

**PROJECT INFORMATION DOCUMENT (PID)
CONCEPT STAGE**

Report No.: PIDC288

Project Name	CHINA: ZHENGZHOU URBAN RAIL PROJECT (P128919)
Region	EAST ASIA AND PACIFIC
Country	China
Sector(s)	Urban Transport (90%), Public administration- Transportation (10%)
Lending Instrument	Specific Investment Loan
Project ID	P128919
Borrower(s)	PEOPLE'S REPUBLIC OF CHINA
Implementing Agency	Zhengzhou Finance Bureau
Environmental Category	A-Full Assessment
Date PID Prepared	19-Mar-2012
Estimated Date of Appraisal Completion	14-Dec-2012
Estimated Date of Board Approval	06-Aug-2013
Concept Review Decision	

I. Introduction and Context

Country Context

Thirty years of rapid economic growth have supported unprecedented urbanization in China. China's urban population reached 690 million in 2011, accounting for 51 percent of the total population, according to the National Bureau of Statistics of China. The United Nations projects that the number of Chinese urban dwellers would grow to over 1 billion by 2030.

An equally rapid motorization has followed. From 1990 through 2010, the number of privately owned vehicles in Chinese cities has increased at an average of 25 percent annually. While motorization has supported economic development and enhanced mobility at an individual level, it has brought a range of major economic, environmental and social impacts, including increases in traffic congestion, air pollution, fossil fuel consumption, greenhouse gas emissions and road accidents.

To mitigate these growing challenges, cities in China are increasingly investing in public transport networks and services, such as urban rail, and integrating these networks with long term land use and spatial planning frameworks. Today, more than 30 Chinese cities are constructing or expanding urban rail systems as part of the largest program of urban rail development ever implemented. As of January 2010, 23 cities had approved metro plans with a total track length of 5,148 km, compared to 870 km currently in operation.

Sectoral and Institutional Context

Zhengzhou is the capital of Henan Province and, in recent years, has emerged as one of the most important comprehensive transport hubs for highway, railway and civil aviation in central China. The municipality of Zhengzhou has a total area of 7,446 km², with a population of 8.6 million, including an urban population of 3.98 million. Zhengzhou's GDP in 2010 reached 400 billion RMB (US\$ 63 billion), a 13 percent increase over 2010, with an average per capita disposable income of urban residents of 18,896 RMB (about US\$ 3,000).

As with other cities in China, Zhengzhou is experiencing a rapid increase in private motorized travel. In 2007, the percentage of households with access to at least one car was 13 percent, and by the end of 2010, 19 percent. According to the Zhengzhou Public Security Bureau, the city receives as many as 2,000 new vehicle registration requests per day. This rapid increase in car ownership has led to increasing congestion on city streets.

In response, the Zhengzhou Municipal Government (ZMG) is seeking to turn Zhengzhou into one of China's "transit metropolis", a program supported by the Ministry of Transport to promote public transport development. By international best practice, a transit metropolis is one with a public transport modal share among all motorized person trips reaching 60 percent. The ZMG developed a program to ensure full public transport coverage within the metropolitan area, develop public transport service nodes at the airport and two railway stations, speed up the development of the urban rail and bus rapid transit system, increase its investment in conventional buses, set up an area limited to public transport in the city center and enhance its information center for transport.

The ZMG sees urban rail as the backbone of such an integrated public transport system, able to attract passengers with growing expectations in terms of quality and comfort. It outlined an urban rail network consisting of 6 metro lines, totaling 202 kilometers, which has been approved by the State Council. As a first stage, construction of Line 1 and Line 2 commenced in 2009 and 2010 and will be completed by 2013 and 2015 respectively. Line 3 (from Xinglongpu Lu to Hang Hai Dong Lu station proposed to be partly financed by this World Bank loan), Line 4 and Line 5 will be developed in a second stage, from 2013-2020 and would benefit

from any lessons learned in improved station design. Line 3 is located on one of the corridors with highest traffic and congestion in the city and is expected to be justified, independent of other urban rail lines. The remainder of the network will be included in a third stage, commencing in 2020. According to the city's Masterplan, Line 3 may be extended on both the East and West Sides after 2020, depending on various factors such as traffic volumes and urban density, but the detailed engineering, land acquisition or construction for such extension would take place after the closure of the proposed project.

