AP

AP® Human Geography
Sample Student Responses
and Scoring Commentary
Set 2

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Free-Response Question 2

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Question 2: One Stimulus   7 points

(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.

(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).

| (C) | **The UN and many countries have promoted sustainability principles. Describe ONE specific way that sustainability goals can respond to economic challenges.** | **1 point** |

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.

| **(D)** | **Explain ONE reason why increasing women's access to education is likely to affect a country's total fertility rate.** | **1 point** |

Accept one of the following:

- D1. Women with increased access to education spend more time in school and/or have more job opportunities (e.g., higher-paying jobs), which tends to result in delayed age of marriage and/or smaller family sizes.
- D2. Women with increased access to education tend to have more information regarding health care and family planning, and/or the ability to afford family planning, resulting in smaller family sizes.
- D3. Women with higher levels of education tend to migrate to urban areas where residents may have less time, space, and/or need for children as a source of familial labor (as compared to rural areas).
- D4. Women with higher levels of education tend to have higher levels of political empowerment and may choose to have fewer children due to their position or role in society (e.g., equality with men, holding political office, business ownership), and/or nondomestic role in the household.

| **(E)** | **SDG 8 is to "promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all." Explain ONE way a country's development of ecotourism might affect economic growth.** | **1 point** |

Accept one of the following:

- E1. A country that has moved to ecotourism would see an increase in jobs or expansion in the service sector of the economy.
- E2. Ecotourism often results in better-paying, salaried jobs.
- E3. Ecotourism may result in an increase in tourism revenue, foreign currency, and/or tax revenues.
- E4. Ecotourism may result in new job opportunities and/or higher-paying jobs in rural areas that lack such opportunities (e.g., communities in or adjacent to national parks or conservation areas).
- E5. A country whose government may spend money on ecotourism infrastructure projects may negatively affect the overall economy because it diverts resources from other types of infrastructure investments (e.g., education, health care).
- E6. Ecotourism can result in low-paying jobs and/or informal economy sector jobs that do not contribute positively to the overall economy of a country.
- E7. Transnational corporations may invest in ecotourism in a country, while sending the profits back to their headquarters, depriving the country of that income.

(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.

(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

Important: Completely fill in the circle that corresponds to the question you are answering on this page.

| Question 1 | Question 2 | Question 3 |
| ○ | ● | ○ |

Begin your response to each question at the top of a new page. Do not skip lines.

A. Life expectancy is used to calculate HDI scores for states.

B. Mean years of schooling contributes to Brazil having a higher HDI than Afghanistan. In Brazil, women go to school for an average of 8 years while men go for 7.7. In Afghanistan, it is 1.9 years for women and 6 for men, on average. This significant difference is important because more education in Brazil leads individuals there to have access to more economic opportunity, leading to greater economic growth, and a higher quality of life, something HDI attempts to measure.

C. An economic challenge such as high unemployment can be responded to with sustainability goals such as education. One of the UN's sustainable goals is to increase access to education, and this will likely lead to more opportunities for individuals to be employed or start businesses, creating employment for others. This all begins with education.

D. Increasing women's education decreases fertility rate because educated women are more likely to enter the workforce, delaying the time when they get married and have kids, so they end up having fewer children.

E. Development of ecotourism increases economic growth by employing local workers and giving them good-paying jobs. These workers then have disposable income which they spend back into the local economy, fostering economic growth.

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Q5366/04

Important: Completely fill in the circle that corresponds to the question you are answering on this page.

Question 1 ○   Question 2 ●   Question 3 ○

Begin your response to each question at the top of a new page. Do not skip lines.

F. Higher access to clean burning fuels contributs to life expectancy because populations are not exposed to harmful pollution. In Brazil, life expectancy is 69 and access to clean fuels is 96%, 3 times higher than Afghanistan, which has a life expectancy of 61. In Finland, life expectancy is even higher, 81, and 100% of the population has access to clean fuels. Burning non-clean fuels leads to air pollution, which is harmful and decreases life expectancy.

