



Report and Recommendation of the President to the Board of Directors

Project Number: 46168-001
September 2014

Proposed Loans and Technical Assistance Grant People's Republic of Bangladesh: South Asia Subregional Economic Cooperation Railway Connectivity: Akhaura–Laksam Double Track Project

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Asian Development Bank

CURRENCY EQUIVALENTS

(as of 1 August 2014)

Currency unit – taka (Tk)

Tk1.00 = \$0.0129

\$1.00 = Tk77.47

ABBREVIATIONS

ADB	–	Asian Development Bank
CSC	–	construction supervision consultant
EIB	–	European Investment Bank
EMP	–	environmental management plan
km	–	kilometer
NIS	–	National Integrity Strategy
OCR	–	ordinary capital resources
PAM	–	project administration manual
SAARC	–	South Asia Association for Regional Cooperation
SASEC	–	South Asia Subregional Economic Cooperation
STD	–	sexually transmitted disease
TA	–	technical assistance
TEU	–	twenty-foot equivalent container unit

NOTES

- (i) The fiscal year (FY) of the Government of Bangladesh and its agencies ends on 30 June. FY2014/15 denotes the fiscal year starting on 1 July 2014 and ending on 30 June 2015.
- (ii) In this report, “\$” refers to US dollars.

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CONTENTS

	Page
PROJECT AT A GLANCE	
MAP	
I. THE PROPOSAL	1
II. THE PROJECT	1
A. Rationale	1
B. Impact and Outcome	3
C. Outputs	3
D. Investment and Financing Plans	3
E. Implementation Arrangements	4
III. TECHNICAL ASSISTANCE	5
IV. DUE DILIGENCE	6
A. Technical	6
B. Economic and Financial	6
C. Governance	7
D. Poverty and Social	7
E. Safeguards	8
F. Risks and Mitigating Measures	9
V. ASSURANCES AND CONDITIONS	10
VI. RECOMMENDATION	10
APPENDIXES	
1. Design and Monitoring Framework	11
2. List of Linked Documents	13

PROJECT AT A GLANCE

1. Basic Data		Project Number: 46168-001	
Project Name	South Asia Subregional Economic Cooperation Railway Connectivity: Akhaura-Laksam Double Track Project	Department /Division	SARD/SATC
Country Borrower	Bangladesh Government of Bangladesh	Executing Agency	Bangladesh Railway (BR)
2. Sector	Subsector(s)	ADB Financing (\$ million)	
✓ Transport	Rail transport (non-urban)		505.60
		Total	505.60
3. Strategic Agenda	Subcomponents	Climate Change Information	
Inclusive economic growth (IEG)	Pillar 1: Economic opportunities, including jobs, created and expanded	Mitigation (\$ million)	475.00
Environmentally sustainable growth (ESG)	Global and regional transboundary environmental concerns	CO ₂ reduction (tons per annum)	145,000
Regional integration (RCI)	Pillar 1: Cross-border infrastructure Pillar 2: Trade and investments	Climate Change impact on the Project	Medium
4. Drivers of Change	Components	Gender Equity and Mainstreaming	
Governance and capacity development (GCD)	Institutional development	Effective gender mainstreaming (EGM)	✓
Partnerships (PAR)	International finance institutions (IFI) Official cofinancing		
5. Poverty Targeting		Location Impact	
Project directly targets poverty	No	Nation-wide	High
6. Risk Categorization:	Complex		
7. Safeguard Categorization	Environment: B Involuntary Resettlement: A Indigenous Peoples: C		
8. Financing			
Modality and Sources		Amount (\$ million)	
ADB		505.60	
Sovereign Project loan: Ordinary capital resources		400.00	
Sovereign Capacity development technical assistance: Technical Assistance Special Fund		0.60	
Sovereign Project loan: Asian Development Fund		105.00	
Cofinancing		175.40	
Nordic Development Fund		0.40	
European Investment Bank		175.00	
Counterpart		125.00	
Government		125.00	
Total		806.00	
9. Effective Development Cooperation			
Use of country procurement systems		No	
Use of country public financial management systems		Yes	

I. THE PROPOSAL

1. I submit for your approval the following report and recommendation on proposed loans to the People's Republic of Bangladesh for the South Asia Subregional Economic Cooperation (SASEC) Railway Connectivity: Akhaura–Laksam Double Track Project.¹ The report also describes proposed technical assistance (TA) for Capacity Development for Bangladesh Railway for Project Implementation, and if the Board approves the proposed loans, I, acting under the authority delegated to me by the Board, approve the TA.

2. The project will support the Government of Bangladesh in upgrading the 72-kilometer (km) Akhaura–Laksam section of the Dhaka–Chittagong railway corridor to a double track railway line with modern signaling equipment. The section is part of a major subregional corridor and the Trans-Asia Railway network. The project will also (i) improve 11 railway stations and (ii) strengthen the capacity of the railway sector in project management and implementation as well as in accessing climate mitigation funds. By increasing the capacity of a major international trade corridor, the project will boost the national economy and facilitate subregional cooperation and trade. The project was endorsed by the SASEC Trade Facilitation and Transport Working Group in a meeting held in Singapore on 30 October 2013.

