

Project Summary Information (PSI)

Project No: 000038

Project Name	Bangalore Metro Rail Project – Line R6
Country	Republic of India
Sector	Transport/Urban Rail
Project No	000038
Borrower	Republic of India
Implementation Agency	Bangalore Metro Rail Corporation Limited (BMRCL)
Environmental and Social Category	Category A
Date of PSI prepared or updated	July 03, 2017
Estimated Date of Board Consideration	September 2017
Concept Decision	Approved

I. Introduction

India is a fast growing and large developing economy, averaging around 7 percent growth per annum in the past few years. Its Gross Domestic Product (GDP) was US\$2.051 trillion in 2015, with a per capita GDP of around US\$1,584. Urban Indians now form about one-third of the population and they produce more than three-fifths of India's GDP. It is estimated that by the year 2050, fifty percent of Indians will be living in the cities¹. However, infrastructure remains a key constraint to economic growth and urban development.

Bangalore is the capital city and the economic center of the State of Karnataka; it has been regarded as a fast-growing metropolis in India. Bangalore is also known as the Silicon Valley of India and is the major contributor to India's software growth story. As per the Census in 2011, Bangalore is the third most populated city in India and has a population of 9.6 million. It followed behind Mumbai and Delhi in terms of population of a city in India. The population growth in Bangalore in a decade during 2001-2011 was 47.18% and during 1991- 2001 was 35.09%, making it one of the top cities in India for population growth.

The supply of public transport has not kept pace with travel demand and high dependency and high growth of personal transport has exacerbated the traffic situation in Bangalore. This pattern has led to consistent traffic jams in the city of Bangalore causing great economic loss to the Silicon Valley of India. The average travel time via public transport compared with private transport in Bangalore has also been long as a result of lesser supply of public transport, higher number of private vehicles and more traffic congestion. The increase in personal vehicles for transportation has also caused severe air pollution and noise in Bangalore. As per the Karnataka State Pollution Control Board, transportation is the prominent source of air pollution in Bangalore.

Bangalore Metro Rail Corporation Limited (BMRCL) was established as a joint venture company of Government of India (GOI) and Government of the State of Karnataka (GOK), with equal holdings, to undertake the task of developing Metro in Bangalore. BMRCL was formed under the Companies Act, 1956 on 12 September, 2005. BMRCL plans the new metro lines and operates and maintains the existing metro lines (Bangalore Metro Phase I) complying with the National Urban Transport Policy formulated by the Ministry of Urban Development, GOI.

To enhance coverage of Bangalore Metro system and to extend the Metro system to other important areas of Bangalore per the Comprehensive Traffic and Transport Plan prepared in 2011, the Phase II project was

¹ Country Profile: India, Population Division, Department of Economic and Social Affairs, United Nations

approved by GOK in 2012 and subsequently by GOI in 2014. The Phase II project covers a total length of approximately 73 kilometers with 61 stations (49 elevated and 12 underground). This project includes four extension lines to the Phase I project and two new lines. The Project to be financed by the Bank is one of the new lines, the so-called Reach 6, which runs north to south across the center of the city and connects some of its most important nodes of development.

The European Investment Bank (EIB) will be the lead financier of the Project and will play a leading role in procurement, disbursements, environmental and social compliance, and project monitoring and reporting for the Project. For further Project details, please see the following EIB's website:

<http://www.eib.org/projects/pipelines/pipeline/20160816>

II. Project Objectives and Expected Results

The objective of the Project is to provide environmentally friendly, safe and high-capacity North-South connectivity along the Central and Eastern parts of Bangalore city through a modern metro system. The primary beneficiaries are the commuters that travel along the corridor, and the secondary beneficiaries are the residents and commercial establishments situated along the corridor. The expected results of the Project are improvement of the overall mobility of urban population and further economic growth through better connectivity.

III. Project Description

The Line R6 to be supported by the Project runs from Gottigere to Nagavara in Bangalore and the length of the proposed corridor is approximately 23 km with 6 elevated stations and 12 underground stations. The Project consists of three components.

