

ANNEXURE-XI

**JUSTIFICATION FOR LOCATING PROJECT IN
FOREST AREA**

Justification for locating Project in Forest Area:-

Dedicated Freight Corridor Corporation of India Limited (DFCCIL) is a Special Purpose Vehicle set up under the administration contract of Ministry of Railways to undertake & development, mobilization of financial resources and construction, maintenance and operation of the Dedicated Freight Corridors. DFCCIL was incorporated in October, 2006 under Indian Companies Act, 1956. The genesis of the Dedicated Freight Corridor is due to saturation in rail transportation capacity of Indian Railways particularly along the Golden Quadrilateral. The Indian Railways' network linking the four metropolitan cities of Delhi, Mumbai, Chennai and Howrah, along with its two diagonals (Delhi-Chennai and Mumbai-Howrah) commonly known as the Golden Quadrilateral, adding up to a total route length of 10,122 km (16% of total network), carries more than 58% of its revenue earning freight traffic. The Indian Railways is the lifeline of the nation and the economic growth is highly dependent upon the Rail Transportation Capacity. Growth in economy leading to surge in power, demand, booming infrastructure, construction and growing international trade along existing Eastern and western Routes has led to the demand for additional capacity for rail freight transportation. The DFCCIL core objective is to create world-class rail infrastructure with advanced technology to improve overall transport efficiency.

- To offer guaranteed, faster transit, energy efficient, environment friendly transport to customers.
- To reduce the unit cost of transport logistics.

In the first phase, Government of India has approved construction of two corridors – the Eastern DFC (1841 route Km) and Western DFC (1500 route Km) – spanning a total length of about 3341 route Km. The Eastern Corridor, starting from Dankuni in West Bengal is passing through the states West Bengal, Jharkhand, Bihar, Uttar Pradesh and Haryana and terminate at Ludhiana in Punjab. The Western Corridor will traverse the distance from Dadri in Uttar Pradesh to Mumbai – Jawaharlal Nehru Port (JNPT), passing through the states of Delhi, Haryana, Rajasthan, Gujarat and Maharashtra. Once completed, the Dedicated Freight Corridor will enable Indian Railways to improve its customer orientation and meet market needs more effectively. Creation of Rail infrastructure on such a scale – unprecedented in independent India, is also expected to drive the establishment of industrial corridors and logistic parks along its alignment. The proposed corridor will provide safe, faster and economical mode of transportation exclusively for goods. The proposed railway track is also strategic since passing through the Left Wing Extremism districts.



Dedicated Freight Corridor in the Eastern Corridor is planned between Dankuni to Dadri & Ludhiana to help cater to the freight on this route. The section between Dankuni to Sonnagar is proposed to be implemented through Public Private Partnership (PPP) mode for which appropriate PPP model is being developed by DFCCIL. The proposed freight corridor is being designed for a maximum speed of 100 km/h for train operation. The Total length of the section is 255.581 KM (between km.310.00 to km.534.64 km). Gomoh to Sonangar is an important section of New Delhi-Howrah double line electrified main trunk route of Eastern Railway connecting the Northern, Central and Eastern regions of the country.

The proposed alignment traverses on North side of existing Indian Railway track throughout the section except for Koderma -Paharpur section where detour has been proposed. Due to the technical constraints construction of DFC track along the existing IR track in between Koderma- Paharpur section is not feasible. Entire terrain is mostly plain terrain except hill portion of Chota Nagpur ranges in Koderma detour.

