

2023



AP[®] Human Geography

Sample Student Responses and Scoring Commentary Set 2

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Free-Response Question 3

- Scoring Guidelines**
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Question 3: Two Stimuli**7 points**

(A) Describe ONE reason for the migration patterns shown on the map.**1 point**

Accept one of the following:

- A1. Seasonal migration (transhumance) to move herds to grazing lands and/or water sources.
- A2. Migration to areas with more rainfall during the dry season.
- A3. Migration because the region's climate (arid or semi-arid) is too dry to support grazing year-round and/or to reduce stress on land that has been grazed.
- A4. Movement southward during the dry season and/or northward during the wet season.
- A5. Migration patterns based on cultural or agricultural practices.

(B) Describe ONE cause of desertification in the Sahel region.**1 point**

Accept one of the following:

- B1. Overgrazing has removed the grass cover and/or damaged the soil.
- B2. Human population growth and the use of arid land for growing food and/or demand for water have placed the land under added stress.
- B3. Runoff, wind, and/or erosion has removed fertile topsoil.
- B4. Soil erosion caused by climate change, natural drought, increasingly dry climate and/or human activities.
- B5. The use of wood for fuel and building materials has removed natural scrub or shrub landscapes.

(C) Explain how pastoral nomadism may affect the cultural landscape of the Sahel region.**1 point**

Accept one of the following:

- C1. Pastoral nomadism affects land use patterns in the region, with much land used for grazing, leaving an imprint of agricultural patterns (e.g., migration routes, traditional sites for seasonal settlements, watering sites, market locations, corrals, animal pens) on the cultural landscape.
 - C2. Pastoral nomadism contributes to specific cultural identities and/or shared practices in groups with migrant lifestyles, leaving an imprint on the landscape (e.g., types of temporary settlements, meeting places, market locations) and/or infrastructure that supports communication (e.g., signs, cell phone towers).
 - C3. Pastoral nomadism affects the built environment, with many nomadic herders constructing portable and/or seasonal (temporary) dwellings.
 - C4. Pastoral nomads follow long-established seasonal migration routes or seasonal temporary settlements, thus maintaining local traditions and/or agricultural practices (e.g., animal husbandry, dairying, celebrations) that leave an imprint on the cultural landscape.
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(D) Explain ONE way mixed-crop farming could be affected by climatic conditions. 1 point

Accept one of the following:

- D1. The availability of annual or seasonal rainfall (e.g., drought) results in crop or animal losses.
- D2. Variables and/or extremes in annual and/or seasonal temperatures may prevent or enable the cultivation of certain plant crops or animals.
- D3. Farming is affected by floods in areas where there are seasonal monsoons, hurricanes, and/or intense storms.
- D4. Farming is affected by changes in temperature or rainfall which may cause farmers to substitute one crop for another, and/or change farming techniques.
- D5. Changes in temperature, precipitation, frequency, and/or the intensity of storms may limit plant crops or impact the overall health of animals.

(E) Using the map and table, explain why expanding protected natural areas may affect the migration routes of nomadic herders in the Sahel region. 1 point

Accept one of the following:

- E1. Nomadic herders may have to make detours to avoid crossing protected natural areas, or use corridors established by governments, thus altering their traditional migration routes.
 - E2. Newly expanded protected natural areas may disrupt established migration routes traditionally used by nomadic herders.
 - E3. Protected natural areas may bring nomadic herders into conflict with conservation organizations or forestry services as they may differ on the use of protected areas for grazing, and/or concern about the impact of herding on natural habitats.
 - E4. Nomadic herders who travel through or graze animals in protected areas may risk legal consequences (e.g., fines) and begin to avoid those routes.
 - E5. Protected areas may preserve grassland habitat and/or prevent the loss of potential grazing lands, allowing nomadic herders to continue their traditional migration routes.
 - E6. Protected areas may conserve traditional migration routes for herders under agreements with governments or conservation organizations.
 - E7. Nomadic herders who cross international borders may encounter tensions with government officials who enforce migration policies and/or inspect for contraband items.
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(F) **Using the information in the table, explain why farmers' increased use of irrigation may increase conflicts with nomadic herders.** **1 point**

Accept one of the following:

- F1. Increased use of irrigation may increase the amount of land that can be cultivated for crops, cutting off migration routes and/or limiting the use of such lands for transporting or grazing herds during seasonal migrations.
 - F2. Increased use of irrigation may increase the amount of land that can be cultivated for crops and eliminate areas where nomadic herders could set up temporary settlements and/or corrals or pens.
 - F3. Increased use of irrigation may deplete water supplies used by nomadic herders and/or cause competition between herders and farmers to water livestock and/or crops during pasturing or seasonal migrations.
 - F4. Overuse of irrigation in dryland (arid) environments may lead to soil salinization that could reduce the amount of food for animals (forage) or land for grazing that is available for migrating herds.
 - F5. Irrigation may lead to runoff carrying chemical fertilizer or pesticides into bodies of water where herders drink and/or water their livestock, increasing tensions between nomadic herders and farmers.
-

(G) Explain the degree to which increased access to communication technologies may create cultural convergence among nomadic herders. 1 point

Statement of a moderate to high degree

AND

Accept one of the following:

- G1. Increased use of mobile phones, television, and/or the internet may expose herders to cultural influences from outside of their community and make herder culture less unique and/or expose nomadic herders to the cultural or social norms of external communities.
- G2. Increased use of global communication systems may cause herders to use more widely spoken languages and make indigenous language use less common.
- G3. Increased consumption of external music, literature, art, and/or holidays may diminish the cultural interest of herders to practice or maintain indigenous traditions within herder communities.

