

Great Projects of Water and Power Could Drive Asia's Long-Term Growth

by Mary Burdman

The government of China has announced that it will go ahead with two of the most remarkable “great projects” now under consideration in the world. One is the construction of the world’s largest power plant, high in the Tibetan Himalayas, and the second is the “Move South Water North” water diversion project.

China is already making steady progress on the world’s largest flood control/hydroelectric project, the Three Gorges Dam, which should be completed in 2009.

It is essential to understand the great scale of these projects, and, at the same time, how essential they are. Developing water and energy resources, is a life-and-death matter for the future, not only of China’s vast interior regions, but also of Central Asia, the Indian subcontinent, and Southeast Asia. Over 2 billion human beings live in China and India alone, but, contrary to general “received wisdom,” for these countries, solving the problem of water management is in reality a more urgent issue for “national economic security” than the size of their populations.

Some areas, including north and western China, vast parts of Central Asia, and the eastern subcontinent, already arid, are now being devastated by a prolonged drought. At the same time, two of Asia’s greatest rivers, the Yarlung Zangbo-Brahmaputra and the Mekong, have seen devastating flooding in the past months. The Mekong was hit by the worst floods in 70 years, killing many hundreds of people and making millions homeless.

What would be crucial, for the future development of Asia and Eurasia, and the success of the projects themselves, is that they be built and operated in the interests of all nations affected.

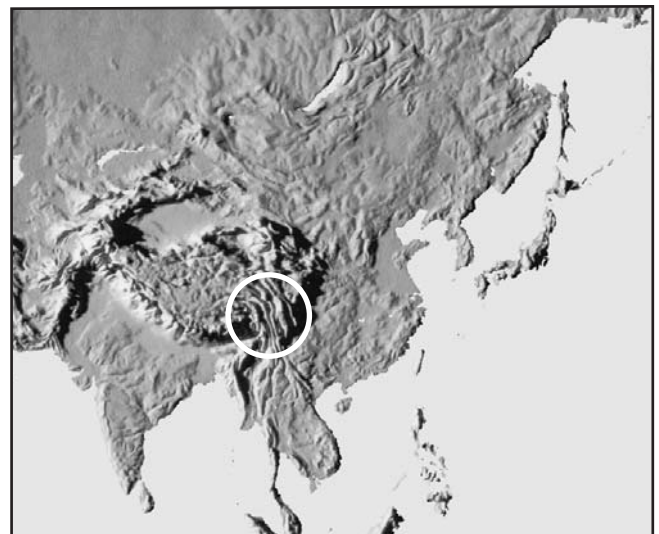
The Geography of the Region

This is a highly complicated question, as a look at the geography of this great region shows. The mountain chains in the area, the Himalayas, Pamirs, Karakoram, Tian Shan, and Hindu Kush ranges, just to name the most famous, are the highest in the world, ranging 6,000 to over 8,000 meters — overall *twice as high* as the Alps or the Rocky Mountains. There are so many mountains, that many are not even named.

On the Tibetan Plateau rise five of the greatest rivers in Asia, all within a relatively small region: the Yangtze, the Yellow, the Mekong, the Irawaddy, and the Yarlung Zangbo-Brahmaputra. This last river has two names, because it flows through the Yaluzangbu Daxiagu, the world’s largest river canyon, on its fall from the Tibetan Plateau to Bangladesh; it was only in the late 19th Century that it was definitely established that the Brahmaputra was the same river. The canyon was only fully explored by foot last year.

The abundance of water and power resources which could be tapped from this region, could meet many of the needs of its huge population. Northern and northwestern China urgently need water; Bangladesh and Southeast Asia also need year-

FIGURE 1
The Himalayan Watershed



The Himalayan Watershed of the Tsangpo (Brahmaputra) River, where China plans, beginning 2009, to construct the world’s largest hydroelectric project. The project is planned as the follow-up to the Three Gorges Dam, and the canal project which will bring water from the Yangtze River to the arid north of China.

round water supplies, as well as flood control and transport. At the same time, the projects needed to harness these resources, are unprecedented in scope. They are a great challenge, and a great opportunity.

Plans for regional cooperative development, such as the Greater Mekong Subregional Development plan (see *EIR*, May 26, 2000, p. 22), and projects for development of the Ganges-Brahmaputra rivers basin, are already in existence. China's power and water projects could contribute greatly.

