

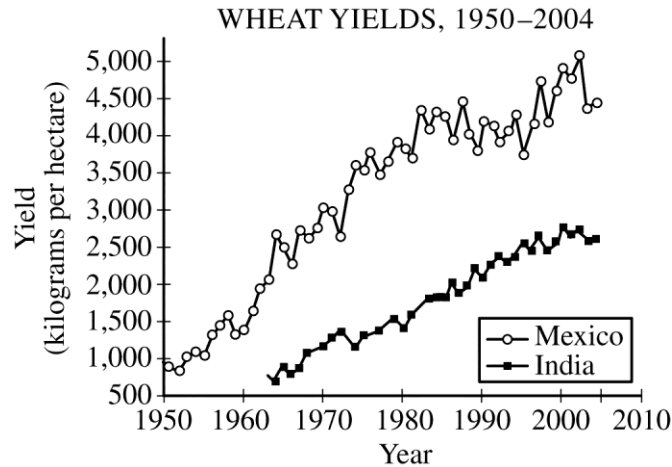
## THE GREEN REVOLUTION

Using the following documents, analyze the causes and consequences of the Green Revolution in the period from 1945 to the present.

**Historical Background:** The Green Revolution refers to the worldwide introduction of new, scientifically bred crop varieties and intensive use of new technologies.

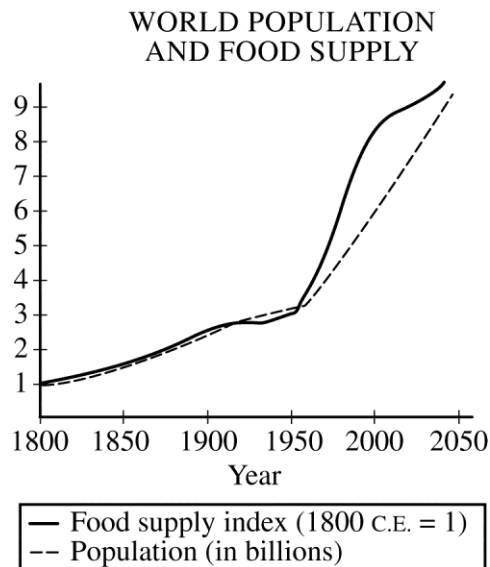
### Document 1

Source: Food and Agriculture Organization of the United Nations (FAO), 2005.



### Document 2

Source: Food and Agriculture Organization of the United Nations (FAO), 2005.



### Document 3

Source: Harry Truman, United States president, inaugural address, Washington, DC, 1949.

More than half the people of the world are living in conditions approaching misery. Their food is inadequate. They are victims of disease. Their economic life is primitive and stagnant. Their poverty is a handicap and a threat both to them and to more prosperous areas.

I believe that we should make available to peace-loving peoples the benefits of our store of technical knowledge in order to help them realize their aspirations for a better life. Our aim should be to help the free peoples of the world, through their own efforts, to produce more food. The old imperialism— exploitation for foreign profit— has no place in our plans.

### Document 4

Source: Dr. Norman Borlaug, United States agricultural scientist involved in Green Revolution research, Nobel Peace Prize winner, Nobel Lecture, 1970.

In the developing countries, . . . the land is tired, worn out, depleted of plant nutrients, and often eroded; crop yields have been low, near starvation level, and stagnant for centuries. Hunger prevails, and survival depends largely upon the annual success or failure of the cereal crops.

...

For the underprivileged billions in the forgotten world, hunger has been a constant companion, and starvation has all too often lurked in the nearby shadows. To millions of these unfortunates, who have long lived in despair, the Green Revolution seems like a miracle that has generated new hope for the future.

...

The Green Revolution has won a temporary success in man's war against hunger and deprivation; it has given man a breathing space. If fully implemented, the revolution can provide sufficient food for sustenance during the next three decades. But the frightening power of human reproduction must also be curbed; otherwise the success of the Green Revolution will be ephemeral only.

