PROJECT INFORMATION DOCUMENT (PID)
APPRAISAL STAGE

Report No.: PIDA23784

Project Name	Eastern Dedicated Freight Corridor-3 (P150158)
Region	SOUTH ASIA
Country	India
Sector(s)	Railways (100%)
Theme(s)	Infrastructure services for private sector development (97%), Climate change (3%)
Lending Instrument	Investment Project Financing
Project ID	P150158
Borrower(s)	Dedicated Freight Corridor Corporation India Limited
Implementing Agency	Dedicated Freight Corridor Corporation of India Limited
Environmental Category	A-Full Assessment
Date PID Prepared/Updated	27-Apr-2015
Date PID Approved/Disclosed	27-Apr-2015
Estimated Date of Appraisal Completion	14-Apr-2015
Estimated Date of Board Approval	29-May-2015
Appraisal Review Decision (from Decision Note)	The team is authorized to proceed with appraisal and negotiate the project up-to an amount of US$ 850 million. Issuing the invitation to negotiate will be subject to substantial progress of critical pending actions under DFC program. The team will report to the Chair when the pending actions have been met substantially.

I. Project Context

Country Context

After some years of lower growth, the Indian economy is likely to grow at 6.4 per cent in 2015 and higher in 2016. One of India's building blocks for sustaining higher economic growth is investment in improved infrastructure. India's Twelfth Five Year Plan (2012-2017) set out a high infrastructure investment target of US$1 trillion. An important part of that Plan is to modernize critical parts of the aging and congested transport infrastructure, including the railway network.

GOI has reaffirmed of its strong support for development of the railway system and railway technology as crucial for India's economic growth as well as empowering communities by connecting them to social and economic opportunities. Wider GOI policy is to create an enabling environment for private sector investment. There is no intention to privatize the national railway network itself but GOI intends to encourage greater private sector investment in railway facilities through public private partnerships. An independent committee has also been established to consider ways of improving public governance of the railway industry. More recently, in his 2015-16 budget speech, the Minister of Railways (MOR) announced a major increase in railway sector investment for both freight and passenger services over the next five years.

Sectoral and institutional Context

India's railways are governed by The Railways Act (1989). The railway sector is administered by MOR. The Indian Railway Board (IRB) assists MOR in the discharge of ministerial responsibilities, exercises the policy powers of the central government in relation to all India's railways and executes the administration, supervision and direction of the entities that provide the great majority of rail services in India. The term Indian Railways (IR) is typically used to refer collectively to the IRB and the railway infrastructure and services that are delivered by its 17 geographically-based Zonal Railways (ZRs). IRB is responsible for the establishment (or merger/abolition) of these ZRs, appoints ZR General Managers, oversees their compliance with MOR policies, determines staffing policy for senior level officers and remuneration policies, allocates rolling stock, fixes tariffs, approves ZR operating and capital budgets, approves specific capital expenditures over certain limits, and reallocates cash deficits or surpluses of individual ZRs to maintain adequate financial balance in each. India has a few separate railways which are special purpose joint ventures between MOR and other entities (such as the Kutch Railway Company Ltd and the Konkan Railway Corporation Ltd), but in practice IR carries over 99 percent of railway traffic in India.

IR operates a national rail network of about 65,400 route-kilometers, one of the most densely-used in the world. In 2013-2014, it carried over 8.4 billion passengers and 1.05 billion tons of freight. Its total traffic task (measured by total traffic units carried) has more than doubled in the last ten years. Despite strong growth in its freight business, IR has been losing market share to road haulage. This is because of insufficient physical capacity and service quality, aggravated by the need to fit freight trains into a busy passenger service schedule in which passenger trains constitute almost two-thirds of train-km. Without additional rail network capacity, traffic for which rail should have competitive advantage will be forced to use road haulage or be suppressed entirely. In both cases this would be at a cost to the economy, and in the former case, at a cost to the environment as well. Over the last decade, IR has successfully adopted many management measures to: (i) squeeze more capacity from existing assets; (ii) increase average trainload; (iii) utilize equipment more efficiently; and (iv) improve railway labor productivity. Today, physical capacity in IR's main transport corridors is the most pressing constraint.