China is now drawing up plans to use peaceful nuclear explosions (PNEs), which have been used in Russia, to dig a 16-kilometer-long tunnel through the Himalaya mountains, and build the world's biggest power plant. The plant's turbines would generate 38 million kilowatts of power—the same capacity as 30 typical large western European nuclear power plants. This would be much more than the entire nuclear power capacity of Germany.

The Three Gorges project, already under construction, will generate 18 million kilowatts of power.

Construction of this new project, which has been under discussion at government institutes in Beijing for some time, should begin when the Three Gorges is finished in 2009.

Building the plant will involve an incredible engineering feat, blasting a tunnel through the mountain walls of Mount Namcha Barwa, where the Yarlung Zangbo goes around a sharp bend and drops vertically 3,300 meters within just about the same horizontal distance. The power project would harness the force of the water going through the tunnel, and could light up a lot of Asia, as excited Chinese scientists have told the author.

The cost of drilling the tunnel is estimated at some \$30 billion.

'Move South Water North'

In another phase of development, water passing through the tunnel could be diverted into a new reservoir and then through canals, over the Tibetan Plateau to Xinjiang and Gansu provinces, where the Yellow River flows. This water would then contribute to a second "great project," to move water from the mighty Yangtze and its tributaries, to the north.

There are, at present, no plans to divert water through the Himalayas from the great power project. But, plans are going ahead rapidly for the water-diversion project, the Chinese Ministry of Water Resources has confirmed several times in recent weeks. "Move South Water North" will ultimately channel water from three places along the upper, middle, and lower reaches of the Yangtze River, to China's arid northern and northwestern regions, including Beijing and Tianjin, two of its largest cities.

This project was proposed by Mao Zedong already in the 1950s, and feasibility studies were drawn up at the time. The Yangtze itself often suffers massive floods, as in the summer

of 1998. Yet in densely populated northern China, there is only 501 cubic meters of water available per capita per year, just 20% of the average level in China, and one-twelfth of the world's average.

At a mid-October high-level seminar in Beijing on the project, Prime Minister Zhu Rongji called for building "Move South Water North" earlier than had been planned. The water shortage is a severe problem, which is already restricting the development in northern China, Zhu Rongji said, and he called on officials concerned to respond quickly and spare no effort in making preparations. Water pollution and wastage are also serious problems, and must be solved, he said. "More reasonable" water prices could be one method to help "economize" water resources, Zhu added.

On Oct. 23, China's Ministry of Water Resources announced that a plan to divert an average of 38-48 billion cubic meters of water a year from the Yangtze River to northern China, would soon be submitted to the government. Zhu Erming, the Water Resources Ministry's senior technological consultant, said that the State Council "has required the ministry to submit an overall plan in the next eight months."

China will have to invest an estimated 130-150 billion yuan (\$15.7-18.1 billion) in the first two phases of construction of the project. This will involve digging the middle and eastern lines of the proposed three water-diversion channels. The two will total 2,400-kilometers in length. The west line is still being researched, Zhu said. Current technologies make construction of the two lower channels practical, Water Ministry officials have announced.

