

# Hengshui-Shangqiu Railway Construction Project (I) ~ (IV)

Report Date: March 2000  
Field Survey: August 1999

## 1 Project Summary and Japan's ODA Loan

### (1) Background

China's coalfields are concentrated in the northern part of the country, while manufacturing industries which consume three quarters of the country's energy are concentrated in the southeast. Therefore the long-distance transport of coal between the coalfields and the consumption center has been a controlling factor in the country's economy. The existing Beijing-Guangzhou railway (the Jingguang Line) and the Beijing-Shanghai railway (the Jingko Line) which carry the coal produced in the north to the industrial areas of the south coast were, at the time of appraisal, already operating at full capacity. A need to build another trunk line was urgent.

This project aimed to build a new railway that would serve as a bypass route for the above two railways, carrying coal mined in Taiyuan in Shanxi province from Hengshui to Shangqiu, and on via Shijiazhuang to the southeast.

In 1991 the Eighth Five-Year Plan set railways as a pillar to the rapid expansion of China's transport capacity. The plan called for a construction of a railway between Beijing and Kowloon (Hong Kong) (the Jingkow Line). Studies on the specifics of the construction, technical standards and others began in October 1992, when this project was incorporated into the plan, comprising a part of the Jingkow Line.

### (2) Objectives

This project was intended to expand the coal supply capacity to the coastal industrial zones in the southeast, and to reinforce the country's north-south transport capacity for freight and passengers. It was constructed as a bypass route of the Jingguang and Jingko Lines, which were already laden to capacity.



### (3) Project Scope

The project comprised 401km of non-electrified, multi-track railway starting in Hengshui in Hebei province and running south through Shanxi province to Shanqiu in Henan province. The ODA loan covered the entire foreign-currency portion of the project cost.

### (4) Borrower/Executing Agency

Ministry of Foreign Trade and Economic Cooperation of P.R.C./Ministry of Railways of P.R.C.

### (5) Outline of Loan Agreement

Loan Amount	¥23,603 million
Loan Disbursed Amount	¥22,216 million
Date of Exchange of Notes	March 1991 to August 1993
Date of Loan agreement	March 1991 to August 1993
Loan Conditions	
Interest Rate	2.6% (Interest Rate for Phase I (¥5,695 million) was 2.5%)
Repayment Period (Grace Period)	30 years (10 years)
Procurement	General Untied
Final Disbursement Date	September 1998

## 2 Analysis and Evaluation

### (1) Project Scope

Construction was to be of single-track until the loan appraisal was conducted in 1992, with the plan of future conversion to multiple tracks. 1992 was when the project was redefined as a segment of the Jingkow Line, and the decision was taken to convert to multiple tracks at the earlier stage. As a result, the scale of construction and the quantities of equipment and materials were substantially altered compared to the time of the first phase appraisal. In spite of the scope expansion, the project was completed largely according to plan set at 1993 appraisal. The ODA loan covered the construction of the single track and the relate facilities, as originally planned.

### (2) Implementation Schedule

Despite the change to multiple tracks, the schedule was carried out largely as planned.

### (3) Project Cost

The foreign currency expenditure covered by the ODA loan was as planned. The additional equipment and materials necessitated by the conversion to multiple tracks was procured by the Chinese side using its own funds.

### Comparison of Original Plan and Actual

Item	Unit	Plan (A)	Plan at the time of appraisal (in 1993) (B) <sup>1</sup>	Actual (C)	Difference (C) - (B)
Roadbed	m <sup>3</sup>	21,050,000	34,900,000	36,349,510	1,449,510
Bridges	nos.	173	162	160	-2
Culvert	nos.	1,237	1,358	1,630	272
Rail truck	km	414	1,071	1,085	14
Main depot, station	nos.	5	5	5	-
Intermediate depot, station	nos.	23	27	27	-
Signals	set	0	436	436	-
Signal cable	km	538.3	1,626	1,626	-

Note: 1) The plan after the project scope was largely revised due to incorporation into the Jingkow Line.

### (4) Project Implementation Scheme

The executing agency of this project was Ministry of Railways. No significant problems were observed in its implementation capability. No consultants were employed. The design was prepared by the Design Institute at Ministry of Railways. Construction was supervised by the Ministry's Regional Railway Offices. The contractors were the relevant Construction Offices (offices responsible for the construction of new lines) within the Ministry, whose performance displayed no significant problem.

## (5) Operations and Maintenance

The maintenance is handled by the Railway Offices, which are the local agencies of Ministry of Railways.

Operational status: According to the Ministry of Railways, the impact of the economic crisis which originated in the Southeast Asia in 1997 slowed the growth of the Chinese economy, and as a result, the volume transported has not reached the planned levels. However, by all indicators, Jingkow Line is carrying increasing numbers of passengers and quantities of freight every year. The segment covered by this project was completed in 1996 and has carried increasing traffic every year since then.

### Transport of Passengers for Each Section of this Project

(Unit: person-km)

	Hengshui – Linqingxi	Linqingxi – Liangditou	Liangditou – Shangqiu	Overall Hengshui-Shangqiu Line
1996 (completed in September)	58,860,000	145,000,000	7,360,000	211,220,000
1997	341,000,000	840,000,000	42,670,000	1,223,670,000
1998	478,500,000	1,168,000,000	53,550,000	1,269,400,000

Source: Prepared from materials provided by the Ministry of Railways.

Note: Liangditou Station is one stop north of Shangqiu Station. It is a local station where limited-express and rapid trains do not stop.

### Transport of Freight for Each Section of this Project

(Unit: ton-km)

	Hengshui – Linqingxi	Linqingxi – Liangditou	Liangditou – Shangqiu	Overall Hengshui-Shangqiu Line
1996 (completed in September)	433,400,000	108,000,000	68,510,000	609,910,000
1997	1,651,100,000	4,349,000,000	264,520,000	6,264,620,000
1998	1,915,100,000	4,853,000,000	309,230,000	7,077,330,000

Source: Prepared from materials provided by the Ministry of Railways.

## (6) Project Effects and Impacts

Hengshui-Shangqiu Railway Construction Project (1)–(4), was originally planned with the main purpose of increasing coal transportation capacity. Having been incorporated into a new trunk line from Beijing to Kowloon (Hong Kong), it came to bring about effects in inducing development along the route which were not anticipated before. Therefore, of all the project's effects, this evaluation focuses on its impact on development along its route. The evaluation has been commissioned to the State Department Development Research Center, one of China's leading research agencies. The findings of the third-party evaluation are as follows.

This project forms one segment of JingKow Line, China's new north-south rail route. As such it has gone beyond attaining the project's initial goals of easing the transport of coal and the supply of energy to exert far-reaching effects, including the following:

- Encouraging economic development along the route.
- Broadening opportunities available to the people.
- Easing congestion on the older lines and spacing out excessively dense timetables.
- Adding redundancy (spare transport capacity) to the network as a whole, which enables emergency rerouting of traffic.

All the regional governments along the route of this project, which is part of the Jingkow Line, were aware of the opening of the line as an unparalleled opportunity for development of their local economies. They are working on related development projects to maximize the railway's impact for the development of their economies. In the cities of Hengshui and Shangqiu, which were visited in the course of the evaluation, officials of the municipal governments expressed their deep gratitude for the fact that the construction of the project had been facilitated by Japan's ODA loan.



Hengshui Railway Station Building



Shangqui Yard. Timber and Garlic are being Loaded.



Power Station in Hengshui City, using Coal transported by the Jingkow Line