II. THE PROJECT

A. Rationale

3. Bangladesh has the potential to become a transport and transshipment center for the subregion. It borders India and Myanmar and is close to the landlocked countries of Bhutan and Nepal. Together with the Bhangabandhu Bridge over River Jamuna (the Jamuna Multipurpose Bridge) and the provision of access to Chittagong Port, the Dhaka–Chittagong corridor can facilitate trade between Bangladesh and with the northeastern states of India, the Indian state of West Bengal, Bhutan, and Nepal, creating the potential to attract more foreign and domestic investments to the country. Bangladesh is located on major international trade corridors, as identified in the South Asia Association for Regional Cooperation (SAARC) Regional Multimodal Transport Study² and the Trans-Asian Railway network. However, the market share of the railway in the subregional transport is low; only 11.9% or 876,855 tons of Bangladesh's imports from India and only 1.1% or 17,832 tons of exports from Bangladesh to India were transported by rail in 2011. Only one passenger train operating two times a week links Dhaka—the capital of Bangladesh—with Kolkata in India, and on average only one freight train per day crosses the border. In comparison, Bangladesh Railway was operating 289 passenger and 48 freight trains per day in FY2011/12 for the domestic market. The main reasons for the limited cross-border rail traffic are missing links and congestion in main domestic railway corridors, which do not allow operating additional trains for domestic and international traffic.

4. Dhaka and Chittagong are the two major metropolitan areas of Bangladesh. Dhaka is the main commercial and administrative center of the country, while Chittagong is the primary seaport, accounting for about 90% of imports and exports. More than a quarter of Bangladesh's population of 142 million lives in the Dhaka–Chittagong corridor. Travelling by railway in Bangladesh is more safe, energy efficient, environmentally friendly, and reliable than other

¹ The design and monitoring framework is in Appendix 1.

² SAARC Secretariat. 2007. *Regional Multimodal Transport Study*. Kathmandu. Prepared under ADB. 2004. *Technical Assistance for Promoting South Asian Regional Economic Cooperation*. Manila (TA 6187-REG). Among SAARC priority corridors, Bangladesh has 6 out of 10 road corridors, 2 out of 5 rail corridors, and 2 principal ports (Chittagong and Mongla) for SAARC trade.

modes of transport; railway transport is also considered more comfortable than long-distance buses. Intercity trains operated by Bangladesh Railway are very popular. Thus, the occupancy of intercity trains is very high, especially in the east zone (98%); intercity trains in the Dhaka–Chittagong corridor are usually sold out. About 40% of Bangladesh Railway’s passengers travel by intercity trains, which accounts for more than 75% of passenger revenue. The high demand for intercity service in the Dhaka–Chittagong corridor cannot be met fully because of insufficient line capacity, thus, no additional trains can be scheduled to tap into these lucrative markets for Bangladesh Railway with high revenue potential. Because Bangladesh’s economy is growing by more than 6%, a rising demand for domestic and regional railway transport is expected, but it cannot be satisfied with the existing limited infrastructure.

5. The Chittagong Port handled 1.44 million twenty-foot equivalent unit (TEU) containers in 2012.³ According to the traffic forecast in the base case scenario of the Strategic Master Plan for Chittagong Port, the number of containers handled is expected to increase to 2.94 million TEU by 2020, to 6.09 million TEU by 2030, and to 10.20 million TEU by 2043, which means an average growth of 6.5% per year compared with an annual growth of 10.1% from 2002 to 2012. The number of containers transported by Bangladesh Railway between Chittagong Port and the Dhaka Inland Container Depot has however been stagnant, and Bangladesh Railway transported about 67,000 TEU in 2012. Bangladesh Railway’s market share was declining to less than 10%; it cannot maintain its market share mainly because of the capacity constraints in the Dhaka–Chittagong corridor, which limits the number of container trains between Chittagong Port and the Dhaka Inland Container Depot to two daily trains.

6. About 203 km out of the 321 km Dhaka–Chittagong railway line is still only single track, constraining the demand to increase the number of trains in the corridor. There are two projects under construction for laying double tracks on the railway line: (i) the 64 km Tongi–Bhairab Bazar section⁴ is financed by ADB’s Railway Sector Investment Program⁵, and (ii) the 61 km Chinki Astana–Laksam section is financed by the Japan International Cooperation Agency.⁶ Both projects are scheduled to be completed in 2015. The Government of India finances the construction of the second Bhairab and the second Titas river bridges with about 7 km of approach railway lines.⁷ India is also supporting the construction of the Akhaura–Agartala railway line on a grant basis, which will link the Dhaka–Chittagong railway corridor to the Indian state of Tripura. Thus, the only remaining 72 km single track section between Akhaura and Laksam will become the critical bottleneck for domestic and subregional traffic in this corridor.