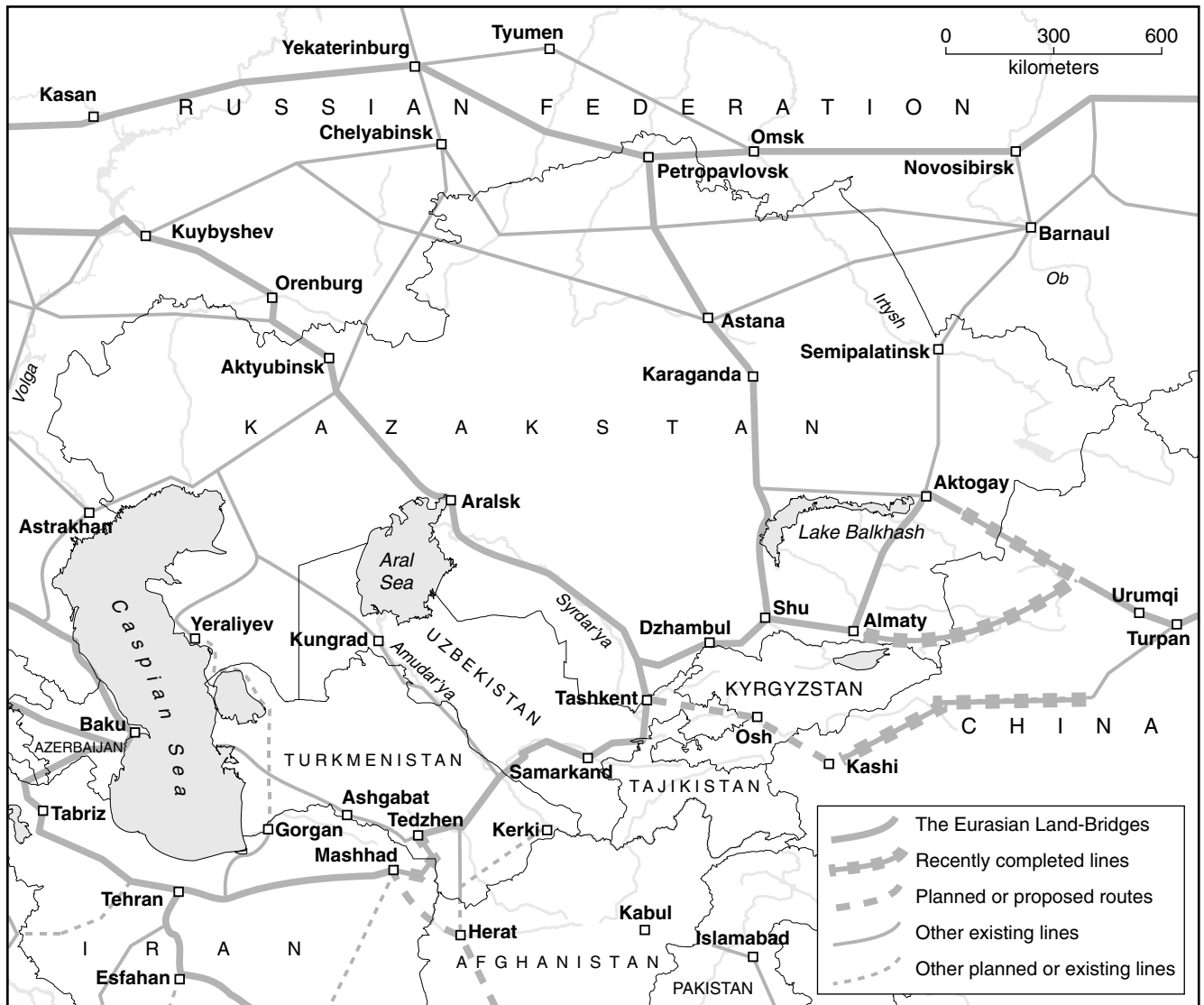
Water Resources Minister Wang Shucheng announced at an Oct. 23 conference in Chengdu, the capital of Sichuan province, that instead of building the whole project at once, as had been previously expected, "the diversion project will be constructed in stages to save on investment." This will allow the scale of the project to be gradually expanded from its initial design, in line with northern China's water needs, and its growing economy in 2010-30. Construction of the channels would be much more difficult in the upper regions of the river than the middle and lower reaches.

The project is aimed to optimize the capacity of northern China's overall water resources, particularly in the Yellow-Huaihe-Haihe river plains, one of China's leading breadbaskets.

Wang Shucheng also said, that he hopes a new mechanism featuring higher and fluctuating water prices, will be set up to aid with the project's investment requirements. This will also encourage saving water, he said. Wang said that the government will set up a special foundation for the project, under which state investment will be turned into stock-holdings. Wang proposed that the state be responsible for the macro-control of the project, entrusted stock companies be set up to put the project into operation, and consumers be allowed to hold shares in the companies.

FIGURE 2

Central Asia Rail Lines



China has completed and opened its southwestern railroad from Turpan to Kashi, known as “the city farthest from the sea in the world.” This railroad was projected only in 1997. Now China and Kyrgyzstan project the railroad to continue to Osh and then to Tashkent.

‘Paris to Shanghai’ and the Roof of the World

Great rail projects are also on the agenda. Leaders of both China and Kyrgyzstan are stating that a rail line, to connect Xinjiang in western China, to Kyrgyzstan and Uzbekistan, will be started in the near future.

Kyrgyz President Askar Akayev, in an interview with the German weekly *Der Spiegel* on Oct. 23, said that the European Union is helping to build the “Paris-Shanghai” rail line, which will connect Kyrgyzstan to China. The construction should start in 2002, and be completed in five years. This rail

line would connect Kashi, in China’s Xinjiang Autonomous Region, via Osh in Kyrgyzstan, to Tashkent in Uzbekistan, and then to the Central Asian and Russian rail systems, to Europe.

