



**DFC Corporation of India Ltd.
(A Govt. of India Undertaking
Under Ministry of Railways)**

**Summary of
Environmental and Social Impact Assessment (ESIA) Study
For
Western Corridor of Dedicated Freight Corridor Project (Phase 2)
For JNPT - Vadodara And Rewari – Dadri Sections**

December 2011



This summary explains main features of the final environmental and social impact assessment (ESIA) study carried out for the Western Corridor of the Dedicated Freight Corridor (DFC) Project Phase 2 for JNPT - Vadodara and Rewari – Dadri sections. This summary for Final ESIA is distributed to the public as an information dissemination process under the project by the Dedicated Freight Corridor Corporation of India Limited (DFCCIL) as project implementing agency.

The Project Brief

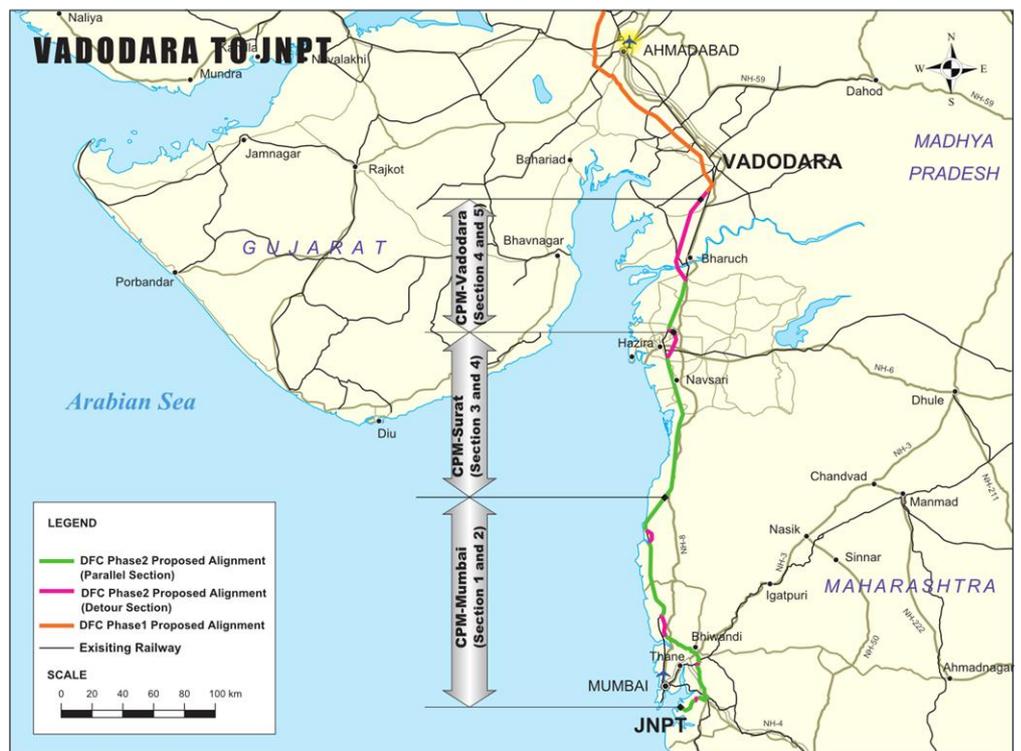
The Ministry of Railways (MoR) through the Dedicated Freight Corridor Corporation of India Limited (DFCCIL), a Special Purpose Vehicle (SPV), is implementing Computerized Multi Modal High Axle Load Dedicated Freight Corridor (DFC) Project between Delhi-Mumbai under the Western DFC Corridor. Considering the ever increasing freight traffic movement between the metros and their respective hinterlands, the DFC Project through adoption of improved technologies will result in a paradigm shift of freight transportation from road to the low carbon intensive mode rail transport and inherent improvement in energy efficiency of freight rail for transportation of bulk goods.

The Western DFC is designed to carry a total freight line of 37.7 million tonnes in fiscal year 2013-2014, which would increase to 140.4 million tonnes in 2033-34. Creation of rail infrastructure on such a scale, unprecedented in independent India, is also expected to drive the establishment of industrial corridors, logistic parks and other economic and trade centres along its alignment and will support India's growing economy which is at present levelled as the second fastest in the world.