- (i) **Civil Works:** The component consists of the following subcomponents:
 - (a) constructing 8.5 km elevated metro line with 6 elevated stations
 - (b) constructing 14.5 km underground metro line with 12 underground stations
- (ii) **Depot:** The component consists of constructing a maintenance depot for the corridor at Kothnur and a stabling yard at Nagavara and installation of E&M.
- (iii) **Tunnel Ventilation System and Environment Control System**

IV. Environmental and Social Category

The Bank has decided to use the EIB's Statement of Environmental Principles and Standards 2009 (Statement) since (i) it is consistent with the Bank's Articles of Agreement and materially consistent with the provisions of the Bank's Environmental and Social Policy and relevant Environmental and Social Standards; and (ii) the monitoring procedures that EIB has in place to ascertain compliance with its Statement are appropriate for the Project. The Bank has placed the Project in Category A. The EIA notification (2006) of the Ministry of Environment and Forest, GoI exempts metro rails from applying for environmental clearance. However, the BMRCL has voluntarily carried out an Environmental Impact Assessment (EIA) in line with EIB standards and prepared an EIA report including Environmental Management Plan (EMP) consistent with national requirements.

The Project will require the acquisition of about 50 ha of land and will entail both permanent and temporary involuntary resettlement of some households and businesses. Approximately 700 people are expected to be affected. The Project will cause some temporary road traffic disruption and result in noise and dust associated with excavation and construction activities. Mitigation measures are addressed in the EMP.

A Resettlement Policy Framework (RPF) has been prepared to address the involuntary resettlement under the Project. The RPF has been subject to consultation with Project Affected Persons and disclosed, in English and local language, on the following BMRCL website:

<http://www.bmrc.co.in/pdf/land/draft%20R&Rpolicy2017-18.pdf>

Resettlement Action Plans (RAP), consistent with the RPF, will be prepared concurrently with detailed designs. In order to implement and monitor RAPs effectively, a Social and Environmental Management Unit (SEMU) will be constituted in the BMRCL.

A Project-level grievance redress mechanism is included in the Project design to assist affected people to resolve their queries and complaints. A Grievance Redressal Committee (GRC) has been established for the Project. Grievances will be brought first to the attention of field-level staff of the BMRCL.

An EIA for the entire metro was prepared and approved by EIB and the Government. The EIA document is available on the following EIB's website:

<http://www.eib.org/projects/pipelines/pipeline/20160816>

V. Estimated Project Cost and Financing Plan (in US\$ million)

Total Project Cost:	1,783	Total AIIB Financing:	338
Loans/Credits/Others		Amount	
Borrower			882
AIIB			338
EIB			563
Total			1,783

VI. Implementation

The Project will be implemented by the BMRCL.

The procurement will be conducted in accordance with the EIB's 'Guidelines for Procurement' (GfP) as applied to 'Operations outside the European Union'. The GfP is materially consistent with both the Bank's Articles of Agreement and the Bank's Procurement Policy.

Expected project implementation period (Start Date and End Date): August 2017 – December 2021

Contact Points

Asian Infrastructure Investment Bank (AIIB):

Mr. Soon-Sik Lee
 Project Team Leader/Senior Investment Operations Specialist
 Tel: +86 10 8358 0078
 E-Mail: soonsik.lee@aiib.org

European Investment Bank:

Mr. Zoltán Donáth
 Senior Sector Engineer
 Tel: +352 4379 8 2798
 E-Mail: z.donath@eib.org

Borrower:

Mr. Bhaskar Dasgupta

Director (MI)

Department of Economic Affairs, Ministry of Finance, Republic of India

Tel: +91 11 2309 2883

E-Mail: bhaskar.dasgupta@nic.in

Implementation Agency:

Mr. S. Vasudevan

Chief Finance Officer

BMRCCL

Tel: +91 80 2296 9325

E-Mail: vasudevan@bmrc.co.in