OR

Statement of a moderate to low degree

AND

Accept one of the following:

- G4. Increased exposure to outside cultural influences (e.g., music, languages, information) may mobilize nomadic herders to unite to protect their culture, resulting in a stronger cultural identity among nomadic herders.
- G5. Limited access to communication technologies due to cost or connectivity may hinder cultural convergence.
- G6. Nomadic herder communities may reject increased access to communication technologies to resist the forces of globalization and/or maintain traditional lifestyles.

Total for question 3: 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. One reason for the migration patterns shown on the map is that when migrating to a different area, resources like grazing plants and water may be renewed. Once a grazing area has been used up, the plants and water sources may need time to replenish naturally. Therefore, in herders migrating their livestock between regions, the natural resources have a chance to renew before the livestock returns.
- B. One cause of desertification in the Sahel region is overgrazing. Grazing livestock eat a lot, and need a lot of carbs to sustain themselves. This results in plant life dying off, which causes the area to become more like a desert.
- C. Pastoral nomadism may affect the cultural landscape of the Sahel region because these nomadic herders will have small houses or temporary shelters along the migration route. This leads to Sahel villages being distributed in more of a dispersed, rural manner.
- D. One way mixed-crop farming could be affected by climatic changes is a warmer climate. This is because unusual heat is new to the ~~plants~~ crops and livestock, therefore they ~~do not have~~ are not adapted to the temperature and are more susceptible to poor health. Unusual heat can also dry up water sources, which are essential to farming.

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Question 3



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

- E. Expanding protected natural areas may affect the migration routes of nomadic herders in the Sahel region because as shown in the map, many herders migrate their livestock to areas near or next to these protected areas. By expanding the protected zones, ~~then~~ the herders' migration lands may be taken over and the herders will be forced to find new grazing grounds.
- F. Farmers' increased use of irrigation may increase conflicts with nomadic herders because the farmers and herders already compete for water sources. If the farmers increase irrigation, therefore increasing their usage of water, the competition will be even more of a struggle and the herders may be at a disadvantage.
- G. Increased access to communication technologies may create cultural convergence among nomadic herders to a moderate degree because these herders will have better ~~tech~~ technology and be more able to communicate with other herders and have more access to the world outside the Sahel.

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Question 1

Question 2

Question 3



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

A. One reason to ~~write~~ explain the migration patterns on the map would be the change in climate. Sahel has distinct wet and dry seasons, so it would give nomads a reason to migrate so they can obtain the resources they need to survive.

B. Overgrazing by migrating herds could be a potential cause of desertification in the Sahel region. If herds overgrazed and continued to do so, they would eventually strip the land of its resources and vegetation, and there wouldn't be anything left. Another reason could potentially be a prolonged dry season leading to drought, because without access to water, nothing can thrive.

C. Pastoral Nomadism can shape the cultural landscape because the nomads travel season after season. Things they have learned, picked up, or traits they already possess will be shared as they travel. They can learn things in one place, share them in the next place they travel, and bring back new things when they return again.

D. Sahel has distinct seasons that are dry and wet. Certain crops are only good to grow in certain climates. Farmers who grow mixed-crops would have to pick crops that are all similar in terms of growing conditions. Otherwise, some crops would thrive, and other crops would yield little harvest. They might

Page 2

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also have to grow different crops in different times of the year, to accommodate the current season.

E. As protected natural areas begin to expand, this will inherently influence the routes nomads take in the Sahel region. The table below the map illustrates sources of conflict between nomads and other parties, and one of those says "grazing of protected areas". As these expand, there will be fewer spots for nomads to go with their herds and graze, or they risk creating tension. Most likely, the nomads will have to alter their routes around the newly protected space so that they don't cause conflict.

F. As farmers increase their use of irrigation, this allows them to expand their farms. According to the table, expansion of farms causes tension. By using irrigation systems, farmers are able to support larger crops with less effort. This leaves little room for nomads to travel, especially as they're already competing for space with conservation organizations. This can lead to nomads cutting through farmland and damaging crops (another source of tension) or having to rebute AGAIN, which they probably won't wish to do.

G. As nomadic herders get increased access to communication technology, they are able to communicate with each other about optimal routes to take, where resources can be found, etc. Especially because they are competing for space with other groups, technology can

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Question 1

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allow them to band together so that they don't lose access to everything entirely. This explains how cultural convergence can result out of conflict.

