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Mega Projects – part 1 ©

China's Super Highway

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A megaproject is an extremely large-scale investment and construction project. The term 'mega' comes from when the project costs more than \$1 billion and attracts a lot of media attention for various reasons such as budget, local communities, and environmental impact. For this week's series we will raise the bar and look at megaprojects costing at least to \$10 billion. Megaprojects have always existed, if you look back in history the Pyramids can be considered a megaproject, and in the 19th century the Trans-Siberian railroad was also considered a Megaproject at the time. These construction projects can take many forms: tunnels, such as under the English Channel; dams, like the Delta Works, many dams are built to protect large areas of land around the Rhine, the Meuse and the Scheldt Delta; airports; new cities; and the preparation and hosting of sporting events such as the extremely expensive development for the Sochi Winter Games, and also the Olympic Park and stadium in Beijing. And that's where we're heading today, to China. There we will see the most ambitious roadway system in development since the Interstate Highway System in the United States.

China's need for roads and expressways is no surprise, especially as China has been getting wealthier and wealthier for the past two decades, and an enormous middle-class has emerged. Suddenly, these tens of millions of people could afford to buy automobiles. The numbers are staggering: between 1985 and 2005 the number of passenger vehicles on the road in China increased from 19,000 to a whopping 62 million. And the most shocking part is that this number is set to more than triple to 200 million by 2020, creating a huge need for new highways. The first part of their system opened in 1988; 26 years later it is over 65,000 miles long and in 2011 it overtook America's Interstate Highway system as the longest expressway network in the world. At present, it is only half finished.

Economically this megaproject will change many things in China, and its cost is enormous. In total, the price-tag on such a giant network is \$240 billion, the biggest human infrastructure to date, although, if you count all the work and maintenance, the US Interstate Highway system has cost \$502 billion since its creation back in 1956. China is a big country, the third or fourth largest, depending on whether you count the overseas territories of the United States. And it is also the most populous country on earth, but most of these people live in the coastal regions or in giant, growing mega-cities such as the Pearl River Delta, and the Yangzi-Jiang and Beijing-Tianjin areas. Most of the new highways are being built in the east and southeast regions of the country, while in the western provinces relatively few new highways are being constructed.

This project will greatly benefit the Chinese people as they will see their time on the road divided in half, avoiding situations like the China National Highway 110 traffic Jam - a massive recurring traffic jam that in 2010 backed up for more than 60 miles and lasted more than 10 days! Some drivers finding themselves stuck in traffic for 5 days straight!

The drawbacks of such a project, other than the possible skyrocketing of the original budget, is the amount of pollution that will be created from building the roads and of course from the cars driving on them in the future. The construction of the highway system will not destroy any historical or natural

landmarks, although it will deface some of the beautiful scenery in Sichuan province. Finally, the question of worker's rights can also be raised, as China is not known for its respect for safe working conditions and human rights.

Tomorrow we will leave the highway system to visit somewhere with absolutely no cars and 100% green energy: a place called Masdar City, not far from Dubai in Abu Dhabi.