



## India: Jaipur Metro Rail Line 1-Phase B Project

Project Name	Jaipur Metro Rail Line 1-Phase B Project	
Project Number	46417-001	
Country	India	
Project Status	Active	
Project Type / Modality of Assistance	Loan	
Source of Funding / Amount	<b>Loan 3062-IND: Jaipur Metro Rail Line 1-Phase B Project</b>	
	Ordinary capital resources	US\$ 176.00 million
Strategic Agendas	Environmentally sustainable growth Inclusive economic growth	
Drivers of Change		
Sector / Subsector	<b>Transport</b> - Urban public transport	
Gender Equity and Mainstreaming	Some gender elements	
Description	<p>Jaipur, the capital of the Indian state of Rajasthan, is the 10th largest city and one of the fastest growing cities in India. It is a center of both traditional and modern industries, and is a very popular tourist destination for cultural heritage and historic architecture. The population of Jaipur city was 3.1 million in 2011, and it is projected to reach 8.1 million by 2031. The fast-paced industrial and commercial development has resulted in a steep rise in travel demand, but the city's existing public transport infrastructure is inadequate in terms of capacity and service. With the growing economy, passengers are shifting to private modes of transport, as evident in the rise in vehicle ownership, aggravating congestion and pollution. The modal share for public transport was 19% in 2009, one of the lowest in cities with more than 3 million inhabitants in India.</p> <p>In 2009, Jaipur Development Authority developed a comprehensive mobility plan, seeking to provide an overall transport plan, up to 2031, that emphasizes the preeminence of public transport for the movement of people, not just vehicles, and integrating land use with transport networks. It prioritized mobility corridors, which can be utilized to optimize movement of people, focusing on mass transport, rather than vehicular traffic; and identified solutions including bus fleet augmentation, bus rapid transit system, and a high-capacity rail-based system (metro). The city bus fleet has been augmented with modern buses and the bus rapid transit system is being introduced. However, the main road corridors cannot accommodate segregated bus lanes, while the city's radial development pattern is generating high demand for trips to and from the central business and commercial districts. To meet the increasing mobility requirement and avoid further congestion, high capacity metro lines were recommended along the city's two backbone arterial corridors. These consist of Line 1 for the east-west corridor of 12 km from Mansarovar to Badi Chopar, and Line 2 for the north-south corridor of 23 km from Ambabadi to Sitapura. The metro lines are mainly elevated along the major arterial roads and underground beneath the city's busy central zone.</p> <p>In January 2010, the government of Rajasthan established the Jaipur Metro Rail Corporation (JMRC) as a special purpose vehicle to implement the metro rail lines. Line 1-Phase A (9.7 km elevated portion from Mansarovar to Chandpole), estimated to cost about \$400 million and financed entirely by the government, was completed in 2014 and began commercial operation in June 2015. The proposed ADB loan is to help finance Line 1-Phase B, consisting of the 2.3 km underground portion from Chandpole to Badi Chopar, with two stations for completion and operation by early 2018. Line 2 for the north-south corridor is being planned, and the proposed financing includes consulting services for JMRC to update the detailed project report, which includes updating traffic demand, reviewing route selection, the preliminary engineering and cost estimate, and assessing economic and financial viability. It will help JMRC identify viable financing options and implementation arrangements to take the next steps toward achieving comprehensive improvements for the mass rapid transit system in Jaipur.</p>	

Project Rationale and Linkage to Country/Regional Strategy	The project is consistent with the country's development goal of achieving faster, more inclusive and sustainable growth. It is well aligned with the National Urban Transport Policy to address mobility challenges and improve the quality of life in the urban cities of India. The project supports initiatives undertaken by the state government, and it is harmonized within the Comprehensive Mobility Plan for Jaipur, ensuring integrated land use and coordinated urban transport planning. It will help ADB achieve its strategic objective in the transport sector_ to increase movement of people and goods in a more efficient, safe, and sustainable manner. The proposed ADB loan is included in the draft country operations business plan, 2013_2015.
Impact	Improved public transport in Jaipur

## Project Outcome

Description of Outcome	Improved mass rapid transit system in Jaipur
Progress Toward Outcome	The overall physical progress is delayed by about 12 months, mainly due to the extra care being taken for protection and safety of heritage sites, as well as the discovery of unchartered utilities in the old Pink city area and relocation of temples. The completion target in March 2018 remains viable.

## Implementation Progress

Description of Project Outputs	1. Line 1-Phase B built 2. Line 2 plans updated
Status of Implementation Progress (Outputs, Activities, and Issues)	1. The bidding for major system works (Electrical and Mechanical, Signaling & Telecoms) is ongoing and contract awards for most packages will be completed in 2017. 2. Evaluation of proposals of short listed consulting firms for planning Metro Line 2 is ongoing.
Geographical Location	

