PROJECT INFORMATION DOCUMENT (PID)
CONCEPT STAGE

Report No.: PIDC6085

Project Name	CN-Hubei Xiaogan Logistic Infrastructure (P132562)
Region	EAST ASIA AND PACIFIC
Country	China
Sector(s)	Urban Transport (87%), Public administration- Transportation (13%)
Theme(s)	City-wide Infrastructure and Service Delivery (100%)
Lending Instrument	Investment Project Financing
Project ID	P132562
Borrower(s)	PEOPLE'S REPUBLIC OF CHINA
Implementing Agency	Xiaogan Municipal Urban Construction Investment Company
Environmental Category	A-Full Assessment
Date PID Prepared/ Updated	26-May-2014
Date PID Approved/ Disclosed	09-Jun-2014
Estimated Date of Appraisal Completion	29-Oct-2015
Estimated Date of Board Approval	24-Mar-2016
Concept Review Decision	Track II - The review did authorize the preparation to continue

I. Introduction and Context

Country Context

1. China is getting richer but is home to the second largest number of poor in the world. Two historic transformations – market reform and urbanization – have driven China's economic expansion over the last three decades where the average economic growth rate has been an unprecedented 10% per year. China's growth pattern has generated more productive and better paid jobs in urban areas, while rural productivity and incomes have also increased dramatically. As a result, more than 600 million people have been lifted out of poverty in the last two decades. All Millennium Development Goals have been achieved or are within reach. Yet in 2011, over 170 million people still lived below the $1.25-a-day international poverty line.

2. China is experiencing rapid and massive urbanization. In 1978, people living in cities only accounted for less than 20 percent of China's population; now the share is more than half. Over the past 30 years, urbanization in China has moved about 260 million migrants from agriculture to more productive activities, which supported high growth and rapid transformation of the economy . The

megatrend will continue in the future. On the basis of the country's per capita income, by 2030 up to 70 percent of the Chinese population - some one billion - will be living in cities . This unprecedented socioeconomic transformation results in the burgeoning of cities in a short period of time. It is predicted that number of cities with over 1 million population will double from 2010 to 2025 and reach 252, of which 8 megacities will have a population over 10 million .

3. Rapid urbanization is accompanied by a growing urban/rural divide, with significant income disparities. Urban incomes are now on average more than three times higher than rural ones, and poverty remains primarily a rural phenomenon. Overall in China, between 50-55% of the population resides in rural areas where about 66% of the population is engaged in farming, forestry, animal husbandry and fishing . Rural population is still facing low levels of productivity and net profits, and an increasing gap in revenues compared to the urban population, as the poorest rural households tend to derive a large share of their income from agricultural activities . The main causes and characteristics of rural poverty vary generally include a lack of accessibility, lack of skills and capacity, and limited access to inputs, financial services, markets and value chains .

4. China aims to address these imbalances by reinvigorating market reforms and a consumer-based economy. China's current challenge is to put its economy on a more sustainable growth path. This involves shifting to a more consumer based economy, addressing pollution and natural resource depletion, and reversing inequalities of income and opportunity. China's 12th Five Year Plan (FYP) (2011-2015) addresses these issues by highlighting the development of services and measures to address environmental and social imbalances, setting targets to reduce pollution, increasing energy efficiency, improving access to education and healthcare, and expanding social protection.

5. A more sustainable growth path can work towards the World Bank's twin goals of poverty reduction and shared prosperity. About 40% of total employment in China is in rural areas , with an opportunity now to shift the poorest rural households from agricultural based activities (with their low levels of productivity and net profits) through developing a more industrialized economy with higher yields and perspectives. Promoting this economic restructuring and change of the pattern of economic growth is therefore fully aligned with the World Bank's twin goals.

