
付属資料 1: 要請書 (TOR)

APPLICATION FOR DEDICATED MULTIMODAL HIGH AXLE LOAD FREIGHT CORRIDORS WITH COMPUTERISED CONTROL BETWEEN DELHI - MUMBAI AND DELHI - HOWRAH (INDIA) UNDER JAPAN'S DEVELOPMENT STUDIES PROGRAMME

Date of Application June, 2005
Applicant Ministry of Railways, Government of India

1. Project Digest

1.1 Project Title

Dedicated multimodal High Axle Load Freight corridor with computerized control for Delhi-Mumbai and Delhi - Howrah

1.2 Location

The project lies in Indian States of Maharashtra, Gujarat, Rajasthan, Madhya Pradesh, Haryana, Delhi, Uttar Pradesh, Bihar, Jharkhand and West Bengal.

1.3 Implementing Agency

The nodal agency for implementing the project will be Ministry of Railways, Government of India or appropriate authority constituted for the purpose.

1.4 Justification of the Project

1.4.1 Present Conditions

With the growth of major and minor ports in India, the traffic between Northern Hinterlands and Western Ports will substantially grow. Rail born container traffic is growing presently at 16% per annum. Additional container handling works are planned at Jawaharlal Nehru Port Trust (JNPT). Similarly major ICDs in North India including Tughlakabad and Dadri are expected to generate huge volumes of traffic. All this needs strengthening of Delhi-Mumbai rail corridor. Similarly, huge traffic of coal, steel, cement, fertilizer, POL is anticipated on Delhi-Howrah route which will severely put further strain on the existing already congested route. To facilitate annual growth of more than 15% with freight traffic, additional double line dedicated freight corridor is proposed in the first phase between Delhi-Mumbai and Delhi-Howrah route.

1.4.2 Sectoral Development Policy of the Government

Hon'ble Minister of Railways during reply to the debate on Rail Budget 2005-06 in Lok Sabha announced that it had been decided to undertake development of dedicated freight corridors on high density routes specially on the Golden Quadrilateral and its Diagonals.

1.4.3 Problems to be solved in the Sector

The high density network, which connects four metro cities of Delhi, Kolkata, Chennai and Mumbai including the diagonals is popularly called the Golden

Quadrilateral. Though comprising only 16% of the networks, it carries 65% of the freight traffic and 55% of the passenger traffic. This network is already over saturated in most of the sections. The actual utilization of Mumbai-Delhi and Mumbai-Howrah route is 140% of the line capacity. Indian Railways achieved a freight growth of 8% during 2004-05. Railways will have to provide for much higher rate of growth for providing necessary infrastructure support to nations growing economy.

1.4.4 Outline of the Project

Initially a comprehensive feasibility study will provide insights into the dedicated freight corridor project between Mumbai-Delhi and Delhi-Howrah. The study will throw up the best alternative among various alignments possible; technical, economic and financial viability of the project; possible shift of traffic from other modes to rail; suggestions related to various funding mechanisms etc. Once the project is found feasible a suitable implementation plan will be prepared in order to choose from the options of public investment. Then the funding plan will be prepared to finance the project through suitable agencies.

1.4.5 Purpose (Short-term objective of the Project)

The short-term objective of the project is to generate capacity to run additional Freight Trains.

1.4.6 Goal (Long-term Objective of the project)

Besides being a cheaper option in terms of unit transportation cost as compared to road/air, rail transportation is also environment friendly and fuel-efficient. In the long run a separate Freight corridor between Delhi-Mumbai shall result in improved connectivity of the ports on the western coast to the Northern hinterlands where the container traffic is projected to grow at more than 16% per annum. The dedicated corridor on Delhi-Howrah shall facilitate movement of traffic of coal, steel, cement, fertilizer, POL which is also projected to grow substantially. These corridors shall also help to decongest the existing rail corridors to facilitate the growth of passenger traffic of these corridors.

1.4.7 Prospective Beneficiaries

The project will provide direct benefit to the ports and industry located on the corridors. Indian Railways will be globally benefited from the project.

1.4.8 The Project Priority in the National Development Plan

The Govt. of India has assigned high priority for development of infrastructure and has identified Railways as a core infrastructure sector. During the visit of Hon'ble PM of Japan in April 2005, India and Japan confirmed their intention to examine the feasibility of proposals for the dedicated multimodal high axle load freight corridors with computerized control system on Mumbai-Delhi and Delhi-Howrah routes utilizing the STEP scheme with inputs of Japanese Technology and expertise.

