

"Men will triumph over nature." -- Mao Tse-Tung
Yichang, China -- For 4,000 years the "Dragon of China" -- the Yangtze River -- has held the power of life and death over the Chinese.

Its waters nourish most of China's 1.15 billion people -- 70% of China's rice is grown in the fertile Yangtze basin.

This spring, after more than half a century of debate, the Chinese government finally decided to tame the dragon, or try to.

It plans to build the world's greatest hydroelectric dam at the most treacherous section of the Yangtze -- the Three Gorges.

On its 3,500-mile journey from Tibet to Shanghai, the Yangtze carves its way through the Three Gorges, a mystical 120-mile gallery of fog-shrouded peaks, sheer cliffs and huge whirlpools that have inspired Chinese poets from Li Po (701 - 762 A.D.) to Chairman Mao.

The Three Gorges Dam -- designed to generate more power than any dam in the world -- is a tremendous gamble.

If it works, the dam will electrify China. Communist officials say the dam -- expected to cost at least \$11 billion and take 20 years to build -- will be the greatest engineering feat since the Great Wall and the source of China's future prosperity.

But critics predict it will be a multibillion-dollar boondoggle, an environmental and social disaster of epic proportions. A battle is being waged in three continents to keep the steel-and-concrete behemoth from ever being built.

The dam will turn the roiling butterscotch waters of the middle Yangtze, including the Three Gorges, into a giant reservoir that will inundate 19 counties, including prime farmland, and force the relocation of more than one million Chinese -- the largest resettlement in world history. Critics compare it to flooding the Grand Canyon.

Opponents fear the dam will kill off the vanishing Yangtze dolphin and sturgeon, transform the Yangtze into a sewer for industrial wastes, wipe out ancient towns, trigger landslides and earthquakes, drain the national budget and disrupt the lives of the 1.2 million people -- roughly the population of Sacramento county -- who will be forced to move.

"The failure of the Three Gorges Dam will rank as the world's greatest man-made disaster," said water engineer Phil Williams, president of the Berkeley-based International Rivers Network.

"It will be a disaster, not only to China, but to the world, because it will delay economic reform (and) without economic reforms, we will have no political freedoms," said Dai Qing, a leading Chinese journalist who was jailed for nearly a year after she published a book of essays criticizing the dam.

"This is a very important time," said Qing, now a visiting lecturer at Harvard University. "China wants to transfer to a modern society. The leaders should have money in their hands for a lot of things instead of putting the money in just one dam."

Construction could start as early as next year. Opponents say it will forever ruin the rare beauty of the Three Gorges, so revered it appears on Chinese currency.

"Young people would rather sail down the Three Gorges than see the Great Wall," said Haipei Xue, 32, a Chinese sociology student and

founder of the International Three Gorges Coalition to stop the dam. "It's the most visited place in China, a cultural and historical symbol, more than a symbol -- it's still there, with towns and villages built thousands of years ago."

But the Three Gorges Dam, too, has become a national symbol of China's ability to conquer nature on a scale never before achieved.

"We compare the Yangtze River to a dragon, with the head in Shanghai's Pudong economic development zone," said Tang Zhangjin, the official in charge of the Three Gorges population resettlement.

"The tail is (from) the project site to Chongqing (a city of 14 million at the west end of the dam's 300-mile reservoir). The government will try to enliven the whole dragon by bringing to life the tail to speed up development and open the region to foreign investors."

The government has promised to build two new cities, 11 new towns and 140 new villages for the refugees who will be displaced by the 350-mile-long reservoir.

But, said Williams, "there are at least half a million people left in the reservoir area who will be absolutely flooded out in the event of a 100-year-flood. Whoever's in charge of the dam will have to play God: whether to save them or a few million people downstream."

A third of the dam's \$11 billion price tag will be used to give the refugees new homes and new jobs, Tang said. "We plan to develop industries that use a lot of power and require a lot of transport -- metallurgy, chemicals, building materials, paper mills, food processing plants."

The refugees, who earn an average of \$90 a year, are among the poorest and most backward people in China. Most of them say the dam -- and its promise of new homes and better-paid jobs -- is long overdue. For 30 years, plans for the dam have kept this poverty-stricken area in economic limbo while the rest of China has been developed.

In Wanxian, most of the 300,000 residents are unsentimental about losing their gritty, penitentiary-style apartments and factories to the rising waters. "The need for building materials will be enormous," said Tang Yong, a 22-year-old clothing salesman. "The factories here producing those materials will make big money."

Cai Wenmei, a demographer at Beijing University who has studied six resettlements, says each has been a failure. In 1958, the government moved 200,000 people to make way for Xinanjiang Dam near Hangzhou. "In 1986, there were still 20,000 people living at the water level, just above the reservoir," she said.

The migrants, unable to find new jobs, either eked out a miserable existence in a mountain surrounded by water, or returned like lemmings to their old homes. "They had gone and come back four times, and had been flooded out twice," Cai said.

