A-level GEOGRAPHY

Paper 2 Human Geography

7037/2

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FIGURES 1a and 1b – For use with Question 1

FIGURE 1a

Year	Mean July temperature (°C)
1976	–11.8
1980	–16.0
1984	–6.4
1988	–5.4
1992	–10.4
1996	–5.7
2000	–3.8
2004	–4.8
2008	–4.7
2012	–3.9
2016	–8.5

FIGURE 1b

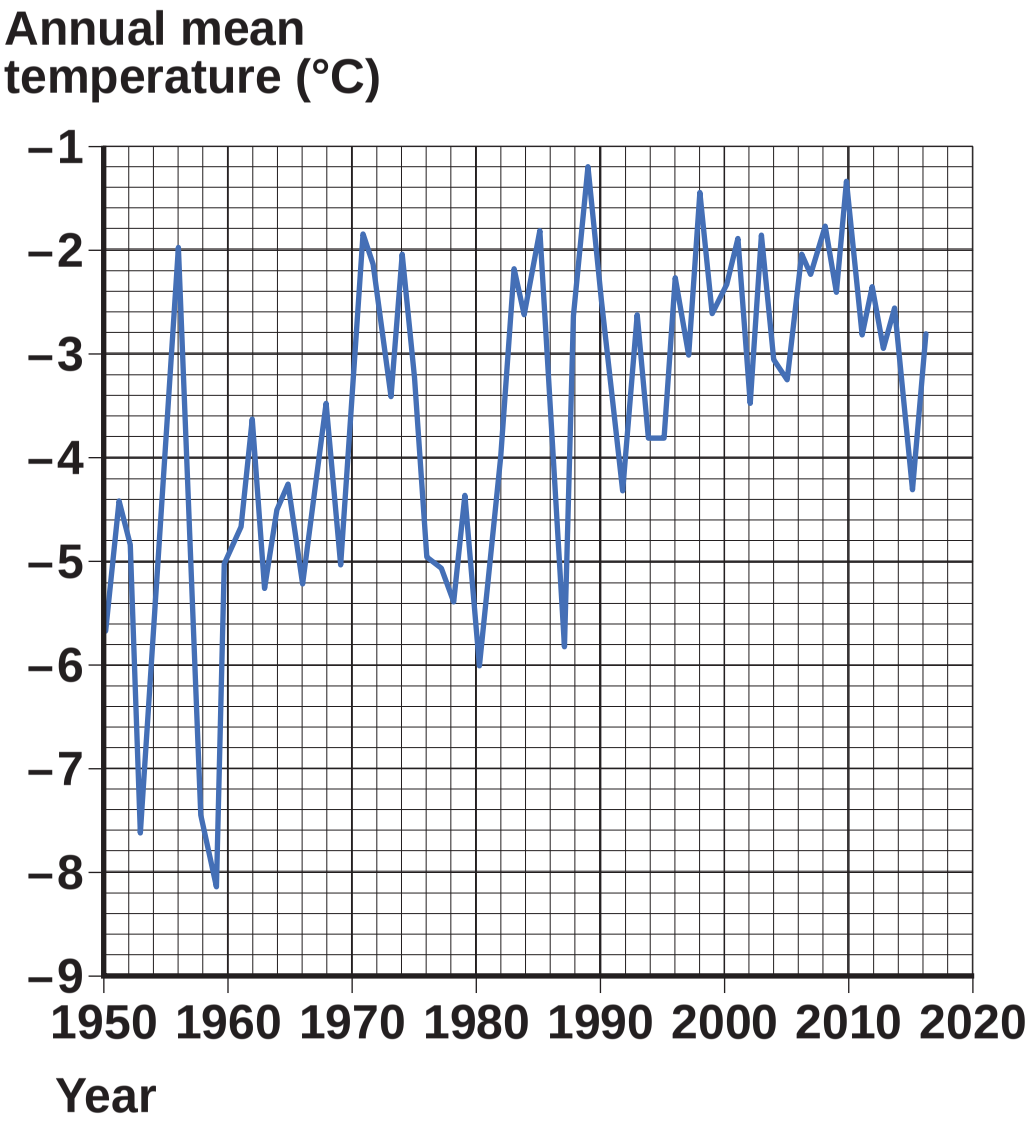
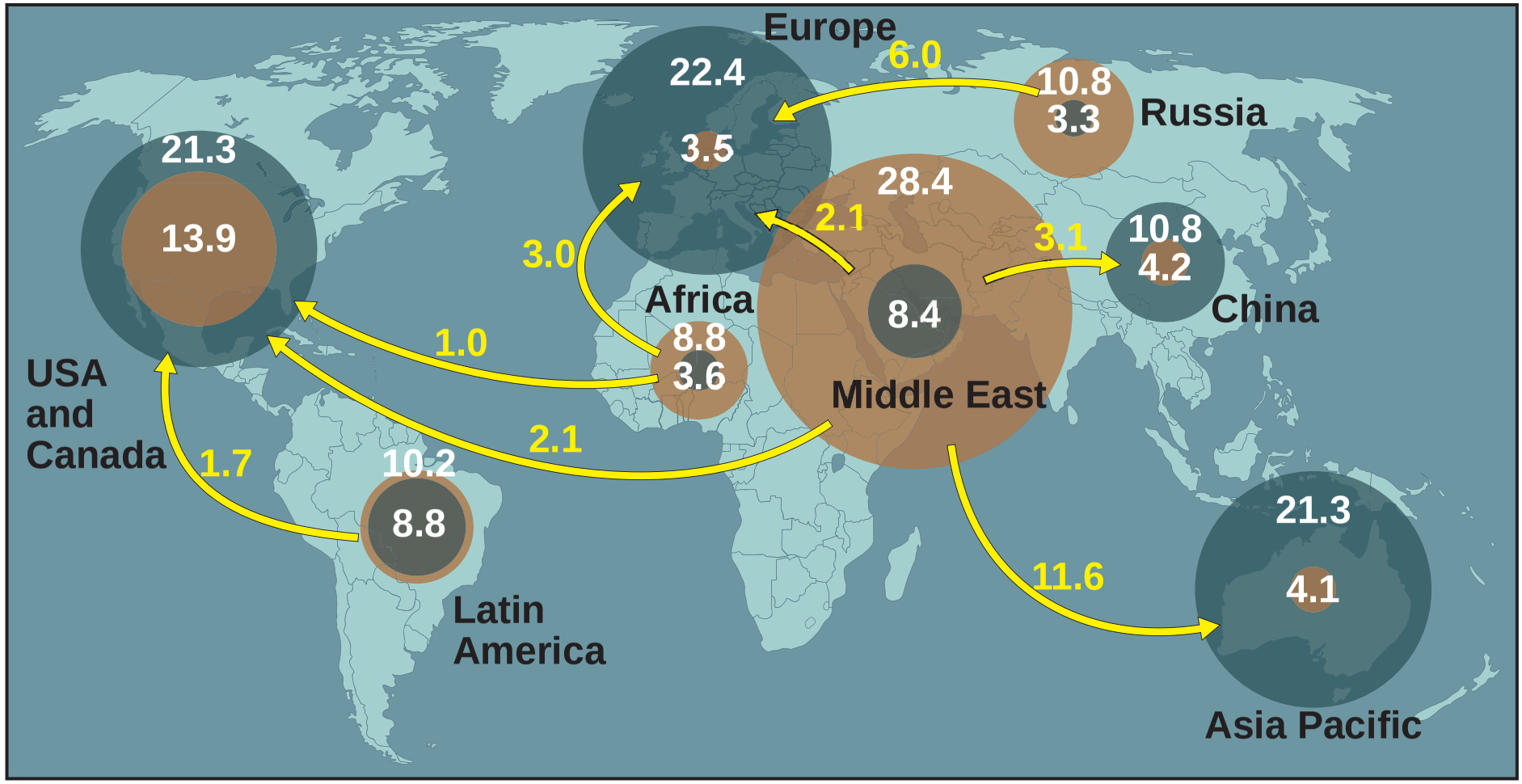


