Board of Directors

FOR OFFICIAL USE ONLY

R113-16
24 October 2016

Proposed Loan
Chongqing Integrated Logistics Demonstration Project
(People's Republic of China)

1. The Report and Recommendation of the President (RRP: PRC 48024-002) on the proposed loan to the People's Republic of China for the Chongqing Integrated Logistics Demonstration Project is circulated herewith.

2. This Report and Recommendation should be read with *Country Operations Business Plan: People's Republic of China, 2016–2018*, which was circulated to the Board on 21 January 2016 (DOC.IN.23-16).

3. In the absence of any request for discussion and in the absence of a sufficient number of abstentions or oppositions (which should be communicated to The Secretary by the close of business on 14 November 2016, the recommendation in paragraph 41 of the paper will be deemed to have been approved, to be so recorded in the minutes of a subsequent Board meeting. Any notified abstentions or oppositions will also be recorded in the minutes.

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Report and Recommendation of the President to the Board of Directors

Project Number: 48024-002
October 2016

Proposed Loan
People's Republic of China: Chongqing Integrated Logistics Demonstration Project

Asian Development Bank

CURRENCY EQUIVALENTS

(as of 30 September 2016)

Currency unit	–	yuan (CNY)
CNY1.00	=	$0.1499
$1.00	=	CNY6.6695

ABBREVIATIONS

ADB	–	Asian Development Bank
CMG	–	Chongqing Municipal Government
CQTG	–	Chongqing Transportation Holding Group Company
EMP	–	environmental management plan
km	–	kilometer
LAR	–	land acquisition and resettlement
PAM	–	project administration manual
PMO	–	project management office
PRC	–	People's Republic of China
Ro-Ro	–	roll-on roll-off

NOTE

In this report, "$" refers to US dollars.

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Director General	A. Konishi, East Asia Department (EARD)
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Peer reviewer	R. Peri, Principal Transport Specialist, South Asia Department

CONTENTS

PROJECT AT A GLANCE

1. Basic Data

Project Number: 48024-002

Project Name	Chongqing Integrated Logistics Demonstration Project	**Department /Division**	EARD/EATC
Country	China, People's Republic of	**Executing Agency**	Chongqing Municipal Government
Borrower	People's Republic of China		

2. Sector

	Sector	Subsector(s)	ADB Financing ($ million)
✓	**Transport**	Multimodal logistics	140.10
		Water transport (non-urban)	9.90
		Total	**150.00**

3. Strategic Agenda

Strategic Agenda	Subcomponents
Inclusive economic growth (IEG)	Pillar 1: Economic opportunities, including jobs, created and expanded
Environmentally sustainable growth (ESG)	Global and regional transboundary environmental concerns
Regional integration (RCI)	Pillar 1: Cross-border infrastructure

Climate Change Information

Adaptation ($ million)	0.78
Climate Change impact on the Project	Medium

4. Drivers of Change

Drivers of Change	Components
Governance and capacity development (GCD)	Organizational development
Knowledge solutions (KNS)	Pilot-testing innovation and learning