6. Wuhan Metropolitan Region (WMR) will become a megacity (over 10 million population) by 2025, as the nation is shifting development focus from coastal areas to central and western China. In 2009, the State Council launched the "Plan for Promoting the Rise of Central China", which seeks to propel the economic development in six central provinces and form a pattern where eastern, central and western parts of China interact with and complement each other. Indeed, the WMR is strategically located by being roughly equidistant from the three most important metropolitan regions in China, but has considerably lagged economically. Per capita annual income of WMR was 12,300 RMB in 2012, whereas it is 50,000 RMB in the Pearl River Delta metropolitan region, 36,000 RMB in the Yangtze River Delta metropolitan region, and 20,600 RMB in the Beijing-Tianjin-Hebei metropolitan region.

7. Even within the WMR regional disparity and unbalanced development exist. Xiaogan is a prefecture-level city in the WMR, some 60km northwest of the provincial capital Wuhan. It has jurisdiction over seven counties (two of which are listed as national poverty counties) with a population of 5.27 million in 2012 (49.6% urbanization rate). In 2012, annual disposable income of urban population in Wuhan Municipal was 27,061 RMB per capita, yet for Xiaogan Municipal it

was 33 percent lower (18,091 RMB). For rural population, annual net income was 11,190 RMB for Wuhan Municipal, whereas 7,988 RMB for Xiaogan. Around 50% of Xiaogan's population was below the income line of RMB 12,000 marking the bottom 40% of the population, the World Bank's definition of poverty in China. Pursuing more balanced and inclusive development across the region, the WMR is applying the "Two-Oriented Society", a national strategy that seeks to preserve resources and improve environmental quality. The strategy emphasizes integrated development of the central city in the metropolitan region and the surrounding cities, by balancing the resources and services in the region, in a sustainable manner. In the WMR this approach takes the name of "1+8 Wuhan Metropolitan Area", and it is formed by an 8-city cluster within a 100 km radius around the core city, Wuhan.

8. Developing a national and regional logistics hub in Xiaogan may contribute to showcase how the urban/rural divide can be narrowed. The Xiaogan Linkong Logistics Park in the Airport Economic Zone (AEZ) shows good potential due to its proximity to key transport infrastructures. The AEZ is located in the southeast of Xiaogan City, 5km from Wuhan Tianhe International Airport, 16km from Wuhan city center, 13km from the railway marshalling yard on the Beijing-Guangzhou railway and 36km from Yangluo inland deep-water port. The rapid urbanization in WMR also results in strong freight demand. With 6% historical annual growth rate, it is estimated that by 2020, there will be over 500 million tons of goods being transported by road and air through Wuhan and Xiaogan municipals. Development of a logistics hub within the AEZ will not only partially answering for this massive demand for regional economic growth, but will also help lift 2.8 million rural population currently living in the area to service industry with higher earning potentials. In addition, the mixed land use of the AEZ will bring more diverse urban functionalities to the people, including service sector, educational and training, residential, and high-tech industry, to improve quality of life and promote human development.

Sectoral and Institutional Context

10. Rapid urbanization and economic growth have increased the movement of goods and products. Between 2008 and 2012, China's freight movement measured in ton-kilometers grew annually by 9.4 percent, on par with GDP growth, reaching 17 trillion ton-kilometers in 2012. For Wuhan Municipal, road freight tonnage reached 224 million tons in 2011, with a 6.3 percent year-on-year growth. In response to the demands of the new urban economy and particularly the rapid growth of on-line shopping, new trends of urban freight and regional logistics are emerging: direct-to-consumer business delivery has risen exponentially, decreased size of inventories, growing demand for express and urgent deliveries, fragmentation of shipments, and a fast increase of home deliveries . The changing landscape of urban logistics, in reverse, also influences the business ecology. In general, consumer-goods manufacturers tend to be more open to logistics outsourcing, while retailer are more cautious fearing loss of control over procurement and distribution channels .