G. Finland would be classified as a stage 5 country in an age of mass consumerism. This is a highly developed country with high quality infrastructure, where once luxary items are now considered needs. Finland's GNI per capita is $46,343, much higher than semiperiphery Brazil and periphery Afghanistan. This is characteristic of a stage 5 country.

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Q5366/05

Important: Completely fill in the circle that corresponds to the question you are answering on this page.

Question 1   Question 2   Question 3
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Begin your response to each question at the top of a new page. Do not skip lines.

A- One indicator used to calculate the HDI score of a country is life expectancy. As the HDI score of a country is focused on more than just economic growth, life expectancy is used to calculate the development. Life expectancy can tell many things about a ~~nationd~~ nation's development educationally, medically, and more, which is why it is used to calculate HDI.

B- Brazil has a much smaller percent of their workforce employed in agriculture than Afghanistan. This indicates a much higher level of industrialization, thus meaning Brazil is more developed. Brazil has a higher HDI score than Afghanistan because Brazil is more economically developed. Only 9% of their workforce is in the agricultural field meaning 91% have jobs in either the ~~prim~~ secondary or tertiary sectors. Brazil's HDI is higher as ~~their~~ they are more economically developed due to industrialization, as indicated by the percentage of their workforce employed in agriculture.

C- Sustainability goals can promote ecotourism which can respond to the economic challenge that many countries face of unemployment. Eco tourism promotes ~~sustainabit~~ environmental sustainability while also creating many more jobs for local citizens and boosting the economy. Sustainability goals such as ecotourism respond to economic challenges by bringing more money into the local

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Q5366/04

Important: Completely fill in the circle that corresponds to the question you are answering on this page.

Question 1   Question 2   Question 3
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Begin your response to each question at the top of a new page. Do not skip lines.

economy.

D- Increasing women's access to education will likely lower a country's total fertility rate (TFR). ~~Finlan~~ In Finland women have an average of 12.6 years of schooling and a TFR of only 1.6. This is much lower than Afghanistan's TFR of 4.5, which correlates with the mean years of schooling for women being only 1.9. Women with better education access have more job opportunities, leading them to have less children, and later on in life. Women focusing on school and career opportunities are much less focused on having children, and thus having a higher female literacy rate and increased education access will lead to a lower TFR.

E- Ecotourism within a country brings new jobs into the economy which supports local citizens. This supports economic growth as it brings in more money which can support other businesses and bring in a larger tax base. The increased job opportunities provided by ecotourism heavily supports economic growth.

F- Access to clean-burning fuels increases life expectancy. As shown in the table, only 32% of Afghan families have access to clean-burning fuels. Afghanistan in turn has an extremely high air pollution mortality rate, lowering the life expectancy substantially. Finland on the other hand has a life expectancy of 81 as ~~too~~ 100% of their population has access to clean-burning fuels, lowering the air pollution mortality rate.

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Q5366/05

Important: Completely fill in the circle
that corresponds to the question you
are answering on this page.

Question 1   Question 2   Question 3
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Begin your response to each question at the top of a new page. Do not skip lines.

2A) One indicator that is used to calculate HDI scores is life expectancy.

2B) One indicator as to why Brazil's HDI score is higher than that of Afghanistan is that Brazil has a significantly higher percentage of its' population with access to clean-burning fuels.

2C) One specific way that sustainability goals can respond to economic challenges is

2D) One reason why increasing women's access to education is likely to affect a country's total fertility rate is because if women have more access to getting an education they would be able to go further in the workforce making them more occupied with work instead of their outdated role of simply being a childbearer and home-maker.

2E) One way in which a country's development of ecotourism might affect economic growth is by giving locals the power to control tourism in aspects such as, where tourist can go, when tourism is allowed, and costs.

2F) Using the data from the table, having access to clean-burning fuels for people's homes relates to the life expectancy of a country's population because countries with ~~access to~~ a large percentage of the population with access to clean-burning fuels, for example, Finland, also have a higher life expectancy than countries that have a lower percentage of citizens with access to clean-burning fuels, for example, Afghanistan, that tend to have lower life expectancies.

