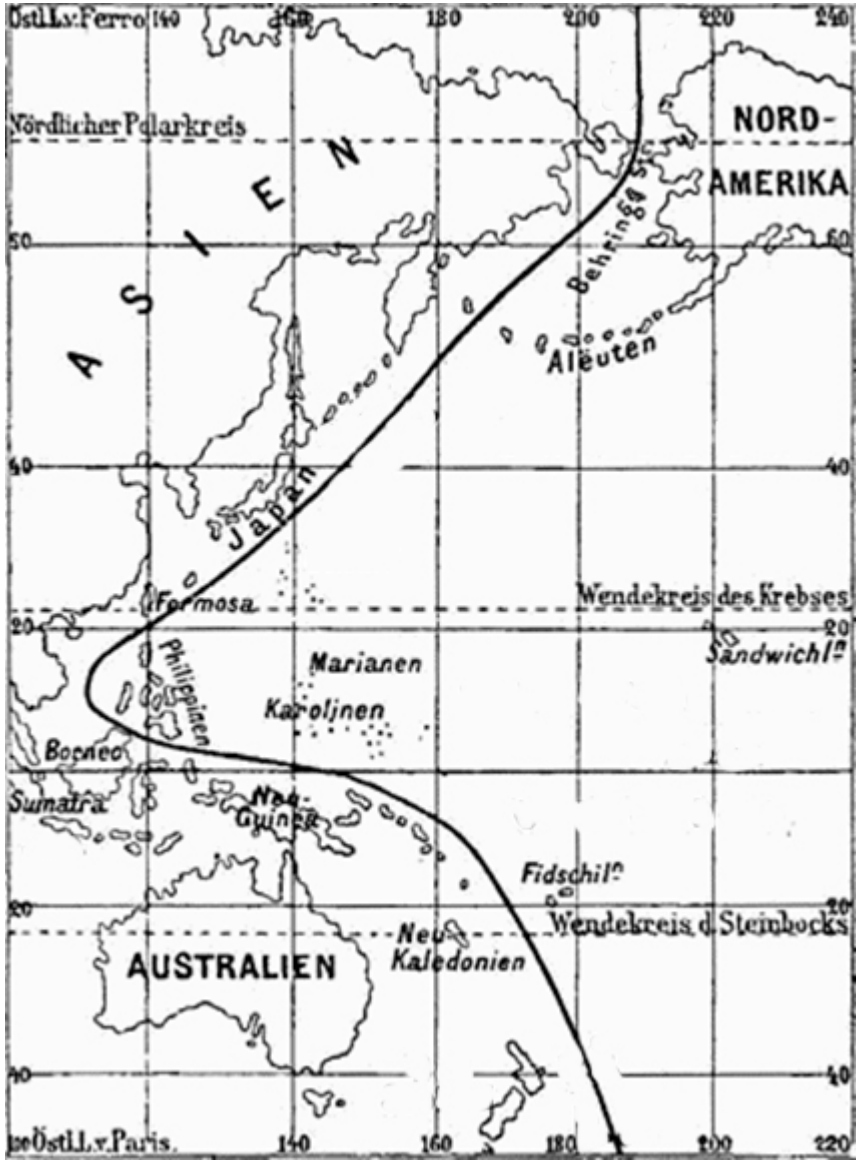
Q 36 **The red sky in the painting ‘The Scream’ by the Norwegian painter Edvard Munch (1893) is most likely related to:**



.55	northern lights (Aurora Borealis)
.32	powerful volcanic eruption near the equator
.08	extreme meteor shower
.06	methane bubble released by melting permafrost

