
Eminent Chinese Hydrologist Dies at 90

Huang Wanli was involved with many of the major water resources engineering projects in China during the last half of the twentieth century.

DAI QING

Professor Huang Wanli, one of China's preeminent water resources engineering experts and a long-time opponent of China's Three Gorges Dam Project, passed away on August 27, 2001, in Beijing at the age of 90. Huang earned his master's degree in hydrology at Cornell University and his doctorate in engineering at the Engineering Institute of Illinois. He worked at the Tennessee Valley Authority before returning to China where he held various top-ranking positions in the field of water resources engineering. From 1953 to the time of his death, he worked as a professor at Qinghua University's Department of Water Conservation.

The son of Huang Yanpei, the former Vice-Chairman of the Standing Committee of the National People's Congress, Huang was in a favorable position to advance a political career but chose instead to devote himself to studying China's water resources because of his deep love for the country's rivers. Huang was

denounced during the Hundred Flowers Movement in 1957 for expressing his critical opinions about Communist rule. (The Hundred Flowers Movement was a short-lived period of open political and intellectual debate that was initiated and then brutally silenced by Chairman Mao.)

Despite political pressure, Huang voiced strong opposition to a proposal to build the Sanmenxia Dam on the Yellow River, even though the majority of China's experts and engineers not only accepted but also praised the plans put forward by engineers from the Soviet Union. During the State Council's seven-day "seeking of opinions and views from experts" Huang insisted that the dam should not go ahead because it would cause severe siltation upstream of the dam at Tongguan. Even after he was labeled a "rightist" — one of hundreds of thousands of intellectuals who were persecuted for years as a threat to Mao's socialism — and forced to work as a laborer at the Sanmenxia Dam site, Huang continued his research and managed to complete an important article on how to approach managing the Yellow River.

The real tragedy is that nobody paid attention to Huang at the height of Mao's Great Leap Forward (1958–1960), but less than two years later everything he predicted about Sanmenxia proved accurate. As a result, the Chinese government was forced to revise its original plans and designs for the Sanmenxia

Dam, although hundreds of millions of dollars had already been spent.

When the Three Gorges Dam plans were revived in the 1980s, Huang used his 40 years of research and experience to remind policymakers not to repeat the mistakes of the past, where money was wasted, millions of people adversely affected and the environment destroyed. He stressed that "a government that respects democracy will never be allowed to start the [Three Gorges] dam project that will cause grave harm to the country and the people." Huang also warned that the tail end of the Three Gorges dam's reservoir, at Chongqing's harbor, would be silted up by coarse pebbles and, as a result, would cause more frequent and severe flooding in the Sichuan basin. He predicted that the project would become a bottomless pit for public funds, and resettlement would be doomed to catastrophe.

Despite many obstacles, Huang never relented in his campaign to petition the government and publish articles in newspapers and journals to stop the project. To his disappointment his articles were never published and nobody paid attention to his petitions, with the exception of one powerful leader, Bill Clinton, the former president of the United States. Huang wrote to President Clinton in 1995, expressing his concern that if the Three Gorges Dam were built, siltation would choke Chongqing harbor and within several years of its completion the dam would have to be dynamited in order to restore the "golden waterway." Responding from the White House, President Clinton wrote: "Thanks so much for writing to me. Your thoughts are welcome, and they will be considered carefully."

A few months later, the National Security Council recommended that the U.S. government not "align itself with a project that raises environmental and human rights concerns on the scale of the Three Gorges." The U.S. Export-Import Bank decided not to provide financing for the dam. Export credit agencies in other countries, including Canada, France, Germany, Sweden and Switzerland, did not hold back, however, and have provided loans to cover the cost of Three Gorges dam-related equipment and services purchased in their own countries.

Because of his opposition to the dam, Mr. Huang was not allowed to teach in China until

1998, when at the age of 87 he was finally approved to lecture postgraduates at Beijing's prestigious Qinghua University. Despite Huang's outstanding expertise and dedication to China's water resources, he was excluded from the Three Gorges Dam feasibility study and decision-making process.

Seven days before his death, Huang celebrated his ninetieth birthday in the company of his students and family. Days later, following a visit from two of his students at the hospital where he lay ill, Huang asked his wife to fetch him a pen and paper. Before he died, Huang's last thoughts were devoted to finding a solution to Yangtze River floods. Huang wrote:

To my dear wife and children: The harnessing of China's rivers is one of our country's great undertakings. Among the four major strategies of *storing, blocking, regulating* and *resisting*, blocking should be seen as a fundamental method. For example, the dike in the Hankou section [located in one of Wuhan City's three towns in Hubei Province] of the Yangtze River should be strengthened by building the dike on the side facing the river, with steel plates and stakes and by [reinforcing] the dike with stones to ensure its absolute safety. Please bear that in mind.

EDITOR'S NOTE — Both Dai Qing and Huang Wanli contributed to Civil Engineering Practice's special issue on the Three Gorges Project, published in Spring/Summer 1997. For more information about the debate — both pro and con — on the project, please refer to that issue. This article is reprinted from Three Gorges Probe, an Internet news service found at www.threegorgesprobe.org. Huang Wanli's life and work are highlighted in a recent book by Judith Shapiro, *Mao's War Against Nature: Politics and the Environment in Revolutionary China* (Cambridge Univ. Press, 2001).



DAI QING leads the opposition, both in China and internationally, to the construction of the Three Gorges Project. Currently, Dai works as a freelance journalist from her home in Beijing.