11. Inefficiency in logistics hinders economic growth and poverty alleviation. Road shipments dominate China's freight market. In 2012, the 41.2 billion tons of freight were moved by China's transport system, of which about 78 percent was transported by road. However, some estimates suggest that 40 percent of trucks run empty for intercity trips and that it takes on average 72 hours to unload and load a truck . Short-haul truckers frequently return home empty and long-haul truckers have to wait an excessive amount of time to get loads, seriously reducing operating efficiency. Total logistics cost stood at 18 percent of nominal GDP in 2012, compared to 8.5 percent in the US. Inventory management is also weak in China. In a survey conducted by China Reality Research in 2012 with 110 companies across 38 Chinese cities , inventory holding costs accounted for 35

percent of total logistics costs in 2012. And the utilization rate of warehouses is relatively low at 75 percent among sampled manufacturers. Improving the efficiency of logistics will not only lower the cost along the supply chain, but will also promote restructure and upgrade of industrial structure, adding employment to tertiary and service industry. As estimated by the China Federation of Logistics and Purchasing, every one percent of increase in added value of logistics industry will generate 100,000 new jobs.

12. Freight sector is also associated with significant environmental and social externalities. Energy consumptions, emissions and air pollution, as well as safety impacts come disproportionally from freight vehicles. Trucks (17 percent of total motor vehicle fleet in number) account for 54 percent of total transport sector fuel consumption in China. According to the Ministry of Environmental Protection, diesel burning vehicles emitted 90 percent of PM2.5, 70 percent of NOx and 30 percent of hydrocarbon (HC) in 2011. Heavy- and medium- duty freight vehicles only account for 7.7 percent of the total automobile fleet in 2011. However, together they account for 62.8 percent of NOx and 69.6 percent of PM2.5 emissions. Freight vehicles also impose higher risks to road safety than other vehicles. In 2010, freight vehicles accounted for 34 percent of accidents by motor vehicles, 46 percent of fatalities and 31 percent of injuries.

13. Reasons for inefficient and unsustainable freight operations are multifold. The lack of a well-developed logistics infrastructure is one of the key factors contributing to inefficiencies. While China has gained tremendously in mileage of transport infrastructure, the connectivity and integration between various transport modes has not received appropriate attention. Moreover, good warehousing is in short supply. Storage space per capita in China a mere 0.38 m2. As logistics is a network issue, the disparity of availability and quality of warehousing between coastal areas and inland China create barriers for manufacturers who are considering relocation to inland areas, as well as Third Party Providers (3PLs) who attempt to provide national services and to expand their business. Low level of IT technology applications is another contributing factor. Since most logistics operators in China are small and medium sized private enterprises, only 10 percent of the companies have integrated IT technology into their operations. Furthermore, only 30 percent of their customers can access the information system and visit the database of logistics service providers. On the sustainability side, market penetration of fuel saving and energy efficiency technologies are still in its infancy in China, due to the extremely fragmented nature of China’s trucking industry. Since reducing the operating cost is the most important concern for small businesses, investments for utilizing advanced technology and developing special logistics equipment are largely overlooked.

14. Both national and local governments are taking actions at planning level towards better logistics for economic growth. The State Council issued the “Logistics Industry Restructuring and Revitalization Plan” in 2009. A series of development plans were also introduced in 2010 targeting specific market segments including modern grain logistics, commercial logistics, and cold chain logistics of agricultural products. “Long-term Development Plan for the Logistics Industry Between 2012-2020” is also in the stage of final editing and expected to be introduced soon . At provincial level, Hubei Provincial Strategy and Planning Office (湖北省战略规划办公室) under Hubei DRC is preparing the “Suggestions on Expediting and Promoting Development of Wuhan Airport Economic Zone” (湖北省人民政府关于加快推进武汉临空经济区建设的若干意见), which makes strategic arrangements regarding positioning of several logistics parks within the WMR including the Xiaogan one.