7. The government’s Sixth Five-Year Plan, 2011–2015, therefore, assigns the highest priority to increasing the capacity of the Dhaka–Chittagong corridor by completing double tracking on the entire corridor, which accounts for more than 40% of all passenger journeys by railway in Bangladesh. The project is, therefore, in line with the government’s transport sector

³ ADB provided support for the development of Chittagong Port under ADB. 2004. *Report and Recommendation of the President to the Board of Directors: Proposed Loan and Technical Assistance Grant to the People’s Republic of Bangladesh for the Chittagong Port Trade Facilitation Project*. Manila (Loan 2147-BAN).

⁴ The project is performing satisfactorily now after facing initial delays due to lack of project readiness.

⁵ ADB. 2006. *Report and Recommendation of the President to the Board of Directors: Proposed Multitranche Financing Facility to the People’s Republic of Bangladesh for the Railway Sector Investment Program*. Manila (MFF-0004-BAN).

⁶ Japan International Cooperation Agency financing in the Bangladesh Railway sector includes the double tracking of the 61 km Chinki Astana–Laksam section of the Dhaka–Chittagong corridor, remodeling of the station yard in Chittagong, and procurement of seven diesel-electric locomotives.

⁷ The total length of track to be financed by the Government of India is approximately 7 km including track on the two bridges and the respective approach routes. In addition to infrastructure investment, the Government of India is also financing procurement of rolling stock, i.e., diesel locomotives, passenger coaches, and freight wagons.

development strategy and ADB's country partnership strategy, 2011–2015.⁸ The strategy aims to reduce high transport and logistical costs to overcome the economic isolation of large parts of the country from national and regional markets through improvements of strategic links on the main corridors facilitating subregional trade, such as the Dhaka–Chittagong.⁹

B. Impact and Outcome

8. The impact will be improved domestic and subregional trade-flow and passenger movement in Bangladesh. The outcome will be an improved railway transport system in Bangladesh. The project will enable efficient and safe transport within the country in the Dhaka–Chittagong railway corridor and with India and, through India, with Bhutan and Nepal.

C. Outputs

9. Output 1 will upgrade railway infrastructure by (i) double-tracking 72 km of railway lines including the construction of the new second track and upgrading and reconstruction of the existing track in accordance with the requirements of the Trans Asia Railways network for future conversion to broad gauge; (ii) installing modern signaling and interlocking equipment to enhance the safety of railway operation; and (iii) reconstructing 11 stations with integrated design features for the elderly, women, children and disabled. Output 2 will support Bangladesh Railway in project management and project implementation. Output 3 will support capacity development for the permanent project management unit to be established in Bangladesh Railway and for accessing climate mitigation funding.

D. Investment and Financing Plans

10. The project is estimated to cost \$805 million, inclusive of taxes and duties, physical and price contingencies, interest, and other charges during implementation (Table 1).¹⁰

Table 1: Project Investment Plan
(\$ million)

Item	Amount ^a
A. Base Cost^b	
1. Railway infrastructure upgrade	717.0
2. Project management	40.0
Subtotal (A)	757.0
B. Contingencies^c	23.0
C. Financing Charges During Implementation^d	25.0
Total (A+B+C)	805.0

^a Includes taxes and duties of \$77.75 million to be partially financed by the Asian Development Bank (ADB) for expenditure financed by ADB and from government resources for expenditures financed by the European Investment Bank.

^b In 31 March 2014 prices.

^c Physical contingencies computed at 3.0% for civil works. Price contingencies computed at 6.5% on foreign exchange costs and 6.5% on local currency costs; includes provision for potential exchange rate fluctuation under the assumption of a purchasing power parity exchange rate.

^d Includes interest and commitment charges. Interest during construction for ADB loan(s) has been computed at the

⁸ ADB. 2011. *Country Partnership Strategy: Bangladesh, 2011–2015*. Manila.

⁹ ADB supports trade facilitation in addition to the infrastructure investments by ADB. 2012. *Report and Recommendation of the President to the Board of Directors: Proposed Policy-Based Loans and Grants for the South Asia Subregional Economic Cooperation Trade Facilitation Program*. Manila (Loan 2954-BAN).

¹⁰ The project will be financed by ADB jointly with the European Investment Bank (EIB). Construction supervision and project management consultants will be financed by ADB to support implementation of the project.

5-year forward London interbank offered rate plus a spread of 0.44%. Commitment charges for an ADB loan are 0.15% per year to be charged on the undisbursed loan amount.

Sources: Asian Development Bank and Bangladesh Railway estimates.

11. The government has requested a loan of \$400 million from ADB's ordinary capital resources (OCR) and a loan in various currencies equivalent to SDR68,138,000 from ADB's Special Funds resources to help finance the project.¹¹ The OCR loan will have a 25-year term, including a grace period of 5 years, an annual interest rate determined in accordance with ADB's London interbank offered rate (LIBOR)-based lending facility,¹² and a commitment charge of 0.15% per year.¹³ The Asian Development Fund loan will have a 25-year term, including a grace period of 5 years, an interest rate of 2.0% per annum during the grace period and thereafter, and such other terms and conditions set forth in the draft loan agreement.¹⁴

12. The government will obtain a loan equivalent to \$175 million from the EIB. The loan will have a 25-year term, including a grace period of 5 years from the first disbursement, an interest rate to be fixed and/or floated for each of the tranches, and such other terms and conditions set forth in the agreement.

