Luxembourg, 21 October 2014

Environmental and Social Data Sheet

Overview

Project Name:	LAKSAM AKHAURA DOUBLE TRACK RAIL PROJECT
Project Number:	2013-0588
Country:	Bangladesh
Project Description:	Construction of a second track and upgrading of the existing track on the 72 km section between Laksam and Akhaura in eastern central Bangladesh, forming part of the Trans-Asian Railway network.
EIA required:	Yes
Project included in Carbon Footprint Exercise[1]:	Yes

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 I of the Environmental Impact Assessment (EIA) Directive 2011/92/EC, and would be subject to a full EIA procedure. In accordance with domestic legal requirements, the project also requires a full EIA. Therefore, the promoter has undertaken an EIA procedure over the period 2012-2014, consulting affected parties at key stages in the assessment. The final EIA report has been prepared and submitted to the Competent Authority for approval. The EIA has been disclosed locally and on the EIB website.

The main residual negative environmental and social impacts of the project include: (i) permanent conversion of about 60 ha of largely agricultural land; (ii) cutting down of about 57,000 trees; (iii) involuntary resettlement of about 2,200 households and 60 common property assets; and (iv) use of about 2.2 million m^3 of material for the construction of embankment and track. All other negative impacts are temporary and localised.

The main mitigants include: (i) good design to reduce final landtake and impact on adjacent properties; (ii) compensatory replantation of about 165,000 trees; (iii) compensation to all affected persons in line with an agreed Resettlement Plan (RP); (iv) relocation of common property assets in consultation with affected communities; and (v) enforcement of good construction management practices to reduce and avoid temporary negative social and environmental impacts during construction. All impacts, mitigation and monitoring requirements have been defined in an Environmental Management Plan which, inter alia, will be contractually binding on the works contractor and enforced through independent supervision. The project also has some positive residual impacts in terms of reductions, in aggregate, of local and global emissions and noise as well as in relation to transport system safety. Access to rail services for persons with reduced mobility will also be improved.

The Bank will make any loan conditional on the granting of an Environmental Clearance Certificate by the Competent Authority for the Environment, Promoter's approval of the RP acceptable to the Bank, the full establishment of the Promoter's implementation arrangements and on the subsequent timely implementation of the agreed RP and Environmental Management Plan (EMP). Under these circumstances, the project is considered acceptable for Bank financing from an environmental and social perspective.

[1] 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 CO2e/year absolute (gross) or 20,000 tons CO2e/year relative (net) – both increases and savings.

Environmental and Social Assessment

Environmental Assessment

The project entails double tracking of a 72 km rail line, reconstruction of 11 stations and a few hundred metres of access roads to stations in eastern Bangladesh. The new rail line will be built parallel to and within 6 metres of the existing rail line which has been in operation for more than 100 years. The assessment has identified that the land use in the project area is mainly agricultural with no significant environmental features or protected areas nearby. New bridges, replacing the existing structures, will be needed at the Dakatia River, the Gumti River (proposed length 175 m), Gumti Spill, Sidai Khal and Howrah River (proposed bridge length 104 m), plus another 8 bridges with lengths between 20 m and 70 m. The construction work is expected to start in mid-2015 and will require four to five years to complete. The second line will be placed into operation in 2019.

In accordance with the requirements of the Department of Environment (DoE), Ministry of Environment and Forests, Government of Bangladesh, the project is classified as a "red category" project and requires a full EIA. The 69 types of projects listed as red category in the Environmental Conservation Rules 1997 includes engineering works where the capital investment is more than 1 million taka and construction of bridges longer than 100 m. The project investment is more than 1 million taka and includes bridges longer than 100 m; hence the project is a red category project. With the prepared EIA, the Project will have met all domestic environmental requirements. Public participation/consultation during the EIA process is not a condition in the Act, the ECR 1997, or EIA Guidelines. However, such public participation is mandatory under the Lenders' requirements. Therefore a full public consultation programme has been included in the environmental assessment process.

The Asian Development Bank (ADB), as the co-financier, requires an Initial Environmental Examination (IEE), in accordance with its Safeguard Policy Statement. To avoid duplication and potential confusion during implementation, one EIA report has been prepared to meet the statutory requirements of the Borrower as well as the policy commitments of the ADB and EIB.

In addition to the main adverse impacts identified above, the project poses the following temporary environmental risks during construction.

