



Project Summary Information

Date of Document Preparation: March 30, 2023	
Project Name	Chennai Metro Rail Phase 2 Project – Balance Corridor 5
Document Code	PD000368-PSI-IND
AIIB member	Republic of India
Sector/Subsector	Transport / Urban Rail
Status of Financing	Approved
Project Description	<p>The project (Balance Corridor 5) spanning from Chennai Mofussil Bus Terminal (CMBT) to Okkiyam Thoraipakkam Metro Station, comprises the development of 24.04 kilometers with 23 elevated stations. The project will be co-financed in parallel by AIIB, ADB, and with counterpart funding by Government of Tamil Nadu (GoTN).</p> <p>The project components to be financed by AIIB (AIIB Supported Components) are: Component 1. Construction of an elevated viaduct of 12.431 km length, between CMBT (excluded) and Ullagaram Metro Station, including special spans and construction of 12 elevated stations. Component 2. Construction of an elevated viaduct of 11.61 km, between Ullagaram Metro Station (excluded) and Okkiyam Thoraipakkam Metro Station (excluded), including construction of 11 elevated stations.</p> <p>The remaining components and their financing sources are as follows: Component 3 by ADB. The electrical and mechanical works, traction and power supply, telecommunication. Component 4 by GoTN. The general consultant, signaling, lift and escalators, permanent way, platform screen doors, and others including overall state tax and the cost of land acquisition.</p>
Objective	To increase transport capacity and improve efficiency of northwest-south connectivity in the Chennai Metropolitan Area by expanding the Chennai metro system.
Expected Results	<ul style="list-style-type: none"> (i) 661,000 daily passengers on the corridor. (ii) Reduced journey time along the corridor. (iii) Additional employment generated, of which at least 30 percent are women. (iv) 2 project stations fully operated by women.

	<p>(v) All stations incorporate gender-friendly and universal accessibility features.</p> <p>(vi) 50 Chennai Metro Rail Limited's (CMRL) staff trained on gender-sensitive transport project design and implementation.</p> <p>(vii) 75 percent of female passengers satisfied with station facilities and services.</p> <p>(viii) Indian Green Building Council platinum rating for elevated stations.</p> <p>(ix) Climate adaptation/resilience measures incorporated into the project design.</p>
Environmental and Social Category	Category A
Environmental and Social Information	<p>Applicable Environmental and Social Policy. The Project will be governed by different ES policies, depending on which parallel co-financier is financing the project component. AIIB's 2022 Environmental and Social Policy (ESP), including the Environment and Social Standards (ESSs) and the Environmental and Social Exclusion List will apply to the AIIB Supported Components of the project. ESS 1 (Environmental and Social Assessment and Management) is applicable, as project activities are likely to have environmental and social risks and impacts during the construction and operation phases and ESS 2 (Land Acquisition and Involuntary Resettlement) is applicable, as temporary impact on livelihoods and land acquisition is involved.</p> <p>Categorization and Instruments. The components of the project have been screened and reviewed in accordance with the ESP and ESSs and classified as Category A. The Environmental and Social (ES) documentation has been prepared following adoption of a harmonized approach among AIIB and ADB. An Environmental Impact Assessment (EIA) has been prepared as part of CMRL's Detailed Project Report (DPR) and has been updated in accordance with the requirements of the ESP. A Social Impact Assessment / Resettlement Plan (SIA/RP) has also been prepared to fully assess the anticipated significant social impacts and to address issues of physical and economic displacement. The EIA and SIA/RP will cover the AIIB Supported Components as well as the ADB Supported Component. Associated facilities assessed as part of the EIA include, in addition to the ADB Supported Components, the sections financed by JICA (Madhavaram to CMBT) and electrical facilities such as substations to be supplied by the Tamil Nadu Generation and Distribution Corporation Limited.</p> <p>Environmental Aspects. The project is expected to reduce automotive exhaust emissions and serve growing travel demand. Construction-related environmental impacts are temporary and typical of metro rail construction. The main residual negative impacts of BC5 include fugitive and point source dust emission, noise from construction and operation, disposal of large quantities of construction waste and occupational and community health and safety, which are mainly temporary and localized and can be managed by implementing the EMP and good international industry practice. Sensitive receptors in respect of noise and vibration along the corridor have been identified. An EMP, with institutional arrangements, budgetary</p>

provisions and a schedule for its implementation and monitoring, has been prepared, including mitigation measures, occupational health and safety provisions, labor camp and construction site management and traffic and public utility management to address all impacts during project pre-construction, construction and operation.

Climate Change Risks and Opportunities. The project design considers climate change effects of anticipated continuous increase in ambient temperature, intensity of cyclones and storm surge, heavy precipitation events and sea-level rise. The project alignment involves elevated sections, hence, flooding risks will be limited. Green building features are incorporated into station design, which will include rainwater harvesting, solar energy panels at elevated stations and energy-efficient air-conditioning and lighting. Passive lighting to provide adequate daylight will be included through fenestration design. Waste will be efficiently segregated and recycled.