In parallel to this project, Zhengzhou is a recipient of a GEF-World Bank-China Urban Transport Partnership Program (CUTPP) grant. Under this grant, Zhengzhou is seeking to develop a comprehensive, multi-modal integrated public transport system and review the financial sustainability of its public transport system. This includes the development of performance based guidelines for urban rail stations and transfer across modes, as well as the development of universal access guidelines for people with reduced mobility. Those guidelines are expected to be applied to Line 3 as part of a pilot.

Relationship to CAS

The Bank's Country Partnership Strategy (CPS 2011-2015) has not yet been released. The proposed Zhengzhou Urban Rail Project is consistent with the 2006-2010 Country Partnership Strategy (Report No. 35435-CN), approved by the Board on May 23, 2006, which seeks among other objectives, to improve the competitiveness of the various regions of China and the overall investment climate, and to address the needs of disadvantaged groups and underdeveloped areas by financing infrastructure. Specifically, the project supports the objectives of: (a) promoting balanced urbanization; (b) reducing poverty, inequality, and social exclusion; (c) financing sustainable and efficient growth; and (d) improving public and market institutions.

The Government of China has requested that the new CPS for 2011 -2015 be co-terminous with, and aligned to, its 12th Five Year Plan, covering 2011-2015, which became available in spring 2011. The objectives of the Project are expected to be consistent with the new CPS. As the second urban rail project in China, this project could provide a valuable opportunity to learn from the implementation of more integrated, user focused urban rail projects, and support the deep ongoing transformation of urban transport systems in China.

II. Proposed Development Objective(s)

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The proposed project development objective (PDO) is to improve sustainable mobility in Zhengzhou by providing integrated and accessible public transport of suitable capacity and quality along the Line 3 corridor from Xinglongpu Lu to Hang Hai Dong Lu station.

Key Results

Measurement of PDO achievements may be recorded through the following proposed key indicators:

- a) Improved sustainable mobility: Proportion and number of Line 3 passengers who have switched from private transport (percentage);
- b) Accessibility: Percentage of stations that are accessible to people of reduced mobility (percentage);
- c) Suitable capacity: Increase in corridor peak capacity across modes and average traffic after one year of operation (passenger per peak-hour – before and after theoretical capacity and actual);
- d) Quality: Travel-time saving per passenger using public transport (based on estimated modal shift and equivalent above-ground trip time under baseline scenario).

III. Preliminary Description

Concept Description

The project would support the development of Line 3 of the Zhengzhou urban rail system from Xinglongpu Lu to Hang Hai Dong Lu station. This includes the construction of 22.5 km of urban rail, 20 stations, including 9 transfer stations and one depot; systems for power supply, signaling, communications, train control, fare collection, drainage, fire fighting, ventilation, air conditioning and monitoring; rolling stock; integration with other transport modes; and all other ancillary activities required to complete construction and support operations. The preliminary cost estimate is US\$2.43 billion, or US\$108 million per km. This line is fully self standing and not dependent on future extensions, which may take place after 2020.

The proposed project components to be financed by the Bank loan are:

- a) Civil Works (US\$ 212 million): Construction of six contiguous stations between Baizhuangjie and Hanghai Dong Lu stations and one depot. These proposed stations include a range of stations typical of other stations in the city urban network in areas with different density levels: two transfer stations, one station that may become a transfer station, a regular station, a terminal station, and a station with a large stabling area for trains. The station would include the necessary interchange with other transport modes where appropriate. The depot would be in the outskirts of the city in a rural area.

b) Equipment (US\$ 38 million): Procurement and installation of critical systems to support operations, including (but not necessarily limited to): power supply, elevator/escalators, and communications systems.

c) Technical Assistance (US\$ 2 million): Provision of: (i) Study and guidelines on multi-modal system integration; (ii) Study on increasing public transport quality and usage, with emphasis on implementing integrated land use planning along the corridor; (iii) Project management capacity building, including risk management best practices; and (iv) Operations management support.

IV. Safeguard Policies that might apply

Safeguard Policies Triggered by the Project	Yes	No	TBD
Environmental Assessment OP/BP 4.01	X		
Natural Habitats OP/BP 4.04		X	
Forests OP/BP 4.36		X	
Pest Management OP 4.09		X	
Physical Cultural Resources OP/BP 4.11	X		
Indigenous Peoples OP/BP 4.10		X	
Involuntary Resettlement OP/BP 4.12	X		
Safety of Dams OP/BP 4.37		X	
Projects on International Waterways OP/BP 7.50		X	
Projects in Disputed Areas OP/BP 7.60		X	

V. Tentative financing

Financing Source	Amount
Borrower	2180.00
International Bank for Reconstruction and Development	250.00
Total	2430.00

VI. Contact point

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