13. The financing plan is in Table 2.¹⁵ The government will finance the remaining local cost of \$125 million equivalent, or 15.5% of the total cost, including taxes and duties for expenditure financed by the EIB, land acquisition and resettlement, project management, and other miscellaneous costs. The government will provide the ADB loans and the EIB loan to Bangladesh Railway through the budgetary allocation in the form of a grant.

Table 2: Financing Plan

Source	Amount (\$ million)	Share of Total (%)
Asian Development Bank		
Ordinary capital resources (loan)	400.0	49.7
Special Funds resources (loan)	105.0	13.1
European Investment Bank	175.0	21.7
Government	125.0	15.5
Total	805.0	100.0

Source: Asian Development Bank.

E. Implementation Arrangements

14. The implementation arrangements are summarized in Table 3 and described in detail in the project administration manual (PAM).¹⁶

Table 3: Implementation Arrangements

Aspects	Arrangements
Implementation period	January 2015–December 2022
Estimated completion date	31 December 2022

¹¹ Financing includes part of taxes and duties amounting to about \$53 million. The estimated expenditure is not excessive (10.5% of ADB loan resources) and will apply only with respect to ADB-financed expenditures.

¹² Interest includes a maturity premium of 10 basis points, based on the above loan terms and the government's choice of repayment option and dates.

¹³ Includes \$70 million equivalent from the subregional pool of the Asian Development Fund.

¹⁴ Loan Agreement (accessible from the list of linked documents in Appendix 2).

¹⁵ The Export-Import Bank of Korea has indicated its interest to contribute \$50 million equivalent of loan cofinancing to the procurement of rolling stock. If such cofinancing becomes available, it will be on a parallel basis not administered by ADB.

¹⁶ Project Administration Manual (accessible from the list of linked documents in Appendix 2).

Aspects	Arrangements		
Management			
(i) Executing agency	Bangladesh Railway		
(ii) Implementation unit	Dhaka, 1 project director with 32 officers and 30 staff including 2 environment officers and 5 resettlement plan implementation officers		
Procurement	International competitive bidding	1 contract	\$513,000,000
Consulting services	Quality- and cost-based selection	2 contracts, 4,403 person-months	\$36,250,000
Advance contracting	Advance contracting for goods, works, and consulting services has been approved by the Asian Development Bank (ADB).		
Disbursement	The loan proceeds will be disbursed in accordance with ADB's <i>Loan Disbursement Handbook</i> (2012, as amended from time to time) and detailed arrangements agreed upon between the government and ADB. European Investment Bank (EIB)-loan disbursement is administered by EIB.		

Source: Asian Development Bank.

15. Goods and works financed by ADB and EIB will be procured through international competitive bidding in accordance with ADB's Procurement Guidelines (2013, as amended from time to time). Bangladesh Railway has sound experience in procurement and contract management under ADB-financing. The evaluation of bids will be carried out by the government with support from independent consultants recruited under the Subregional Transport Project Preparatory Facility.¹⁷ The same will apply with contract negotiations. ADB will play an active facilitation role in the bidding process to ensure timeliness and quality in the process, and will engage its own consultants to help with this work. Because of joint cofinancing by EIB, it is proposed to permit the procurement of goods, works, and consultant services from nonmember countries of ADB.¹⁸ The waiver of ADB's member country procurement eligibility for the OCR loan is sought to allow for procurement from EIB member states that are not ADB member states.¹⁹ Project implementation and management support will require consultants, which will be engaged in accordance with ADB's Guidelines on the Use of Consultants (2013, as amended from time to time). All consulting services will be recruited using quality- and cost-based selection, with a quality–cost ratio of 90:10 taking into account the complexity of a multidisciplinary railway project. To avoid start-up delays, the government has requested that ADB selects consultants on its behalf. The government will negotiate and enter into agreements while ADB will play an active facilitation role.

III. TECHNICAL ASSISTANCE

16. Attached capacity development TA will be provided to support Capacity Development of Bangladesh Railway for Project Implementation.²⁰ The TA will support the project implementation unit in implementing the project and in developing a permanent project management and implementation organization in Bangladesh Railway, which will manage the implementation of the project and future projects in the Bangladesh railway sector efficiently. The TA will also support Bangladesh Railway in accessing climate mitigation funds for the

¹⁷ ADB. 2010. *Report and Recommendation of the President to the Board of Directors: Proposed Loan to the People's Republic of Bangladesh for the Subregional Transport Project Preparatory Facility*. Manila (TA Loan 2688-BAN).

¹⁸ The ADB Board of Directors must approve the waiver by a vote representing not less than two thirds of the total voting power of the members of the Board.

¹⁹ On 18 March 2013, the Board approved a blanket waiver of member country procurement eligibility restrictions in certain cases of cofinanced Asian Development Fund operations.