The Western DFC has two broad streams of traffic, one, between the terminal nodes at either end, Jawaharlal Nehru Port Trust (JNPT) in Mumbai and Dadri in Uttar Pradesh including Tuglakabad (TKD) in Delhi, and the other, the traffic entering from branch line feeder routes at the various junction points en route. Implementation of the DFC Project will result in reducing the carbon intensity of India's transport sector.

The Project Area

The Western Corridor has been divided into 2 phases, in which Phase 1 covers corridor between Vadodara and Rewari and Phase 2 includes JNPT in Mumbai to Vadodara and Rewari to Dadri as well as a single line from DFC mainline near Faridabad to Tuglakabad (see Figure). This ESIA study pertains to Phase 2 of the DFC Project. The affected project area along with no. of villages and the length of alignment is shown in the table below.





Nearly 70 percent of the alignment length in JNPT-Vadodara section has been kept parallel to the existing Indian Railways (IR) lines. However, it is entirely on a new alignment route from Rewari to Dadri. For providing connection to Tuglakabad Inland Container Depot (ICD), a single TKD line is partly on detour route and partly parallel to the existing Delhi-Mathura line. The project is now under planning stage. The Project

implementation / construction work is scheduled to be completed in 4-5 years between 2012 and 2016.

Section	State	Districts	No. of Villages	Length of Alignment
JNPT-Vadodara	Maharashtra	Thane, Raigad	136	420 km
	Gujarat	Vadodara, Bharuch, Surat, Navasari, Valsad	133	
Rewari-Dadri (including TKD line)	Rajasthan	Alwar	13	145 km Including TKD:19 km
	Haryana	Faridabad, Gurgaon, Rewari, Palwal, Mewat	81	
	Uttar Pradesh	Gautam Buddh Nagar	11	

Salient Features of Alignment & Relevant Facilities

The project is planned as double line corridor (except single line in Faridabad-TKD) with electrification and advanced signalling system to allow freight trains with an axle load of 25 tonnes and speed up to 100 km/h. The Road over Bridges (ROBs) and Road under Bridges (RUBs) are



planned at major road crossings so as not to lead to any detention to either road or rail traffic. The major part of the alignment will have well landscaped out embankments.

The detour route has been designed in order to avoid large settlement, heavy built-up area, metal quarry site, topography constraint, design criteria constraint, eco-sensitive zone, existing utilities relocation, etc. to minimize environmental and social impacts as much as possible. The planned detour routes are shown in the table below:

Name of Detour	Between IR Stations	Approx. Length (km)
Kundevahal Detour	Jasai and Panvel	3
Panvel Loop	Dapoli and Kalamboli	3
Dativali (Diva) Detour	Nilje and Kopar Road	5
Vasai Detour	Juchandra and Vaitarna	18
Dahanu Detour	Dahanu Road	12
Surat Detour	Sachin and Gothangam	21
Sanjali –Nadiad Detour	Varediya and Makarpura	60
Rewari-Dadri (Mainline)	Rewari to Pirthala and Pirthala to Dadri	126
Rewari-Dadri (TKD line)	Faridabad and Tuglakabad	11
Total		259

The average Right-of-Way (ROW) width for detour alignment is 60 m and for parallel alignment is 35 m. JNPT-Vadodara section will have a total of three junction stations, nine crossing stations and 13 important bridges whereas Rewari-Dadri section will have a total of three junction stations, two crossing stations and two important bridges.

Environmental and Social Impact Assessment (ESIA) Study for the Project

Considering the scale, nature and extent of activities envisaged as part of the DFC Project, a detailed Environmental and Social Impact Assessment (ESIA) Study has been conducted on the proposed alignment in order to ensure that all potential environmental and social issues or concerns associated with various project components are addressed and integrated into the project’s planning and design at an early stage in order to formulate the DFC Project in a more sustainable and effective manner.

In this connection, MoR/DFCCIL has conducted ESIA study for the DFC Phase 2 Project of the Western Corridor under technical support by the Japan International Cooperation Agency (JICA) following ‘*JICA Guidelines for Environmental and Social Considerations, April 2010*’. The ESIA study is consisted of scoping, pollution control study, natural environmental study, social environmental study, public consultation, impacts identification and assessment, preparation of mitigation measures, and preparation of environmental and social management plan (EMP) and monitoring plan (EMoP).



