

ACTIVITY 12

FOOD PRODUCTION AND CONSUMPTION

BACKGROUND

After World War II, the production of food worldwide increased greatly as a result of the Green Revolution. But currently more than a billion people continue to go hungry. The hungry are too poor to buy or grow the food they need.

Hunger is not just an issue of food production, but of food consumption as well. For example, India is a production success story, but it is also a consumption disaster. With the Green Revolution, India had generated a grain surplus of 24 billion metric tons by the mid-1980s. Yet half of all the hungry people on Earth live in India. A large number of people in that nation cannot afford to buy the food they grow.

PART A FOOD PRODUCTION

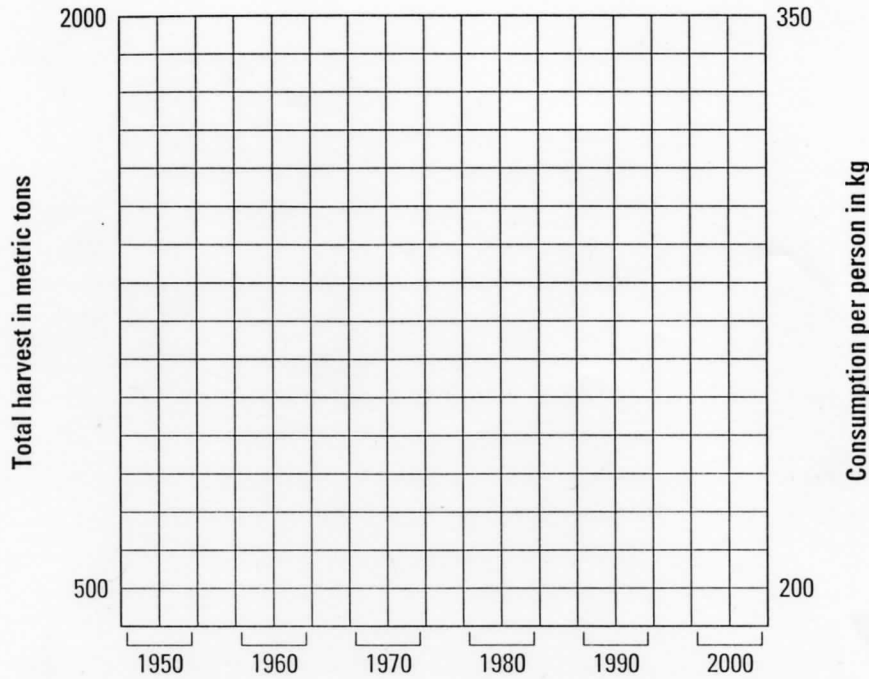
Grains are by far the most important crops for feeding the world's population. Grains are not only consumed directly, these crops are also used to feed cattle, chickens, and other sources of animal protein. Therefore, the production of grains can be used as an indicator of total food production.

Although the production of grains has increased since the Green Revolution, the population of the world has also increased greatly during the same period of time. The tables below show the worldwide production and individual consumption of grains since 1950. Complete the table by calculating the amount and percent change that occurred during each decade. The amount of change can be found by subtracting the larger quantity from the smaller. The percent change is the amount of change divided by the smaller quantity.

Year	Total Harvest (in metric tons)	Amount of Change	Percent Change
1950	631	—	—
1960	847		
1970	1,103		
1980	1,441		
1990	1,684		
2000	1,842		

Year	Consumption per Person (kg)	Amount of Change	Percent Change
1950	246	—	—
1960	278		
1970	296		
1980	322		
1990	316		
2000	295		

In the space provided, construct a bar graph showing the production and consumption of grains since 1950 using the data provided on the previous page. Then answer the analysis questions that follow.



Analysis

1. During which decade did the amount of food per person begin to decrease? Use textbooks or other references to identify and describe two changes that occurred during this decade that would have contributed to the decrease.

2. According to the table, the amount of food produced in 1970 was 30 percent greater than the amount produced in 1960. Yet the amount of food consumed per person increased only 6 percent. How can you explain the differences between the two statistics?

3. Between 1950 and 1990, the amount of grain produced per hectare of farmland doubled, an increase of approximately 100 percent. How does this number compare to the percent increase in total food production during the same period of time? What do these statistics imply about the amount of land used for farming between 1950 and 1990, and how might this change affect the global environment?