“There are only 600 km from the Chinese border through the Kyrgyz mountains to [the] Fergana [Valley],” Akayev said. “This would be the shortest way to China [from Europe]—1,000 km shorter than over the Russian Trans-Siberian.”

At the conference on Western China in Chengdu on Oct.

23. Rail Vice Minister Sun Yongfu said that China will cooperate with other nations to build rail lines, creating more links of the Asian-European continental railway, including the rail line to Kyrgyzstan.

In December 1999, the new 1,451-kilometer rail link between Turpan and Kashi, the Southern Xinjiang Railway, was opened for traffic. Kashi, known as the city farthest from any ocean, is already the eastern terminal of the Karakoram Highway from Pakistan. In November 1999, it was announced that the Turpan-Kashi rail line was to be extended to the area bordering Kyrgyzstan. On Oct. 16, 2000, Zhou Shengtao, of the Xinjiang government, said that construction of a rail connection to Kyrgyzstan and Uzbekistan will soon be started.

Minister Sun Yongfu said that China's rail sector is to invest 40% of its total construction fund in Western China for the coming five years. This will amount to 100 billion yuan (\$12.05 billion), to build some 18,000 kilometers of rail lines, as well as renovating and expanding existing railroads. Other huge rail projects, including construction of a rail line into Tibet for the first time in history, and a pan-Asian rail link from Kunming, capital of Southwest China's Yunnan Province, with Singapore, are also being planned.

The rail line to Tibet, also a long-term Chinese project, will be built under the Five-Year Plan for 2001-05. Four possible routes, which could connect Tibet with Qinghai, Yunnan, Sichuan, or Xinjiang, are under consideration, and this enormous project would take 5-10 years to complete.

The long-planned Trans-Asia Railroad (plans have existed for decades) also needs an urgent kick-start to be realized. On Oct. 16, the head of the State Railway of Thailand, Saravuth Thammasir, said that the project could be completed in 2002. This rail network, which would repair and connect already-existing lines in Singapore, Malaysia, Thailand, Cambodia, and Vietnam, to Laos, Myanmar, and Kunming in southern China, is certainly feasible. Most of the terrain is relatively easy, compared to that between China and Kyrgyzstan, although northern Myanmar and Yunnan are extremely rugged. The key issue is funding, which would need about \$2.5 billion.

Economic and financial cooperation is essential for the future of Asian nations. These great projects will provide the engine for that cooperation.

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Mahathir Issues Call for 'New Asia' Agenda

Malaysian Prime Minister Dato Seri Dr. Mahathir bin Mohamad's successful policy of asserting economic sovereignty for his nation, against International Monetary Fund (IMF) dictates, following the 1997 Asian crisis, has earned him the deep respect, and a position of leadership, throughout the developing nations of the world. Dr. Mahathir has now issued a stirring call to arms to the nations of Asia, to unite behind new economic institutions to counter the ongoing global crisis. In a speech entitled "Agenda for a New Asia," presented to an Asia Society Forum in Hong Kong on Oct. 28, Dr. Mahathir placed the urgency of the creation of an Asian Monetary Fund in the context of the colonial heritage of most of the Asian nations, and the disastrous results of the IMF policies imposed throughout the region following the 1997 financial breakdown. Dr. Mahathir emphasized the role of Japan in the post World War II era, in rebuilding its economy based on state-sponsored technological and industrial development, while developing a market in the Third World—long neglected by the Western industrial nations—by providing high-quality, but inexpensive, products. When the other Asian nations followed suit, portending an "Asian Century," the Western powers declared such state-guided economic policies (policies once known to the world as the "American System," as opposed to the free trade policies of the British Empire) to be criminal and immoral, and in 1997 used their power over the global financial system to destroy the Asian economies altogether. Dr. Mahathir then explained both the necessity and the feasibility of creating new economic institutions in Asia, with an eye to forcing the issue of a new world financial architecture, independent of the bankrupt IMF.

The following are excerpts of the Prime Minister's speech. Some punctuation, and subheads, have been added.

Agenda for a New Asia

The Asia Society has asked me to talk about Asia and about the future. I know something about Asia's past, and its present situation. But as to its future, my guess is as good as anyone else's. That is not to say that I don't have some ideas. I do. But they are just ideas about what should be and maybe what can really be.