River Monitoring at Bridge Alignment

Various environmental and social parameters have been studied along the proposed alignment during 2010-11 with the relevant primary data generated on the river water quality, natural environment, noise and vibration including land use and sensitive receptors, and baseline surveys and census along with the secondary information collected from various statutory agencies of the State Governments to identify, assess and predict potential impacts due to various activities of the project. The public consultation

meetings were held in various districts of five states at the beginning of the study stage and at Draft ESIA Report stage to receive responses of the affected population and incorporate in Final ESIA Report.



Noise measurement survey near parallel route and surrounding land use

Key Survey Parameters for ESIA Study

Some of the key survey parameters for the ESIA study are mentioned in the table below. The results of relevant environmental and social parameters in these areas along with detailed analysis are given in Final ESIA Report.

Section	Key Survey Parameters
JNPT-Vadodara Section	<p><u>Noise and Vibration Survey</u></p> <p>1. Panvel, Palghar, Boisar, Vapi, Valsad, Amalsad and Kim Stations for Noise and Vibration Survey</p> <p><u>Land Use and Sensitive Receptor Survey</u></p> <p>2. Land Use distribution and Sensitive Receptor sites within 60-100 m from the centerline of the proposed DFC alignment</p> <p><u>River Water Quality</u> (at bridge site locations)</p> <p>3. The South Vaitarna, North Vaitarna and Ulhas Rivers in Thane District, Maharashtra</p> <p>4. The Daman Ganga, Par River and Auranga Rivers in Valsad District, Gujarat</p> <p>5. The South Kaveri, North Kaveri, Ambika, N. Poorna and Mindhola Rivers in Navsari District, Gujarat</p> <p>6. The Tapi River in Surat District, Gujarat</p> <p>7. The Narmada River in Bharuch District, Gujarat</p> <p><u>Flora and Fauna Survey</u> (in recorded forest areas)</p> <p>8. Nearly 20 small forest patches in Bhiwandi, Vasai, Palghar and Dahanu Taluka in Thane District with acquired forest land of 32 ha</p> <p>9. Three mangrove areas in Thane District</p> <p>10. Reserved forest area between Sanjay Gandhi National Park (SGNP) and Tungreshwar Wildlife Sanctuary in Thane District</p> <p>11. Legally protected ecologically fragile Dahanu area of Thane District in Maharashtra</p> <p><u>Hydrogeological Survey</u></p> <p>12. Tunnel Section in Vasai Detour</p> <p><u>PCM, Baseline Survey and Census</u></p> <p>13. 269 affected villages along the alignment for socio-economic survey and Public Consultation Meetings</p>
Rewari-Dadri Section	<p><u>Noise and Vibration Survey</u></p> <p>1. Asaoti Station for Noise and Vibration Survey</p> <p><u>Land Use and Sensitive Receptor Survey</u></p> <p>2. Land Use distribution and Sensitive Receptor sites within 60-100 m from the centerline of the proposed DFC alignment</p> <p><u>River Water Quality</u> (at bridge site locations)</p> <p>3. The Yamuna and Hindon Rivers in Gautam Buddh Nagar District, Uttar Pradesh</p> <p><u>Flora and Fauna Survey</u> (in recorded forest areas)</p> <p>4. Gulistanpur reserved forest in Gautam Buddh Nagar District with acquired forest land of 10 ha</p> <p><u>Hydrogeological Survey</u></p> <p>5. Legally protected Geo-physical sensitive area near Aravalli Hill Range in Alwar District in Rajasthan and Mewat District in Haryana</p> <p><u>PCM, Baseline Survey and Census</u></p> <p>6. 105 affected villages along the alignment for socio-economic survey and Public Consultation Meetings</p>

Potential Impacts and Mitigation Measures

Based on the survey results and subsequent analysis, potential environmental and social impacts likely to result from the DFC project activities have been identified. Specific mitigation measures are proposed to avoid and minimize such impacts to the level of no significance at planning/design, construction and operation phases. Such measures for major items of the environmental and social impacts are mentioned below.

