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**The Expanding Desert Reading**

**Common Core Objective: R.H.9-10.2:** Determine the central ideas or information of a primary or secondary source; provide an accurate summary of how key events or ideas develop over the course of the text.

**Common Core Objective: R.H.9-10.3:** Analyze in detail a series of events described in a text; determine whether earlier events caused later ones or simply preceded them.

**Directions:** Read the handout “The Expanding Desert” and complete the various parts that follow.

**The Expanding Desert**

What do you think of when you hear the word desert? What images come to your mind? Where are some of the world’s deserts located? Did you know that deserts can grow and shrink?

**What Is Desertification?**

The world’s deserts were formed over a long period of time. Deserts are often separated from surrounding areas by landforms such as mountains. In some parts of the world, however, desert borders are not clear. Often, there is a transition zone, where a desert region blends into a more humid, or wet environment. The land that borders the desert generally includes vegetation such as sparse trees, shrubs, and grasses.

In western Africa, a region known as **the Sahel** is a transition zone between the Sahara to the north and the wetter areas to the south. The word Sahel comes from the Arabic word for “border.” Vegetation such as grasses and shrubs grow in the Sahel. The region generally receives about 4 to 8 inches (10 to 20 cm) of rain, most of it between June and September. Many areas of the Sahel have been used for farming and for raising livestock.

Over the past 50 years, the Sahel has suffered from soil erosion and **desertification**—a process by which productive land turns into desert following the destruction of vegetation. When this happens, the soil cannot hold moisture and the desert encroaches upon it. As a result, the amount of **arable land**, or land suitable for growing crops, in the region has diminished.

**What Causes Desertification?**

Desertification usually occurs in places that experience **drought**, or a long period of extreme dryness and water shortages. However, drought alone does not cause desertification. The major causes have more to do with the way people have used the land, such as in the Sahel.

The Sahel experienced a major drought that lasted from the late 1960s until the early 1980s. People there had traditionally made a living from farming and herding. Nomadic herders moved from place to place, finding food and water for their animals. Then they began using technology to drill deep wells, which provided a steady source of water. Many herders gave up a nomadic way of life and settled near the sources of water. They also raised more livestock. As a result, the land became overgrazed.

At the same time, the population of the Sahel was growing. More people turned to farming and the most fertile lands in the region were used to grow cash crops, such as cotton. **Cash crops** are grown to be sold or traded rather than used by the farmers themselves. To grow more crops, farmers in the Sahel began to change their farming practices. Instead of letting fields remain fallow, or idle, for 15 to 20 years to regain their fertility, the farmers began to rework the land within 1 to 5 years. Doing this did not give the land enough time to recover its nutrients. With the continuing drought, the land became **arid**, or dry, and the desert moved southward. Overgrazing, over-farming, and the continuous drought destroyed the Sahel’s farmlands and grasslands.

**What Problems Does Desertification Cause?**

As the desert moved southward into the Sahel people and their livestock moved to avoid it. As they moved southward, they continued to graze and farm the land, causing it to lose its richness and become arid. Droughts, which have always occurred in the semiarid Sahel, have recently become severe there and in other parts of Africa south of the Sahara. For example, in the early 1990s, drought in the Horn of Africa, which includes Eritrea, Somalia, Ethiopia, and Djibouti, caused widespread famine. **Famine** is an extreme lack of food. Since 1998 drought has killed crops and livestock across East Africa, threatening the lives of hundreds of thousands of people.

Desertification has caused other problems in the region. Unable to make a living by farming or herding, many people migrated to cities to work. This affected the region’s economies. With fewer people farming, the countries in this region were not able to produce enough farm products to meet the needs of their people. Fewer farm products led to higher prices for these products.

The increased numbers of people migrating to cities also caused problems. Cities became overcrowded. They could not provide all the things that the increasing numbers of people needed to live.

Desertification is not just a problem for the Sahel. It is a worldwide problem. The United Nations estimates that desertification currently affects about 70 countries and will affect the lives of up to 900 million people.

**What Can Be Done?**

Satellites have been used in the last 25 years to keep track of the spread of desertification throughout the world. They take images of a particular area over a period of several years. In this way they can track changes in the land due to desertification. Monitoring the land can help countries become aware of the problem and do something about it.

People and governments are working to protect their lands. For example, farmers in Ethiopia have terraced more than 250,000 acres (about 101,172 ha) of land and planted 42 million young trees to hold soil in place. They also built earthen dams to store rainwater. Other countries are finding ways to better use their water resources, such as tapping groundwater to irrigate arid lands. Research is being done on crop rotation to keep the soil fertile. People are learning which plants can best adapt to an arid environment. They are also learning how grazing lands and water resources can be developed without being overused. [[1]](#footnote-1)

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**The Expanding Desert**

**Directions:** Read the handout “The Expanding Desert” and complete the various parts below.

**Part I: Vocabulary/Directions:** Match each term in Column A with its meaning in Column B.

|  |  |
| --- | --- |
| **Column A**  \_\_\_\_\_\_ 1. Arable land  \_\_\_\_\_\_ 2. Desertification  \_\_\_\_\_\_ 3. Drought  \_\_\_\_\_\_ 4. Cash crops  \_\_\_\_\_\_ 5. Famine  \_\_\_\_\_\_ 6. Arid  \_\_\_\_\_\_ 7. The Sahel | **Column B**   1. An extreme lack of food 2. Dry 3. Crops that are grown to be sold or traded 4. The process in which land that once had vegetation has turned into desert 5. A transition zone between the Sahara to the north and the wetter areas to the south 6. Land suitable for growing crops 7. A period of extreme dryness |

**Part II:** Complete the 2 column notes using “The Expanding Desert” reading.

|  |  |
| --- | --- |
| **Main Ideas** | **Details** |
| Three factors that contribute to desertification in the Sahel | 1.  2.  3. |
| Two problems caused by desertification in the Sahel | 1.  2. |
| Two solutions to help prevent desertification | 1.  2. |

**Part III: Cause and Effect**

**Directions:** Now, describe what either caused or affected the particular event ***in at least one-two sentences.***

|  |  |
| --- | --- |
| **Cause** | **Effect** |
| **EXAMPLE:**  Desertification has occurred in the Sahel over the past 50 years. | **EXAMPLE:**  Because of desertification, the amount of arable land has decreased in the Sahel over the past several decades. |
|  | The Sahel became overgrazed. |
| The people of the Sahel began growing cash crops. |  |
| Droughts have occurred south of the Sahara as well as in the Horn of Africa. |  |
|  | There are higher prices for agricultural products such as crops. |
| Many people have migrated to cities because they cannot make a living on the Sahel any longer. |  |

1. Richard G. Boehm, Ph.D., “The Expanding Desert,” in *Building Geography Skills for Life*, (Chicago: Glencoe-McGraw Hill), 208-209. [↑](#footnote-ref-1)