²⁰ Attached Technical Assistance: Capacity Development of Bangladesh Railway for Project Implementation (accessible from the list of linked documents in Appendix 2).

railway sector. The TA is estimated to cost \$1,000,000, of which \$600,000 will be financed on a grant basis by ADB's Technical Assistance Special Fund (TASF-V); and \$400,000 will be financed on a grant basis by the Nordic Development Fund and administered by ADB. The government will provide counterpart support in the form of office accommodation, support facilities, counterpart staff, logistical support, and other in-kind contributions. International consulting firms and individual consultants will be recruited by ADB in accordance with its Guidelines on the Use of Consultants. The consulting firm will be asked to submit simplified technical proposals, and the selection will be in accordance with ADB's quality- and cost-based selection method using a quality–cost ratio of 90:10 due to the highly specialized knowledge in carbon financing for railways.

IV. DUE DILIGENCE

A. Technical

17. The design for the project was prepared by consultants recruited under the Subregional Transport Project Preparatory Facility (footnote 17). The design is based on the existing design standards of Bangladesh Railway and the requirements of the Trans Asia Railway network. Although the line will initially be commissioned for meter gauge, it will be converted into broad gauge in the future. The project includes the construction of the second track and the upgrading and reconstruction of the existing track to broad gauge standards. Engineering design measures to minimize the need for land acquisition and resettlement are considered in the design. Given that Bangladesh is a low-lying country and the project area experiences high rainfall, the main climate change-related impact on the project is increased flooding and river flow volumes due to increased rainfall. The embankment height, the design of drainage structures, and the height of bridges have been adjusted to address these impacts. Bangladesh Railway is implementing sector reforms to improve the efficiency and performance of the railway sector under the ADB-financed Railway Sector Investment Program (footnote 5); details of the progress are described in the railway reform progress report.²¹ The capacity of Bangladesh Railway to maintain assets was strengthened by updating several of its operations manuals as part of the reform project. Bangladesh Railway will maintain all assets financed under this loan in such a way that they are available for safe railway operation. Maintenance will be carried out based on Bangladesh Railway's operations manual and the recommendations from the manufacturer and supplier.

B. Economic and Financial

18. Economic and financial analyses have been undertaken and concluded that the project is economically and financially viable.²² The project economic internal rate of return is 15.5%, and the economic net present value discounted at 12% is Tk12,228 million. The economic analysis compared the benefits and costs of with-project and without-project situations. The main benefits are savings in road vehicle operating costs and time savings for road passengers. A sensitivity analysis tested the effects of possible negative changes in the key parameters that determine the project's costs and benefits. The analysis indicates that the project's economic viability would remain satisfactory even under adverse scenarios. The financial evaluation of the project was undertaken in real terms using constant 2013 prices. The financial internal rate of return for the project, computed on an after-tax basis, is 3.9%. This compares favorably with the weighted average cost of capital, also computed on an after-tax basis of 2.4%. The sensitivity

²¹ Railway Reform Progress Report (accessible from the list of linked documents in Appendix 2).

²² Economic and Financial Analysis (accessible from the list of linked documents in Appendix 2).

analysis indicates that the financial internal rate of return is robust under adverse conditions. The project is considered financially viable. However, sustainability will depend upon ongoing reforms in the sector and the sufficiency of Bangladesh Railway's cash flows, both from revenues and government subsidies.

C. Governance

19. **Financial management.** A financial management assessment concluded that Bangladesh Railway has adequate capacity in financial management for ADB-financed projects. Bangladesh Railway has prior and ongoing experience in implementing ADB projects funded under the Railway Sector Investment Program. Bangladesh Railway has knowledge of project financial accounting methods and ADB disbursement procedures. Bangladesh Railway officials have participated in workshops on the good practice of financial management conducted by ADB. Bangladesh Railway's capacity is being further strengthened through the rollout of the new accounting and financial management system by the Bangladesh Railway Reform Project. The project implementation unit under Bangladesh Railway will establish and maintain separate project records and accounts to identify the finances received and the expenditures made under the project, ensuring an adequate audit trail. The accounts will be set up in accordance with sound accounting principles. Independent auditors, acceptable to ADB, will audit the accounts and related financial statements annually.

20. **Procurement and anticorruption.** Procurement will be carried out in accordance with ADB's Procurement Guidelines. ADB will review documents and submissions related to procurement at all major milestones prior to proceeding with the procurement process. The procurement rules for the selection of contractors required by international financial institutions such as ADB are considered sufficiently robust to deter corruption. National procurement regulation has also improved through the Public Procurement Act, 2006, and through related Public Procurement Rules (2008) with subsequent amendments and the establishment of a Central Procurement Technical Unit under the Implementation Monitoring and Evaluation Division of the Ministry of Planning. ADB's Anticorruption Policy (1998, as amended to date) was explained to and discussed with the government and Bangladesh Railway. The specific policy requirements and supplementary measures are described in the PAM (footnote 16). In October 2012, a National Integrity Strategy (NIS) was approved and the National Integrity Advisory Committee was formed with the Prime Minister as the chair to steer anticorruption movement and implement the strategy. The NIS includes a road map for strengthening both the state and non-state accountability institutions to fight corruption and improve governance. Under the NIS, all line ministries and key watchdog institutions have formed an ethics committee and appointed a focal point to implement corruption prevention programs and actions.