List of Main Potential Impacts and Mitigation Measures

Potential Impacts	Mitigation Measures
1. Noise and Vibration	
<i>< Construction phase ></i>	
<ul style="list-style-type: none"> • Noise and vibration due to movement of vehicles, and operation of heavy construction machineries 	<ul style="list-style-type: none"> ❖ Major construction equipment and machineries shall be fitted with acoustic control measures such as silencers and mufflers ❖ Construction activities only during daytime near residential areas ❖ Provision of protective gears such as ear muffs to construction personnel exposed to high decibel levels
<i>< Operation phase ></i>	
<ul style="list-style-type: none"> • Noise and vibration due to movement of trains and related facilities 	<ul style="list-style-type: none"> ❖ Use of long welded rails ❖ New technologies incorporated to lower noise and vibration generation with respect to structures and rolling stocks ❖ Appropriate maintenance of locomotives, tracks and structures ❖ Consideration of noise barriers at appropriate locations such as residential areas and sensitive receptors
2. Water Pollution	
<i>< Construction phase ></i>	
<ul style="list-style-type: none"> • Wastewater from construction activities with suspended impurities • Wastewater disposal from the workers camp and sludge generated from construction sites 	<ul style="list-style-type: none"> ❖ Control of quality of construction wastewater emanating from the construction site through suitable drainage system with sediment traps ❖ Provision of silt fencing and sand settling pond near water bodies ❖ Provision of proper sanitation facilities at the construction sites to prevent health related problems due to water contamination
3. Air Pollution	
<i>< Construction phase ></i>	
<ul style="list-style-type: none"> • Deterioration of ambient air quality due to particulate matter such as dust, especially during dry conditions and gaseous emissions from construction equipment and vehicular traffic 	<ul style="list-style-type: none"> ❖ Storage of construction materials in covered go-downs or enclosed spaces ❖ Adequate dust suppression measures such as regular water sprinkling on unpaved haul roads and vulnerable areas of the construction sites ❖ All major construction machineries shall be inbuilt with appropriate dust reduction measures ❖ Necessary permission shall be taken for critically polluted areas and all conditions of permission shall be complied with
4. Flora	
<i>< Planning/Design phase ></i>	
<ul style="list-style-type: none"> • Alignment passes through several forest patches of Recorded Forest Areas in Thane District and one forest patch in Gautam Buddh Nagar District 	<ul style="list-style-type: none"> ❖ Consideration of adjustments to ROW or loop length to reduce loss of reserved forest land to the minimum in detailed engineering ❖ Procedure for obtaining clearance under the Forest Conservation Act, 1980 being followed after due consultation with the Forest Department (FD) ❖ Comply with all stipulated conditions of Forest Clearance when granted
<i>< Construction phase ></i>	
<ul style="list-style-type: none"> • Loss of flora due to felling of trees within ROW linearly along the proposed alignment • Deposition of fugitive dust on pubescent leaves of nearby vegetation could lead to temporary reduction of photosynthesis 	<ul style="list-style-type: none"> ❖ Joint field verification with the respective State FD to avoid uncontrolled and indiscriminate tree felling ❖ Appropriate compensatory plantation using native species with rate of replacement as per the State FD. For example, for Dahanu eco-sensitive area, ten trees for each tree cut ❖ Compensation for trees in private land based on fruit yield, timber and other economic values ❖ Regular and proper water sprinkling near the site to minimize dust deposition on vegetation

