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Public

Environmental and Social Data Sheet

Overview

Project Name:	*KANPUR METRO PROJECT*
Project Number:	*20190849*
Country:	*India*
Project Description:	*The project is the construction and operation of an urban metro rail transit system in Kanpur totalling to 32.4 km with 30 stations in the largest industrial city of Uttar Pradesh, India. The project includes the development of two metro rail corridors with elevated sections (altogether 19.4 km with 18 stations) and underground sections (altogether 13 km with 12 stations) as well as acquisition of rolling stock.*

EIA required: no

Project included in Carbon Footprint Exercise[1]: yes

(details for projects included are provided in section: "EIB Carbon Footprint Exercise")

Environmental and Social Assessment

Environmental Assessment

This project appraisal has been undertaken without an appraisal mission due to the COVID-19 pandemic crisis. The project is consistent with the Kanpur City Development Plan (2006) that was subject to consultation of stakeholders and the Comprehensive Mobility Plan (2017) that was also subject to consultation including public workshops.

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 which would decide whether an EIA procedure is required or not. As per provisions of the Indian EIA Notification dated September 2006, 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, Forests and Climate Change (MOEFCC), 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.

Nevertheless, on request of EIB, the Promoter has voluntarily carried out an Environmental Impact Assessment (EIA) in line with EIB standards and prepared an EIA report consistent with the requirements of the EIA Notification, 2006. The EIA report has been approved by the Promoter and disclosed locally as part of the Final Detailed Project Report (DPR) dated on December 2017.

[1] Only projects that meet the scope of the Carbon Footprint Exercise, as defined in the EIB Carbon Footprint Methodologies, are included, provided estimated emissions exceed the methodology thresholds: 20,000 tonnes CO2e/year absolute (gross) or 20,000 tonnes CO2e/year relative (net) – both increases and savings.

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The EIA covers all elements of the project, which is a major element of the first phase of the staged construction of a longer network of metro lines in the city. The project concerns the construction of two new metro lines, Corridor 1 (IIT Kanpur to Naubasta) and Corridor 2 (Agricultural University to Barra 8), together with the necessary metro fleet. Roughly, 13 km of the lines and 12 stations will be underground and the balance 19.4 km of the line and 18 stations are elevated. Maintenance depots are to be constructed near Polytechnic College (of area about 16.2 ha approx.) for which land have already been acquired and Agriculture University (of area about 12.0 ha approx.).

The main residual negative environmental impacts of the project include: (i) permanent conversion of open lands to depots and metro corridors; (ii) cutting down of about 1,450 trees; (iii) finite use of scarce, sometimes carbon intensive, materials, such as cement; and (iv) noise, vibration and visual intrusion for properties adjacent to the alignment. Other negative impacts are temporary and localised. According to the ESIA, the project does not impact any nature conservation areas or national parks.

The main mitigants proposed are as follows: (i) compensatory reforestation in line with national legislation; (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); and (iv) reuse of excavated material where feasible and disposal to waste in a regulated manner.

Environmental measures are documented in an Environmental Management Plan (EMP) and as appropriate, have been and will be included as part of the works contract conditions. The mitigation measures are deemed sufficient in line with international and national best practices. Potential settlement of buildings situated above the tunnels will be monitored and adequate insurance cover put in place to compensate or address potential damage, if any.

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 compared to a situation without building the metro.

The project has low climate risk, as there are no major natural hazards due to climate change foreseen that might affect the project. It is envisaged that the climatic conditions prevailing at Kanpur with respect to precipitation, floods, temperature, humidity, winds etc., would not pose any major risk to the proposed metro system. Nevertheless, structural adaptation measures are integrated in project's design, such as considering severe impact of water table and highest flood level or platform level of stations, etc.

EIB Carbon Footprint Exercise

With the project, the annual emissions in a standard year of operation were estimated at 43.5 kT CO2 equivalent per year (absolute emissions). Without the project, namely with the current mode split between private vehicles and buses, the annual emissions were estimated at 54.5 kT equivalent per year (baseline emissions).

Therefore, the emissions savings for the project in a standard year of operation were estimated to be approximately (-) 11 kT of CO2 equivalent per year, a reduction of 20%.

These calculations are based on the current country grid[2]. As the carbon footprint of the Indian grid will improve, it is expected that so will the CO2 performance of the metro. In addition, the Promoter is planning to install solar panels on the depots and stations roof, which could further reduce the carbon footprint of the project.

For the annual accounting purposes of the EIB Carbon Footprint, the project emissions will be prorated according to the EIB lending amount signed in that year, as a proportion of project cost.