15. Logistics parks play a key role in promoting efficient and sustainable logistics and the WMR needs demonstrations for best practices. Logistics parks are commonly seen to be a central function of logistics infrastructure; they are also recognized to be generators of business for a city or region . In an urban context logistics parks provide nodal functions ranging from interface between the trans-shipment of long-distance traffic to short-distance (urban) traffic, handling and storage of goods, the management of inventory, waste handling and removal, to home delivery services . From operational perspective logistics parks can play a pivotal role in the optimization of logistics operations, urban traffic reduction, encouraging modal shift, and multi-company consolidation within urban areas. Logistics parks also enhance regional economic development. On the one hand, they promote the agglomeration of businesses and transportation and logistics firms within a single site or area. On the other hand, it encourages cooperative relationships between firms as a result of this clustering. Moreover, as logistics parks spatially and functionally aggregate both public and private sector stakeholders, it is where commercial, environmental, and social interests can be balanced and optimized.

16. Holistic solution proposed. The proposed project therefore is a holistic solution addressing aforementioned challenges in urban logistics. Focusing on the rapid urbanization in the WMR and actual logistics needs, the project consists of a range of tailored infrastructure investments for freight operations and green freight improvements. The proposed Xiaogan Linkong Logistics Park meets many of the value added elements of logistic park infrastructure. Research has shown that they are: proximity to large cities; logistics infrastructure; park located in an Economic Zone; cheap labor availability, warehousing and custom clearance on site; and a logistics platform. Xiaogan has the potential to meet these requirements with the help of World Bank funding. In order to make logistics work three things are needed: information, technology and networks. These should ideally be provided through a mix of public and private partnerships with public funding and support for technology and information platforms and private sector involvement in freight consolidation centers, for example. Xiaogan can provide the public sector foundation for such a partnership.

Relationship to CAS

17. The proposed project is aligned with the 2013-2016 World Bank Group Country Partnership Strategy (CPS) for China. The 2013-2016 CPS focuses on three main pillars: support greener growth, promote more inclusive development, and advance mutually beneficial relations with the world. The CPS is aligned with China’s 12th Five-Year Plan, and the proposed project supports the two CPS strategic themes.

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19. The project will help support a green logistics approach (Pillar I) to accelerate the transformation of Xiaogan into a trade-oriented economic zone, relying on international green good practices (green freight technologies, dedicated freight lanes/corridors. The project will also be embedded in a green freight strategy for the region which would aim at improving fuel efficiency, reduce fossil fuel dependency, improve air quality and minimize carbon emissions while maintaining competitiveness and economic growth.

20. The project will also support more inclusive development (Pillar II) through a reduction of spatial and social disparities between rural and urban areas in Hubei province. The project will contribute to develop non-farming sources of revenues in the logistics sector while more effective logistics will increase the rural industry clusters competitiveness and enable them to provide job opportunities to the rural population. The proposed project, by targeting women through adequate logistics related vocational training, could also provide improved opportunities for women in the service sector in the region.

II. Proposed Development Objective(s)

Proposed Development Objective(s) (From PCN)

20. The PDO is to promote more efficient logistics in Xiaogan while mitigating environmental and social externalities from increased freight activities.

Key Results (From PCN)

21. The achievement of the PDO will be measured through these Key Performance Indicators (for discussion):

Indicator Name	Unit	Proxy for	Measured By
Time taken to load/unload, process paperwork	Hours	Efficiency of freight logistics	Interview surveys
Time utilization of vehicles over 48h period for different activities by commodity	%	Efficiency of freight logistics	% times freight
Empty running	% km	Success of logistics platform	Interview surveys
Empty veh-km	veh-km	Success of logistics platform	Interview surveys
Length of haul	km	Success of logistics platform	Interview surveys
Average load factors	tonne-km	Extent of empty running	tonne-km
Total volume of freight to/from Logistics Park	tonne	Success of location of Logistics Parks	OD survey
Total volume of freight handled	tonne	Efficiency of freight logistics	Tonnes lifted

