

## ANDERSON SERANGOON JUNIOR COLLEGE

## JC1 H2 Geography Promotional Exam (2023)

### H2 GEOGRAPHY

9173/01

25 September 2023

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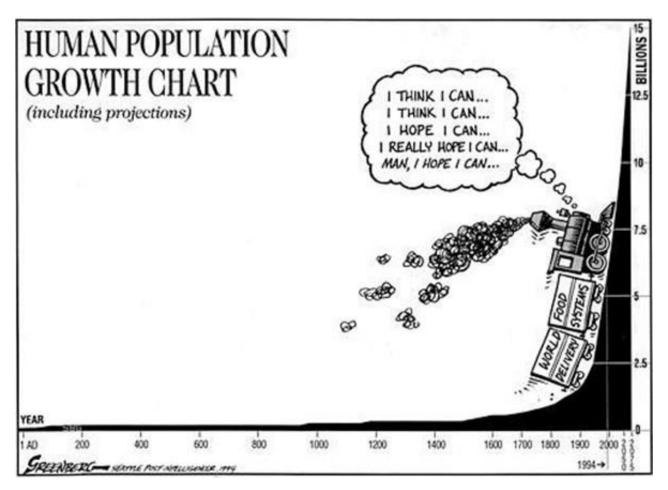
2 hrs 30 mins

### READ THESE INSTRUCTIONS FIRST

The Insert contains all the Resources referred to in the questions.

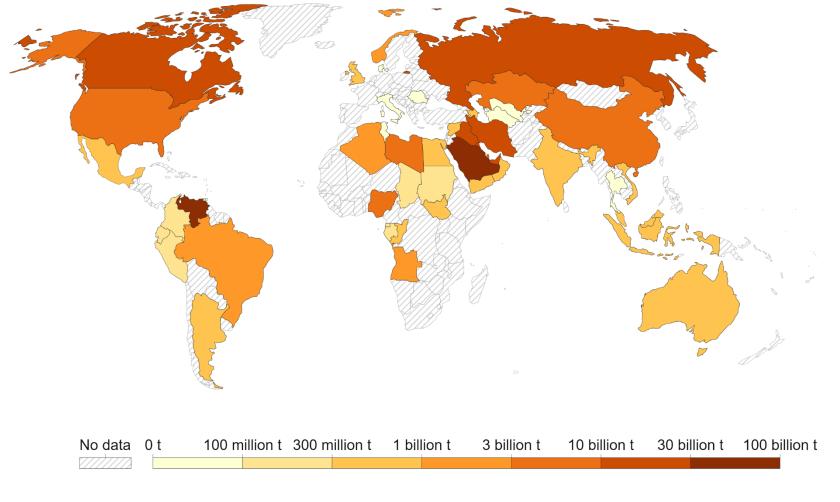
### **Resource 1 for Question 1**

A comic on one perspective of the relationship between population and resources



### **Resource 2 for Question 1**

### Global distribution of proven oil reserves in 2020



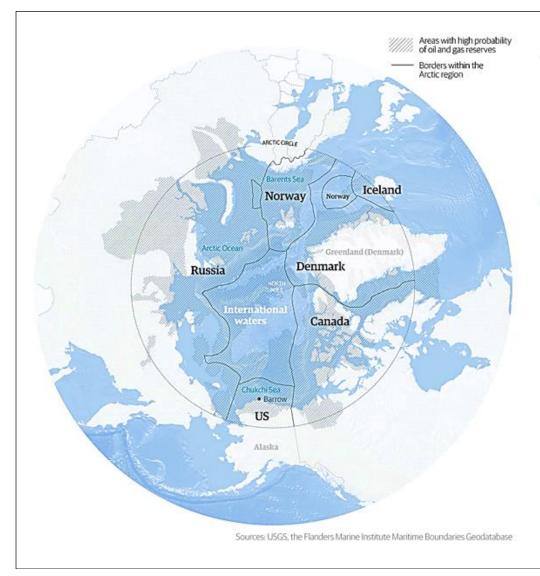
Source: Energy Institute Statistical Review of World Energy (2023)

OurWorldInData.org/energy • CC BY

ASRJC 2023 JC1 H2 Geography MYCT - INSERT

### **Resource 3 for Question 1**

### Information sheet on oil and gas exploration in the Arctic Circle



Oil and gas reserves in the Arctic Circle

According to the US Geological Survey:

- 30% of the world's undiscovered gas and 13% of oil waiting to be found inside the Arctic Circle.
- Land accounts for about 1/3 of the Arctic's area and is thought to hold about 16% of the Arctic's remaining undiscovered oil and gas resources

### Who owns the Arctic?

- The land and territorial waters in the Arctic belong to one of five countries: Canada, the United States, Russia, Norway and Denmark
- These countries grant licenses to companies such as Shell to explore for oil and gas

# How is drilling for oil done in the Arctic Circle?

- Potential for oil is explored through installing a wellbore and a system of tubes and valves to monitor and regulate oil flow and pressure
- Ice roads and an ice airstrip have to be constructed after installing an oil well, as temperatures can reach minus 50 degrees Celsius in winter
- 15 million gallons of water are required for drilling and development

