

Global Economic Development

Peruvian guano [bird droppings] has become so desirable an article to the agricultural interest of the United States that it is the duty of the Government to employ all the means properly in its power for the purpose of causing that article to be imported into the country at a reasonable price.

—U.S. President Millard Fillmore, December 2, 1850

Essential Question: How did environmental factors contribute to the global economy between 1750 and 1900?

Economics was among the most influential of the several motives driving imperialism. Britain industrialized rapidly during the 1700s and 1800s. In order to feed industries' desires for raw materials, such as cotton, copper, and rubber, Europe looked to Asia and Africa. American agriculture, as noted by President Fillmore, looked to South America for fertilizer. The people of these continents were also potential consumers of European and American manufactured goods. Finally, colonial peoples provided the labor for large-scale projects, such as building railroads or telegraph lines. Colonial workers were paid meager wages for difficult and dangerous labor. In short, natural resources, new markets, and low-wage labor drove economic imperialism.

Technological Developments

The Industrial Revolution did not just take place in factories. It affected transportation and communication as well.

Railroads Before the introduction of **railroads**, transportation from the interiors of colonies to coastal ports was by water or by roads. Most colonies had few roads, and those that existed were usually poorly maintained and often unusable during rainy seasons. Transportation by water was limited to coastal areas and river basins. The introduction of railroads lowered the cost of transporting raw materials for shipment to Europe. At the same time, railroads helped open up colonial markets for manufactured goods.

Europeans often pointed to their railroad projects as evidence that imperialism helped the peoples of Asia and Africa. However, providing new transportation technology to the colonies primarily served the interests of the

colonizers. In India, the British built a complex railway network that stretched from the interior to the coasts in order to ship raw materials out of the country easily.

British-born **Cecil Rhodes** (1853–1902), founder of De Beers Diamonds, was an especially enthusiastic investor in a railroad project that was to stretch from Cape Town, in the Cape Colony of South Africa, to Cairo, Egypt. Connecting all of the British-held colonies with a transportation network could make governance easier and aid in mobilizing for war, if necessary. The project was never completed because Britain never gained control over all the land on which it was to be built. The overwhelming majority of railway workers in Africa were natives who were paid far lower wages than their European counterparts. Thus, railroad technology was a means of extracting as many resources as possible from subject lands while paying colonial laborers as little as possible.

Steamships Because they required huge quantities of coal as fuel, early **steamships** could travel only limited distances. However, steamboats could transport people, mail, and goods on navigable rivers such as the Ganges in South Asia and the Congo in Africa. After the development of more efficient steam engines in 1870, steamships became practical for long distances. In the 1870s, the development of compression refrigeration equipment made it possible to ship perishables such as meat and dairy products across oceans.

Telegraph Invented in 1832, the electric **telegraph** transformed communications. Instead of taking days, weeks, or even months, news could travel instantaneously. Telegraph service was introduced in India in 1850, just five years after it started in Britain. Telegraph lines often followed railroad routes. Submarine (underwater) telegraph cables soon crossed oceans. In 1866 the first permanent transatlantic cable was laid between the United States and England. Telegraph service between England and Australia was introduced in 1872, and in 1874 service between Portugal and Brazil allowed instant communication between Europe and South America.

Agricultural Products

When Europeans arrived in Asia and Africa, they found mainly agricultural economies, with most people raising enough food to live on—subsistence farming—with perhaps a little left over to sell. Subsistence farming is still common throughout Sub-Saharan Africa, Southeast Asia, and parts of Latin America. Under control of imperialist powers, subsistence farmers abandoned their traditional ways and grew **cash crops** instead. These were crops such as tea, cotton, sugar, oil palms, rubber, and coffee that were grown for their commercial value rather than for use by those who grew them. Imperial demands for cash crops had a damaging effect on subject nations. As cash crops replaced food crops, food prices rose.



The growing European middle classes created a demand for meat. Cattle ranches in Argentina, Brazil, and Uruguay produced beef for export. Sheep herders in Australia and New Zealand exported lamb and mutton. New technology allowed meat to be shipped over long distances. Meat could be processed and canned in packing plants or shipped fresh or frozen in refrigerated steamships.

Guano, bat and seabird excrement, is rich in nitrates and phosphates. These make it an excellent natural fertilizer. Because of the dry climate in Peru and Chile, vast quantities of guano had accumulated before people began mining it in the 19th century. Between 1840 and 1880, millions of tons of guano were dug by hand and loaded onto ships for export, often by indentured Chinese or Polynesian laborers.



Source: American Museum of Natural History

Guano mining in the central Chincha Islands, off the coast of Peru, c. 1860.

Raw Materials

The demand for raw materials that could be processed into manufactured goods and shipped away—often back to the providers of raw materials—turned colonies into **export economies**. Imperial attention focused on the tropical climates that were conducive to the presence of raw materials, unlike some imperial countries.

Cotton Britain's Parliament banned Indian **cotton** textiles in 1721 because they competed with the native wool industry. Soon after, cotton from Britain's southern colonies in America shifted production. The colonies would provide the raw materials, and England would manufacture textiles. During the Industrial Revolution, Britain's great textile mills got 80 percent of their cotton from the United States.