The main railway corridors are part of a Golden Quadrilateral connecting New Delhi, Mumbai, Chennai and Kolkata. They account for less than a fifth of the railway network's route length but carry more than 60 percent of its freight task. Because the rail sector urgently needs to add capacity to these routes, GOI approved a long-term plan to build freight-only lines (DFC) paralleling the existing Golden Quadrilateral lines. The DFC lines are being built for maximum speeds of up to100km/h and to carry bulk freight trains of 6,000 or 12,000 gross tons at 25 tons axle load at opening, but designed to enable migration to 32.5 tons axle load later on. These new 'heavy-haul' freight lines will wholly transform the achievable capacity, productivity and service performance of India's busiest rail freight corridors. Some of the immediate benefits from creation of these new corridors include:

•The new freight network will allow trains to carry more freight, with faster transit times, more reliably and at lower cost.

•The relief on the existing lines will allow improvements in passenger services.
•At completion, total corridor railway capacity will more than double, thereby creating a new platform for supporting economic growth.

By investing in the biggest single railway construction project in India since independence, the country is hoping to replicate the same kind of benefits thought to have stemmed from the original construction of India’s railways, namely decreased trade costs and interregional price gaps, increased interregional and international trade, and increased real income levels . During implementation of EDFC1, a detailed analysis of greenhouse gas emissions (GHGs) from its activities was carried out. It estimates that by 2041-42, the Eastern DFC would generate about 10.48 million tons of GHGs compared with 23.29 million tons of GHGs without it - a reduction of 55 percent. The reduction is due to the expected diversion of freight transport from road haulage to rail transport, after allowing for carbon impact of the railway construction itself.

The first dedicated freight corridors (DFC) to be built are the Western and Eastern Corridors. The Western Corridor (Delhi-Mumbai or WDFC), which is 1,499 km long and is funded by the Japanese International Cooperation Agency (JICA) is in the early stages of implementation. The Eastern Corridor is 1,839 km and extends from Ludhiana to Kolkata. World Bank support for the Eastern Dedicated Freight Corridor (EDFC) was designed as a series of projects in which three EDFC sections would be delivered sequentially, but with overlapping construction schedules. EDFC1 was approved by the Bank in May 2011 and is under construction. A successful procurement of civil works yielded significant loan savings which are plan ned to finance a key connector link between EDFC and the WDFC. Although construction and disbursement are proceeding at a slower rate than planned, progress is substantial and improving with experience by both DFCCIL and contractor. EDFC2 was approved in April 2014 and its civil works contracts awarded in April 2015. This Project relates to the EDFC3 section (Ludhiana- Khurja). Table 1 summarizes the three sections included in the World Bank support. The EDFC3 project corridor is divided into two stretches (i) Philakhni – Sahnewal (175 kms with detours over 13 kms) and Khurja- Pilakhni (226 kms with detours over 111 kms). As of January 2015, compensation has been awarded for 90 percent for the Pilakhni-Sahnewal section.

Table 1- World Bank Funded sections of Eastern Dedicated Freight Corridor (EDFC)

WB Loans: EDFC1
Board Approved: 31 May, 2011
Project ID: P114338
Sections Financed: Khurja- Kanpur
Route Length (km): 343
Estimated Cost (US$ m): 1,453

WB Loans: EDFC2
Board Approved: April 22, 2014
Project ID: P131765
Sections Financed: Kanpur- Mughal Sarai
Route Length (km): 393
Estimated Cost (US$ m): 1,650

WB Loans: EDFC3

Board Approved: N/A
Project ID: P150158
Sections Financed: Ludhiana- Khurja
Route Length (km): 401
Estimated Cost (US$ m): 1,105

The GOI has adopted a new institutional framework for the DFC initiative. In an innovative delivery model for India's rail network, the Dedicated Freight Corridor Corporation of India Ltd. (DFCCIL), an Infrastructure Company set up under the Companies Act (1956), whose shares are currently owned by MOR, will deliver and manage the DFCs. Under its Concession Agreement with the Government, signed in February 2014, DFCCIL is not permitted to run trains but is obliged to offer non-discriminatory access to qualified train operators. An arm's length relationship between DFCCIL and MOR is governed by the Concession Agreement. MOR will pay DFCCIL track access charges for use of the DFC network (including both Western and Eastern Corridors). Based on commercial principles, the access charging regime contains provisions for utilization and performance incentives.

II. Proposed Development Objectives

The PDO for EDFC3 is to: (a) provide additional rail transport capacity, improved service quality and higher freight throughput on the 401 km Ludhiana- Khurja section of the EDFC; and (b) develop the institutional capacity of DFCCIL to build, maintain and manage the DFC infrastructure network.