The Eastern Corridor of the DFCC is proposed parallel to the existing Grand Chord section one of the very important section of Indian Railways in Eastern India. It acts as a link between Sitarampur, (West Bengal) and Mughal Sarai, Uttar Pradesh, It is a fully electrified, triple line section from Mughalsarai to Dehri-on-sona and double line section from Dehri-on-sona to Asansol. The Grand chord section is the lifeline of the country on which Coal, Steel and other important goods are transported from Eastern section to Western and Northern sections of the country. In the down direction, the traffic consists of mostly food grains, fertilizers and empty wagons for coal loading in the Bihar and West Bengal coal fields. Mughalsarai is a transit division and the main objective is to maintain mobility of high density traffic. The present capacity of the Grand Chord is being optimally utilized. Traversing through Chhota Nagpur plateau of Jharkhand as well as parts of the fertile Gangetic plains of Bihar, the Grand Chord covers a stretch of 450 km. The proposed DFCCIL line is having a potential of maximum permissible speed of 100 km/hr for goods train to meet the anticipated traffic requirements. The ruling gradient for the proposed line has been kept as 1 in 200. The traffic density on the existing two line has risen so high that the punctuality of Mail/Express trains is adversely affected and the movement of goods trains are also affected. Due to the traffic pressure the maintenance of the line is also delayed. Construction of the new Dedicated corridor for goods train is extremely essential for overall economic growth of the country apart from sustaining existing level of traffic demand. The proposed Koderma detour from km 123.600 to km 180.000 is a part of Eastern Corridor of the DFCC passing through Hazaribagh & Koderma district in Jharkhand State and Gaya district in Bihar. In Hazaribagh districts the proposed alignment starts at km 354.18 at village Chaubey to 364.34 at village Brano (In Parallel section) and 135.230 at village Brinda to



157.50 at Bukar (In detour section). The proposed alignment of approx 22.0 km length in Hazaribagh district is traversing through the protected forest area. This proposed improvement proposal is linear project and the Dedicated Freight Corridor Corporation alignment between Dankuni-Sonnagar section runs parallel along the north side of Grand Chord section (Howrah-New Delhi route). However in Koderma (Jharkhand)-Manpur (Bihar) Gaya section wherein the existing gradients between Gurpa- Gujhandi sections are varying from 1 in 80 to 1 in 400 and therefore taking DFC line parallel to existing Grand Chord line with desired gradient 1 in 200 is not possible. Hence it has been proposed to go on Detour Alignment (Proposed Koderma Detour) with gradient of 1 in 200 and avoid Gurpa-Gujhandi section. Four detour alignments have been studied with gradient 1 in 200 and of varying lengths on either side of Koderma-Manpur section. All the four studied alignment are passing through the Forest land requiring prior Forest Clearance from Ministry of Environment, Forest & Climate Change under Forest (Conservation) Act, 1980. However due to serious gradient constraints on hilly terrain along the existing Grand Chord section of Indian Railways track and other three alignments were not found technically feasible. The construction of the proposed dedicated freight corridor alignment through the proposed Koderma detour is the only feasible option as far as the technical and engineering aspects are concerned which requires the minimum forest land under the proposed alignment. However attempts were made to minimize the impact on the protected forest area the construction work is restricted up to the formation width only. As far as the technical and engineering aspects are concerned there is no other suitable alternative land for the new construction as the Forest area extends on the either side of the proposed alignment. Therefore the diversion of Forest Land is being proposed.

The proposed alignment involves minimum displacement to people and structures and minimum acquisition of forest land. The project authorities have a great concern about the mitigation measures to be adopted for the Protected Forest. In order to ensure the compensation the cost of Net Present Value (NPV), Compensatory Afforestation (CA) and any other site specific management and strengthening measures as suggested by the Forest Department will be adopted in letter and spirit by the DFCCIL and cost for the same will be deposited before the execution of the project. The DFCCIL aims at to follow a low carbon path adopting various technologies options which can help DFCCIL to operate in energy efficient way. The implementation of the DFCC is expected to generate two major impacts namely:

- (a) Shift of freight from road to the low carbon-intensive mode-rail transport and



(b) Improvement in energy efficiency of freight rail through adoption of improved technologies.

As per a detailed study on a Green House Gas (GHG) emissions forecasting for a 30 years period cumulative GHG emissions over the 30-year period in the case of no-DFC scenario would have been 582 million ton CO₂, while in the DFC scenario it would be 124.5 million ton CO₂. This demonstrates that DFCC implementation will lead to saving of 457.5 million ton CO₂ in 30 years period in Freight Transportation envisaged on the Eastern and Western Corridor. Avenue plantation along the proposed DFCC track is planned apart from the compensatory afforestation which will be undertaken during execution of the project.



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