Social Aspects. Land is required for the project along the corridor for viaducts, for stations and for parking lots. The requirement is predominantly linear in nature with small land parcels, frontages of structures. The land is being acquired following RP, cleared by AIIB. Permanent land acquisition is carried out mainly through negotiation and a few land parcels are acquired through Act implementation. Use rights below viaducts are acquired through MoU process, wherein the land is continued to be owned by the respective owners while CMRL acquires the rights to access the land parcels below viaducts to undertake maintenance activities. Through this process CMRL has been successful in significantly reducing the permanent land acquisition and resulting impacts. As of Mar 2023, 95% of the land required for the project is acquired by CMRL while the remaining process is likely to be completed by May 2023.

Gender and Inclusion Aspects. The project will increase the ease and safety of travel of women commuters and thereby, increase access to markets, employment, education and health services. The project aims to promote female employment at the operations stage and has set a target of 30 percent of jobs for women. The potential impact of the AIIB-supported components on women in the community has been assessed in the SIA, and CMRL has prepared a GAP in close coordination with AIIB and other MDBs for the entire Phase II of the Chennai Metro program.

Project-level Grievance Redress Mechanism. A multi-tier Project-level Grievance Redress Mechanism (GRM) has been constituted for the overall project in line with the requirements of AIIB and ADB, building on the existing complaint mechanisms within CMRL. Communities and individuals including project contracted workers who believe that they are adversely affected by the Project will be able to submit complaints to the project-level GRM for their resolution. GRM has

	<p>already been established at the contractor level for worker grievances. Information of established GRM as well as Project-affected Peoples Mechanism (PPM) in local understandable language will be timely disclosed in an appropriate manner.</p> <p>Stakeholder Engagement, Consultation, Information Disclosure and Monitoring. During EIA and SIA/RP preparation, CMRL consulted affected people such as traders, women, people living in quarters, kiosk owners and other vulnerable groups. The consultations will continue during project implementation. The English versions of EIA and SIA/RP and the Tamil version of the Executive Summaries of the EIA and SIA/RP have been disclosed on CMRL's¹ and AIIB's websites and made available in hard copies in the Project area. CMRL will be responsible for overall coordination, supervision and monitoring of the project's compliance with E&S matters. CMRL will prepare regular E&S monitoring reports and submit to AIIB for review. AIIB will conduct periodic onsite supervision missions.</p>				
Cost and Financing Plan	Project Cost and Financing Plan (USD million, rounded)				
	Component	Project Cost	Financing		
			AIIB	ADB	GoTN
	Component 1. Construction of elevated viaduct of 12.431 km length, between CMBT (excluded) and Puzhuthivakkam Metro Station including special spans and construction of 12 elevated stations	240.21	240.21	-	-
Component 2. Construction of elevated viaduct of 11.61 km, between Puzhuthivakkam Metro Station (excluded) and Sholinganallur Metro	197.44	197.44	-	-	

¹ https://chennaietrorail.org/wp-content/uploads/2021/11/Balance-Corridor-5_EIA_March-2021.pdf
<https://chennaietrorail.org/wp-content/uploads/2021/11/Executive-summary-Balance-Corridor-5-Tamil1.pdf>
<https://chennaietrorail.org/wp-content/uploads/2021/11/Executive-summary-Balance-Corridor-5-English1.pdf>
<https://chennaietrorail.org/wp-content/uploads/2018/07/Approved-Social-Impact-Assessment-Resettlement-Plan-Corridor-5.pdf>

	station (excluded), including construction of 11 elevated stations				
	Component 3. Electrical and Mechanical Works, Traction and Power supply, Telecommunication.	121.78	-	121.78	-
	Component 4. Signaling, Lift and Escalators, Permanent way, Platform screen Doors, GC and other components including overall state tax.	259.63	-	-	259.63
	Land Acquisition and resettlement	178.94	-	-	178.94
	Front-end Fee	1.10	1.10		
	Total Cost	999.10	438.75	121.78	438.57
	Note: *Contingencies are already embedded in project costs. Any additional contingencies will be covered by the GoTN.				
Borrower	Republic of India				
Implementing Entity	Chennai Metro Rail Limited (CMRL)				
Estimated date of loan closing (SBF)	December 31, 2026				
Contact Points:	AIIB	Borrower		Implementation Organization	
Name	Wenyu Gu	Prasanna V. Salian		Mr. M.A. Siddique	
Title	Project Team Leader and Senior Transport Specialist	Director, Department of Economic Affairs, Ministry of Finance		Managing Director Chennai Metro Rail Limited	
Email Address	wenyu.gu@aiib.org	pv.salian@nic.in		md.cmrl@tn.gov.in	

Date of Concept Decision	April 07, 2020
Date of Appraisal Decision	December 20, 2021
Date of Financing Approval	April 19, 2023

Independent Accountability Mechanism	<p>AIIB's Policy on the Project-affected Peoples Mechanism (PPM) applies to this Project. The PPM has been established by AIIB to provide an opportunity for an independent and impartial review of submissions from Project-affected people who believe they have been or are likely to be adversely affected by AIIB's failure to implement the ESP in situations when their concerns cannot be addressed satisfactorily through the project-level GRM or the processes of AIIB's Management. Submissions to the PPM under the activities financed by ADB will not be eligible for consideration by the PPM and such complaints will be handled by ADB's IAM. Information on AIIB's PPM is available at: https://www.aiib.org/en/about-aiib/who-we-are/project-affected-peoples-mechanism/how-we-assist-you/index.html</p>
---	--