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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.) The migration patterns shown on the map are mostly in grasslands & forest because those who herd cattle must feed them constantly & the places are a great source of food.

B.) Migrating herds are the top reason for desertification. As the herds eat & trample all the natural herbs & drink all the water, it will become harder and harder for these resources to come back.

C.) Pastoral nomadism may affect the cultural landscape because these people come from different areas & spread their culture as they herd animals through the Sahel region.

D.) Mixed-crop farming can be affected by climate because every crop requires different climatic conditions in order to grow.

E.) Based on the map & table, pastoral nomadism may be outlawed or constricted to keep natural areas preserved & kept safe from cattle. The nomads will need to find a different area to move around.

F.) Farmers' irrigation could leave nomadic herds with less & less water which will make conflict more common & could lead to fighting over who gets what water & how much they get.

G.) Increased access to communication could lead to herds completely combining as their different cultures converge & meld together.

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Question 3

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

Overview

In this two-stimulus question, students were expected to interpret a map of pastoral nomad migration routes in the Sahel region of Africa and a table that describes potential sources of tension related to pastoral nomadism. The map showed the Sahel region, and it included information on nomadic migration routes, protected natural areas, and Sahel grasslands. The map also identified countries of the Sahel region. The table included qualitative information on potential sources of tension that may occur between nomadic herders and crop farmers, conservation organizations, and government officials.

This question challenged students to demonstrate their abilities across several aspects of the course, drawing primarily from Unit 5 (Agriculture and Rural Land-Use) and Unit 3 (Cultural Patterns and Processes). Responses required students to demonstrate use of skills from Skill Category 2 (Spatial Relationships) and Skill Category 4 (Source Analysis).

Part A tasked students to describe one reason for the migration patterns shown on the map of pastoral nomadism in the Sahel region.

Part B asked students to describe one cause of desertification in the Sahel region.

Part C asked students to explain how pastoral nomadism may affect the cultural landscape of the Sahel region.

Part D tasked students to explain one way mixed-crop farming could be affected by climatic conditions.

Part E directed students to use the map and table to explain why expanding protected natural areas may affect the migration routes of nomadic herders.

Part F directed students to use the information in the table to explain why farmers' increased use of irrigation may increase conflicts with nomadic herders.

Part G asked students to explain the degree to which increased access to communication technologies may create cultural convergence among nomadic herders.

Sample: 3A

Score: 7

The response to part A earned 1 point because it describes the reason for the migration pattern as the moving of herds so grazing lands can be replenished.

The response to part B earned 1 point because it describes how overgrazing destroys plant life, causing desertification.

The response to part C earned 1 point because it explains how having temporary dwellings has affected the cultural landscape.

Question 3 (continued)

The response to part D earned 1 point because it explains how crops not adapting to changes in temperature prevents cultivation of certain crops.

The response to part E earned 1 point because it explains how expanding protected areas may alter traditional migration routes by forcing nomadic herders to move to new grazing lands.

The response to part F earned 1 point because it explains how increased irrigation depletes the water supply, resulting in competition with herders over the existing water supply.

The response to part G earned 1 point because it explains the degree to which the increased use of communication technologies exposes the nomadic herders to more external communities.

Sample: 3B

Score: 5

The response to part A earned 1 point because it describes the Sahel's distinct wet and dry seasons as a reason for the migration pattern of moving herds to find grazing lands.

The response to part B earned 1 point because it describes how overgrazing destroys plant life, causing desertification.

The response to part C did not earn a point because, while the response describes social networks, it does not correctly explain how pastoral nomadism affects the cultural landscape of the Sahel region.

The response to part D earned 1 point because it explains how farmers may grow different crops at different times of the year to accommodate the current season, and the availability of those conditions will affect the crops that can be grown in that region.

The response to part E earned 1 point because it explains how expanding protected areas may alter traditional migration routes by forcing nomadic herders to move to new grazing lands to avoid any conflicts.

The response to part F earned 1 point because it explains how expansion of farms causes tension because it leaves less room for nomads to travel through their regular routes.

The response to part G did not earn a point because it does not correctly explain the degree to which communication technology creates cultural convergence among nomadic herders.

Sample: 3C

Score: 3

The response to part A did not earn a point because it describes the area as forest instead of grazing lands.

The response to part B earned 1 point because it describes how overgrazing, combined with herds trampling on plant life, destroys plant life, causing desertification.

Question 3 (continued)

The response to part C did not earn a point because spreading their culture is not an accurate explanation of the effects of pastoral nomadism on the cultural landscape.

The response to part D did not earn a point because the response mentions different climatic conditions but does not cite climatic extremes.

The response to part E earned 1 point because it explains how expanding protected areas may alter traditional migration routes by forcing nomadic herders to move to new grazing lands to avoid any conflicts.

The response to part F earned 1 point because it explains how increased irrigation depletes the water supply, resulting in competition with herders over the existing water supply.

The response to part G did not earn a point because it does not provide an example of a communication technology that promotes cultural convergence among nomadic herders.