D. Poverty and Social

21. **Poverty and social.** In spite of considerable progress in poverty reduction,²³ the poverty level in Bangladesh remains high, with 31.5% of the population living below the poverty line and 17.6% considered as extremely poor.²⁴ In the project area of influence, which covers six subdivisions in the two districts of Brahmanbaria and Comilla, the project socioeconomic survey identified that about 25% of households fall under the poverty line. The principal income-generating activities are businesses (34%), farming (20%), and services (9%). Railway is one of the principal modes of transportation because of its cheap fares, safety, and punctuality

²³ A 1.7% reduction per annum from 2005 to 2010.

²⁴ Bangladesh Bureau of Statistics. 2011. *2010 Household Survey*. Dhaka.

compared with other modes of transport. The upgraded corridor will allow for shorter travel time and more reliable transport conditions for passengers in all ticketed classes. This will contribute to socioeconomic development and poverty reduction by improving basic access to national and regional markets, employment opportunities, goods at competitive prices, as well as administrative, health, and educational services. Additional immediate project benefits include income-generation opportunities for wage laborers, businesspeople, contractors, and suppliers of raw materials, as well as an increased demand for daily necessities.

22. **Gender, HIV/AIDS, and trafficking.** In spite of improvements in gender parity levels (i.e., primary and secondary school enrollment), the role of women in the project area is primarily bound to home activities (e.g., caring for children and the elderly, cooking, cleaning) with few income-generation and higher-education opportunities. Therefore, women tend to stay close to their homes, and their mobility is limited to seeking medical care, visiting relatives, and shopping. Consultations, which included five focus-groups specifically targeting women and women's inputs in the design of the train stations, showed that they welcomed a facilitated access to services and economic opportunities. A gender action plan was developed to include proactive gender-mainstreaming activities into the project design. It includes the (i) integration of friendly design features for the elderly, women, children, and disabled into the rehabilitated railway stations and staff housing units (i.e., separate toilets and ablution facilities, station entrances and foot-over-bridges equipped with ramps, dedicated pick-up points, and parking slots for wheelchair users); (ii) display of materials in railway stations on human-trafficking, the prevention of sexually transmitted diseases (STD), and basic hygiene; (iii) STD-awareness sessions to civil works laborers; (iv) STD, human-trafficking, and women personal security and safe mobility awareness sessions for local communities; (v) capacity building in mainstreaming friendly design features for the elderly, women, children, and disabled into Bangladesh Railway's operations; (vi) provisions to comply with core labor standards; and (vii) special assistance measures to support women in the implementation of the resettlement plan.

E. Safeguards

23. **Environmental impact.** There are no environmentally sensitive features in the project. Hence, it has been categorized as B in accordance with ADB's Safeguard Policy Statement (2009). Accordingly, an initial environmental examination following the requirements of ADB's Safeguard Policy Statement has been prepared for the project and disclosed on the ADB website. Key environmental impacts associated with the construction of tracks alongside already existing tracks, stations, and access roads are minor and mainly restricted to the construction stage. The anticipated environmental impacts during construction are related to dust, noise, public health, the temporary restriction of access—particularly near community areas—and related safety issues, sourcing and transport of construction materials, embankment construction, the removal of trees within the right-of-way, the generation of waste from the reconstruction of existing stations and construction camps, and the siltation and contamination of rivers and streams from the bridge construction works. During operation, the main impacts will be related to increased noise due to the doubling of daily train traffic. Mitigation measures to avoid, minimize, and mitigate these impacts have been included in the environmental management plan (EMP). The bidding documents have clauses on environment safeguard requirements and include the EMP. Meaningful consultations have been conducted throughout the project preparation stage and all concerns of the affected persons and stakeholders have been incorporated in the initial environmental examination and the EMP. A grievance redress mechanism is proposed to continue receiving feedback and complaints from affected parties and addressing them during the construction stage. An environment safeguards unit will be established within Bangladesh Railway to oversee the implementation of all safeguard activities

under Bangladesh Railway. An environmental focal person will be appointed from the unit for the project. This person will be supported by an environment specialist under the construction supervision consultant's (CSC) team. The environment specialist in turn will be supported by on site staff for each contract package for day-to-day monitoring of the EMP implementation. An initial training-cum-coordination workshop on implementing environment safeguards under the project will be organized by Bangladesh Railway with technical support from the CSC and ADB, as necessary. Continued on-the-job training will be conducted by the CSC or ADB, as necessary, during project implementation.

