

## Environmental and Social Data Sheet

### Overview

Project Name:	LUCKNOW METRO RAIL PROJECT
Project Number:	20140329
Country:	India
Project Description:	The project entails the construction of a 23 km metro line and purchase of a fleet of 80 metro cars in Lucknow, Uttar Pradesh, in northern India.
EIA required:	No
Project included in Carbon Footprint Exercise <sup>1</sup> :	No

### Summary of Environmental and Social Assessment, including key issues and overall conclusion and recommendation

If located in the EU, the project would fall under Annex II of EIA Directive 2011/92/EU, in which case it would be subject to screening by the Competent Authority who would decide whether an EIA procedure is required or not. In accordance with Indian national legislation - the EIA Notification, 2006 - metro rail projects do not require an environmental procedure and related clearance from the national Ministry of Environment and Forest (MOEF). Nevertheless, the Promoter has voluntarily carried out an Environmental and Social Impact Assessment (ESIA) in line with EIB standards and prepared an EIA report consistent with the requirements of the EIA Notification, 2006. The final EIA report will be submitted to the State EIA Authority for information and disclosed locally and on the EIB website.

The residual negative environmental impacts are modest and localised and are more than offset by the project's positive environmental benefits.

The project entails some limited involuntary resettlement of approximately 110 households for which a Resettlement Policy Framework (RPF) has been prepared by the Promoter.

The Promoter will be required to implement the project in line with an agreed Environmental Management Plan, Stakeholder Engagement Plan, and section specific Resettlement Action Plans to be agreed with the EIB, the latter consistent with the agreed RPF. Subject to this undertaking, the project is acceptable from an environmental and social perspective.

### Environmental and Social Assessment

#### Environmental Assessment

As per provisions of the EIA Notification dated September 2006, as amended, any new project or the expansion or modernization of any existing industry or project listed in Schedule I of the notification shall submit an application for clearance to the Ministry of Environment and Forests (MOEF), Government of India. Since metro rail projects are not included in Schedule I of the Notification, the project does not require an environmental clearance certificate from the MOEF nor a related EIA procedure. This conclusion was confirmed in writing by MOEF in September 2013 for this specific project.

During the earlier planning stages of the project, the feasibility of several metro corridors was considered by the relevant local authorities based on traffic and engineering studies. The criteria for selecting the now proposed corridor, as included in a Comprehensive Mobility Plan 2010, included traffic demand/ridership, accessibility and integration with existing public

<sup>1</sup> Only projects that meet the scope of the Pilot Exercise, as defined in the EIB draft Carbon Footprint Methodologies, are included, provided estimated emissions exceed the methodology thresholds: above 100,000 tons CO<sub>2</sub>e/year absolute (gross) or 20,000 tons CO<sub>2</sub>e/year relative (net) – both increases and savings.

transport nodes, available right of way within major roads, ground conditions, capital and operating costs, availability of land for the depot and stations as well as minimum disturbance/avoidance of heritage structures. The selected alignment mainly follows the central median of major road arteries in the city whilst in the most densely populated central area the alignment is underground. Station locations have been selected to maximise ridership and ease intermodal connections.

The main residual negative environmental impacts of the project include: (i) cutting down of about 1,200 trees; (ii) finite use of scarce, sometimes carbon intensive, materials, (e.g. about 150,000 tonnes of cement); (v) noise, vibration and visual intrusion for properties adjacent to the alignment; and (iii) generation of about 2.1 million m<sup>3</sup> of waste material excavated from the proposed tunnel in the middle of the city. All other negative impacts are temporary and localised. There is no impact on natural habitats.

The main mitigants proposed are as follows: (i) compensatory reforestation in line with local rules; (ii) various energy saving measures such as regenerative braking and use of solar panels; (iii) noise reduction measures (i.e. rubber dampers on the rails and use of a U girder for the elevated part of the alignment which acts in part as a noise barrier); (iv) disposal of waste in a regulated manner; and (v) monitoring of potential impacts of vibration.

The main positive environmental impacts of the project, resulting from reduced private vehicle use include: reduction in local polluting air emissions, road noise and vibration; road safety improvements; and a modest reduction in greenhouse gas emissions.

### **Social Assessment**

The main adverse social impact is related to involuntary resettlement. The project entails the acquisition of about 6ha of private land affecting about 110 households, the rest being in public ownership. A complete assessment of land acquisition and resettlement will be known once the design and census of affected households for all sections is completed. However, it is estimated that 10 families will be affected in the priority section of 8.5 km and approximately 100 families in the remaining section of the North-South corridor. All attempts will be made during the final execution of the project to minimize land acquisition, resettlement and adverse impacts on people in the project area through careful localised engineering design. Experience with the first 8.5 km section currently under construction suggests that such redesign can significantly reduce the number of affected households.

The Promoter has accordingly prepared a Resettlement Policy Framework (RPF) consistent with EIB requirements. A Resettlement Action Plan (RAP), consistent with the RPF, is in place for a first 8.5 km long section and is currently being implemented. A second RAP consistent with EIB requirements shall be prepared and submitted for approval for the balance of the corridor. To avoid any disproportionate negative environmental and/or livelihood impacts on vulnerable groups, identified vulnerable households will receive additional financial and in-kind assistance.

In addition to private commercial and residential buildings, there are some common property assets such as religious structures and local utilities that may be affected due to the proposed alignment. The unavoidable loss of such assets will be compensated through replacement elsewhere or a suitable financial mechanism.

Other potential social risks arising due to the project are: (i) poor application of relevant labour standards related to employee working conditions during construction and operation; and (ii) poor occupational and community health and safety during construction. These will be addressed primarily through the inclusion of contractual obligations for the first tier suppliers and contractors.

### **Implementation**

The Promoter will be responsible for overseeing and ensuring implementation of an Environmental and Social Management Plan through an environmental management team that will be established and headed by an Executive Engineer.

### **Public Consultation and Stakeholder Engagement**

The Promoter has performed several rounds of administrative consultation as well as several rounds of public consultation during the preparation of the various ESIA reports during 2010 and in 2015. The issues raised by the public included construction related disturbances such as noise and traffic control, tree cutting and resettlement all of which are being addressed by the Promoter.

The EIA report, along with a non-technical summary in Hindi and English, will be made public on the Promoter's website, suitable local offices, and a period of time allowed for interested parties to comment.

The Promoter has prepared a Stakeholder Engagement Plan that will outline future stakeholder engagement activities and guide their roll-out. It will: identify and prioritise key stakeholder groups, such as project affected persons, local authorities, local business, public transport/auto operators; describe the requirements and timetable for consultation and disclosure throughout the project cycle; describe related resources and responsibilities, and; describe how stakeholder engagement activities will feed into the promoter's environmental and social management system.