Potential Impacts	Mitigation Measures
< Operation stage >	
<ul style="list-style-type: none"> Improper post-plantation care/maintenance as well as illegal felling of plantation 	<ul style="list-style-type: none"> ❖ Plantation along the ROW shall be maintained properly as well as protected from illegal felling
5. Fauna	
< Construction phase >	
<ul style="list-style-type: none"> Both terrestrial and avifauna affected by noise and vibration due to construction equipment and machinery Destruction of habitats such as bird nests, breeding sites along the proposed alignment 	<ul style="list-style-type: none"> ❖ All major noise producing construction equipment and machinery shall be fitted with acoustic control measures ❖ No construction yard in the forest areas ❖ Construction schedule shall avoid heavy construction activities near forest areas during winter season when migratory birds inhabit the area
< Operation phase >	
<ul style="list-style-type: none"> Impact on aquatic fauna in case of accidental oil spill and toxic chemicals release find its way into the water bodies 	<ul style="list-style-type: none"> ❖ Immediate action shall be taken for speedy cleaning up of oil spills, fuel and toxic chemicals in the event of accidents
6. Biodiversity	
< Planning/Design phase >	
<ul style="list-style-type: none"> Alignment passes through reserved forest area between SGNP and Tungareshwar Wildlife Sanctuary along parallel section Some mangrove areas in Thane District along parallel section 	<ul style="list-style-type: none"> ❖ Consideration of adjustments to ROW or loop length to reduce loss of reserved forest land to the minimum in detailed engineering ❖ Procedure for obtaining clearance under the Wildlife Protection Act, 1972 after due consultation with the State's Chief Wildlife Warden and other key officials ❖ Procedure for obtaining clearance under the Forest Conservation Act, 1980 for mangrove areas ❖ Comply with all stipulated conditions
< Construction phase >	
<ul style="list-style-type: none"> Mangrove areas with species having conservation concern affected by the construction activities Felling of some endangered flora species in the ROW near SGNP Impact on some water holes and habitats such as bird nests and breeding sites 	<ul style="list-style-type: none"> ❖ Compensate loss of mangrove vegetation by replanting at other mangrove sites after due consultation with FD and paying compensation fees ❖ Compensatory plantation for endangered species in the degraded forest land near protected area in consultation with FD ❖ Develop lost water holes inside the forest areas to encourage wildlife movement inside in consultation with the SGNP authority
< Operation phase >	
<ul style="list-style-type: none"> Potential direct impact of DFC trains hitting wildlife near protected area 	<ul style="list-style-type: none"> ❖ Incorporate some appropriate structures into the design such as underpasses, pipe culverts and/or other structures as needed to allow wildlife to cross line safely
7. Topography and Geology	
< Construction phase >	
<ul style="list-style-type: none"> Impact on overall relief of the region due to the proposed alignment passing through plain, rolling and hilly terrain Disfiguring of topography and disturbance to geological setting due to indiscriminate digging of borrow pits Enhancement of rock-joint rupture hazard due to deep cutting and rock excavation work in hilly blocks along the alignment 	<ul style="list-style-type: none"> ❖ Use of only identified borrow pits and quarry sites to avoid any disfiguring of topography ❖ Procurement of construction materials from the existing approved and licensed quarry sites only ❖ Involvement of specialized engineering geologist to study rock-rupture hazards and bed rock geology along with characterization of weak zones in critical hill blocks during detailed engineering stage
8. Soil Erosion	
< Construction phase >	
<ul style="list-style-type: none"> Loose soil for embankment preparation could result in silt run-off Uncontrolled opening up of borrow pits could result in loss of productive soil Loosening of top soil and loss of vegetative cover within ROW due to excavation, land cut and back filling could increase soil erosion 	<ul style="list-style-type: none"> ❖ Avoid cut and fill operation in the monsoon season as much as possible ❖ Protect embankment slopes and exposed hill surfaces from low cost bio-engineering products ❖ Reuse of top soil from the construction sites in construction of embankment ❖ Top soils of the borrow pit sites shall be conserved and restored after excavation work is over ❖ Use of fly ash as a substitute to top soil in construction of embankment shall be done only after careful analysis of site conditions ❖ Locate stockpiles of construction materials away from rivers, streams, fertile agricultural lands, recorded forest lands or inhabited areas
9. Groundwater	
< Construction phase >	
<ul style="list-style-type: none"> Uncontrolled use of ground water for construction use could put further stress on ground water resource in the area 	<ul style="list-style-type: none"> ❖ Prepare a comprehensive plan to conserve groundwater along with recharging mechanism ❖ Use of only identified groundwater sources by the CGWA based on estimated quantity and expected quality for construction use