Gender Equity and Mainstreaming

No gender elements (NGE) ✓

5. Poverty and SDG Targeting

Project directly targets poverty and SDGs: No

Location Impact

Rural	Low
Urban	High

6. Risk Categorization: Complex

7. Safeguard Categorization

Environment: B **Involuntary Resettlement:** A **Indigenous Peoples:** C

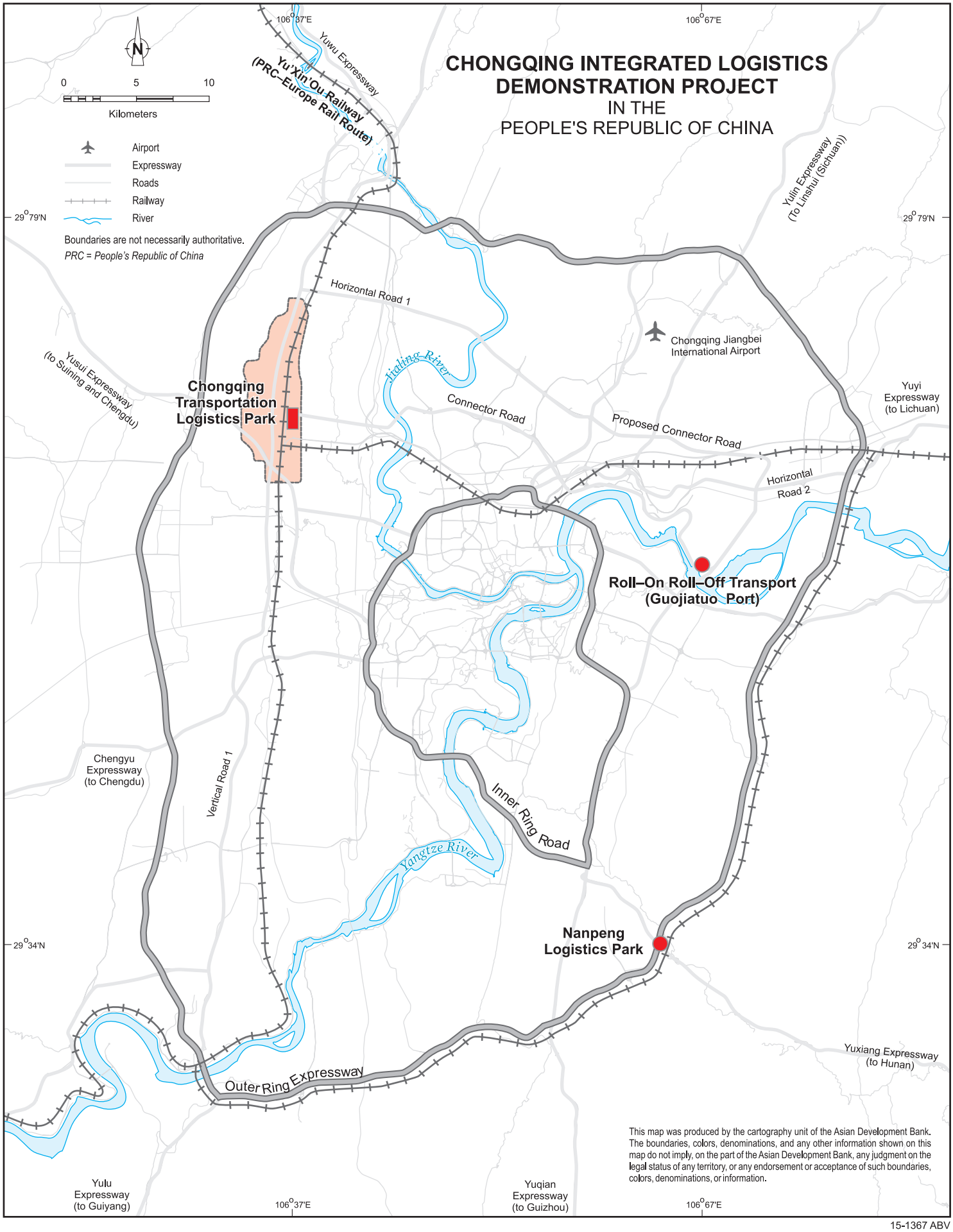
8. Financing

Modality and Sources	Amount ($ million)
ADB	**150.00**
Sovereign Project loan: Ordinary capital resources	150.00
Cofinancing	**0.00**
None	0.00
Counterpart	**277.79**
Government	277.79
Total	**427.79**

9. Effective Development Cooperation

Use of country procurement systems	No
Use of country public financial management systems	Yes

Source: Asian Development Bank


CHONGQING INTEGRATED LOGISTICS DEMONSTRATION PROJECT
IN THE
PEOPLE'S REPUBLIC OF CHINA
N
0
5
10
Kilometers
Airport
Expressway
Roads
Railway
River
Boundaries are not necessarily authoritative.
PRC = People's Republic of China
106°37'E
106°67'E
29°79'N
29°34'N
Yuwu Expressway
Yu'Xin'Ou Railway
(PRC–Europe Rail Route)
Yulin Expressway
(To Linshui (Sichuan))
Horizontal Road 1
Chongqing Jiangbei
International Airport
Yusui Expressway
(to Suining and Chengdu)
Chongqing
Transportation
Logistics Park
Jialing River
Connector Road
Proposed Connector Road
Yuyi
Expressway
(to Lichuan)
Horizontal
Road 2
Roll–On Roll–Off Transport
(Guojiatuo Port)
Chengyu
Expressway
(to Chengdu)
Vertical Road 1
Inner Ring Road
Yangtze River
Nanpeng
Logistics Park
Outer Ring Expressway
Yuxiang Expressway
(to Hunan)
Yulu
Expressway
(to Guiyang)
Yuqian
Expressway
(to Guizhou)
This map was produced by the cartography unit of the Asian Development Bank. The boundaries, colors, denominations, and any other information shown on this map do not imply, on the part of the Asian Development Bank, any judgment on the legal status of any territory, or any endorsement or acceptance of such boundaries, colors, denominations, or information.

15-1367 ABV

I. THE PROPOSAL

1. I submit for your approval the following report and recommendation on a proposed loan to the People's Republic of China (PRC) for the Chongqing Integrated Logistics Demonstration Project.[1]

2. The project will develop a modern and efficient multimodal logistics system in Chongqing. The outputs of the project will be (i) the Chongqing transportation logistics park, (ii) the Nanpeng logistics park, (iii) the Yangtze River inland waterway roll-on roll-off (Ro-Ro) operations, (iv) a logistics information system, and (v) institutional capacity building.[2]

II. THE PROJECT

A. Rationale

3. Chongqing is a major city along the upper reaches of the Yangtze River in southwest PRC, and one of the six national central cities.[3] Covering a total area of 82,400 square kilometers and with a population of 30 million, it is the largest directly administered municipality and comprises 19 districts, 15 counties, and 4 autonomous counties. It is an important industrial and commercial center and transport and logistics hub, with a railway network of 1,450 kilometers (km), which includes five trunk lines and two branch lines, an expressway network of 1,900 km with two ring roads and eight trunk expressways, and an inland waterway network with a freight traffic throughput of 145 million tons annually. Further development of the city as a regional transport and logistics hub will facilitate increased economic growth in the central and western region of the PRC, which remains underdeveloped compared with the eastern region.

4. The logistics sector in the PRC,[4] while stronger than many Asian countries, trails behind several developed nations. According to the World Bank's logistics performance index, the PRC has a global ranking of 27 (1 is the best and 160 is the worst).[5] The PRC's ranking indicates a potential for improvement. On 11 June 2014, the State Council approved a plan to develop the logistics industry. This reaffirms the government's continued emphasis on improving and reforming the logistics sector, which is expected to continue during the Thirteenth Five-Year Plan of the PRC.[6]

5. **Existing logistics constraints.** In 2015, Chongqing handled 1.1 billion tons of cargo at 24 locations within the inner city region and ring road in Chongqing. The movement of freight trucks in urban areas worsens traffic congestion, creates air pollution, and slows down the delivery time for goods. Moreover, most of these small logistics centers do not have enough parking spaces, resulting in large trucks being parked along the streets causing more traffic congestion. Since April 2014, the government has restricted the movement of big freight trucks in parts of the inner city during certain times of the day. These restrictions are expected to be further tightened to cope with growing traffic congestion. While this has provided some relief to