FIGURE 2 – For use with Question 1



KEY

- Production
- Consumption
- Trade flows

All values in million barrels per day

Only trade flows above 1 million barrels per day are represented

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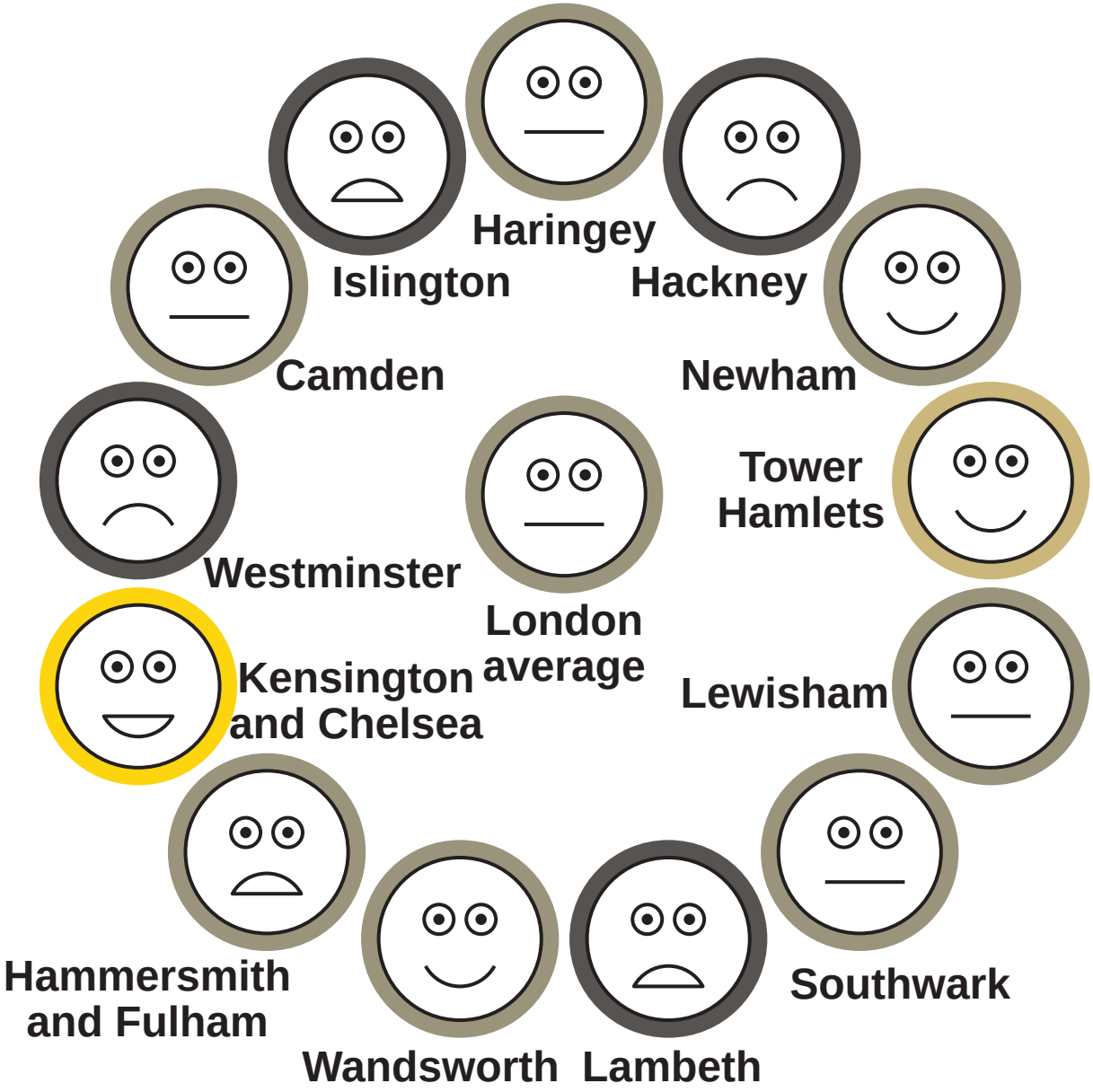
FIGURE 3a – For use with Question 2