Handling factor		Efficiency of freight logistics	No. of stages
	No. of stages		
Freight intensity		Freight activity	tonne-km
tonne-km			
Increase in road infrastructure		Economic growth	km of road built
	km		
Increased employment in the logistics sector		Addressing Twin Goals	No. of persons employed
	No. of persons disaggregated by gender and income level		in logistics sector
.			
Increased skillsets in the logistics sector		Addressing Twin Goals	
No. of persons trained		No. of persons	
Disaggregated by gender and income level			
Increased income levels of residents		Addressing Twin Goals	%
population raised	%		above
B40 incomes			
.			
Reduction in GHG		Environmental impacts	Screenline truck count.
	CO2 emissions in tonnes		
Reduction in truck veh-km		Environmental impacts	OD survey
Veh-km			

III. Preliminary Description

Concept Description

22. The project comprises a balance of infrastructure and technology investments to support Xiaogan's vision for a Logistics Park in the Airport Economic Zone (AEZ). These components include internal and external roads, a technology platform and facilities enabling a green freight strategy.

23. In this context, the Bank is considering financing the following components (C) and activities. The proposed Bank loan would amount to USD 100 million, and the proposed project cost would amount to USD 235 million:

- C.1 Logistics Park road infrastructure (USD 44.63 mln): This component could comprise five roads inside the Logistics Park for a total cost of USD 44.63 mln without contingencies. This component could be financed up to 10.8% by the World Bank loan (for an amount of USD 4.51 mln)

- C.2 Logistics Corridors to the Wuhan airport (USD 83.84 mln): This component could

include two corridors along the Chentian Avenue, connecting the Logistics Park to the cargo park of the Wuhan airport, plus a major road within the AEZ, for a total cost of USD 83.84 mln without contingencies. This component could be financed up to 70% by the World Bank loan (for an amount of USD 58.62 mln):

o C.2.1: The dedicated logistics express road in Xiaogan Logistics Park to the Wuhan airport (USD 23.28 mln)
o C.2.2: The passenger and freight Corridor along the Chentian Avenue connecting the cargo park of the airport to the Xiaogan airport road (USD 30.08 mln)
o C.2.3: Road running through the Logistics Park for a total cost of USD 30.48 mln without contingencies.

• C.3 Green Logistics Park development (USD 21.9 mln): This component could be financed up to 84.6% by the World Bank loan (for USD 18.52 mln):

o C.3.1 Traffic coordination and management system (USD 12.88 mln)
o C.3.2 Vehicle access system (USD 3.38 mln)
o C.3.3 Fostering Airport Economic Zone Green Architecture and Green Logistics Park Executive Committee (USD 5.64 mln)

• C.4 Public Service Platform for Logistics development (USD 24.15 mln): This component could be financed up to 76% by the World Bank loan (for an amount of USD 18.36 mln):

o C.4.1 Creation of a Xiaogan Logistics Park Observatory and Development Commission aiming at better monitoring data, OD, transport prices and volume trends, and improving projections and investments for the Xiaogan Logistics Park (USD 4.83 mln).
o C.4.2 Creation of a Supply Chain Excellence Training Center, which would set logistics standards, train local resources, and share supply chain best practices. The Center would also invest into vocational training to enhance the employability of women, through the involvement of the partnering logistics companies (USD 19.32 mln).

In addition to these four components, logistics park social supporting activities would be financed up to USD 60 mln: land acquisition for USD 22 mln, household compensation for USD 2 mln, and resettlement for USD 33 mln. These activities component would not be financed by the World Bank loan.

Public Disclosure Copy

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		×	
Projects on International Waterways OP/BP 7.50		×	
Projects in Disputed Areas OP/BP 7.60		×	

V. Financing (in USD Million)

Total Project Cost:	234.52	Total Bank Financing:	100.00
Financing Gap:	0.00		

Financing Source	Amount
Borrower	134.52
International Bank for Reconstruction and Development	100.00
Total	234.52

VI. Contact point

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