Potential Impacts	Mitigation Measures
10. Hydrological Situation	
< Construction phase >	
<ul style="list-style-type: none"> Natural drainage and recharge conditions near project sites affected due to blockage of drainage channels, deep rock cutting, earth filling, land levelling and other construction activities 	<ul style="list-style-type: none"> No dumping of material into natural drains and hence would not block or impede flow in drainage channels Consideration of provision of DFC track through viaduct (elevated) instead of filled-in (embankment) in valley regions in detailed engineering so that the surface water flow is not altered Provision of suitable drainage at each construction site and labour camps to avoid water logging or formation of stagnant pool of water
< Operation phase >	
<ul style="list-style-type: none"> Local drainage likely to be affected due to formation of embankment along the proposed alignment 	<ul style="list-style-type: none"> Provision of longitudinal drains of sufficient capacity on both sides of the DFC track to accommodate increased run-off with an outfall in the nearby drainage carrying system Duly augmentation of the capacity of existing drainage works and cross drainage structures in parallel section
11. Land Acquisition and Resettlement	
< Planning/Design phase >	
<ul style="list-style-type: none"> Loss of livelihood and properties 	<ul style="list-style-type: none"> Compensation and assistance package shall be planned in the Rehabilitation and Resettlement Plan (RRP)
< Construction phase >	
<ul style="list-style-type: none"> Disturbance of vehicle traffic and pedestrian (farmers) passage 	<ul style="list-style-type: none"> Provision of detour with adequate sign board and instruction
12. Public Safety and Severance	
< Operation phase >	
<ul style="list-style-type: none"> Risks of accidents and fatalities in the early stages of DFC operations especially in parallel sections Road and rail crossings on DFC track as well as embankment structures could disrupt people's movements 	<ul style="list-style-type: none"> Incorporate proper warning signals, alarm system and modern railway safety measures in the design Proper safety walls should be provided in accident prone areas Provision of RUB, ROB, pedestrian sub ways, rail flyovers and level crossings, etc. with proper height and width on major existing road crossings and footpaths as needed
13. Temporary Use of Land	
< Construction phase >	
<ul style="list-style-type: none"> Land would be affected and polluted by works such as labour camps, stockpiles of construction materials, and borrow pits. 	<ul style="list-style-type: none"> No fertile agricultural land or recorded forest area to be used for labour camps, stockpiles, borrow pits etc. Land should be reinstated to owner's satisfaction after use

Note: Detailed explanation to above impacts and mitigation measures in addition to some more issues are given in Final ESIA Report.

Environmental Management Plan (EMP)

Environmental Management Plan (EMP) envisages the plans for the proper implementation of mitigation measures to avoid and minimize the adverse impacts caused by the project activities during planning/design, construction and operation phases. An effective EMP ensures that proper expected results are obtained from the implementation of environmental mitigation measures. EMP has been prepared addressing the following issues:

1. The following specific Environment Management Plans (EMP) is proposed in the Final ESIA Report:
 - ❖ Greenbelt Development Plan
 - ❖ Management and Rehabilitation Plan for Quarry / Borrow Areas
 - ❖ Noise and Vibration Management and Control
 - ❖ Solid Waste Management Plan
 - ❖ Plan for Storage, Handling & Emergency Response for Hazardous Chemicals
 - ❖ Drainage Management Plan
 - ❖ Management for Land Acquisition and Resettlement (Details in RRP Report)
 - ❖ Plan for Sanitation and Housekeeping at the Construction Labour Camps
 - ❖ Occupational Health and Safety Management

2. Phase-wise Environmental Management Measures are proposed for the following environmental and social issues:
 - a) Planning/Design Phase
 - ❖ Land acquisition, diversion of forest land, preservation of trees, borrow areas, quarry areas, construction water, sites for other construction materials, site identification for placement of construction machineries and disposal of unsuitable materials, construction camp, arrangement for temporary yard, orientation of implementation agency and contractors
 - b) Construction Phase
 - ❖ Site clearance, procurement of construction materials, construction work (drainage, siltation, slope protection, etc.), water pollution, air pollution, noise and vibration, safety, labour camp management, contractor's demobilization (clean-up operation, restoration and rehabilitation)
 - c) Operation Phase
 - ❖ Monitoring of operation performance of various mitigation measures, pollution monitoring

Environmental Monitoring Plan (EMoP)

The purpose of the Environmental Monitoring Plan (EMoP) is to ensure the effective implementation of EMP in order to achieve overall objective of the project in a more sustainable and effective manner. The EMoP monitors the results of effective implementation of mitigation measures and suggest additional measures, if any, to enhance the project benefits to the target population. The environmental monitoring plan consists of performance indicators and environmental monitoring programme and are mentioned below:

1. Performance Indicators

- ❖ Planning/Design Phase: land acquisition, dumping locations, construction workers' camps, borrow areas and quarry sites
- ❖ Construction Phase: ambient air quality, noise & vibration levels, water quality (ground water, river water, drinking water), waste water quality, vegetation cover, soil quality
- ❖ Operation Phase: survival rate of trees, rehabilitation of borrow areas, utility of noise barriers for sensitive receptors

2. Environmental Monitoring Programme

This includes parameters to be monitored; monitoring methods; location of the monitoring sites; frequency and duration of monitoring; institutional responsibilities for implementation and supervision; and estimated cost. Some specific parameters that will be used for monitoring environmental items are:

- ❖ Ambient air quality, Noise and vibration levels, Water quality, Loss of trees and vegetation

Public Consultation Meetings (PCMs)

The Public Consultation Meetings primarily aim at providing a platform for the project affected persons and different stakeholders to express their views on possible impact of the proposed intervention. The PCMs for ESIA were held at two different stages in order to collect opinions and feedback of the public and to disseminate information on the project and ESIA study. The PCMs were conducted district-wise in all fourteen districts.