- The proposed second track will require the placement of about 2.2 million m^3 of sand, earth, brick and embankment and ballast material. Around 40% of these materials will be transported to the Project by truck while the rest will be dredged from rivers and conveyed to the alignment directly. The 840,000 m^3 of materials transported by truck will require more than 56,000 truck-trips using the existing road network. This will provoke noise and local disturbance on haul roads.
- Potential problems may arise at the larger bridge crossings where materials may fall into the river or the crossing width may be constricted, resulting in flow blockage and erosion.
- There will be additional noise, dust and vibration due to the use of mechanical equipment.
- An estimated 2,500-2,900 people will work on this Project at any one time and most of them will be housed in approximately nine work camps. Social and environmental risks can arise from poor housekeeping by the works contractor at labour camps and construction sites.
- There may be unexpected damage to vegetation and community assets adjacent to poor construction techniques at the project site or haul roads, construction camps and pre-fabrication yards.
- There will be extraction of water from local sources, competing with other users, and potentially contamination of resulting from poor construction management

All impacts, mitigation measures and monitoring requirements have been defined in an Environmental Management Plan, included in the EIA and organized into three components: pre-construction, construction and operations. Most of the preconstruction and operating

period measures will be implemented by the promoter, while the construction period measures (including the relocation of utilities and tree plantation to replace felled trees during alignment construction and toward protecting built embankment) will be the contractor's responsibility, and enforced by the Engineer and overseen by the promoter. The supervision Engineer and the Lenders will monitor that the EMP is implemented properly and in a timely manner.

According to the EIA, none of Bangladesh's endangered species and indeed much wildlife were identified in the Project construction corridor during several field surveys. Key potential impacts on flora and fauna will be: (i) the clearing of 57,000 trees and associated understory vegetation, (ii) reduction in available habitat (60 ha), (iii) possible dredging activities potentially impacting on aquatic habitats within the Gumti and other rivers, (iv) accidental release of wastes or hazardous substances impacting on aquatic and terrestrial habitats or siltation of aquatic or terrestrial habitats due to earthworks or dredging activities. The trees were enumerated on both sides of the proposed new alignment, proposed station building areas, and new station access roads. The EMP includes appropriate mitigation measures for the mentioned impacts, including a Tree Plantation and Replacement Programme, under which at least three times of the actual fallen trees will be planted. Therefore, a total of 165,000 trees will be planted at post construction stage of the Project.

The EIA concluded that the climate risk for the project is negligible. The drainage from upstream has been accounted for by using as basis for the hydrological modelling, the rainfall statistic over the past 20 years, thus incorporating climate change effects, and plotting future trajectories. The bridge design engineers feel confident that climate risk has been accommodated, and the promoter does not need any further changes to bridge and culvert designs.

The following are the main positive environmental impacts of the project: (i) modal shift, particularly of freight, resulting in reductions, in aggregate, in local and global air emissions as well as noise (see carbon footprint below); (ii) safety benefits in aggregate from modal shift from road to rail; and (iii) construction of environment friendly rail stations, including solar panel system, rainwater harvesting systems and improved station facilities and accessibility for physically challenged persons.

EIB Carbon Footprint Exercise

The project is included on the following basis:

- Forecast absolute (gross) third party emissions are 62,000 tonnes of CO2 equivalent per average operating year; and
- Forecast emissions savings are 64,000 tonnes of CO2 equivalent per average operating year.

The project boundaries, consistent with the approach adopted for the cost benefit analysis are:

- In the absolute case, the section of railway line between Dhaka and Chittagong, totalling 321 km;
- In the baseline case, both (i) the section of railway line between Dhaka and Chittagong, totalling 321 km; and (ii) the road network between the same cities, totalling 260 km.

The forecasts in the baseline and absolute cases are based on Services' standard assumptions about the workload of rail services (freight and passenger trains only) and fuel efficiency of rail operations. In the baseline case, a portion of emissions from cars, buses and trucks is included, equivalent to those passenger or freight trips expected to shift from road to rail in the "with project" case.

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.

These forecasts may differ from those of the Promoter due to different assumptions, boundaries and baselines.

Social Assessment

Potential adverse social impacts associated with construction and operation of the project relate to: (i) land acquisition and associated economic and physical displacement; (ii) lack of enforcement of labour standards; and (iii) poor management of the workplace and community health and safety. The EMP includes appropriate mitigation measures for the latter two.