1.5 Expected Funding Source

The study as part of the project is expected to be covered under Technical Assistance of Japanese Government for the year 2005-2006/2006-2007.

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2. Terms of Reference for the proposed Study

2.1 Background

With the rapid growth of the economy, the demand for movement of bulk goods like coal, steel, cement etc. within the country shall increase substantially. Also, with the growth in international trade, the demand for movement of containers from and to the ports is projected to grow. The ports on the western coast have been undergoing major expansion to meet the demands of international trade. The infrastructure of transportation will be the key factor of future economic development. The Government will have to look for alternatives, which will improve existing transportation system.

2.2 Justification

The corridors on Mumbai-Delhi and Delhi-Howrah play an important role in the movement of freight specially the container movement from Mumbai to Delhi and Howrah to Delhi and movement of bulk commodities like coal, steel, cement, fertilizer, POL etc. from areas of origin in Orissa/Jharkhand/Bihar to consumption areas in northern India. The estimated container traffic on the existing Delhi-Mumbai corridors is growing at a rate of about 16% per annum and projected to increase further. Similarly, the Delhi-Howrah route has been witnessing huge growth of freight traffic including coal, steel, cement, fertilizer, POL etc. Saturation of existing capacity and projected growth of traffic necessitates development of freight corridors on these routes. The actual utilization on both these routes has gone up to 140% of the line capacity making these routes over saturated for any further growth of traffic. Projected growth of passenger traffic will further affect the capacity to move the freight traffic. Capacity augmentation by provision of automatic signalling, continuous track circuiting etc. have already been taken up on these sections.

2.3 Objectives of the Study

The objective of the study is to assess the feasibility of dedicated freight corridor project between Mumbai-Delhi and Delhi-Howrah. Some of the broad objectives of the study will be:

- i) To assess the feasibility of constructing dedicated multi modal high axle load electrified freight corridors for movement of general goods as well as double stack containers on Mumbai-Delhi and Delhi-Howrah routes
- ii) Estimate project cost.
- iii) Analyze environmental impact.
- iv) Suggest appropriate technology.
- v) Assess operations and maintenance cost.
- vi) Suggest proper financing mechanisms.

2.4 Study Area

Existing route alignment area between Mumbai -Delhi and Delhi- Howrah.

2.5 Scope of the Study

- i) To assess the projected growth of freight traffic including containerized traffic on the Delhi-Mumbai and Delhi-Howrah corridors.
- ii) Feasibility of constructing dedicated double line freight corridor on one side of the existing double line track.
- iii) Existing capacity constraints and future development plan of existing railway system along the corridor including issues relating to connectivities at Delhi, Mumbai and Howrah ends and up gradation required at the ICDs Tughlaqabad/Dadri/JNPT) and intermediate terminals.
- iv) Establish socio-economic frame work and develop railway demand forecast
- v) Prepare railway transport plan taking into account transport demands from core sectors including shipping, power, steel and coal during the next 15 years.
- vi) Prepare preliminary design of facilities and equipment -
 - a) plan route alignment (plan, profile) for movement of double stack containers
 - b) civil engineering structures
 - c) track fit to carry 30 tonne axle loads, provision of by-passes to avoid junction stations
 - d) bridges fit for 30 tonne axle loads.
 - e) The length of loop lines to be determined by the trailing load of 15000 metric tons.
 - f) design of station including dimension, location (at 30 to 60 kms) and handling of freight
 - g) rolling stock for carrying double stack container trains under wire - special type of wagons/locos
 - h) workshop, depot
 - i) electrification of lines
 - j) signaling and telecommunication
 - k) computerized control system which GPS based train tracking system
 - l) Connections avoiding cross movements from other routes merging on this line in different sections related with movement of Freight traffic.
- vii) Environmental issues
- viii) Operation and maintenance plan
- ix) Estimate of cost of construction, operation and maintenance depending on the preliminary design
- x) Implementation plan and financing scheme plan including private sector participation and international financing
- xi) Working out Financial and Economic Rate of Return
- xii) Overall evaluation
- xiii) Recommendation and conclusion

2.6 Study Schedule

The study is expected to be completed in 24 months period.

2.7 Expected Major Outputs of the Study

The following reports should be prepared by the Study Team and submitted in English to Ministry of Railways:

- i) Inception Report

10 Copies to be submitted within 4 months from the commencement of the study.

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In order to facilitate the smooth and efficient conduct of the study, Ministry of Railways shall take necessary steps:

- To make available all the relevant data accessible to the study team.
- Make available key persons for the purpose of discussions necessary for the study team.
- To assist the study team in organizing their trips at the field level necessary for the study.