24. **Involuntary resettlement and indigenous peoples.** The project is categorized as A for resettlement and C for indigenous peoples; 58.43 hectares of private land will be acquired. 2,180 households (10,408 persons) will be affected, out of which 830 will lose their homesteads and 317 will lose more than 10% of their assets. A Resettlement Plan was prepared based on ADB's Safeguard Policy Statement and the 1982 Bangladesh Acquisition and Requisition of Immovable Property Ordinance II. The Resettlement Plan outlines the provisions for compensations at replacement cost, as well as other assistance measures including livelihood and income restoration. The Resettlement Plan budget is \$87.50 million equivalent. The Resettlement Plan will comply with ADB's information disclosure requirements and will be disclosed at the local level and on Bangladesh Railway's website. Screening for impacts on indigenous people was conducted during project preparation, which confirmed that no indigenous peoples are present in the project area. Affected persons were fully consulted on the project alignment and station design. Bangladesh Railway is experienced in implementing a Resettlement Plan, as demonstrated recently by the implementation of the Resettlement Plan for the Tongi–Bhairab Bazar double track project. The project implementation unit will have a resettlement unit, headed by a chief engineer and supported by at least two resettlement officers based in each district (Brahmanbaria and Comilla). Moreover, the implementation of the resettlement plan will be conducted by an experienced nongovernment organization. The implementation will be supervised and internally monitored by the resettlement unit and externally monitored by the CSC, which will have national and international resettlement experts in its team.

F. Risks and Mitigating Measures

25. Major risks and mitigating measures are described in detail in the risk assessment and risk management plan.²⁵ The integrated benefits are expected to outweigh the costs.

Table 4: Summary of Risks and Mitigating Measures

Risks	Mitigating Measures
Project implementation delay	The start-up delay has been substantially reduced by 3 years compared with previous railway projects in Bangladesh, as the design is complete and bid documents are being finalized. Bidding will start soon and contracts are targeted to be awarded within 6 months after loan approval.
Weak safeguard compliance	Land acquisition, social, and environmental impacts have been minimized through engineering and institutional measures. The works contract will be awarded only after completing safeguard requirements. Before construction, a due diligence mission will be fielded to create awareness among the project authorities about Asian Development Bank (ADB) safeguard requirements.
Delay in releasing counterpart funds	Cofinancing will substantially reduce the share of government financing. A sufficient fund for land acquisition and resettlement activities is budgeted. The financing of taxes and duties for components of the works and the consulting contract financed by ADB further reduces the share of government financing. The construction supervision consultant will help to flag the fund requirement well in advance.

²⁵ Risk Assessment and Risk Management Plan (accessible from the list of linked documents in Appendix 2).

Risks	Mitigating Measures
Lack of financial sustainability	Ongoing sector reforms are designed to improve Bangladesh Railway's operational efficiency and financial performance, including a rationalized tariff policy, strengthened asset management, improved financial reporting and accounting, and human resource management.

Source: Asian Development Bank.

V. ASSURANCES AND CONDITIONS

26. The government and Bangladesh Railway have assured ADB that implementation of the project shall conform to all applicable ADB policies including those concerning anticorruption measures, safeguards, gender, procurement, consulting services, and disbursements as described in detail in the PAM and loan documents.

27. The government and Bangladesh Railway have agreed with ADB on certain covenants for the project, which are set forth in the loan agreements. Before the loans can be declared effective, the government will have to award the consulting services contract for the construction supervision.

VI. RECOMMENDATION

28. I am satisfied that the proposed loans would comply with the Articles of Agreement of the Asian Development Bank (ADB) and recommend that the Board approve

- (i) the loan of \$400,000,000 to the People's Republic of Bangladesh for the South Asia Subregional Economic Cooperation Railway Connectivity: Akhaura–Laksam Double Track Project, from ADB's ordinary capital resources, with interest to be determined in accordance with ADB's London interbank offered rate (LIBOR)-based lending facility; for a term of 25 years, including a grace period of 5 years; and such other terms and conditions as are substantially in accordance with those set forth in the draft loan agreement presented to the Board;
- (ii) the loan in various currencies equivalent to SDR68,138,000 to the People's Republic of Bangladesh for the South Asia Subregional Economic Cooperation Railway Connectivity: Akhaura–Laksam Double Track Project, from ADB's Special Funds resources, with an interest charge at the rate of 2% per annum during the grace period and thereafter; for a term of 25 years, including a grace period of 5 years; and such other terms and conditions as are substantially in accordance with those set forth in the draft loan agreement presented to the Board; and
- (iii) the proposal in paragraph 15 of this report to permit procurement in nonmember countries of ADB of goods, works, and services produced in nonmember countries of ADB.

