

Question 2**DEVELOPMENT INDICATORS FOR SELECTED COUNTRIES, 2020**

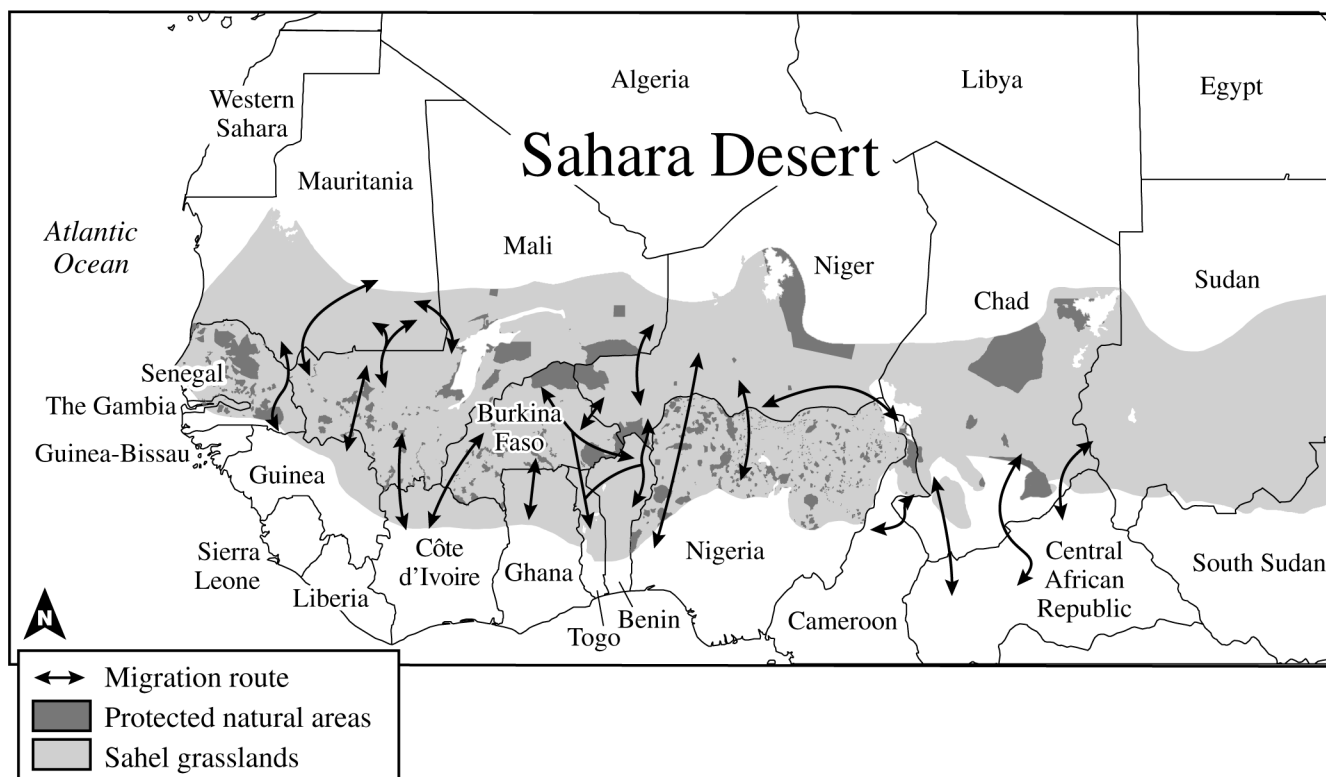
Country	Gross National Income per Capita	Percent of Workforce in Agriculture	Total Fertility Rate	Mean Years of Schooling Women/Men	Life Expectancy	Air Pollution Mortality Rate (per 100,000 people)	Percent of Population with Access to Clean-Burning Fuels
Afghanistan	\$1,976	39%	4.5	1.9 / 6.0	61	211	32%
Brazil	\$10,857	9%	1.7	8.0 / 7.7	69	30	96%
Finland	\$46,343	3%	1.6	12.6 / 12.3	81	7	100%

Source: World Bank, UNICEF

2. In 1990 the United Nations (UN) began using the Human Development Index (HDI) to measure levels of development. In 2015 the UN established the Sustainable Development Goals (SDGs) to set targets for environmental quality, economic development, and social programs.
- Using the data categories in the table, identify ONE indicator that is used to calculate HDI scores.
 - Using a different indicator than the one identified in part A, explain why Brazil's HDI score is higher than that of Afghanistan.
 - The UN and many countries have promoted sustainability principles. Describe ONE specific way that sustainability goals can respond to economic challenges.
 - Explain ONE reason why increasing women's access to education is likely to affect a country's total fertility rate.
 - SDG 8 is to "promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all." Explain ONE way in which a country's development of ecotourism might affect economic growth.
 - Using data from the table, explain how access to clean-burning fuels for people's homes relates to the life expectancy of a country's population.
 - Explain how ONE of the countries in the table would be classified according to Rostow's stages of economic growth.

Begin your response to this question at the top of a new page in the separate Free Response booklet and fill in the appropriate circle at the top of each page to indicate the question number.

Question 3

PASTORAL NOMADISM IN THE SAHEL REGION OF AFRICA

Source: Food and Agriculture Organization

The Sahel is an environmental transition zone between the Sahara desert and the wet tropical forest regions of Africa. The landscape is a semiarid grassland, having distinct dry and wet seasons, and the region is interspersed with shrubs and small woodlands.