The proposed project will cause displacement of both titled and non-titled residential households, commercial properties and affect 56 common property resources (CPRs) such as community schools, mosques, club house and 3 physical cultural resources (PCRs) – for example, mazar sharif (shrine) and moth (age-old Bhuddist temple). The doubling of the track will require a total of 303 ha of land. Of this, 58 ha will require new acquisition while the remaining land (245 ha) is in the promoter's ownership; nevertheless requiring the resettlement of the households and business currently residing on the land. In total, there are 2,180 households/units with a total population of 10,408 persons in the Project impact area, out of which 1,460 households will require physical relocation while 720 households will be economically affected. About 48% of the land to be acquired is agricultural land; the larger portions of the remaining land are used as pond (21.5%) and homestead (16.2%) land.

A Resettlement Plan (RP) has been prepared by the promoter in accordance with national legislation and the Lenders' standards. This is to be adopted by the Ministry of Railways prior to the commencement of works. The RP covers compensation and resettlement assistance to all affected households experiencing a complete or partial loss of land, structures, trees, crops, and other assets. The RP approach incorporates: (i) land acquisition and resettlement aspects; (ii) impact mitigation with special attention to the women and vulnerable groups and (iii) income generating support to the members of the displaced households by involving them in poverty reduction and livelihood restoration programs. An adequate grievance redress system is to be established.

In addition, 75 level crossings have been identified along the rail including 15 authorized and 60 unauthorized level crossings, which present a public safety risk. Out of 60 unauthorized, 10 will be formalized. Warning signs and gate lights will be installed and warning bell will be operated by approaching train. Warning sign and disclaimers will be posted at all unauthorized crossing areas.

In addition, a Gender Action Plan has been prepared for the project to include equitable and gender sensitive measures in the project design, e.g. appropriate facilities for both genders in the train stations.

Public Consultation and Stakeholder Engagement, where required

During the EIA process, public consultation was completed in two phases at four locations along the corridor. One-on-one as well as group discussions were held to record the perception of the proposed work by the local communities and to seek their support, cooperation with suggestions on how to reduce any potential impacts to the community, the local landscape, agriculture, and the environment. A detailed land use map was prepared including the locations of environmental sampling and other major features of this project, and was used during the consultation sessions. After the final draft EIA report has been submitted to DoE for its final review, the promoter made the copies of the draft available on its website and at the local upazila offices for 21 days for final comments from the public.

As part of development of the RP, stakeholder consultation meetings were held during (i) social surveys (e.g., census, SES, land market survey, and video filming), followed by formal community-wide Stakeholder Consultation Meeting, and (ii) Focus Group Discussions. Overall, the promoter reports that local stakeholders have a positive attitude towards the Project as it will enhance faster transportation and establish improved connection with other parts of the country and neighbouring countries. Concerns raised at the meetings regarding timely and adequate compensation and resettlement assistance which have been duly addressed in the preparation of the RP.

The Project disclosure brochure will be prepared in Bangla and shared with the affected communities prior to project implementation. Upon the final approvals by the Lenders and the Ministry of Railways, the RP will also be uploaded on the Lenders and promoter's websites.

Other Environmental and Social Aspects

The Bangladesh Railway (BR) under the Ministry of Railways (MoR), is the promoter of this Project. The promoter's Project Implementation Unit (PIU) for the implementation of the Project will include an Environmental and Social Safeguards Unit (ESSU) with major functions of overseeing the implementation of the EMP and the environmental clauses contained in the construction contract. The ESSU will be working alone during the pre-construction and operating periods and with the Engineer during the construction period.

The PIU will include an internal resettlement unit (RU) and hire an external NGO to assist the RP implementation in terms of disbursement of compensation and resettlement benefits to Project Affected Persons (PAPs) involving livelihood restoration, and gender equity management. The promoter will ensure land acquisition with assistance from Deputy Commissioners of the two affected districts of Districts of Brahmanbaria and Comilla. Finally, the Ministry of Railways will form various teams/committees such as Property Valuation Advisory Committee (PVAC), and Grievance Redress Committee (GRC) with representatives of various stakeholders, including PAPs, for ensuring their participation and upholding the interest of vulnerable PAPs.

The promoter will also set up a Monitoring and Evaluation (M&E) system for collecting and analysing information on RP implementation in a systematic and continuous process and for identifying and addressing constraints. Internal monitoring will be carried out by the RU and Project Supervision Consultant while external monitoring will be carried out by an external monitoring agency. The Lenders will also monitor RP implementation activities during periodic missions.