### Document 5

Source: Chidambaram Subramaniam, India's minister for food and agriculture (1964–1967), in his 1970 interview.

Farmers in the Punjab [a state in northwest India] were the pioneers of Green Revolution technology. If not for them, I am convinced we would not have made a success of it. They had developed into a very hardy lot of enterprising people. And therefore when this new technology was offered to them, they took to it like fish to water. Everybody competed with one another to demonstrate that he was best able to utilize the new technology.

### Document 6

Source: Mrs. Dula, wife of a Mexican agricultural official, in a conversation with a United Nations official, circa 1970.

If you fly from Tucson, Arizona, to Hermosillo, Mexico, what you are going to see is a type of agriculture that makes you rich, so rich. You will see houses like you've never seen in Mexico City, swimming pools and everything. They have such a lot of money. The ladies of these rich Mexican farmers like to save, so they form a club, and once a month they go to Tucson [to shop]. Some saving!

## Document 7

Source: *Focus*, FAO newsletter, circa 1987.

How the Green Revolution affects rural people depends on whether they are wage earners, cultivators or consumers, whether they come from landed or landless, rich or poor, male-or female-headed households.

Studies on the impact of the Green Revolution have shown that technological change can generate major social benefits but at the same time generate significant costs for particular categories of rural women that are different in kind and in intensity from those experienced by men.

It has:

- increased the need for cash incomes in rural households to cover the costs of seeds, fertilizers, and pesticides, forcing women to work as agricultural laborers;
- increased the need for unpaid female labor for farming tasks thereby augmenting women's already high labor burden;
- limited women's wage-earning opportunities through mechanization.

## Document 8

Source: Dr. Vandana Shiva, Indian physicist, from her article in the *Ecologist*, an environmental affairs magazine, 1991.

The Green Revolution has been a failure. It has led to reduced genetic diversity, increased vulnerability to pests, soil erosion, water shortages, reduced soil fertility, micronutrient deficiencies, soil contamination, reduced availability of nutritious food crops for the local population, the displacement of vast numbers of small farmers from their land, rural impoverishment, and increased tensions and conflicts. The beneficiaries have been the agrochemical industry, large petrochemical companies, manufacturers of agricultural machinery, dam builders, and large landowners.

The Punjab is frequently cited as the Green Revolution's most celebrated success story. Yet, far from bringing prosperity, two decades of the Green Revolution have left the Punjab riddled with discontent and violence. Instead of abundance, the Punjab is beset with diseased soils, pest-infested crops, waterlogged deserts, and indebted and discontented farmers. Instead of peace, the Punjab has inherited conflict and violence.

Traditionally, irrigation was only used in the Punjab as an insurance against crop failure in times of severe drought. The new seeds, however, need intensive irrigation as an essential input for crop yields. One result of the Green Revolution has therefore been to create conflicts over diminishing water resources. Intensive irrigation has led to the need for large-scale storage systems, centralizing control over water supplies and leading to both local and interstate water conflicts.

### Document 9

Source: Human Development Report, issued by the government of the State of Punjab, India, 2004.

An important social effect of the Green Revolution was the disappearance of caste rigidities and the emergence of the middle and rich peasants as the dominant peasantry in the state. The Green Revolution also brought changes in lifestyle. Aspirations increased — there was demand for better education for children, better housing, and better consumer goods. The traditional “extended family” system was gradually replaced by the “nuclear family.”

### Document 10

Source: Guatemalan National Coordinating Committee of Indigenous Peasants, a rural labor organization in Latin America, official statement, November 2006.

The diversity of native seeds is the heritage of the Maya and indigenous people at the service of all of humanity. The Maya indigenous peoples have stood firm defending these seeds, which have fed us for more than five thousand years. It saddens us to remember the loss of respect for our seeds, due to the imposition of the Green Revolution. The “revolution” actually sterilized and contaminated our seeds, as well as nature and Mother Earth.