SOURCES OF TENSION RELATED TO PASTORAL NOMADISM

Groups	Potential Sources of Tension
Nomadic herders versus crop farmers	• Damage to fields by migrating herds • Overgrazing by migrating herds • Competition for access to water • Increasing size of crop farms
Nomadic herders versus conservation organizations	• Grazing of protected areas • Degradation of natural habitats
Nomadic herders versus government officials	• Failure to follow regulations on cross-border migration • Activities such as smuggling foreign goods

Source: Organisation for Economic Co-operation and Development

Question 2: One Stimulus**7 points**

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- (A)** **Using the data categories shown in the table, identify ONE indicator that is used to calculate HDI scores.** **1 point**

Accept one of the following:

- A1. Life expectancy is one indicator.
- A2. GNI per capita is one indicator.
- A3. Mean (or average) years of schooling is one indicator.

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- (B)** **Using a different indicator than the one identified in part A, explain why Brazil's HDI score is higher than that of Afghanistan.** **1 point**

Accept one of the following:

- B1. Brazil has a higher ranking than Afghanistan because it has a higher life expectancy (no point if paired with a point for A1).
 - B2. Brazil has a higher ranking than Afghanistan because it has a higher GNI per capita, produces higher-value goods and services per person, and/or Brazil has a more productive economy per person (no point if paired with a point for A2).
 - B3. Brazil has a higher ranking than Afghanistan because it has a greater mean (or average) number of years of schooling for adults and/or children (no point if paired with a point for A3).
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| (C) | The UN and many countries have promoted sustainability principles. Describe ONE specific way that sustainability goals can respond to economic challenges. | 1 point |
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Accept one of the following:

- C1. Programs and policies to reduce poverty (e.g., improve access to the flow of remittances, microloans, social safety nets) and/or increase jobs. (Sustainable Development Goals [SDG] 1, 8, 16)
- C2. Improvements in the quality of the environment (e.g., environmental protection measures, increasing biodiversity, reducing pollution) may improve the health of the labor force. (SDG 14, 15)
- C3. Investments in environmental technology (e.g., clean water, sanitation, and/or hygiene) and/or infrastructure (transportation, electricity). (SDG 6, 9)
- C4. By shifting from fossil fuels to solar and wind-generated electricity, a country can generate new employment in the secondary and/or tertiary sectors (e.g., construction, manufacturing, engineering). (SDG 7, 13)
- C5. Improvements in nutrition and/or agricultural production and/or reductions in food insecurity can improve the health of the workforce and/or increase economic productivity. (SDG 2)
- C6. Investing in improving health care can result in a healthier and/or more productive workforce and/or lower population growth. (SDG 3)
- C7. Investing in education can improve the overall quality of the workforce. (SDG 4, 5)
- C8. Reducing inequalities such as gender discrimination and/or other forms of discrimination (e.g., discrimination based on race, ethnicity, ability, age). (SDG 5, 10)
- C9. Reducing conflict, war, and violence frees up resources to invest in other areas of a country's economy and/or can lead to increases in the country's trading partners. (SDG 16)
- C10. Programs and policies that create partnerships among governments, and/or the private sector can often lead to more investment in industry. (SDG 17)

Responses do not need to cite the SDG number.

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- (F) Using data from the table, explain how access to clean-burning fuels for people’s homes relates to the life expectancy of a country’s population. 1 point**

Accept one of the following:

- F1. The high air pollution mortality rate shown in Afghanistan (211 per 100,000 people) is connected to the low percentage of the population’s access to clean-burning fuels (only 32%) contributing to a lower life expectancy (61).
- F2. Exposure to air pollution may cause diseases and/or health issues among people with weakened immune systems and deaths (fatalities) from these diseases, which may result in high mortality rates and/or shorter life expectancies as seen in the data for Afghanistan.
- F3. The life expectancy in Brazil (69) is slightly higher than Afghanistan (61) and/or lower than Finland (81) and may be related to the high number of the country that has access to clean burning fuels (Brazil with 96%).
- F4. The low air pollution mortality rate and/or longer life expectancy (81) shown in Finland is connected to the fact that all (100%) of the population has access to clean-burning fuels.

Responses must indicate a country or a specific statistic from the table.

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- (G) Explain how ONE of the countries in the table would be classified according to Rostow’s stages of economic growth. 1 point**

Accept one of the following:

- G1. Afghanistan is in Stage 1 (traditional society) or 2 (transitional stage/preconditions for take-off), or lower stages, because it has one or more of the following characteristics: high percentage of labor force in agriculture, low GNI per capita, low HDI ranking, and/or its economy is mainly focused on farming and natural resource extraction.
- G2. Brazil is in Stage 3 (take-off) or 4 (drive to maturity), or middle stages, because it has one or more of the following characteristics: low agricultural employment, high income disparity, a weak social welfare system, a diversified economy that increasingly focuses on services, and/or an industrial economy that exports natural resources, processed agricultural goods, vehicles, and other manufactured products.
- G3. Finland is in Stage 4 (drive to maturity) or 5 (high mass consumption), or higher stages, because it has one or more of the following characteristics: a high GNI per capita, a high HDI ranking and/or a strong social welfare system, a postindustrial economy, and/or Finland’s economy is focused on services and technology.

Total for question 2: 7 points