KEY

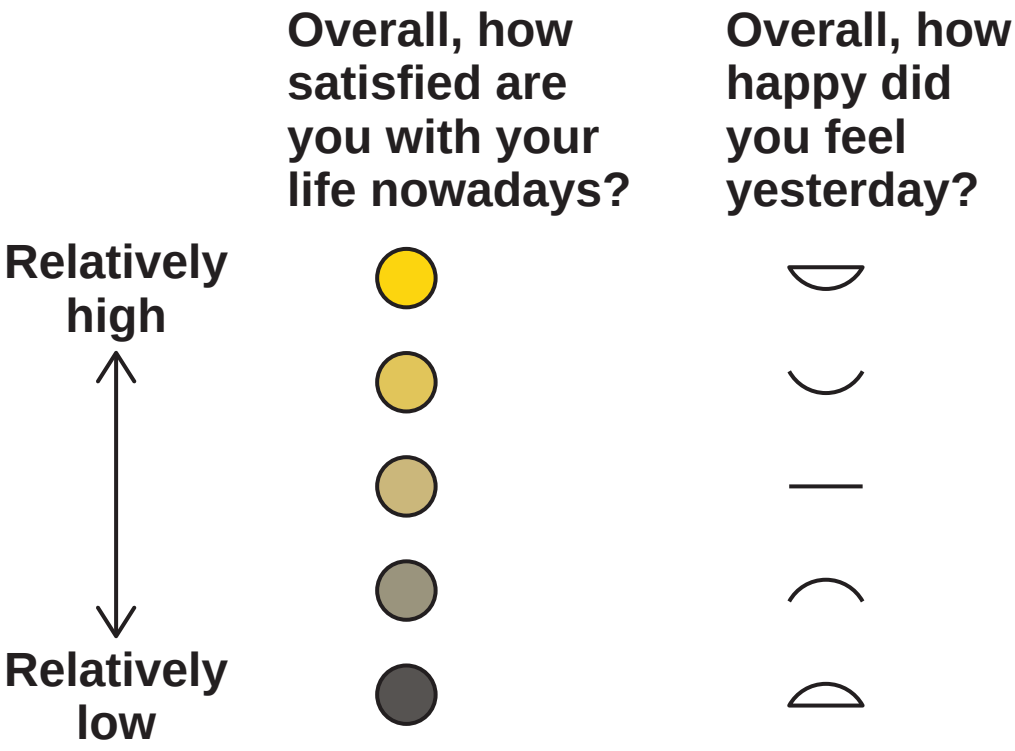


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FIGURE 3b – For use with Question 2

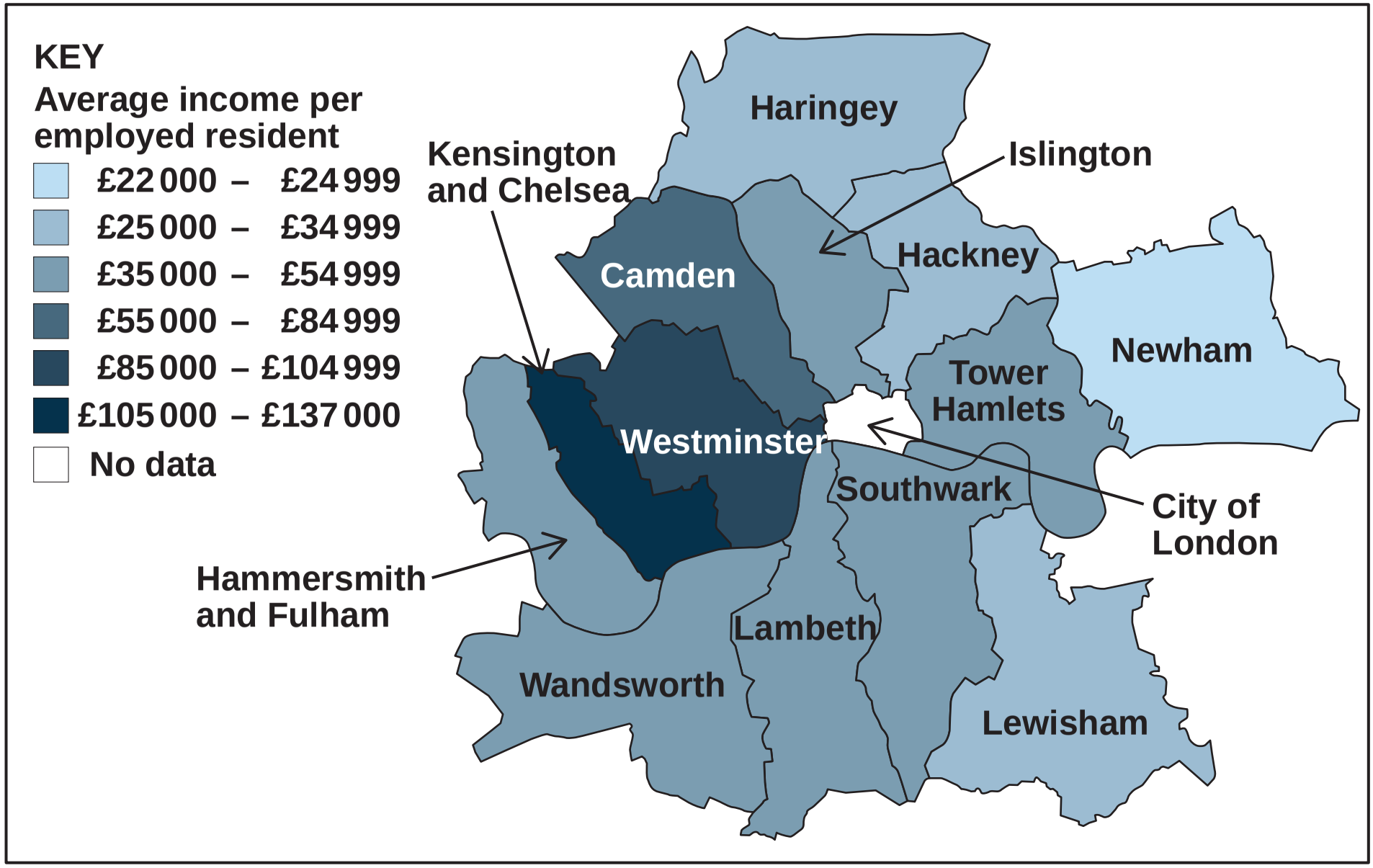

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FIGURE 4a – For use with Question 2

