

Chapter VI: Inland ports and waterways

Overview

This section of the report examines China's inland waterway network – a much underestimated aspect of the country's transport infrastructure. It begins by examining the waterway network, showing that the routes based on the Yangtze River are the largest and most important. The section continues with a discussion of the Three Gorges dam, the “Develop the West” campaign and the new Yangshan container terminal, all of which are predicted to stimulate increased demand for inland waterway cargo services over the next five years.

The advantages of river transport are discussed, and the waterway infrastructure is described, including the types of vessels used and technical issues that could impede further growth of this mode. The role of the Ministry of Transport (MOT) in administering 123,388 km of inland waterways is explained.

The section continues with an analysis of the commercial aspects of river transport, including details of costs, tariffs and the types and quantities of goods shipped on system. The section concludes with the Five Year Plans (FYPs) and longer-term programmes to expand the network, and a discussion of investment opportunities.

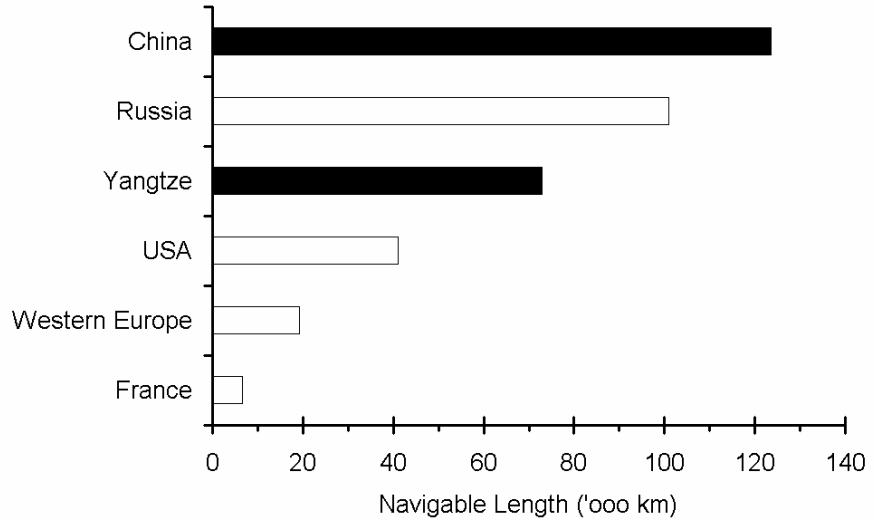
China's inland waterway network

China's inland water transport network is the largest in the world, both in length and in volume of cargo carried

With a navigable length of 123,495 km, China's inland water transport network is the largest in the world in length and in volume of cargo. It consists of more than 5,000 rivers, of which the 6,300-km Yangtze and its tributaries is the longest. Apart from Russia, the navigable length of the Yangtze and its tributaries alone is greater than the total length of inland waterways in any other country (Exhibit 6.1).

Exhibit 6.1: International comparison of navigable inland waterways

The Yangtze River alone is a longer waterway than the combined waterways of the US and Western Europe



Source: World Bank.

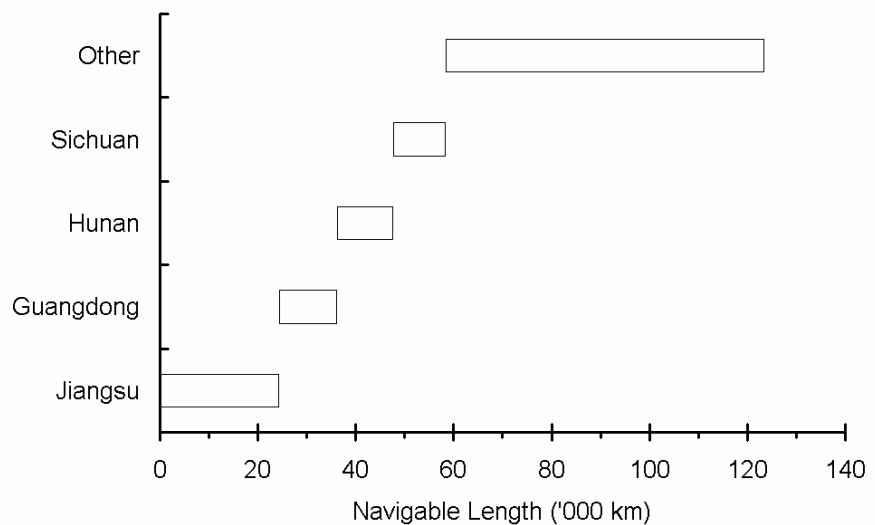
In 2007 China's inland waterways transported 1,180 million tonnes of cargo. This compared with waterway cargo of 800 million tonnes in the US and 500 million tonnes in the EU.

Four provinces account for half of China's navigable waterways

Four provinces – Jiangsu, Guangdong, Hunan and Sichuan – account for around half the navigable waterways (Exhibit 6.2). Except for Guangdong, at the mouth of the Pearl River, these provinces include the Yangtze and its tributaries. No other province has an inland waterway that exceeds 10,000 km.

Exhibit 6.2: Length of waterways in provinces

Of all of China's provinces, Jiangsu has the longest navigable waterway



Source: Ministry of Communications (2008).

Three of China's waterways account for 79 per cent of the country's inland water transport cargo

In 2007 three of China's inland waterways accounted for 79 per cent of the country's inland water transport cargo (Exhibit 6.3). The same three arteries accounted for 87 per cent of the freight task (308 billion tones per kilometre [btpkm]).

Exhibit 6.3: Inland waterway productivity

	Yangtze River	Pearl River	Grand Canal	Other
Volume (million tonnes)	534	209	283	273
Transport task (btpkm)	202	34	72	47
Average haul (km)	378	162	254	72

Source: Ministry of Communications (2008).

The Yangtze River, the Pearl River and the Hangzhou-Beijing waterway (the Grand Canal) are China's three main inland waterways

Apart from the Yangtze, the two other major waterways are the Pearl River waterway and the Hangzhou-Beijing waterway (also known as the Grand Canal). The Pearl River waterway, which encompasses 10,000 km of the Pearl River and its tributaries as far west as Nanning, is an important transport link between Hong Kong and the manufacturing areas of Guangdong.

Construction of the 1,743-km Grand Canal commenced in the fifth century BCE

The Hangzhou-Beijing waterway (the Grand Canal), extends 1,743 km, from Tianjin in the north to Hangzhou in the south. This is the world's longest man-made waterway. Silting made it impassable for more than a century, but Beijing has recently initiated a dredging programme, and its navigable length has been extended to 1,100 km during the flood season and 400 km year-round.

The Yangtze River waterway is China's longest and busiest inland waterway system

The Yangtze is the world's third longest river and China's busiest¹. It originates in the Kunlun Mountains in south Qinghai province and passes through central China on its way to the coast near Shanghai. Not all of the Yangtze and its tributaries are navigable, and shipping is generally confined to the area east of Chongqing. Between Chongqing to Shanghai, the river drops from an elevation of more than 5,000 metres, passing through eight provinces and two municipalities² (Exhibit 6.4.)

¹ The Nile and Amazon are longer.

² Shanghai and Chongqing are municipalities.