[1] The design and monitoring framework is in Appendix 1.
[2] The Asian Development Bank provided project preparatory technical assistance for the Chongqing Integrated Logistics Demonstration Project.
[3] The PRC's six national central cities are Beijing, Chengdu, Chongqing, Guangzhou, Shanghai, and Tianjin.
[4] The logistics sector is responsible for the management of the flow of goods between the point of origin and the point of consumption in order to meet the requirements of customers or corporations.
[5] World Bank. 2016. *International LPI Global Ranking.* Washington, DC.
[6] Government of the People's Republic of China, National Development and Reform Commission. 2015. *Outline of the Thirteenth Five-Year Plan for National Economic and Social Development of the People's Republic of China*. Beijing (adopted in 2016).

the traffic congestion problem, the trucks idle just outside the inner city for several hours before they are allowed to enter, thus contributing to considerable air pollution. There is also a risk that the supply of daily commodities used by local residents may be affected. The government plans to create the new logistics parks beyond the inner ring road as a long-term solution to these problems. The existing logistics centers in the inner city would gradually be consolidated and transferred to the new logistics parks. The new parks would combine all of the logistics functions in one location which will eliminate unnecessary freight movements. The parks will also integrate the various transport modes such as railways, highways and inland waterway resulting in the development of an efficient multimodal logistics system. These improvements will reduce logistics costs, which in turn may result in lower prices of consumer goods.

6. **International rail corridor.** In 2010, Chongqing launched a new transport initiative by developing the Chongqing–Xinjiang–Europe International Railway Corridor. The rail corridor is now fully operational and offers a faster way to transport freight from the PRC to Europe than by sea and at a fraction of the cost of air transport. This provides an attractive option for shippers of high-value cargo or moderately perishable cargo that cannot tolerate 40 days of transit time by sea or cannot afford the high cost of air transport. This corridor, with a total length of 11,200 km, takes 16 days from Chongqing to Duisburg, Germany through Belarus, Kazakhstan, Poland, and Russia. This new route is also called the “New Silk Road,” and is expected to become a major freight corridor. Growing traffic demand for this route needs matching logistics infrastructure to handle transshipments and related processes such as sorting, packaging, and storage.

7. **Inland water transport.** Chongqing is one of the most important inland ports in the PRC. The development of the Three Gorges Dam has increased the shipping capacity of the Yangtze River. The dam has made the river deeper and slower, allowing for easier navigation, especially upstream, for cargo and passenger vessels. The limiting factor for cargo, however, is the capacity of the ship lock across the 181 meter high dam. Presently, container ships have to wait for several days in order to pass the dam. To avoid delays, shippers unload goods upstream of the dam and often transfer goods to their final destination by road. The delays and costs of loading and unloading goods on vessels deter shippers from using inland waterway transport.

8. Ro-Ro is a mode of shipping that can reduce these disadvantages. It is designed to carry rolling cargo that does not require cranes for loading or off-loading. Loading and unloading can be made easier and faster as Ro-Ro ships are designed to allow wheeled cargo, such as trucks and trailers, to be driven on and off the ship on their own wheels. This reduces the labor, equipment, and time required in a port; lowers transport costs; and improves the quality of freight delivery service. The introduction of Ro-Ro ships will enable freight companies to use the inland waterway as a transport mode for moving their cargo. The Ro-Ro concept needs to be demonstrated successfully for it to be widely adopted by various shipping companies, including those in the private sector.

9. **Logistics information system.** The logistics information systems in the PRC are not fully developed. The existing systems provide information related to a single transport mode (e.g., tracking cargo moving on road transport), and there is little integration between different transport modes. Limited information is available in the public domain, making it difficult for transportation companies and freight forwarding companies to operate efficiently. Poor information-sharing creates a bottleneck for logistics and results in higher costs and delays. There is a need to develop an accessible information system that could be used by all the logistics centers and service providers. This will enable the logistics companies specializing in

one or more aspects of logistic operations to work seamlessly together in a more efficient and cost effective manner.

10. **Demonstration features.** The proposed project is the third urban development project in Chongqing. Lessons from past and ongoing projects[7] were incorporated in the project design, such as devolving more responsibilities to the implementing agency while strengthening its project management and financial management capacity. The proposed project will have demonstration features, namely integrated logistics parks, logistics information system, and inland waterway Ro-Ro operations. These features are all relatively new for logistics projects in the PRC, and their successful introduction through this project will offer opportunities for replication and scaling up. Integrated logistics functions and services in the new logistics parks will reduce wasteful freight movements. Logistics information services will enable logistics service providers, such as freight forwarding companies, to increase efficiency and reduce costs through better tracking and control over the supply chain. Ro-Ro operations will reduce the time and costs of transshipments, incentivizing freight movement on inland waterways.

11. The project is consistent with the plans of the Government of the PRC to develop the logistics sector and is in line with the Thirteenth Five-Year Plan (footnote 6). The project is also closely aligned with the government's priorities to develop the Yangtze River Economic Belt[8] and the Silk Road Economic Belt initiative.[9] The project's focus on logistics development is in line with the Sustainable Transport Initiative of the Asian Development Bank (ADB), which highlights logistics improvements as an important opportunity for sustainable transport operations.[10] The project also draws on the recommendations of the previous ADB study on logistics development in the PRC.[11]

B. Impact and Outcome

12. The impact of the project will be the improvement of logistics services in the Yangtze River Economic Belt and the Silk Road Economic Belt. The outcome of the project will be the demonstration of an efficient and integrated multimodal logistics system in Chongqing.

C. Outputs

13. **Output 1: Chongqing transportation logistics park developed.** This output will develop a park to handle the international freight movements. This will have three functional areas: (i) a roadway logistics hub,[12] (ii) a logistics financial exchange center,[13] and (iii) a road-rail intermodal logistics hub. This will be the major terminal for Chongqing, located at Tuanjiecun within the Shapingba district and at the starting point of the Chongqing–Xinjiang–Europe line. The completion of the logistics park will directly support and benefit the international rail corridor operations.