FIGURE 4b – For use with Question 2

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FIGURES 6a and 6b – For use with Question 3

FIGURE 6a

FIGURE 6b

FIGURE 6c – For use with Question 3

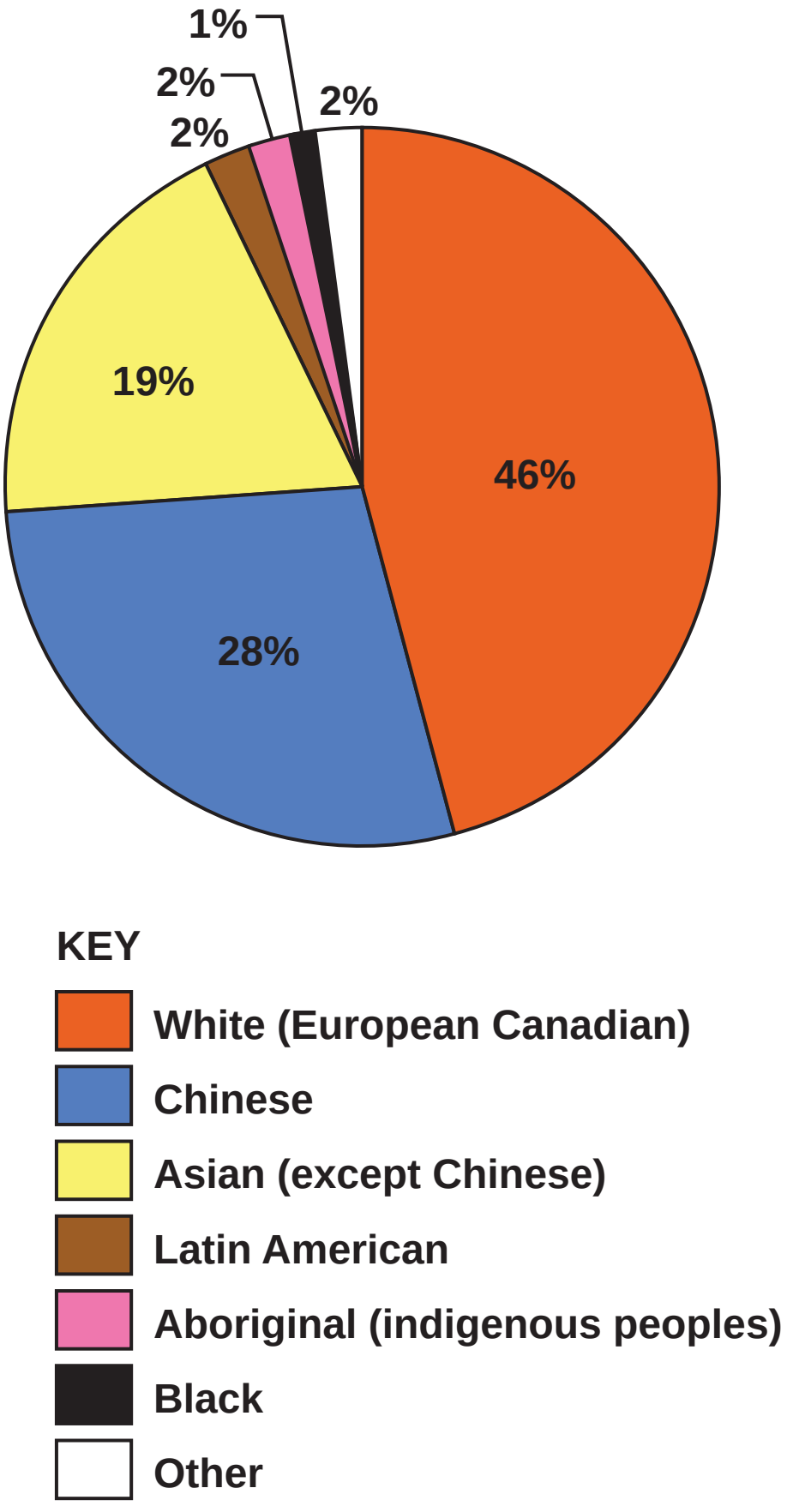

FIGURE 6d – For use with Question 3

EMPLOYMENT SECTOR	THOUSANDS
GOODS PRODUCING SECTOR	222.6
Agriculture	7.2
Forestry, fishing, mining and utilities	17.0
Construction and manufacturing	198.4
SERVICES PRODUCING SECTOR	1070.9
Trade and retail	196.3
Transportation and warehousing	85.2
Finance and business	144.0
Science and technology	130.5
Education, health and public administration	291.2
Recreation and tourism	169.7
Other services	54.0