## Safeguard Categories

Environment	A
Involuntary Resettlement	C
Indigenous Peoples	C

## Summary of Environmental and Social Aspects

Environmental Aspects	<p>As Line 1-Phase B is an underground section, the key issues are anticipated to be vibration impacts on the heritage structures above ground, generation of large quantities of waste from the tunneling works, and occupational health and safety impacts. Measures to address these concerns have been taken through technical modifications in the structural design by referring to lessons from similar construction undertaken in the Delhi metro project, the requirement of continuous monitoring of heritage structures above ground, and strict compliance with the SHE guidelines and site-specific EMP and environmental monitoring plan. Consultations have been carried out, and stakeholder concerns have been addressed in the project design and EIA. Stakeholder concerns will continue to be addressed during construction through the grievance redress mechanism in the EIA. In accordance with the 120 days disclosure requirement of the Safeguard Policy Statement for environment category A projects, the draft EIA report was disclosed on the ADB website on 21 June 2013.</p> <p>JMRC has a system in place for executing safeguards during the implementation of Line 1-Phase A. This will be enhanced, with clear demarcation of responsibilities for the safeguards cell in JMRC, improving the grievance redress mechanism, and ensuring rigorous monitoring of the heritage sites. The safeguards cell will include a senior officer with two assistant officers responsible for social and environmental safeguards. The safeguards cell will be responsible for the overall coordination of compliance with environmental safeguard requirements under the project. The project management consultant assisting JMRC with construction supervision will include an environmental specialist and a heritage site expert to ensure compliance with the SHE guidelines and site-specific EMP and environmental monitoring plan. The contractors will have a health and safety officer on site, responsible for day-to-day compliance with the SHE guidelines and site-specific EMP and environmental monitoring plan. A coordination meeting, along with a training workshop to clarify roles and responsibilities and reporting requirements will be held before construction works begin. Quarterly monitoring reports will be prepared and submitted to ADB for disclosure on the ADB website.</p>
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Involuntary Resettlement	The project is classified category C in accordance with ADB's Safeguard Policy Statement (2009). The underground stations will be constructed by cut and cover with the top_down method. No private land acquisition is envisaged as the entry and exit structures are planned in public squares, which have sufficient unencumbered government land available. If any changes or additional land requirements or involuntary resettlement impacts are identified, a resettlement plan will be prepared in accordance with the Safeguard Policy Statement for ADB approval before award of the related civil works contract, and for implementation before commencement of the relevant section of the civil works, as applicable. Due diligence on land acquisition and resettlement was carried out for Line 1-Phase A (existing facility being completed), financed by the Government of India and the state government, to review the resettlement actions conducted by JMRC and whether any reputation risk was involved for ADB in financing Line 1-Phase B. The due diligence conducted for Line 1-Phase A suggests that adequate and appropriate compensation has been paid to the affected persons. In the majority of cases, mitigation measures included compensation, relocation, livelihood rehabilitation measures, and ensuring restoration of incomes of both titled and non-titled affected persons.
Indigenous Peoples	No impact on indigenous peoples is envisaged, as no physical or economic displacement will be required. Therefore, the project is classified category C. If any adverse impacts are identified during implementation, JMRC will ensure that the indigenous peoples plan is prepared in accordance with the Safeguard Policy Statement for ADB approval before award of the related civil works contract, and implemented before commencement of the relevant section of the civil works, as applicable.

### Stakeholder Communication, Participation, and Consultation

During Project Design	People from all the socio economic strata are meaningfully consulted during the design phase. Community meetings and focus group discussions will be organized as part of the poverty and social analysis. The local consultative meetings will involve all relevant stakeholders including representatives of the poor and other socially excluded groups (e.g., women, scheduled tribes, etc.) to disseminate the information as well as to get the feedback about the project design and its potential impacts. Other key stakeholders such as the relevant line departments, local government representatives and NGOs will also be consulted. Consultations will also be undertaken with the affected households and communities during the course of the census survey and socioeconomic survey along the project roads for the preparation of the safeguard plans.
During Project Implementation	Regular (weekly/biweekly) meetings are being held by JMRC and contractors with the local people and business associations in the project area. In addition to reports and information on the project being disclosed on their website, JMRC has a full-time Public relations Officer dealing with media/press issues and also maintains social media accounts for disclosing project information and responding to queries and concerns from the general public.

### Business Opportunities

Consulting Services	Metro rail planning, using quality-and cost-based selection with simplified technical proposals and a 90:10 proportion of quality to cost, as the nature of the assignment requires priority consideration for quality
Procurement	Direct contracting for signal, train control, and telecom, to ensure safety critical standardization and technical compatibility required for a single, continuous, and integrated railway system

### Responsible Staff

Responsible ADB Officer	Yeo, Kai Wei
Responsible ADB Department	South Asia Department
Responsible ADB Division	Transport and Communications Division, SARD
Executing Agencies	<i>Government of Rajasthan RAJFD@RAJASTHAN.GOV.IN Main Building, Secretariat, Jaipur-302 005, India Jaipur Metro Rail Corporation LTD. CMD.JMRC@GMAIL.COM Khanij Bhavan, Behind Udyog Bhavan, C-Scheme, Jaipur-302005 Urban Development Department PD_RUIDP@HOTMAIL.COM SSO Building Secretariat, Jaipur 302005, Rajasthan India</i>

### Timetable

Concept Clearance	03 Jun 2013
Fact Finding	27 May 2013 to 06 Jun 2013
MRM	15 Aug 2013
Approval	20 Nov 2013
Last Review Mission	-

**Loan 3062-IND**

Milestones					
Approval	Signing Date	Effectivity Date	Closing		
			Original	Revised	Actual
20 Nov 2013	29 May 2014	30 Jun 2014	30 Sep 2018	-	-

Financing Plan		Loan Utilization			
	Total (Amount in US\$ million)	Date	ADB	Others	Net Percentage
Project Cost	259.00	Cumulative Contract Awards			
ADB	176.00	20 Nov 2013	78.73	0.00	45%
Counterpart	83.00	Cumulative Disbursements			
Cofinancing	0.00	20 Nov 2013	45.30	0.00	26%

Project Page <https://www.adb.org/projects/46417-001/main>

Request for Information <http://www.adb.org/forms/request-information-form?subject=46417-001>

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