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[7] ADB. 2010. *Report and Recommendation of the President to the Board of Directors: Proposed Chongqing Urban–Rural Infrastructure Development Demonstration Project*. Manila; and ADB. 2013. *Report and Recommendation of the President to the Board of Directors: Proposed Chongqing Urban–Rural Infrastructure Development Demonstration II Project*. Manila.

[8] Eleven provinces and municipalities (including Chongqing) are included in the Yangtze River Economic Belt. The belt covers more than 2 million square kilometers, one-fifth of the country geographically.

[9] The Silk Road Economic Belt is also known as the Belt and Road Initiative. It is an economic development initiative of the Government of the PRC for integrating trade and investment in Eurasia.

[10] ADB. 2010. *Sustainable Transport Initiative Operational Plan.* Manila.

[11] ADB. 2012. *Transport Efficiency through Logistics Development.* Manila.

[12] This will house a number of logistics companies and an information system to facilitate logistics transactions.

[13] This facility will provide value-added financial services such as insurance, financing, and guarantees.

14. **Output 2: Nanpeng logistics park constructed.** This output will develop a park to cater to serve as the main distribution center for Chongqing city. This will have three functional zones: (i) a freight transfer area, (ii) a customs inspection staging area, and (iii) a free trade zone. This terminal will be located at Nanpeng in the Banan district.

15. **Output 3: Yangtze River inland waterway Ro-Ro transport demonstrated.** This output will (i) build energy efficient Ro-Ro ships (approximately 4,000 tons each), (ii) procure alternate energy (e.g., liquefied petroleum gas) tractors and trailers for the Ro-Ro operation, and (iii) establish a Ro-Ro logistics information system. The Ro-Ro operation will use the Guojiatuo Port in Chongqing and the Yinxingtuo Port in Yichang.

16. **Output 4: Logistics information system established**. This output will develop an information system that will (i) provide real time information on freight movements; (ii) facilitate interaction between freight forwarding companies and transporters; (iii) enable government clearances through an online platform; and (iv) logistics value-added services such as insurance. The logistics information system will serve as the integrated logistics information system for the entire city of Chongqing and as the platform for logistics information sharing, logistics operations, logistics trading, government clearances, and logistics financial services.

17. **Output 5: Institutional capacity strengthened**. This output will provide technical support for project implementation and training to improve the management capacity of the staff in the executing agency and the implementing agency and other related entities involved with logistics development and operations.

D. Investment and Financing Plans

18. The project is estimated to cost $427.79 million, including taxes and duties (Table 1).

Table 1: Project Investment Plan
($ million)

Item			Amount[a]
A.	**Base Cost**[b]		
	1.	Chongqing transportation logistics park	228.27
	2.	Nanpeng logistics park	102.22
	3.	Yangtze River inland waterway roll-on roll-off transport	20.47
	4.	Logistics information system	15.42
	5.	Institutional capacity building	2.00
		Subtotal (A)	**368.37**
B.	**Contingencies**[c]		**50.61**
C.	**Financing Charges During Implementation**[d]		**8.81**
		Total (A+B+C)	**427.79**

[a] Includes taxes and duties of $9.19 million to be financed from Asian Development Bank (ADB) loan resources. The following principles were followed in determining the amount of taxes and duties to be financed by ADB: (i) the amount is within reasonable country thresholds; (ii) the amount represents 2.5% of base cost, not an excessive share of the project investment plan; (iii) taxes and duties apply only to ADB-financed expenditures; and (iv) the financing of the taxes and duties is relevant to the success of the project.

[b] In mid-2015 prices.

[c] Physical contingencies computed at 8% for civil works and 8% for field research and development, training, surveys, and studies. Price contingencies computed based on cost escalation factors of 3.0% on local currency costs for 2016–2020, and 1.5% (2016), 1.4% (2017), and 1.5% (2018, 2019, and 2020) on foreign exchange costs.

[d] Includes interest and commitment charges. Interest during construction for the ADB loan has been computed at the 5-year United States dollar fixed swap rate plus a spread of 0.5% and additional 0.1% loan maturity premium. A commitment charge for an ADB loan is at 0.15% per year on the undisbursed loan amount.

Note: Numbers may not sum precisely because of rounding.

Source: Asian Development Bank estimates.

19. The government has requested a loan of $150 million from ADB's ordinary capital resources to help finance the project. The loan will follow the straight-line repayment method and have a 26-year term, including a grace period of 5 years, an annual interest rate determined in accordance with ADB's London interbank offered rate (LIBOR)-based lending facility, a commitment charge of 0.15% per year (the interest and commitment charges during construction to be capitalized in the loan), and such other terms and conditions set forth in the loan and project agreements. Based on the loan terms, the average loan maturity is 15.75 years, and the maturity premium payable to ADB is 0.10% per annum.

20. The loan will finance 35.06% of the project cost, including civil works, equipment and materials, and institutional strengthening (Table 2). The government will finance the remaining $277.79 million through counterpart funds provided by the Chongqing Transportation Holding Group Company (CQTG), a state-owned enterprise of the Chongqing Municipal Government (CMG).

21. The PRC is the borrower of the loan and will make the loan available through the CMG to the CQTG. The CQTG will assume the foreign exchange and interest variation risks of the ADB loan. The PRC, the CMG, and the CQTG have assured ADB that counterpart funding will be provided in a timely manner, including any additional counterpart funding required for any shortfall of funds or cost overruns. The indicative flow of funds and the onlending arrangements are specified in the project administration manual (PAM).[14]

Table 2: Financing Plan

Source	**Amount** ($ million)	**Share of Total** (%)
Asian Development Bank	150.00	35.06
CQTG	277.79	64.94
Total	**427.79**	**100.00**

CQTG = Chongqing Transportation Holding Group Company.
Source: Asian Development Bank estimates.

