

As a Chinese-American, I wish both the U.S., my adopted country, and China, my native country, well. Furthermore, I hope the relationship between the two countries remains good, for which a significantly improved mutual understanding is a must. Unfortunately for Americans, many U.S. politicians and the U.S. mainstream media have not been fair to China. Aside from China bashing (China Bashing: A U.S. Political Tradition), they focus mostly on negative stories (Welcome to the World's Largest Ghost City: Ordos, China), resulting in many Americans being misinformed about China.

I have been doing my best to help my fellow Americans better understand China (and vice versa).

I highlight five mega infrastructure projects in China:

China's National Highways.

Three Gorges Dam.

High-Speed Rail in China.

Nuclear Power in China.

South-North Water Transfer Project.

Next, let me elaborate on each.

1. China's national highways

The China National Highways (Chinese: t 中華人民共和國國道, s 中华人民共和国国道, p Zhōnghuá Rénmín Gònghéguó Guódào) are a series of trunk roads across mainland China. Although they are called "highways" (e.g., the Jingbao Highway), they are not necessarily freeways. However, like expressways, a toll is sometimes charged.

2. Three Gorges Dam

The Three Gorges Dam is a hydroelectric dam that spans the Yangtze River by the town of Sandouping, located in Yiling District, Yichang, Hubei province, China. The Three Gorges Dam is the world's largest power station in terms of installed capacity (22,500 MW). In 2012, the amount of electricity the dam generated was similar to the amount generated by the Itaipu Dam.

3. High-speed rail in China

High-speed rail (HSR) in China may refer to any commercial train service in China with an average speed of 200 km/h (124 mph) or higher. By that measure, China has the world's longest HSR network with over 11,028 km (6,852 mi) of track in service as of December 2013,[1] including the world's longest line, the 2,298 km (1,428 mi) Beijing–Guangzhou High-Speed Railway.

4. Nuclear power in China

As of April 2014, the People's Republic of China has 21 nuclear power reactors operating on 6 separate sites and 28 under construction. Additional reactors are planned, providing 58 GWe of capacity by 2020. China's National Development and Reform Commission has indicated the intention to raise the percentage of China's electricity produced by nuclear power from the current 2% to 6% by 2020 (compared to 20% in the USA and 74% in France).[4][not in citation given] However, rapid nuclear expansion may lead to a shortfall of fuel, equipment, qualified plant workers, and safety inspectors.

5. South-North water transfer project

The South–North Water Transfer Project, or South-to-North Water Diversion Project[1] (Chinese: 南水北调工程; pinyin: Nánshuǐ Běidiào Gōngchéng) is a multi-decade infrastructure project for the People's Republic of China to ultimately channel 44.8 billion cubic meters of fresh water annually from the Yangtze River in southern China to the more arid and industrialized north through three canal systems: the Eastern Route through the course of the Grand Canal, the Central route flowing from the upper reaches of the Han River (a tributary of Yangtze River) to Beijing and Tianjin and the Western route which goes from three tributaries of Yangtze River near the Bayankala Mountain to provinces like Qinghai, Gansu, Shaanxi, Shanxi, Inner Mongolia and Ningxia Hui. A controversial spin-off plan calls for the capture and diversion of water from Brahmaputra River, in Yarlung Tsangpo Grand Canyon, north of India.

The idea for the project originated from Mao Zedong who said in 1952, "Southern water is plentiful, northern water scarce. If at all possible, borrowing some water would be good." The complete project was expected to cost \$62 billion – more than twice as much as the Three Gorges Dam. By 2014, more than \$79 billion had been spent, making it one of the most expensive engineering projects in the world.

Impressed with these mega infrastructure projects? You should be!

Troubled by these mega infrastructure projects? You should be, too, especially if you are concerned about human rights or the environment!

Are these mega infrastructure projects popular in China? Yes and no!

Yes, the Chinese are proud of their remarkable history-making works, from the Great Wall to modern Shanghai, in which there are more skyscrapers than in Manhattan.

No, many Chinese are unhappy with the huge cost of these mega projects.

Bottom line: These projects are about survival! Unlike the U.S., China has been heavily populated for thousands of years. Nothing is easy on her land anymore, and it's a constant struggle between modernization and preservation. But China understands the necessity of these projects, after paying dearly for falling behind, especially from 1800 to 1945, when China was invaded and occupied by several foreign countries (Twenty-Five Years in Recent Human History).

More importantly for the long-term thinking Chinese, these are transformational projects that will position China well into the future – Big pain now, bigger gain later!

Most importantly for the proud Chinese, if there is one country on earth that can pull these kinds of mega projects off, it's China, thanks to its people as well as its government!

The five mega infrastructure projects highlighted above are China's domestic projects. The Chinese are also doing many projects outside China. I will have two articles out soon: (1) China's global trade and (2) China's international projects. So stay tuned ...

7. Closing

China is, by far, the most exciting country to visit these days! Visit China and see her with your own eyes: the good, the bad, and the ugly ...