https://en.wikipedia.org/wiki/International_Date_Line

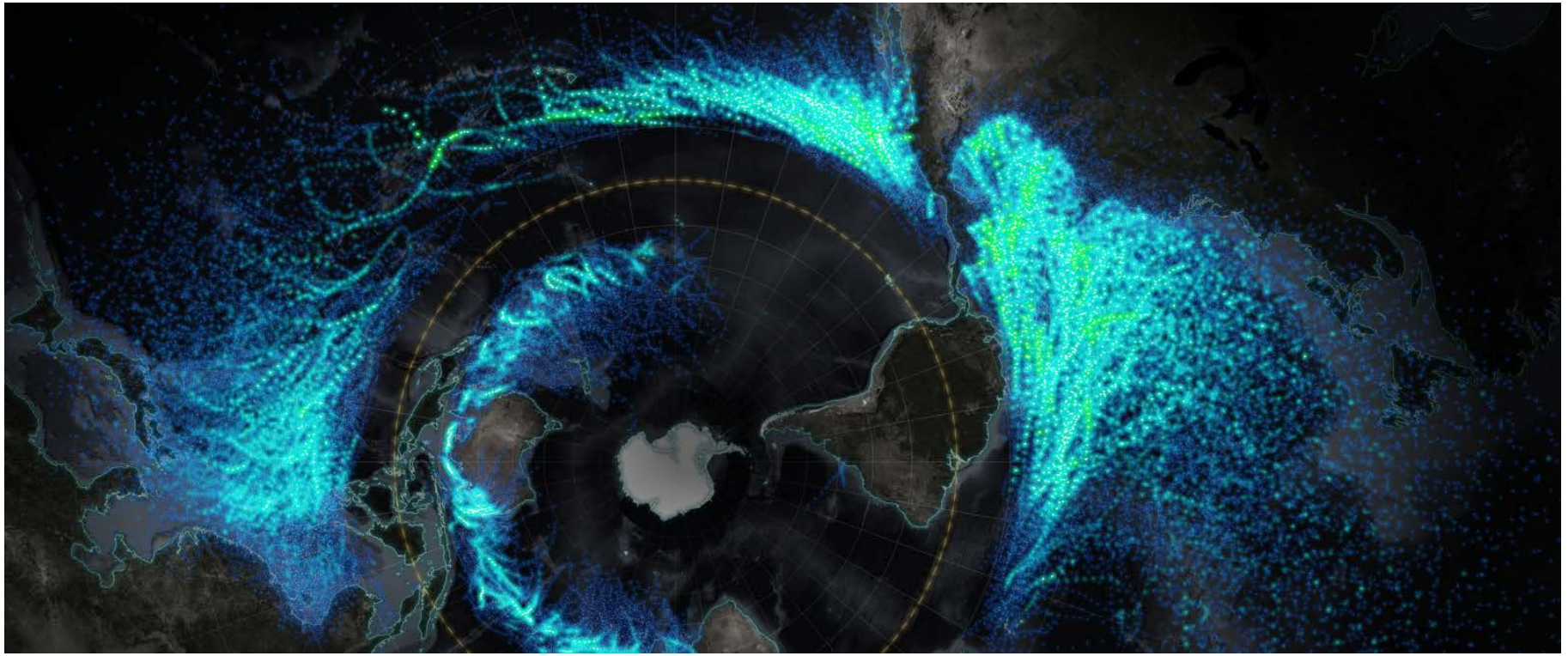
Q 37 What is depicted by the black line (indicated by the arrow) on this 1888 map?



.40	international date boundary
.34	west-Pacific zone of subduction
.16	route of explorer Abel Tasman
.09	division line of major cultural areas

http://inhabitat.com/john-nelsons-stunning-map-details-every-hurricane-and-tropical-storm-for-the-past-150-years/john-nelson-hurricane-map/