E. Implementation Arrangements

22. The CMG will be the executing agency of the project. The CQTG will be the implementing agency. A project management office (PMO) has been established under the Chongqing Development and Reform Commission to provide overall guidance, supervision, coordination, and management of project preparation and implementation. The Chongqing Municipal Finance Bureau will be responsible for (i) signing the onlending agreements for the project; (ii) informing ADB about the authorized staff with approved signatures for the disbursement of loan proceeds; (iii) operating the imprest account; (iv) processing and submitting to ADB, through the Ministry of Finance, any request, when required, for matters pertaining to loan or project agreements; (v) and monitoring project implementation and providing coordination and facilitation as needed.

23. The CQTG will be responsible for coordinating and implementing all project components.[15] The CQTG does not have any previous ADB or World Bank project experience, and the staff is not familiar with ADB procurement policies and procedures. The PMO established within the implementing agency will engage a tendering company to assist in procurement. Further support will be provided by engaging a consulting team under output 5 for

[14] Project Administration Manual (accessible from the list of linked documents in Appendix 2).
[15] Established in 2004, CQTG is a municipal government-owned enterprise with numbers of subsidiary companies.

guiding and training the staff in the implementing agency. A PMO has been established in the logistics division of the CQTG. Four project implementing units have been established within the subsidiary companies of the CQTG to implement four project outputs. The implementation arrangements are summarized in Table 3 and described in detail in the PAM (footnote 14).

Table 3: Implementation Arrangements

Aspects	**Arrangements**		
Implementation period	October 2016–September 2022		
Estimated completion date	30 September 2022 (loan closing date: 31 March 2023)		
Management			
(i) Oversight body	The CMG		
(ii) Executing agency	The CMG through the Chongqing Development and Reform Commission Project Management Office		
(iii) Key implementing agency	Chongqing Transportation Holding Group Company		
(iv) Implementation unit	PIU 1: Chongqing Transportation Logistics Company PIU 2: Chongqing Highway Transportation Company PIU 3: Chongqing Ship Company PIU 4: Chongqing Intelligent Logistics Development Company		
Procurement	International competitive bidding	1 contract	$2.53 million
	National competitive bidding	24 contracts[a]	$249.2 million
Consulting services	Quality- and cost-based selection	1 contract	$1.75 million
	Individual consultant selection	3 contracts	$250,000
Retroactive financing and/or advance contracting	Advanced contracting and retroactive financing will apply to two consulting services and two civil works contracts. Retroactive financing will finance up to $30 million of eligible expenditure (20% of the ADB loan) incurred prior to loan effectiveness but not earlier than 12 months before the loan agreement is signed.		
Disbursement	The loan proceeds will be disbursed in accordance with ADB's *Loan Disbursement Handbook* (2015, as amended from time to time) and detailed arrangements agreed upon between the government and ADB.		

ADB = Asian Development Bank, CMG = Chongqing Municipal Government, PIU = project implementation unit.
[a] The Chongqing transportation logistics park and the Nanpeng logistics park will be developed in phases to mitigate the risk of excessive supply and low usage rate of facilities. A procurement schedule has been developed accordingly.
Source: Asian Development Bank.

III. DUE DILIGENCE

A. Technical

24. Technical due diligence confirmed that the project is technically feasible, with technology choices based on efficient and proven designs of international logistics parks. The logistics parks will implement environmental management system certified under the International Organization for Standardization 14001. The logistics exchange center within the Chongqing transportation logistics park will conform to the Chongqing green building guidelines. A further detailed technical review conducted on green building certification, storm water management, and rain water re-use confirmed the adequacy of designs. The design of the project's inland waterway Ro-Ro transport output was also found to be appropriate as it reduces the freight handling time and improves operational efficiency. The corresponding port facilities needed to support the Ro-Ro operations have also been evaluated and confirmed to have adequate capacity. The capacity of the CMG is considered adequate to implement the project's advanced technical and sustainable transport aspects.

25. **Climate change risk.** An initial climate risk and vulnerability analysis study determined that there will be an increased risk of intensity and frequency of extreme storm events and

flooding as a result of climate change and a significant increase in temperature.[16] The capacity of storm-water drainage will be increased, and the logistics park designs have integrated a range of soft and hard-engineered measures to increase flood retention capacity. This includes permeable paving, artificial wetlands, and a roof storm-water collection and re-use system.

B. Economic and Financial

26. The project is economically viable, with an estimated economic internal rate of return of 17.7% and net present value of CNY967.4 million at a 12.0% discount rate. The estimate covered the four transport-related outputs for which the quantitative economic benefits could be estimated (excluding the institutional strengthening and capacity building component). The estimated costs include investment in civil works and equipment, land acquisition and resettlement, and operation and maintenance. The estimated benefits include savings in vehicle operating costs, travel time, accident costs, and reduction in carbon dioxide emissions for freight shifting from the road to inland waterway traffic. The sensitivity analysis of potential cost overruns and benefit reductions demonstrates that the project's economic viability is robust.[17]

27. The financial evaluation was carried out for the three revenue-generating components—the two logistics parks and the inland waterway Ro-Ro transport. The logistics information system component, aimed at serving overall transportation logistics, is not expected to recover costs in the foreseeable future, and no specific revenues have been estimated for the component. The rest of the components will generate revenues from rental, logistics operations, and transportation services, with pricing subject to government monitoring and intervention (e.g. subsidies) to some extent. The weighted average costs of capital of the three revenue-generating components are computed to be 3.4% for the Chongqing transportation logistics park, 3.5% for the Nanpeng logistics park, and 3.1% for the inland waterway Ro-Ro transport. The financial evaluation results in a financial internal rate of return of 8.4%, 10.2%, and 10.4% for the above revenue-generating components. Since these values are higher than the weighted average cost of capital for all three components, they are considered financially viable. The sensitivity analysis confirms the robustness of the financial viability of these components. The CQTG's financial performance was analyzed based on the consolidated audited financial statements during 2010–2014. The company has experienced strong growth at a compounded annual growth rate of 13% for revenues and 12% for total assets. While the passenger market is maturing, the CQTG is well-positioned to grow in the cargo and logistics business, capitalizing on Chongqing's strategic location as logistics center in the western region of the country. The financial projection indicates its long-term financial sustainability with reduced reliance on government subsidies given its expansion into nonsubsidized businesses.

