

# POINTS of view

## THE THREE GORGES DAM

China's Yangtze River is the third-longest river in the world after the Nile and the Amazon. The Yangtze River flows through the Three Gorges region of central China, which is famous for its natural beauty and historical sites. For thousands of years, the area's sheer cliffs have inspired paintings and poems. This idyllic region seems like the sort of place that would be protected as a park or reserve. But in fact, it is the construction site for the Three Gorges Dam—the largest hydroelectric dam project in the world. When the Yangtze River is dammed, it will rise to form a reservoir that is 595 km (370 mi) long—as long as Lake Superior. In other words, the reservoir will be about as long as the distance between Los Angeles and San Francisco!

### Benefits of the Dam

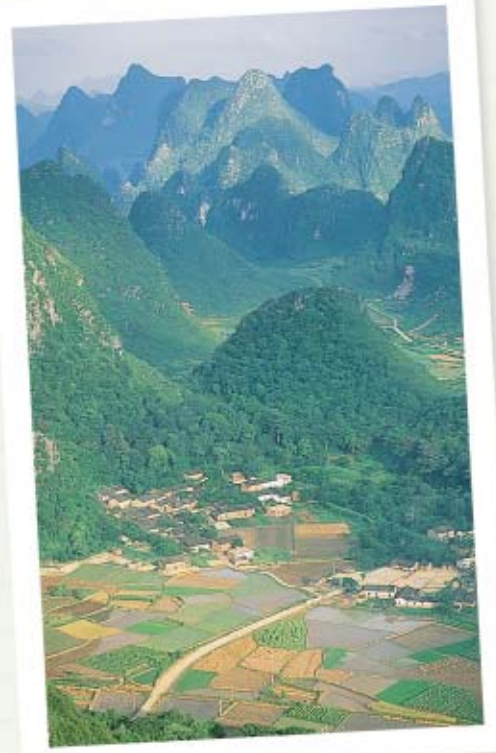
The dam has several purposes. It will control the water level of the Yangtze River to prevent flooding.

► The reservoir that will form behind the Three Gorges Dam is shown in yellow.

About 1 million people died in the last century from flooding along the river. The damage caused by a severe flood in 1998 is estimated to cost as much as the entire dam project. The dam will also provide millions of people with hydroelectric power. China now burns air-polluting coal to meet 75 percent of the country's energy needs. Engineers project that when the dam is completed, its turbines will provide enough electrical energy to power a city that is 10 times the size of Los Angeles, California. When the Yangtze's flow is controlled, the river will be deep enough for large ships to navigate on it, so the dam will also increase trade in a relatively poor region of China.

### Some Disadvantages

The project has many drawbacks, however. The reservoir behind the dam will flood an enormous area. Almost 2 million people living in



► **The Three Gorges Dam** is named for the beautiful canyons it will flood. When completed, the dam may meet 20 percent of China's energy needs with hydroelectric power.

the affected areas must be relocated—there are 13 cities and hundreds of villages in the area of the proposed reservoir. As the reservoir's waters rise, they will also destroy fragile ecosystems and valuable archeological sites.

Opponents of the project claim that the dam will increase pollution levels in the Yangtze River. Most of the cities and factories along the river dump untreated wastes directly into the water. Some people think the reservoir will become the world's largest sewer when 1 billion tons of sewage flow into the reservoir every year.

### Long-Term Concerns

People have also raised long-term concerns about the project. The dam is being built over a fault line. Scientists question whether the dam would be able to withstand earthquakes that may occur along the fault. If the dam burst, towns and



cities downstream would be flooded. Another concern is that the dam may quickly fill with sediment. The Yangtze picks up enormous amounts of yellowish soil and sediment as it flows across China. When the river is slowed by the dam, much of the silt will be deposited in the new reservoir. As sediment builds up behind the dam, the deposited sediment will reduce the size of the reservoir—limiting the flood-prevention capacity of the dam. In addition, productive farming regions below the dam will be deprived of the fertile sediment that is deposited every year when the river floods.

The enormous reservoir may also cause disease among the local population. The potential health risks include an increase in encephalitis and malaria. The most deadly disease spread by the Three Gorges Dam could be a parasitic disease called schistosomiasis.

## Hidden Costs?

Supporters of the dam claim that the project will cost \$25 billion, while opponents claim that the costs will be closer to \$75 billion. The true cost of the dam may never be known because corruption and inefficiency have plagued the project from the start. Controversy over the dam has prompted the U.S. government and the World Bank to withhold money for the project. Public opposition to the project has been silenced since the Tiananmen Square crackdown. But with help from private investment companies from the United States, the Chinese government is continuing with the project, and the dam is slowly being built. The world's third-longest river will soon swell in the middle, and China will change along with it.



► Engineers discuss plans at the dam construction site. More than 20,000 people are working at the construction site.

► When the dam waters rise, these ancient temples will be flooded.



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## What Do You Think?

Hundreds of dams in the western United States provide electrical energy, drinking water, and food for crops, but the dams also flooded scenic canyons and destroyed ecosystems. Now that the environmental consequences of large dams are known, do you think that China should reconsider the Three Gorges Dam project?