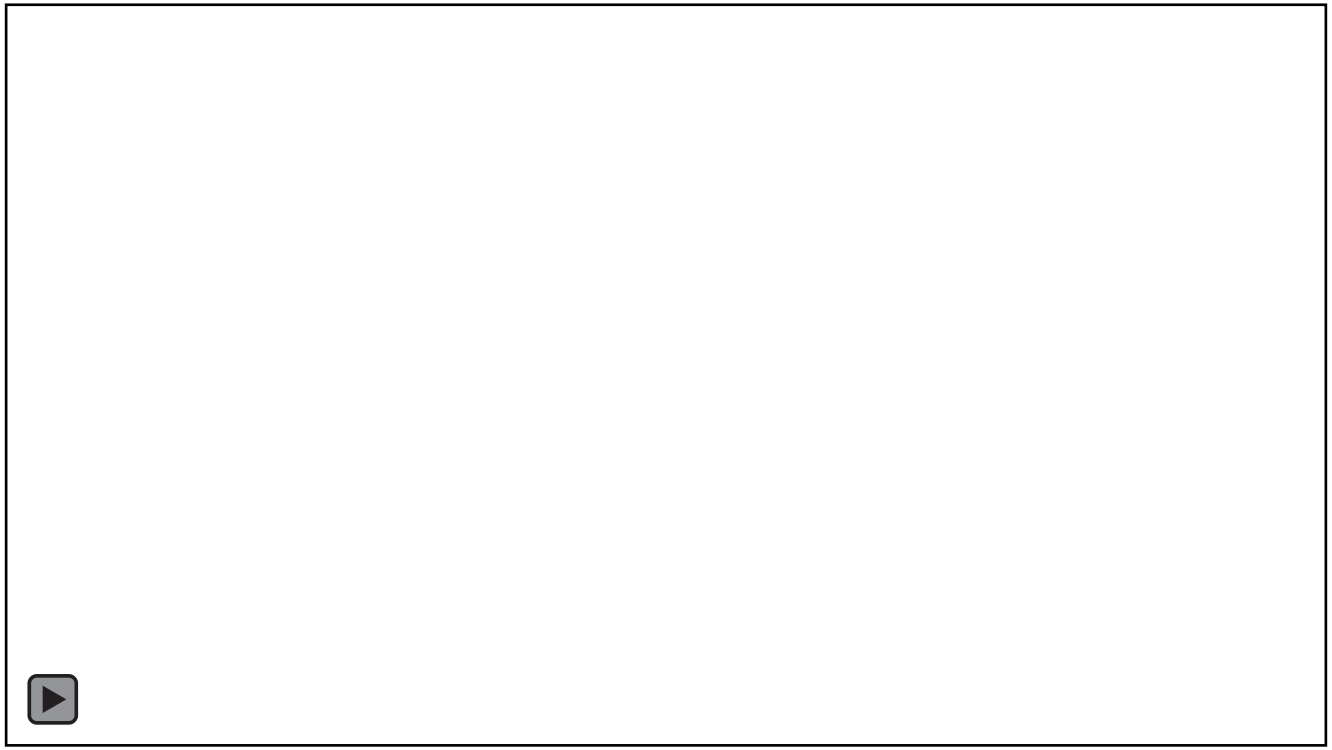
Q 38 Which global pattern is shown on this map?



.03	age of hotspot volcanoes
.07	volume of volcanic ash
.03	height of tsunamis
.86	strength of tropical storms

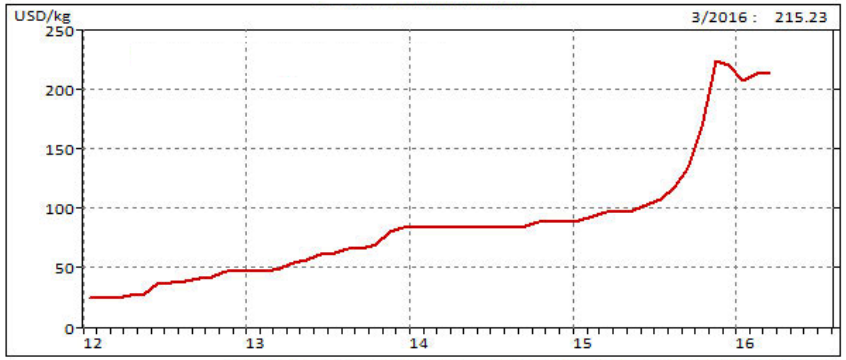
source: Youtube

Q 39 These media all relate to the production of:



Major Producing Regions

USD/kg



.14	black pepper
.11	cinnamon
.71	vanilla
.03	cocoa

Q 40 **Which city will be crossed if you take the shortest distance between Belgrade (Serbia, iGeo2017,** place 1**) and Quebec (Canada, iGeo2018,** place 2**)?**

.09 **Stockholm (Sweden)**

.66 **Liverpool (Great Britain)**

.19 **Bordeaux (France)**

.04 **Lisbon (Portugal)**

The last slide

iGeo Serbia Belgrade 2017

- You have reached **the last slide** of the Multimedia Test.

- Click on the arrow (↑ ←) to go back to the previous page(s) if you want to check your answers.

- **For fast navigation:**

  Click here to go back to question 1
  Click here to go back to question 10
  Click here to go back to question 20
  Click here to go back to question 30

The End

- **Wait silently until the time is over.**

DO NOT CLICK ON THE ESCAPE BUTTON, AS THAT ENDS THE PRESENTATION.