C. Governance

28. All procurement to be financed under the ADB loan will be carried out in accordance with ADB Procurement Guidelines (2015, as amended from time to time). The relevant sections of ADB's Anticorruption Policy (1998, as amended to date) will be included in all procurement documents and contracts. ADB's Anticorruption Policy was explained to and discussed with the government, the executing agency, the implementing agency, and the PMO. Specific policy requirements and supplementary measures are described in the PAM (footnote 13). An assessment of financial management capacity indicates that the executing agency and the implementing agency carefully follow PRC policies and procedures for accounting and financial

[16] Project Climate Risk Assessment and Management (accessible from the list of linked documents in Appendix 2).
[17] Economic Analysis and Financial Analysis (accessible from the list of linked documents in Appendix 2).

management. While the financial management capacity is considered adequate, the implementing agency and the project implementation units are new to ADB project implementation. The overall financial management risk is assessed as moderate before mitigation measures. Training on procurement, disbursement, and financial management will be provided in advance and during project implementation.

D. Poverty and Social

29. A social and poverty analysis was conducted in accordance with ADB guidelines. Per capita gross domestic product in Chongqing is slightly higher (CNY47,859) than that of the PRC (CNY46,531), while 2.7% of the total population in the project area is under the minimum living standard security program. This project will directly benefit 2.92 million people living in the three project districts and indirectly benefit 8.19 million residents, and 8,412 logistics business companies with over 600,000 employees. The benefits of this project include (i) improved logistics facilities, operations, and management efficiency; (ii) assured commodity supplies used in the daily life of local residents; (iii) reduced costs of freight transport; (iv) improved transport safety and reduced congestion in urban areas; (v) reduced pollution and vehicle emissions in urban areas; and (vi) increased employment opportunities. The project will create 426 skilled and 5,400 unskilled jobs for both men and women in the logistics industry with additional opportunities during project facility construction.

E. Safeguards

30. **Environment.** The project is category B for environment. A consolidated initial environmental examination and an environmental management plan (EMP) that cover all project components have been prepared.[18] These documents comply with the PRC's regulatory requirements and ADB's Safeguard Policy Statement (2009) and have been disclosed on the ADB website.[19] Public consultations were carried out to inform the project design and environmental assessment process and will continue during project implementation. The EMP outlines potential impacts, mitigation and monitoring measures, institutional arrangements, training requirements, and an implementation budget of 0.2% of the total project budget. Capacity development and institutional strengthening will be provided to minimize environmental risks. Environmental complaints will be handled through a project safeguards grievance redress mechanism.

31. The project will demonstrate the synergistic benefits of an integrated eco-logistics approach to design and provide an international benchmark for industrial building development in the PRC. The logistics park layout, orientation, buildings, landscaping, mechanical, and electrical systems have been optimized to conserve energy, water, and materials; and to minimize the generation of pollutant and greenhouse gas emissions during the design, construction, and operation phases. These efficiencies are likely to result in significant cost savings for the operator.

32. The economic analysis demonstrates that the project will result in an approximate net reduction of 18,000 tons of carbon emissions per annum, as a result of improved efficiencies and the modal shift from road to inland waterways, although these savings may be offset by induced freight traffic and embodied carbon during construction. Total carbon emissions from

[18] Initial Environmental Examination including EMP (accessible from the list of linked documents in Appendix 2).
[19] ADB. Chongqing Integrated Logistics Demonstration Project: Initial Environmental Examination. http://www.adb.org/projects/documents/prc-chongqing-integrated-logistics-demo-project-dec-2015-iee.

the operation of the project are approximately 34,000 tons per annum when the project components are fully operational.

33. Anticipated adverse environmental impacts and risks are modest and can be limited to an acceptable level through EMP implementation and compliance with loan covenants. The main potential environmental impacts are noise, air pollution and greenhouse gas emissions, and disposal of solid waste. The closest residences are within 300 meters, and the Liangtan River is 2 km from the site. No other sensitive environmental receptors have been identified in the project area of influence.

34. **Involuntary Resettlement.** The project is category A for involuntary resettlement. A resettlement plan has been prepared for the Chongqing transportation logistics park component.[20] It will acquire a total of 675.13 *mu* of collective land that includes 433.15 of cultivable land, 40.26 *mu* of homestead land, 18.25 *mu* of garden land, 13.85 *mu* of forestry land, and 169.62 *mu* of waste land and construction land.[21] The house demolition will affect a total of 89 households. A total of 488 people (99 households) will be significantly affected by both land acquisition and house demolition. This includes the relocation of five enterprises, affecting 94 workers. The land acquisition and resettlement (LAR) impacts have been adequately assessed, and the appropriate mitigated measures are included in the resettlement plan. The LAR is expected to be completed prior to December 2017. The executing agency has adequate experience and staff resources in managing LAR impacts, and training was provided on ADB requirements during the project preparation. The cost of land acquisition and resettlement is CNY205 million. The executing agency assured ADB that adequate counterpart funding will be made available for LAR, in line with the annual funding requirements stipulated in the resettlement plan. The LAR unit of the implementing agency will work closely with the district officials for internal supervision and will engage an independent external monitor for semiannual monitoring and reporting. Meaningful consultations will continue throughout the project cycle as scheduled. A grievance redress mechanism has been established to facilitate the resolution of complaints regarding land acquisition and resettlement activities. The resettlement plan has been disclosed to the affected persons and published on the ADB website (footnote 22). If there are any changes, the resettlement plan will be revised and disclosed to affected persons.