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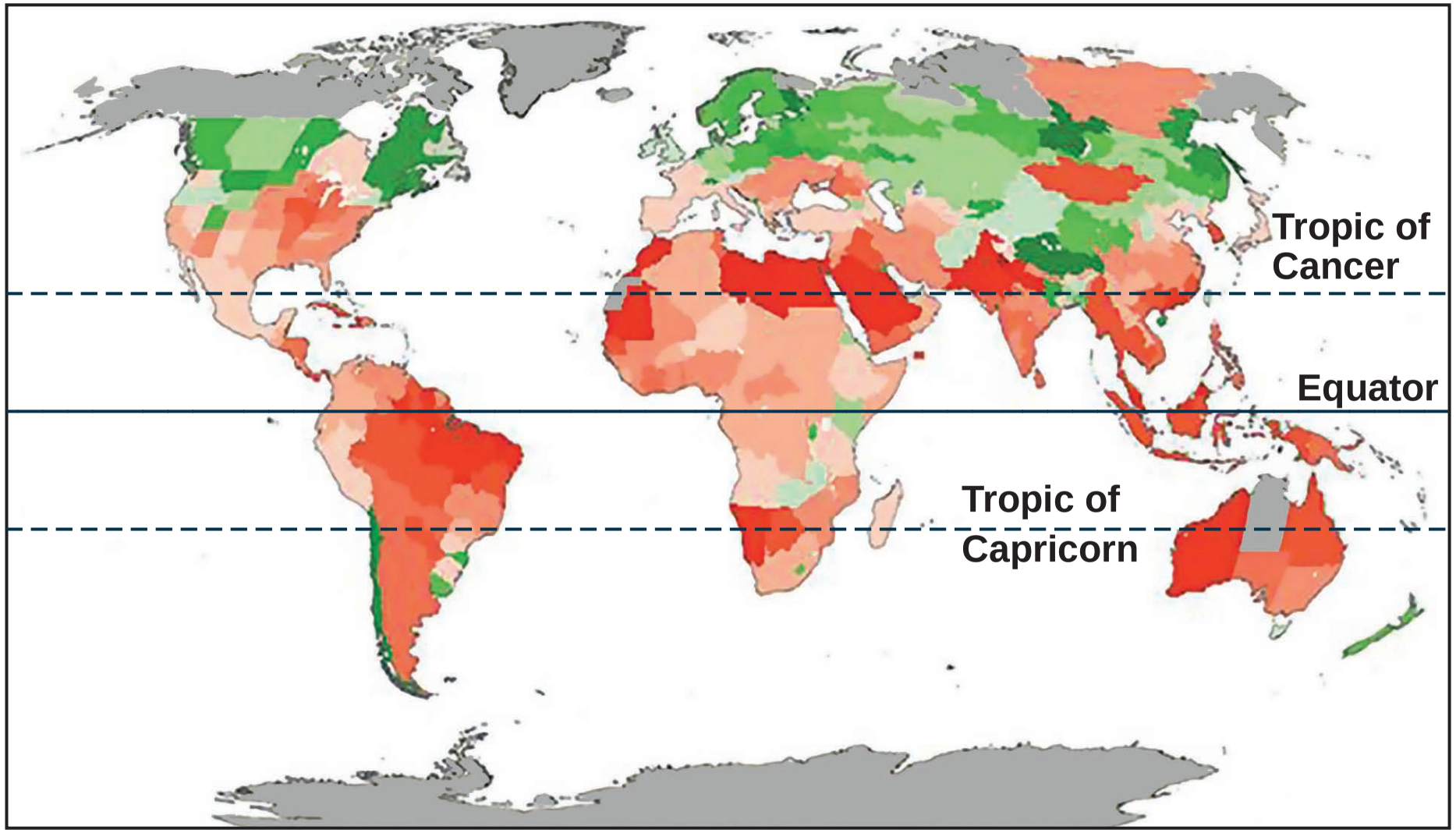
FIGURE 7a – For use with Question 4



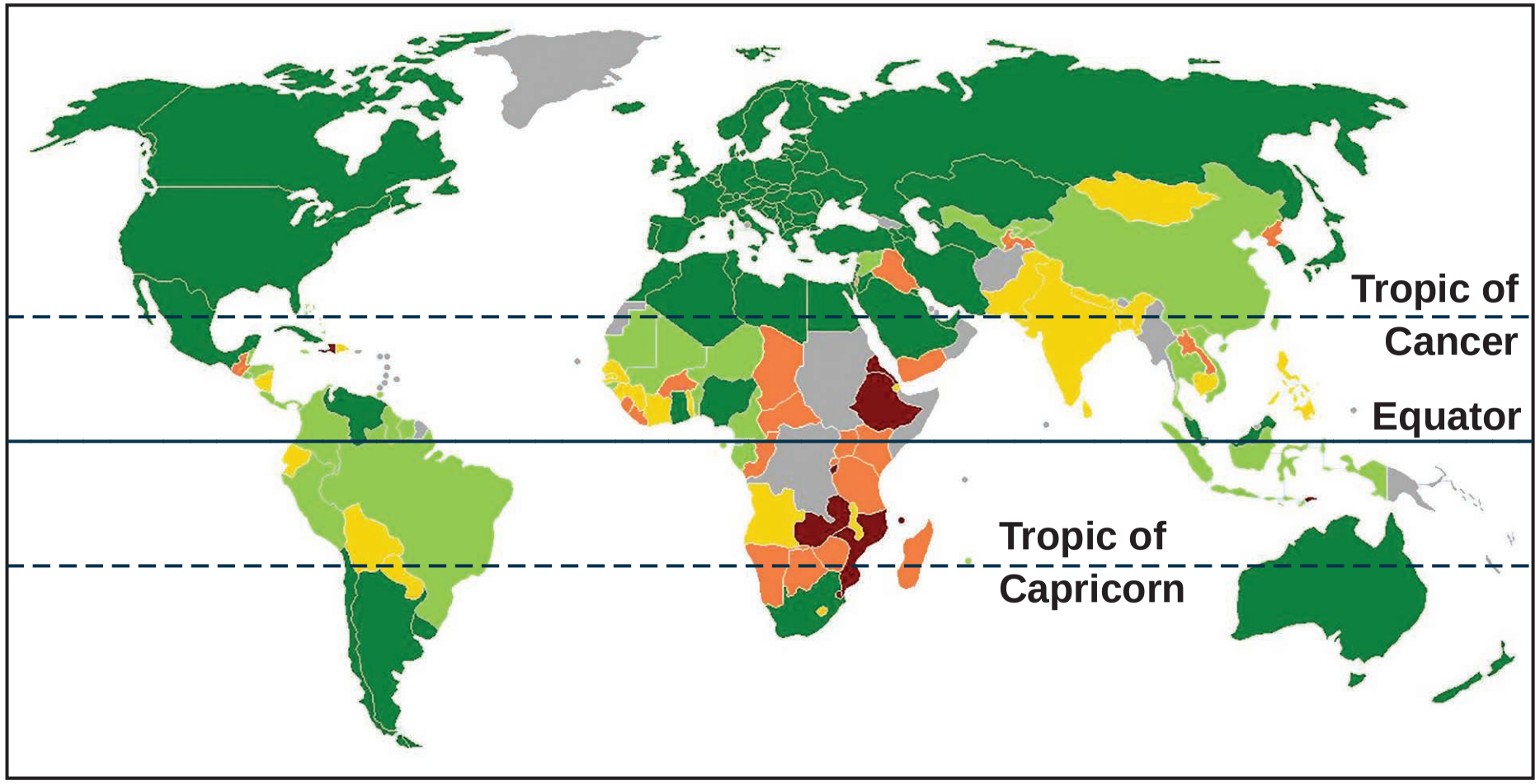
KEY

Predicted change in yields by 2050

–50% change **+100% change**

No data

FIGURE 7b – For use with Question 4



KEY
% of population undernourished

- More than 35
- 25.0 – 35.0
- 15.0 – 24.9
- 5.0 – 14.9
- Less than 5
- No data

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FIGURE 8 – For use with Question 4