III. Project Description

Component Name

Works Component

Comments (optional)

Design, construction and commissioning of the Ludhiana-Khurja section of the Eastern DFC consisting of 401 km of single-track electrified railway with crossing loops, designed for freight only train operations with 25-ton axle-load (upgradable to 32.5 ton axle loads) at 100 km/h.

Component Name

Institutional Strengthening Component

Comments (optional)

Continuing development of DFCCIL's/IR's institutional capacity to build, maintain and manage DFC lines including both technical assistance and ancillary works and equipment focusing on supporting three priority areas of operational management , commercial management (including private participation) and environmental management:

• Operational: Design of system to optimize interfaces at the interchange of trains between IR and EDFC line at connection points;
• Commercial: A freight logistics centers market-testing program to promote private investment in freight logistics centers/terminals; and
• Environmental: Design and implementation of pilot project for an energy optimization program on the DFC network.

Public Disclosure Copy

IV. Financing *(in USD Million)*

Total Project Cost:	1107.00	Total Bank Financing:	650.00

Financing Gap:	0.00	

For Loans/Credits/Others	**Amount**
Borrower	457.00
International Bank for Reconstruction and Development	650.00
Total	1107.00

V. Implementation

DFCCIL is responsible for Project implementation. Its Managing Director reports to the DFCCIL Board. When all positions are filled, the Board is composed of the Chairman, five full time Directors (including the Managing Director), four independent directors, and two government nominees. DFCCIL has its headquarters in New Delhi, with field-based offices for the Eastern and Western Corridors.

Each section of the Eastern Corridor is the responsibility of a Chief Project Manager (CPM); for the Ludhiana-Khurja section, the CPM and associated staff will work from offices already established at Ambala. The Quality and Safety Audit Consultant (QSAC) will provide oversight and monitor compliance. DFCCIL’s SEMU headed by a General Manager will oversee the implementation of environmental management plan (EMP) and the resettlement action plan (RAP). These activities will be undertaken by operational staff at headquarters and by field staff, supported as necessary by consultants. A two-stage public grievance redress mechanism will be established with two grievance committees operating at the field and DFCCIL levels, and with an Ombudsman. Safeguard quality monitoring will be carried out by third party consultants (Social and Environmental Safeguards Monitoring Review Consultants – SESMRC).

Social Safeguard Implementation & Management: The new right to fair compensation and transparency in land acquisition and resettlement and rehabilitation act of 2013 will apply to all land acquisition with effect from January1, 2015 and the Bank will provide technical support to DFCCIL and Ministry of Railways to enhance institutional capacity for managing land acquisition and resettlement activities.

Public Disclosure Copy

VI. Safeguard Policies (including public consultation)

Safeguard Policies Triggered by the Project	Yes	No
Environmental Assessment OP/BP 4.01	✖	
Natural Habitats OP/BP 4.04		✖
Forests OP/BP 4.36	✖	
Pest Management OP 4.09		✖
Physical Cultural Resources OP/BP 4.11	✖	
Indigenous Peoples OP/BP 4.10		✖
Involuntary Resettlement OP/BP 4.12	✖	
Safety of Dams OP/BP 4.37		✖
Projects on International Waterways OP/BP 7.50		✖
Projects in Disputed Areas OP/BP 7.60		✖

Comments (optional)

VII. Contact point

World Bank

Contact: Benedictus Eijbergen
Title: Program Leader
Tel: 458-7527
Email: beijbergen@worldbank.org

Contact: Atul Agarwal
Title: Sr Transport. Spec.
Tel: 5785+47771
Email: aagarwal2@worldbank.org

Borrower/Client/Recipient

Name: Dedicated Freight Corridor Corporation India Limited
Contact: Adesh Sharma
Title: Managing Director
Tel: 91-11-23454601
Email: md@dfcc.in

Implementing Agencies

Name: Dedicated Freight Corridor Corporation of India Limited
Contact: Adesh Sharma
Title: MD
Tel: (91-11) 2345-4601
Email: md@dfcc.co.in

VIII. For more information contact:

The InfoShop
The World Bank
1818 H Street, NW
Washington, D.C. 20433
Telephone: (202) 458-4500
Fax: (202) 522-1500
Web: http://www.worldbank.org/infoshop