35. In 2010, the Nanpeng logistics park component involved a total land acquisition of 356.84 *mu* of rural collective land, and house demolition affected 46 households. A total of 324 people from 92 households were affected by resettlement, including 157 people from 46 households affected by the land acquisition, and 167 people from 46 households affected by both the land acquisition and house demolition. The total cost was CNY47.18 million. The land acquisition and house demolition started on 5 May 2010, and payment of compensation was completed on 30 November 2011. Additional compensation payments for relocation to new apartments were provided on 30 December 2014. A due diligence report was prepared to confirm the procedures.[22] It includes some actions to address the remaining resettlement issues. This report has also been disclosed to the public.[23]

[20] Resettlement Plan: Chongqing Transportation Logistics Park (Output 1) (accessible from the list of linked documents in Appendix 2).
[21] A *mu* is a Chinese unit of measurement (1 mu = 667 square meters; 15 mu = 1 hectare).
[22] Resettlement Due Diligence Report for Nanpeng Logistics Park (accessible from the list of linked documents in Appendix 2).
[23] The due diligence report is accessible at http://www.adb.org/projects/documents/prc-chongqing-integrated-logistics-demonstration-project-nlp-rpddr.

36. **Indigenous peoples.** Indigenous peoples safeguard requirements are not triggered (category C) because no ethnic minorities will be affected by any project activities.

F. Risks and Mitigating Measures

37. The overall risk assessment is medium. The integrated benefits and impacts are expected to outweigh the costs. Major risks and mitigating measures are summarized in Table 4 and described in detail in the risk assessment and risk management plan.[24] The project design and implementation measures are considered adequate to address the identified risks.

Table 4: Summary of Risks and Mitigating Measures

Risks	Mitigating Measures
Delays in procurement due to lack of experience of the implementing agency	Implementation assistance consulting service and training on ADB's procurement and disbursement requirements will be provided.
Lack of continued government support for developing a public logistics information system	ADB will regularly monitor government support for the logistics information system during review missions

Source: Asian Development Bank.

IV. ASSURANCES AND CONDITIONS

38. The government and the CMG have assured ADB that the implementation of the project shall conform to all applicable ADB policies including those concerning anticorruption measures, safeguards, gender, procurement, consulting services, and disbursement as described in detail in the PAM and loan documents.

39. The government and the CMG have agreed with ADB on certain covenants for the project, which are set forth in the loan agreement and project agreement.

40. The disbursement from the loan account is conditional upon the government's certifying that the subsidiary loan agreement between the CMG and the CQTG has been duly executed and delivered.

V. RECOMMENDATION

41. I am satisfied that the proposed loan would comply with the Articles of Agreement of the Asian Development Bank (ADB) and recommend that the Board approve the loan of $150,000,000 to the People's Republic of China for the Chongqing Integrated Logistics Demonstration Project, from ADB's ordinary capital resources, with interest to be determined in accordance with ADB's London interbank offered rate (LIBOR)-based lending facility; for a term of 26 years, including a grace period of 5 years; and such other terms and conditions as are substantially in accordance with those set forth in the loan and project agreement presented to the Board.

Takehiko Nakao
President

21 October 2016

[24] Risk Assessment and Risk Management Plan (accessible from the list of linked documents in Appendix 2).

DESIGN AND MONITORING FRAMEWORK

Impact the Project is Aligned with Logistics services in the Yangtze River Economic Development Belt and Silk Road Economic Belt region improved (The National Logistics Centers Planning, 2009)[a]			
Design Summary	**Performance Targets and Indicators with Baselines**	**Data Sources and Reporting Mechanisms**	**Risks**
Outcome Efficient and integrated multimodal logistics system in Chongqing demonstrated	By 2025 a. Total freight amount increased by 50% or higher (2012 baseline: 1.1 billion tons) b. Total import and export value of Chongqing increased by 50% or higher (2012 baseline: $53.2 billion) c. 700 new jobs in the project logistic parks and Ro-Ro operation created during operation (2015 baseline: 0) d. Ro-Ro transport amount increased by 10% or higher in annual average (2014 baseline: 46,000 tons) e. Frequency of freight trains to Europe increased by 100% (2015 baseline: 20 times a month) f. CO_2 emissions from freight trucks and trailers reduced by 18,000 tons a year (2015 baseline: 0)[b]	a. Chongqing statistics yearbook (annual) b. Chongqing statistics yearbook (annual) c. Chongqing logistics sector annual reports d. Chongqing Ship Company annual reports e. Yu-Xin-Ou Company (rail operator) annual reports f. Chongqing logistics sector annual reports	Demand for logistics services is reduced due to slowdown in the PRC's economic growth
Outputs 1. Chongqing transportation logistics park developed	By 2022 1a. 24 buildings and facilities[b] built in Tuanjiecun (2015 baseline: 0) 1b. A logistics exchange center and office buildings built with the PRC Green Building and ISO 14001 standards (2015 baseline: NA) 1c. Operation equipment including 230 trucks and 180 forklifts acquired (2015 baseline: 0)	1a–1c. Quarterly report of the implementation support consultant	Delays in procurement due to lack of experience of the implementing agency Lack of continued government support for developing a public logistics information system