2G)

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Q5366/04

Question 2

Note: Student samples are quoted verbatim and may contain spelling and grammatical errors.

Overview

This one-stimulus question is centered on the Human Development Index (HDI) and the United Nations' Sustainable Development Goals as they relate to levels of development. The stimulus was a table, "Development Indicators for Selected Countries, 2020," with data that included economic, population, health, and environment indicators for Afghanistan, Brazil, and Finland.

In answering this question, students were expected to demonstrate knowledge from two different units of the course: Unit 7 (Industrial and Economic Development) and Unit 2 (Population and Migration). Students were expected to demonstrate use of several course skills from Skill Categories 1 (Concepts and Processes), 2 (Spatial Relationships), 3 (Data Analysis), and 5 (Scale Analysis).

In parts A and B students were directed to use the table. In part A students were asked to identify one indicator from the table that is used to calculate Human Development Index (HDI) scores. In part B students were asked to use a different indicator than the one they identified in part A to explain why Brazil's HDI score is higher than that of Afghanistan. Students needed to read and understand data from the table to earn the point.

In part C students were tasked to describe one specific way that sustainability goals can respond to economic challenges.

In part D students were asked to explain one reason why increasing women's access to education is likely to affect a country's total fertility rate.

In part E students were asked to explain one way in which a country's development of ecotourism might affect economic growth.

In part F students were instructed to use the data from the table to explain how access to clean-burning fuels for people's homes relates to the life expectancy of a country's population. As with parts A and B, students needed to read and understand data from the table and connect that to Unit 2 (Population and Migration).

In part G students were asked to explain how one of the countries in the table would be classified according to Rostow's stages of economic growth.

Sample: 2A
Score: 7

The response to part A earned 1 point because it identifies life expectancy as an indicator that is used to calculate HDI scores.

The response to part B earned 1 point because it explains that Brazil has a higher ranking than Afghanistan for the indicator of greater mean number of years of schooling.

Question 2 (continued)

The response to part C earned 1 point because it describes investing in education as leading to more opportunities for employment or for starting businesses.

The response to part D earned 1 point because it explains that increasing women's access to education delays their marriage age, resulting in fewer children.

The response to part E earned 1 point because it explains that local workers will get well-paying jobs.

The response to part F earned 1 point because it references the table and explains that Brazil has a high life expectancy and a high level of access to clean burning fuels compared to Afghanistan.

The response to part G earned 1 point because it explains that Finland is a stage 5, highly developed country with high-quality infrastructure and high gross national income per capita.

Sample: 2B
Score: 5

The response to part A earned 1 point because it identifies life expectancy as an indicator of HDI.

The response to part B did not earn a point because it does not correctly identify an indicator for HDI, because the percentage of people involved in agriculture is not an HDI indicator.

The response to part C earned 1 point because it describes ecotourism as a way to create new jobs and boost the economy.

The response to part D earned 1 point because it explains that as women become more educated, they have access to better jobs, lowering the total fertility rate.

The response to part E earned 1 point because it explains how ecotourism brings new jobs.

The response to part F earned 1 point because it explains that only 32 percent of Afghanistan's families have access to clean burning fuels, which leads to a high air pollution mortality rate.

There is no response to part G.

Sample: 2C
Score: 3

The response to part A earned 1 point because it identifies life expectancy as an indicator of HDI.

The response to part B did not earn a point because access to clean burning fuel is not an explanation for the HDI indicator.

The response to part C did not earn a point because it does not describe a specific way that sustainability goals can respond to economic challenges.

Question 2 (continued)

The response to part D earned 1 point because it explains that as women get more access to education they go further in the workforce and have fewer children.

The response to E did not earn a point because it does not explain how ecotourism would affect the economy in terms of employment or increased income.

The response to part F earned 1 point because it explains that Finland has high access to clean burning fuels and higher life expectancies.

There is no response to part G.