Takehiko Nakao
President

8 September 2014

DESIGN AND MONITORING FRAMEWORK

Design Summary	Performance Targets and Indicators with Baselines	Data Sources and Reporting Mechanisms	Assumptions and Risks
<p>Impact</p> <p>Improved domestic and subregional trade-flow and passenger movement in Bangladesh</p>	<p>By 2025</p> <p>Volume of exports and imports using the railway system (measured by the number of containers transported between Dhaka and Chittagong) increased by 15% (2012 baseline: 67.200)</p> <p>Movement of people between Dhaka and Chittagong (measured by passenger-kilometer in the first full year of operation) increased to 2,910 million (2012 baseline 2,390 million)</p>	<p>Bangladesh Railway operations records</p> <p>Bangladesh Railway operations records</p>	<p>Assumptions</p> <p>Economic growth maintained</p> <p>Import and export processes and procedures in Chittagong Port are streamlined and investments in improving the port capacity are made.</p> <p>Capacity of Inland Container Depots around Dhaka strengthened.</p>
<p>Outcome</p> <p>Improved railway transport system in Bangladesh</p>	<p>By 2022</p> <p>Number of daily passenger trains from Dhaka to Chittagong increased to 17 (2013 baseline: 14 trains per day and direction)</p> <p>Journey time of trains between Akhaura and Laksam reduced by 20% (2013 baseline: 77 minutes)</p>	<p>Bangladesh Railway operations records</p> <p>Bangladesh Railway operations records</p>	<p>Assumptions</p> <p>Additional rolling stock for Bangladesh Railway is in operation.</p> <p>Maintenance capacity in Bangladesh Railway is maintained at least at the current level.</p>
<p>Outputs</p> <p>1. Upgraded railway infrastructure</p>	<p>By 2022</p> <p>72 kilometers of new railway lines double-tracked in accordance with Trans Asia Railway network standards</p> <p>Signaling and interlocking modernized in 11 stations</p> <p>11 stations reconstructed with integrated elderly, women, children, and disabled-friendly design features</p>	<p>Progress reports by Bangladesh Railway</p> <p>Progress reports by Bangladesh Railway</p> <p>Progress reports by Bangladesh Railway</p>	<p>Assumptions</p> <p>Key construction materials and equipment are available.</p> <p>Government approvals including counterpart funds are on time.</p> <p>Risk Political unrest delays construction works.</p>

Design Summary	Performance Targets and Indicators with Baselines	Data Sources and Reporting Mechanisms	Assumptions and Risks
2. Improved capacity of Bangladesh Railway in project management and implementation	<p>20 Bangladesh Railway staff trained in procurement, contract management, and project management</p> <p>20 Bangladesh Railway staff trained in elderly, women, children, and disabled-friendly design strategies for railway stations</p> <p>Project is implemented on time and within budget.</p>	<p>Progress reports by Bangladesh Railway</p> <p>Progress reports by Bangladesh Railway</p> <p>Progress reports by Bangladesh Railway</p>	<p>Assumptions</p> <p>Sufficient number of counterpart staff for project implementation is available.</p> <p>Trained staff retained in the project implementation unit.</p>
3. Improved project implementation unit in Bangladesh Railway	<p>Project implementation unit is strengthened, restructured, and established on a permanent basis.</p> <p>Application documents for access to climate mitigation funds prepared and baseline established.</p>	<p>Progress reports by Bangladesh Railway</p> <p>Progress reports by Bangladesh Railway</p>	<p>Assumptions</p> <p>Sufficient counterpart funds for staff and data collection are available.</p> <p>Sufficient number of permanent posts is available for project implementation unit.</p>
<p>Activities with Milestones</p> <p>1. Upgraded railway infrastructure</p> <p>1.1 Completed resettlement plan and initial environmental examination by 2014</p> <p>1.2 Award construction supervision consultant contract and mobilize by 2015</p> <p>1.3 Award civil works contract by 2015 and complete by 2021</p> <p>2. Improved capacity of Bangladesh Railway in project management and implementation</p> <p>2.1 Identify staff for training on procurement, contract management, and asset management by 2015</p> <p>2.2 Complete training by 2016</p> <p>3. Improved project implementation unit in Bangladesh Railway</p> <p>3.1 Establish permanent project implementation unit by 2016</p> <p>3.2 Prepare application documents for access to climate mitigation funds and collect baseline data by 2018</p>		<p>Inputs</p> <p>Loan</p> <p>ADB: \$505 million</p> <p>Technical Assistance Grant</p> <p>ADB Technical Assistance Special Fund (TASF-V): \$600,000</p> <p>Cofinancing</p> <p>European Investment Bank: \$175 million</p> <p>Nordic Development Fund: \$400,000</p> <p>Counterpart</p> <p>Government: \$125 million</p>	

ADB = Asian Development Bank.

Source: Asian Development Bank.

LIST OF LINKED DOCUMENTS

<http://adb.org/Documents/RRPs/?id=46168-001-3>

1. Loan Agreement: Ordinary Capital Resources
2. Loan Agreement: Asian Development Fund
3. Sector Assessment (Summary): Rail Transport
4. Project Administration Manual
5. Contribution to the ADB Results Framework
6. Development Coordination
7. Attached Technical Assistance: Capacity Development of Bangladesh Railway for Project Implementation
8. Economic and Financial Analysis
9. Country Economic Indicators
10. Summary Poverty Reduction and Social Strategy
11. Gender Action Plan
12. Initial Environmental Examination
13. Resettlement Plan
14. Risk Assessment and Risk Management Plan

Supplementary Documents

15. Railway Reform Progress Report
16. Project Climate Risk Assessment