### **Resource 4 for Question 1**

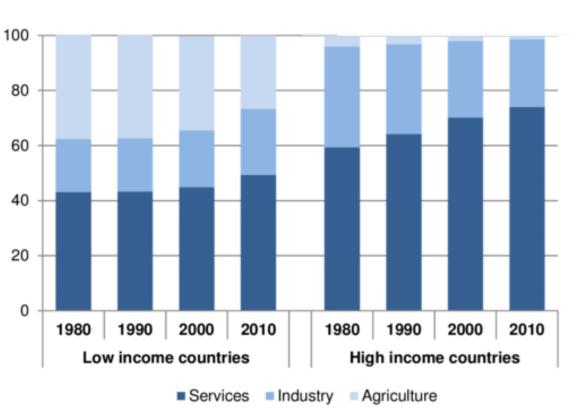
### An article on the impacts of oil exploration in the Arctic Circle

Oil drilling in the Arctic Circle could result in the emission of roughly 150 billion tonnes of carbon dioxide into the atmosphere. The irony is that the drilling is only possible because manmade climate change is already causing this region to grow warmer twice as fast as the rest of the planet.

Oil exploration and drilling also poses a considerable risk to Arctic ecosystems and communities. For example, whales and other marine mammals are exposed to harmful underwater noise that prevents them from navigating, finding mates, and foraging in the dark Arctic waters. This can threaten the fish and marine mammals that Arctic Indigenous peoples depend on for secure access to food.

Nevertheless, some argue that oil-derived revenues have helped to pay for basic services and infrastructure in villages in the region, such as Barrow near the Chukchi Sea.

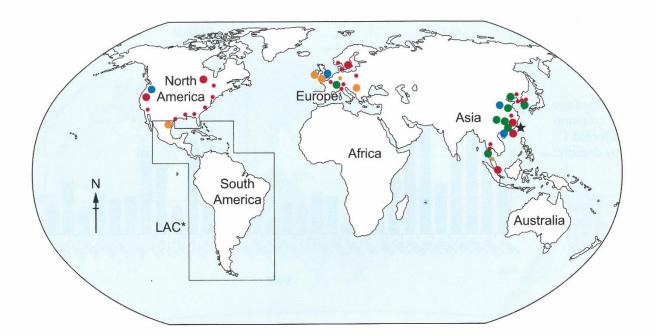
**Resource 5 for Question 2** 



## Value-add by sector for countries at different income levels, percentage of GDP (%)

#### **Resource 6 for Question 2**

Global production network (GPN) of JIN-I Technology Co., Ltd., Taiwan, 2014



### Key

Activities

★ global headquarters (HQ)

- Research and Development centre
- manufacturing and sales base
- manufacturing base
- sales office

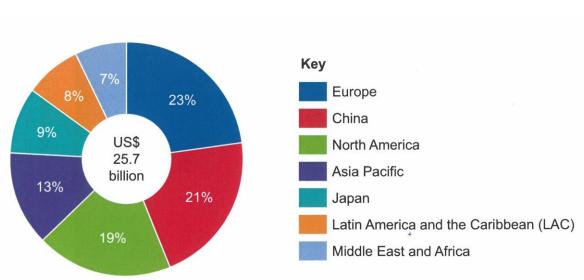
Number of bases, centres and offices

- 1 unit
- O 2-4 units

Number of company's bases, centres and offices globally = 82

\* Latin America and the Caribbean (LAC) comprises 42 countries and territories, approximately 7% of world population.

**Resource 7 for Question 2** 



### Global market for LED lighting in 2015, predicted in November 2014

### **Resource 8 for Question 2**

### Extract from an economic overview of Latin America and the Caribbean (LAC) by the World Bank, April 2017

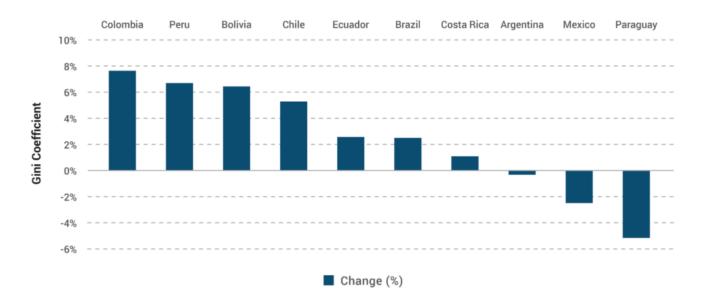
The Latin America and Caribbean region (LAC) seems to have turned the corner: after six years of slowdown, including two of recession, it is growing again. However, the years of economic stagnation have halted social progress, and the region needs to spur the economic recovery and find new engines of growth to reduce poverty and boost prosperity further.

The hardest-hit developing region during the recent global deceleration, LAC is expected to expand by 1.2% in 2017, followed by 2.1% in 2018. Argentina and Brazil are coming out of recession, Mexico will keep growing, and Central America and the Caribbean will grow faster.

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### **Resource 9 for Question 2**





\* Note: A positive percentage change in the Gini coefficient suggests greater economic inequality in the country, while a negative percentage change suggests lower economic inequality in the country.