The implementation of the project is expected to be limited by the Japanese agencies after the completion of the study and financial arrangement between the two Governments.

Facilities & Information for the Study

Assignment of Government Personnel of the Implementing Agency for the Study

Ministry of Railways can assign counterpart personnel in accordance with mutual agreement between the Governments.

Available Data, Information, Documents, Maps etc. Related to the Study

Indian Railway Map showing Mumbai-Delhi and Delhi-Kolkata Corridor is enclosed. Data, information and other related material required for the study will be furnished on the request of the study team.

Global Issues (Environment etc.)

Environmental Components

The following environmental concerns are expected in the project:

- Socio-economic considerations
- Noise & vibration impact
- Soil impact
- Historic and cultural impact
- Aesthetic considerations
- Bridges tunnel impact
- Plant and animal impact

Development Issues

The Dedicated freight corridor will augment the transportation infrastructure for movement of freight which will be a key factor for future economic development of the country.

Initiating of the Ministry of Railways

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JICA Screening Format

Question 1 Address of a project site

C/o Additional Member Planning
Room No. 202, Rail Bhawan, New Delhi

Question 2 Outline of the project

2-1 Does the project come under following sectors?

Yes No

If yes, please mark corresponding items.

- Mining development
- Industrial development
- Thermal power (including geothermal power)
- Hydropower, dams and reservoirs
- River/erosion control
- Power transmission and distribution lines
- Roads, railways and bridges
- Airports
- Ports and harbors
- Water supply, sewage and waste treatment
- Waste management and disposal
- Agriculture involving large-scale land-clearing or irrigation
- Forestry
- Fishery
- Tourism

2-2 Does the project include the following items?

Cannot be commented at this stage as study to finalise exact route on the land is not finalised

Yes No

If yes, please mark following items.

- Involuntary resettlement (scale: _____ households, _____ persons)
- Groundwater pumping (scale: _____ m³/year)
- Land reclamation, land development and land-clearing (scale: _____ hectares)
- Logging (scale: _____ hectares)

Handwritten mark in the top right corner.

2-3 Did the proponent consider alternatives before request?

Yes: Please describe outline of the alternative

Study being done through RITES (Domestic Consultant)

No

2-4 Did the proponent have meetings with related stakeholders before request?

Yes No

Associated Chamber of Commerce (ASSOCHAM) a reputed body of Industry representatives had organized one day seminar on Dedicated Freight Corridor in which representatives from Industry & Railways participated.

If yes, please mark the corresponding stakeholders.

Administrative body

Local residents

NGO

Others (

Question 3

Is the project a new one or an on-going one? In case of an on-going one, have you received strong complaints etc. from local residents?

New On-going (there are complaints) On-going (there are no complaints)

Others (

Question 4 Name of laws or guidelines:

Is Environmental Impact Assessment (EIA) including Initial Environmental Examination (IEE) required for the project according to laws or guidelines in the host country?

Yes No

If yes, please mark corresponding items.

Required only IEE (Implemented, on going, planning)

Required both IEE and EIA (Implemented, on going, planning)

Required only EIA (Implemented, on going, planning)

Others: (

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Question 8

Does the project have adverse impacts on the environment and local communities?

Yes No Not identified

Reason:

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Question 9

Please mark related environmental and social impacts, and describe their outlines.

- Air pollution
 - Water pollution
 - Soil pollution
 - Waste
 - Noise and vibration
 - Ground subsidence
 - Offensive odors
 - Geographical features
 - Bottom sediment
 - Biota and ecosystem
 - Water usage
 - Accidents
 - Global warming
 - Involuntary resettlement
 - Local economy such as employment and livelihood etc.
 - Land use and utilization of local resources
- Social institutions such as social infrastructure and local decision-making institutions
 - Existing social infrastructures and services
 - The poor, indigenous or ethnic people
 - Maldistribution of benefit and damage
 - Local conflict of interests
 - Gender
 - Children's rights
 - Cultural heritage
 - Infectious diseases such as HIV/AIDS etc.
 - Others (cannot be commented at this stage)

Outline of related impacts:

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Question 10

Information disclosure and meetings with stakeholders

10-1 If the environmental and social considerations are required, does the proponent agree on information disclosure and meetings with stakeholders in accordance with JICA Guidelines for Environmental and Social Considerations?

Yes No

10-2 If no, please describe reasons below.

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