Social Assessment

Based on the Social Impact Assessment (SIA) report prepared in 2015, the main adverse social impact is related to involuntary resettlement. The project proposes to acquire of about 97.86 ha. of land for the project out of which 0.75 ha is private land and 97.11 ha government land. Total affected families are estimated to be 458 with total project affected people to be 2178. Corridor 2 has more residential structures (209) likely to be affected compared to Corridor 1 (18), while Corridor 1 has more families whose commercial properties (138) are likely to be affected. Further, a slum is located on Corridor 2, where 208 residential structures will be impacted mostly non-titleholders.

A complete assessment of resettlement impact will be known once the project corridors' design and subsequently the census of affected households for all corridors are completed. However, all attempts have been made to minimize the impact of land acquisition, resettlement and adverse impacts on the livelihood of affected people by making use of careful local engineering in the design.

The promoter is finalizing a Resettlement Policy Framework (RPF) consistent with EIB requirements. A draft RPF has been subject to consultation with Project Affected Persons. The Promoter shall disclose the final RPF before contract signature.

A Resettlement Action Plan (RAP) will be prepared consistent with EIB requirements. This RAP iwill be prepared in consultation with all project-affected persons and will be disclosed on the website of the Promoter and EIB. The RAP is to be implemented in a manner consistent with the handover of site to works contractors.

For the RAP, corridor wise detail measurement survey will be carried out and cut-off date will be declared with the start of census and with adequate public dissemination. To avoid any disproportionate negative environmental and/or livelihood impacts on vulnerable groups, identified vulnerable households will receive additional financial and in-kind assistance. Special attention will be given to the non-titleholders in Corridor 2.

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, which will be enforced by the Promoter's supervision team and external supervision in environmental, health &safety and social matters.

[2] EIB Methodologies for the Assessment of Project GHG Emissions and Emission Variations, Table A1.3 Country Specific Emissions Factors, December 2018

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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 EIA reports during 2015. As part of the DPR, the public raised issues including 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, as part of the DPR along with a non-technical summary has been made public on the Promoter's website.

Furthermore, prior first disbursement, the Promoter will prepare a Stakeholder Engagement Plan that will outline future stakeholder engagement activities and guide their rollout. It will identify and prioritise key stakeholder groups, such as project-affected persons, local authorities, local business, public transport/auto operators.

Other Environmental and Social Aspects

The Promoter will be responsible for overseeing and ensuring implementation of an Environmental and Social Management Plan (EMP) and RAP(s). For this, the promoter has already established an Environment and Social Safeguard Unit headed by the Director of Works & Infrastructure.

The Promoter and the General Consultant shall provide sufficient qualified environmental and social staff within their organisations with gained experience working with MDBs on other metro projects in India. An independent monitoring and evaluation consultant will be commissioned, who will periodically monitor and report on delivery of the EMP and RAP as well as perform a mid and end of term evaluation of RAP implementation.

Gender impact

As Metro is a form of mass rapid transit system and number of women are increasing in the workforce in every Indian city, this project is expected to have a strong positive impact for female travellers in terms of security and safety and therefore encourage ridership among female travellers. This can be seen as being especially beneficial for poorer female travellers, for whom other more expensive means of transport are less accessible, and for whom the metro therefore opens new opportunities in terms of access to education and employment.

The Promoter has agreed to establish a framework for Gender Action Policy with a quantitative target for Gender employment of women during project construction and operation.

Conclusions and Recommendations

The EIB will condition its loan disbursements on:

1. Before signature, the promoter will provide to the satisfaction of the Bank a copy of final RPF.
2. Before first disbursement, the promoter will provide to the satisfaction of the Bank, copies of the RAP for Corridor 1 (IIT Kanpur to Naubasta) and Corridor 2 (Agricultural University to Barra 8).
3. Before first disbursement, the promoter will provide to the satisfaction of the Bank a copy of Stakeholder Engagement Plan.

4. Before any disbursement: the promoter will ensure that the project implementation team includes environmental and social experts to implement the EMP and RAP.

In addition, the Bank will seek commitments from the Promoter to: (i) ensure that the EMP and relevant Bank's social and environmental standards are included in the tender documents of the main work contracts; (ii) implement the project in accordance with the agreed EMP, RPF and RAP; (iii) report regularly on the status of RAP and EMP implementation; (iv) ensure that no eviction happens before the entitlement matrix is approved and PAPs, including informal, are compensated in accordance to the approved matrix; (v) comply with Bank's social and environmental standards and will monitor and report on its implementation regularly, to the Bank's satisfaction; (vi) present mid and end of term evaluation of RAP(s) implementation prepared by a third party; and (vii) prepare a Gender Action Policy with a quantitative target for Gender employment of women during project construction and operation.

Subject to the above mentioned environmental and social conditions being met, the overall residual environmental and social impacts of the Project are expected to be acceptable.