When the American Civil War erupted, northern warships blockaded Confederate ports, cutting off the supply of cotton. As a result, farmers all over the world, from Australia to the West Indies, replaced food production with cotton to make up for the shortage. Cotton farmers in India were able to benefit from the shortages caused by the Civil War, but Egypt benefited most. Egypt had already developed a fine long-staple variety of cotton and ramped up production. By the end of the 19th century, 93 percent of Egypt's export revenue came from cotton. Raw cotton production from Egypt and India supported the manufacturing of textiles that Britain exported all over the world.

Rubber Natural **rubber** is made from the latex sap of trees or vines. It softens when warm and hardens when cold. In 1839, Charles Goodyear developed a process known as vulcanization that eliminated these problems and helped create the modern rubber industry. Rubber was used to produce tires for bicycles (and eventually automobiles), hoses, gaskets, waterproof clothing, and shoe soles, among other items.

Rubber trees are native to the Amazon rainforest of South America, where they grew wild but widely dispersed. Latex could also be extracted from vines native to Central Africa, though they were destroyed in the process. Each source provided about half the world's rubber supply, but they soon were inadequate to meet the demand as rubber became an important industrial material. In both sources, "rubber barons" forced indigenous people into virtual slavery. In some cases, companies mutilated or killed workers who failed to meet their quotas.

In 1876, the British India Office obtained rubber tree seeds from Brazil. After being propagated in England, the seedlings were sent to Ceylon (Sri Lanka) and Singapore. Before long, thousands of acres of forest were cleared to make room for rubber plantations in Malaya, Indochina, the Dutch East Indies, and elsewhere in Southeast Asia.

Palm Oil The machinery in Europe's factories required constant lubrication to keep it working, creating a demand for **palm oil**, which was



also used for candle making. The oil palm originated in West Africa, where it was used as a staple food product for 5,000 years. Palm oil was so valued that it was used in place of money in many African cultures. Palm oil became an important cash crop in West Africa, where prisoners of tribal war were often enslaved to help with the palm oil crops. European colonists established oil palm plantations in Malaya and the Dutch East Indies.

Ivory The tusks of elephants provide the product **ivory**. Most of the ivory trade was with Africa, since both male and female African elephants have large tusks, which average six feet in length. Ivory was prized for its beauty and durability. It was used primarily for piano keys, billiard balls, knife handles, and ornamental carvings. In the mid-19th century, the European scramble for ivory preceded the scramble for colonies. The Ivory Coast (Côte d’Ivoire) got its name from the fact that the French originally set up trading posts there for the acquisition of ivory and slaves.

Minerals Some of the most valuable products were mineral ores used in manufacturing. They came from around the world:

- Mexico produced silver.
- Chile produced **copper**, which was used for telegraph cables and electrical power lines.
- Northern Rhodesia (now Zambia) and the Belgian Congo produced copper.
- Bolivia, Nigeria, Malaya, and the Dutch East Indies produced **tin**, which helped meet the growing demand for food products in tin cans.
- Australia and South Africa, as well as parts of West Africa and Alaska, produced large deposits of **gold**.

Diamonds Because of his frail health, Cecil Rhodes was sent to South Africa in 1870 to join a brother on a cotton farm. In 1871 the brothers joined the **diamond** rush and went to Kimberley, the center of mining activity. After completing a degree at Oxford University, Rhodes acquired some of the De Beers mining claims and formed the **De Beers Mining Company** in 1880. By 1891, De Beers accounted for 90 percent of the world’s diamond production. Rhodes also had a large stake in the world’s largest gold fields, which were discovered in 1886 on South Africa’s Witwatersrand. (Connect: Analyze Africa’s changes in trade from the trans-Saharan trade, including the effects of the slave trade, through the industrial era. See Topics 2.4 and 4.4.)

By the age of 29, when Rhodes was elected to the Cape Parliament, he was the most powerful man in Southern Africa. He sought to expand to the north, into Bechuanaland (Botswana) and what became known as Rhodesia and is now Zimbabwe and Zambia, with the dream of building a railroad from Cape Town to Cairo—and claiming all the land along the route for the British Empire. In 1890, Rhodes became the prime minister of the Cape Colony where his racist policies paved the way for the **apartheid**, or racial segregation, that plagued South Africa during the 20th century.



Global Consequences

Industrialization was accompanied by the need to find raw materials that could be turned into finished products to be sold globally—often bought with the profits from raw materials. As urban populations grew, the demand for food was increasingly met by imports made possible by new technology such as refrigeration. As the industrialized nations grew wealthier, stock exchanges developed, allowing more people to invest their capital, and the need to protect global markets and investments grew rapidly.

Consequences of Commercial Extraction Farmers were allowed to raise only cash crops, such as sugar, cocoa, or groundnuts, at the expense of other agricultural products. This use of land led to **monocultures**, or a lack of agricultural diversity, particularly in developing nations. Large areas were often cleared of forests to make room for farming, which took its toll on both biodiversity and the climate. Cash crops such as cotton rapidly depleted the soil's natural fertility. Moreover, crop diseases and pests spread more easily when there was only one crop planted in an area.

Today, many former colonies have been unable to rediversify their land use because the development of monocultures has badly damaged croplands. As a result, they often must import basic agricultural goods in order to feed their people.

KEY TERMS BY THEME		
ENVIRONMENT: Natural Resources guano cotton rubber palm oil ivory copper tin gold diamonds	ECONOMICS: People Cecil Rhodes ECONOMICS: Companies De Beers Mining Company ECONOMICS: Activities cash crops export economies monocultures	TECHNOLOGY: Inventions railroads steamships telegraph SOCIETY: Hierarchy apartheid