Ghana hopes G8 New Alliance will end long history of food insecurity

Despite Ghana's large tracts of fertile land, the west African country has a long history of food insecurity. Millions in the south are no longer at risk, but the number of vulnerable people in the more arid north has increased in recent years.

The government says that is why Ghana has signed up to the G8 New Alliance for Food Security and Nutrition in 2012. Under the initiative, the country will focus on five crops: cowpea, maize, cassava, rice and yam.

"This is really about improving the environment of aid effectiveness, food and nutrition so that countries can really take ownership of their food security and initiatives," said the Deputy Food and Agriculture Minister. "Ghana has huge potential in horticultural

crops, in vegetables and fruits like pineapple. But natural resources by themselves do not bring economic returns. What is needed is more investment. There are better seeds than we are using, high-yield hybrid seeds that can double or triple harvests."

There was, however, almost no knowledge of the G8 initiative among some stakeholders, including farmers and agricultural campaign groups contacted by The Guardian. The government admits that it could have done more to consult those involved in the agricultural sector before signing up to the plan.

Confusion surrounding the plans is made worse, critics say, by a dizzying array of regional and national agriculture programmes that are inaccessible to ordinary people. All the initiatives involve providing more incentives for the private sector to buy and cultivate land, and to become involved in the country's seed industry. But there has been growing concern in Ghana that the commercialisation of the food industry will not benefit small farmers.

A spokesperson from the University of Ghana's agriculture college said "For the peasant farmers in Ghana, land is life. If multinational producers are given the ability to buy large quantities of land, then naturally the farmers who depend on those facilities may be deprived of their livelihood. And so most people would have serious concerns about that."

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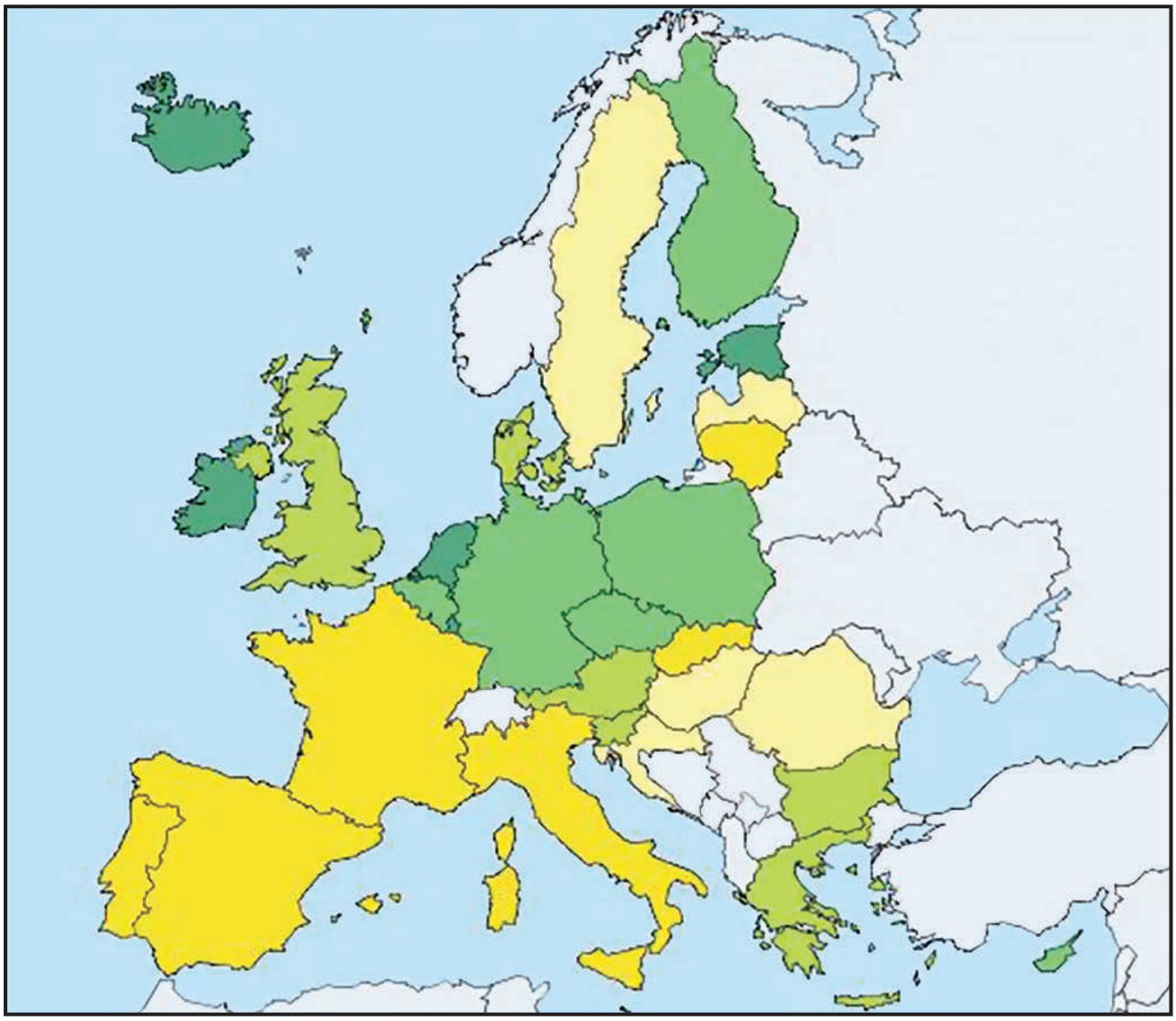
FIGURE 9a – For use with Question 5