Design Summary	Performance Targets and Indicators with Baselines	Data Sources and Reporting Mechanisms	Risks
2. Nanpeng logistics park constructed	By 2022 2a. 7 buildings and facilities[c] built in Nanpeng City (2015 baseline 0) 2b. Operation equipment including 200 trucks and 60 forklifts acquired (2015 baseline: 0)	2a–2b. Quarterly report of the implementation support consultant	
3. Yangtze River inland waterway Ro-Ro transport demonstrated	By 2022 3a. Three Ro-Ro ships built (2015 baseline: 0) 3b. Ro-Ro logistics information system established (2015 baseline: NA)	3a–3b. Quarterly report of the implementation support consultant	
4. Logistics information system established	By 2022 4a. Logistics information sharing platform developed (2015 baseline: NA) 4b. Logistics trade service platform launched (2015 baseline: NA) 4c. Logistics governance service platform completed (2015 baseline: NA) 4d. Logistics value-added services introduced (2015 baseline: NA)	4a–4d. Quarterly report of the implementation support consultant	
5. Institutional capacity strengthened	By 2022 5a. More than 300 person-days of logistics management and services training provided (2015 baseline: 0) 5b. More than 200 person-days of project management and PPP training provided (2015 baseline: 0)	5a–5b. Quarterly report of the implementation support consultant	

Activities with Milestones

1. Chongqing transport logistics park

1.1. Conduct detailed design (Q3 2017)
1.2. Implement the resettlement plan (Q1 2017–Q4 2018)
1.3. Prepare bidding documents (Q3 2018 for the first package in Area C; Q3 2022 for the last package)
1.4. Obtain land use approval from the local authority (Q4 2016)
1.5. Select project start-up support and implementation support consultants (Q3 2018)
1.6. Award civil works contracts (Q3 2019 for the first package; Q4 2021 for the last package)

1.7. Implement and monitor EMP (Q2 2017–Q4 2022)
1.8. Complete civil works including building and facility construction (Q3 2019 for the first package; Q4 2022 for the last package)
1.9. Procure and install logistics operation equipment (Q1 2021 for the first package; Q1 2023 for the last package)

2. Nanpeng logistics park
2.1. Conduct detailed design (Q2 2017)
2.2. Implement measures set out in the resettlement due diligence report (Q1 2017–Q3 2017)
2.3. Prepare bidding documents (Q2 2018 for the first package; Q3 2018 for the last package)
2.4. Select project start-up support and implementation support consultants (Q3 2018)
2.5. Award civil works contracts (Q1 2019 for the first package; Q4 2019 for the last package)
2.6. Complete civil works including building and facility construction (Q1 2019 for the first package; Q1 2022 for the last package)
2.7. Procure and install logistics operation equipment (Q1 2019 for the first package; Q1 2022 for the last package)
2.8. Implement and monitor EMP (Q2 2017–Q4 2022)

3. Yangtze River inland waterway Ro-Ro transport
3.1. Conduct detailed design (Q4 2017)
3.2. Obtain approval from the Ministry of Transport on ship building (Q2 2017–Q4 2018)
3.3. Procure shipbuilding equipment (Q4 2019 for the first ship; Q4 2021 for the third ship)
3.4. Ro-Ro ship constructed (Q1 2020 for the first ship; Q1 2022 for the third ship)
3.5. Procure tractors and trailers (Q1 2020–Q1 2021)
3.6. Establish Ro-Ro logistics information systems (Q2 2019)
3.7. Implement and monitor EMP (Q2 2017–Q4 2022)

4. Logistics information system
4.1. Conduct detailed design (Q2 2017)
4.2. Prepare bidding documents (Q2 2018)
4.3. Award contracts (Q1 2019–Q2 2019; Q2 2020; Q3 2021)
4.4. Develop information system (Q1 2019–Q3 2022)
4.5. Complete system testing and trial operations (Q3 2022–Q1 2023)

5. Institutional capacity developed
5.1. Recruit project implementation support, start-up support, and safeguard external monitoring consultants (Q1 2018)
5.2. Provide project management support (Q4 2018–Q1 2023)
5.3. Provide PPP training (Q3 2019)
5.4. Provide training on logistics management and services (Q4 2019)

Inputs

ADB:	$150,000,000 (loan)
Government:	$277,790,000

Assumptions for Partner Financing

Not applicable.

ADB = Asian Development Bank; CO_2 = carbon dioxide; EMP = environmental management plan; ISO = International Organization for Standardization; NA = not applicable; Yu-Xin-Ou = Chongqing, Xinjiang, Europe; PPP = public–private partnership; PRC = People's Republic of China; Q = quarter; Ro-Ro = roll-on roll-off.

[a] Government of the People's Republic of China, Chongqing Municipal Government. 2009. *The National Logistics Centers Planning of Three Logistics Bases and Four Port Areas*. Chongqing.

[b] Comparison of with- and without-project cases for the user trucks and trailers of the project logistics parks, information systems, and Ro-Ro operation.

[c] Includes logistics trade center, office buildings, warehouses, driver homes, and repair shops.

Source: Asian Development Bank.

LIST OF LINKED DOCUMENTS

http://www.adb.org/Documents/RRPs/?id=48024-002-3

1. Loan Agreement
2. Project Agreement
3. Sector Assessment (Summary): Logistics
4. Project Administration Manual
5. Contribution to the ADB Results Framework
6. Development Coordination
7. Financial Analysis
8. Economic Analysis
9. Country Economic Indicators
10. Summary Poverty Reduction and Social Strategy
11. Initial Environmental Examination
12. Resettlement Plan: Chongqing Transportation Logistics Park (Output 1)
13. Risk Assessment and Risk Management Plan

Supplementary Documents

14. Resettlement Due Diligence Report for Nanpeng Logistics Park (Output 2)
15. Procurement Capacity Assessment
16. Financial Management Assessment
17. Project Climate Risk Assessment and Management