One farmer tearfully told her he was given 13 yuan -- about \$2.5 -- to start his life over. Many migrants can't get along with their neighbors, who claim the newcomers are taking food from their bowls, Cai, said.

Lin Zongcheng, an anthropologist at John Hopkins University, spent a year living among the 70,000 people displaced by the Shuikou Dam in southeast China.

"These people were rice farmers for 1,000 years," he said. "Now

some of the old people commit suicide because they have no place to go, psychologically. Their lives radically change and they lose face and they lose power," since their new homes don't belong to them, but their children.

"an old farmer and his wife, both more than 70, got angry with their daughter-in-law who disrespected them while they were living in their son's home, so they hung themselves."

Tang said some of the energy revenues will be used to help the migrants adjust. "If they want, we will move their ancestors tombs," he said.

Archaeological digs and historical sites along the river will also be moved.

Power is scarce in central China, and factories are often shut down one week a month. Many Chinese say cheap, plentiful electricity will lead to modernization and Western-style comfort.

"Maybe many people now have money to buy TVs and refrigerators, but electricity is very expensive and usage is limited to 60 kilowatt hours every month," said Frank Zhou, an engineer from Wuxi, near Shanghai. (The average Sacramento home uses 750 kilowatt hours a month).

The dam is expected to generate a record 17.7 billion kilowatts a year, or 84 billion kilowatt hours, enough to supply the power needs of 150 million Chinese.

But opponents say it would be cheaper and less risky to build smaller dams upstream of the Three Gorges. They say China should rely on solar, wind and other alternative energy sources and improve the energy efficiency of its outdated factories.

The International Rivers Network, Friends of the Earth, the Center for Marine Conservation, Probe International of Canada, the Worldwide Fund for Nature in Hong Kong and the Asian Pacific People's Network in Malaysia have joined forces with several Chinese environmental groups to fight the dam.

They have lobbied the U.S. Bureau of Reclamation, which has been hired by China to help design the dam, to stay out of the project. They've pressured the World Bank, which has funded other mega-dams, not to fund this one. They've taken their case to the International Tribunal in Amsterdam and won a symbolic victory -- the court ruled the dam shouldn't be built until an impartial environmental assessment is done and the people being moved are heard from.

But global pressure has had a hard time penetrating China. The dam is already the most studied engineering project in history.

In the last year, the Chinese government has muffled criticism and unleashed a flood of pro-dam propaganda -- "the heaviest bombardment we've seen since the Cultural Revolution (1966-76)," said Haipei Xue of the Three Gorges Coalition. "This issue enjoys less freedom than any political issue in China."

The Three Gorges Dam has been a gleam in the eye of Chinese leaders since Sun Yat Sen first proposed it in 1919. In 1957 Chairman Mao, who often swam in the Yangtze, wrote a poem that foretold of the giant dam:

"Walls of stone will stand upstream to the west
To hold back ... clouds and rain
And a level lake will appear in the steep gorges."

After decades of controversy, China's government finally thinks it has the money and the know-how to build Mao's superdam.

"The most important reason for the dam is to prevent flooding downstream," said Tang. In 1931, monster floods submerged more than 35,000 square miles in the Yangtze basin, killing 140,000 people and leaving as many as 40 million others homeless. Killer floods in 1935 and 1954 took another 175,000 lives.

But Williams said the dam is little more than "a massive misguided monument to progress ... the flood-control benefit is minimal. It is far more cost-effective to ensure that the existing levee system is maintained and upgraded and safe."

While the opposition targets the World Bank and other possible funding sources, Tang said the Chinese can handle the whole cost of the dam, a milelog, 200-yard-high colossus requiring 11.3 million tons of steel.

But critics, including some Chinese experts, say the dam will take twice as long and cost up to five times more than projected.

The Yangtze gets its butter-scotch hue from the mountains of silt and sand that wash downriver. Critics say the huge silt build-up could clog the reservoir, seriously limiting the dam's ability to generate power and control floods, and preventing 10,000-ton cargo ships from reaching Chongqing. The critics point to the Sanmenxia Dam in China's Yellow River, which clogged up four years after it was built.

Tang said the government will build smaller dams to catch the silt, and plant trees in the new riverbank to prevent erosion. Special hatcheries will be created to save the Yangtze sturgeon and river dolphin from extinction.

This April, two-thirds of the 2,633-member Chinese People's Congress voted to build the dam -- only 12 votes more than the minimum necessary and one of the lowest level of support ever given to a government-backed project.

"The advocates of the dam know they've won the battle, but they haven't yet won the war," said Xue. "They know that this is their last chance -- the political atmosphere is changing, the country is opening up, there's a budding environmental movement and people have less and less tolerance for this project and the lack of freedom to discuss it."

In the next few weeks, the 14th party Congress will convene to chart China's future. "There is a chance they will stop the dam," said dissident journalist Dai Qing.

"The core of Communist leadership is not committed to this," added Xue.

"They know they can get burned easily the project."