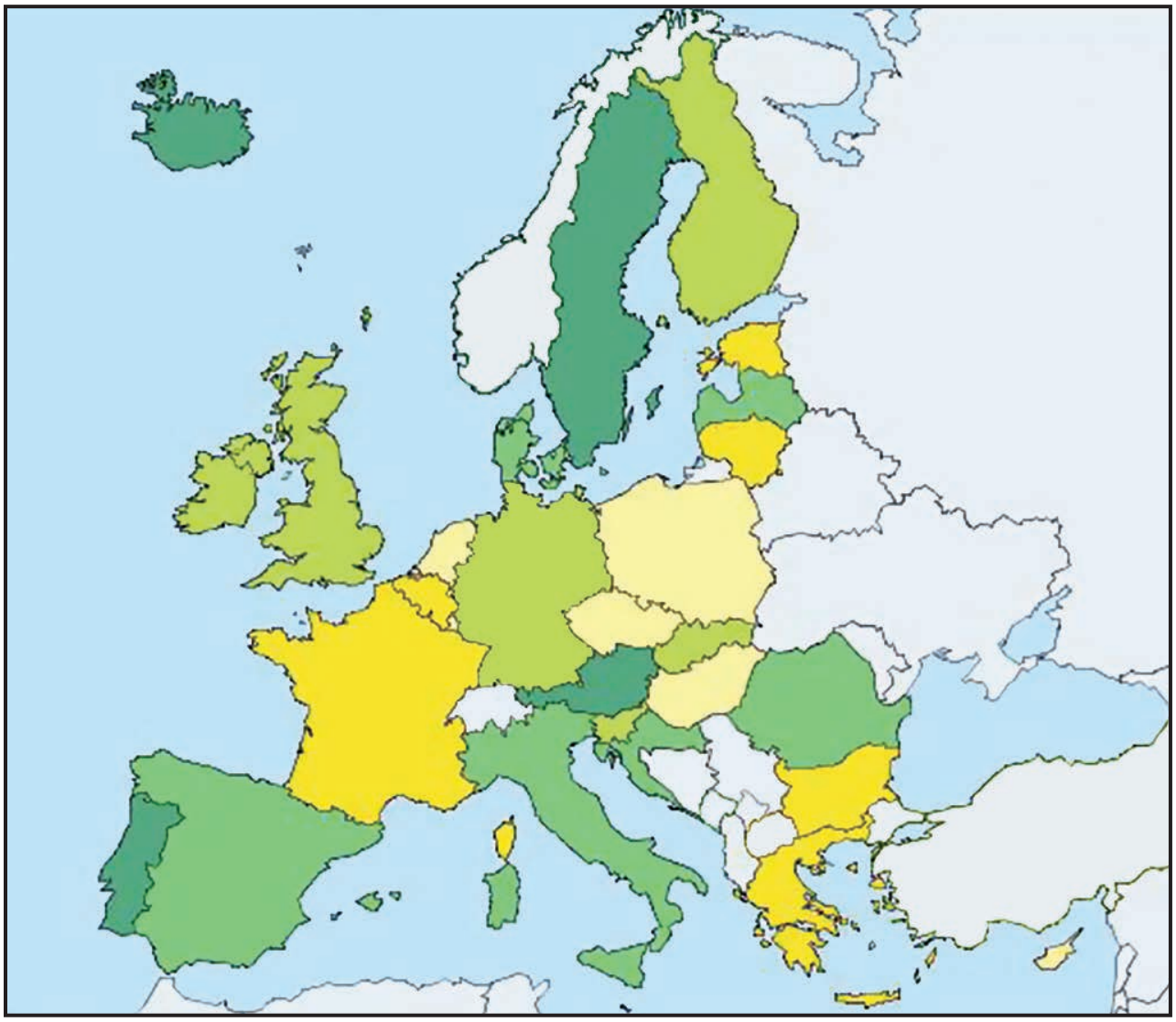


KEY

Tonnes of CO_2 equivalent per capita, 2015

- 5.65 – 6.24
- 6.25 – 7.63
- 7.64 – 9.43
- 9.44 – 12.21
- 12.22 – 20.75

FIGURE 9b – For use with Question 5



KEY

% electricity generated from renewable sources

- 4.2 – 14.0
- 14.1 – 22.0
- 22.1 – 33.1
- 33.2 – 52.1
- 52.2 and above

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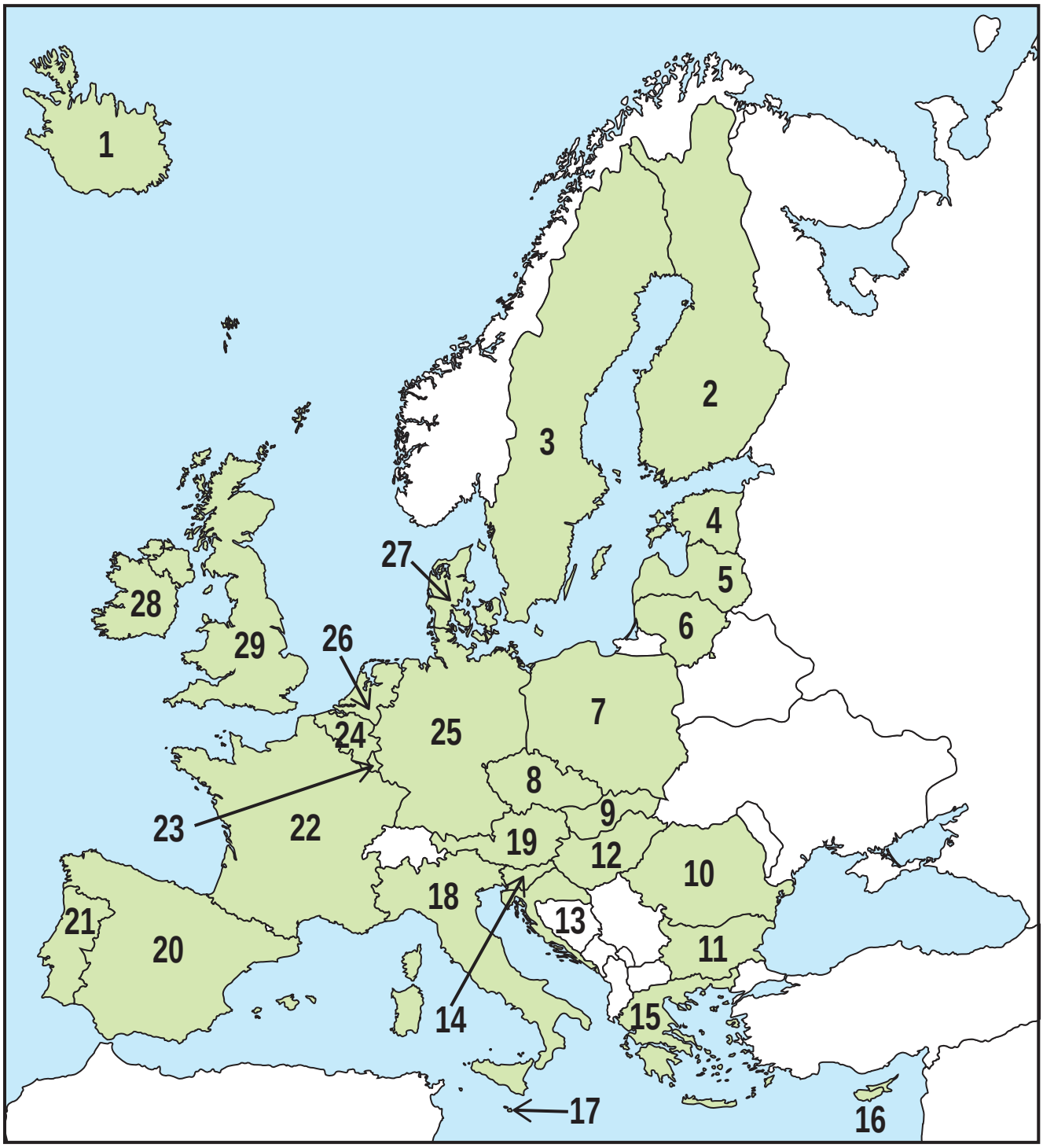
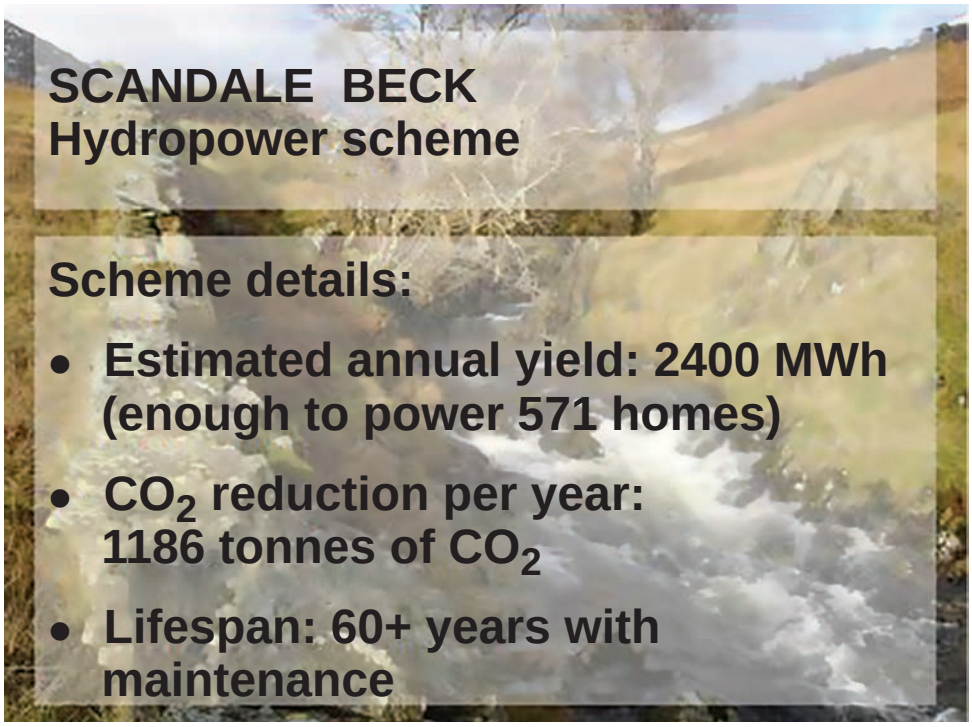
FIGURE 9c – For use with Question 5



KEY

1	Iceland
2	Finland
3	Sweden
4	Estonia
5	Latvia
6	Lithuania
7	Poland
8	Czech Republic
9	Slovak Republic
10	Romania
11	Bulgaria
12	Hungary
13	Croatia
14	Slovenia
15	Greece
16	Cyprus
17	Malta
18	Italy
19	Austria
20	Spain
21	Portugal
22	France
23	Luxembourg
24	Belgium
25	Germany
26	Netherlands
27	Denmark
28	Ireland
29	UK

FIGURE 10a – For use with Question 5



How the scheme works:

- A proportion of water is abstracted from Scandale Beck through a 2 mm fine screen.
- The water is sent down a buried pipeline, dropping 200 m to a turbine.
- The fall creates potential energy that is converted to mechanical energy by the turbine and to electrical energy by a generator.
- All water exits the turbine and is directed back to the Beck.

The intake weir incorporates a fish pass to facilitate the movement of a small population of brown trout around the new weir.

Full restoration works along with a six-year monitoring programme of the flora in the construction footprint will monitor the effects of the construction over time, minimising any long-term changes.

Ellergreen Hydro Ltd builds schemes that are traditional in design and appearance while making use of modern technology to produce clean, sustainable power and reduce the use of fossil fuels.

Ellergreen Hydro

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FIGURE 10b – For use with Question 5

Month	Potential output (MWh)	Actual output (MWh)
November 2015	653.04	646.00
April 2016	653.04	217.00
August 2016	674.81	276.00
November 2016	653.04	268.00
January 2017	674.81	181.00

MWh = Megawatt-hours, a measure of electricity generation

END OF FIGURES