- ❖ The first stage of the PCM for ESIA was conducted in November 2010 (and supplemental PCM in Maharashtra in February 2011) at the time of environmental scoping in the initial stage of the ESIA study. Information on the Project and scope of the ESIA study was disseminated to the public, and comments and opinion were collected to incorporate in the ESIA study.



Public Consultation Meeting

- ❖ The second stage of the PCM for ESIA was conducted in September 2011 to disseminate information about findings of draft ESIA study and probable mitigation measures to the general public that are directly or indirectly affected by the project and to receive their feedback and opinions and incorporate their comments and request on the environment and social mitigation measures and management and monitoring plans in the Final ESIA Report.

Some opinion and issues raised in the first and second stage PCMs were - compensation and employment opportunities, displacement and land acquisition, clarification on aspects related to alignment such as discrepancy in land records, width of ROW, and provision of accessibility of service roads to farmers, environment and health, drainage, access to resources and community facilities; and socio-cultural aspects. The first and second stage PCMs were attended by project-affected persons (PAPs), representative from gram sabha and gram panchayat, elected members of zila parishad, district administration, revenue department, forest officers, local important persons (MPs, MLAs), advocates, NGOs and other senior citizens.

Information Dissemination in ESIA Process

The ESIA study findings were/are disseminated to PAPs, stakeholders and the implementation authorities so that preventative measures can be taken in the project. The information disclosure is implemented at two stages for the ESIA.

- ❖ The first stage of information dissemination was conducted when the draft ESIA was prepared. Sets of full draft ESIA report (main report and appendices) in English were placed at each DFCCIL head office and respective Chief Project Manager (CPM) offices, major existing railway stations and district offices along the proposed DFC alignment. Additionally, the summary of the draft ESIA report was prepared in local languages, i.e. Hindi, Gujarati and Marathi and was delivered to all the project affected villages along the DFC route.
[Among five comments received, two comments relating to reduction of dust pollution during construction to avoid damage to crops in nearby fields and minimizing impacts on existing drainage channels are incorporated in the final ESIA report with suitable mitigation measures and EMP. Other comments are related to higher compensation for land and utilities, employment, and other rehabilitation and resettlement issues. These specific issues will be dealt separately in RRP report]
- ❖ The second stage of information dissemination is implemented at final ESIA stage. Sets of full final ESIA report (main report and appendices) in English is placed at DFCCIL head office and respective CPM offices, major existing railway stations and district offices along the proposed DFC alignment. Additionally, the summary of the final ESIA is prepared in local languages, i.e. Hindi, Gujarati and Marathi and is delivered to all the project affected villages along the proposed DFC alignment.

Availability of Final ESIA Report

- ❖ Final ESIA Report is available at the following disclosed locations:
DFCCIL head office and respective CPM offices, major stations and respective district offices along the proposed DFC alignment from mid-December 2011 onwards.
- ❖ Summary of Final ESIA Report in local languages is also available at Sarpanch offices of all the project affected villages along the DFC alignment from mid-December 2011 onwards.

Address of DFCCIL Head Office and CPM Offices

- ❖ Dedicated Freight Corridor Corporation of India Limited (DFCCIL)
(Under Ministry of Railways), Fifth Floor, Pragati Maidan, Metro Station Building Complex, New Delhi – 110 001
Tel: 91-11-23454700; Fax: 91-11-23454701
- ❖ CPM Office Mumbai
7th Floor, New Administrative Building, Central Railway, D.N. Road, Mumbai – 400 001, Maharashtra
Tel: 91-22-22634184; Fax: 91-22-22634184
- ❖ CPM Office Surat:
4th Floor, Aruns-1, Near Iscon Mall, Dumas Road, Piplod, Surat – 395 007, Gujarat
Tel: 91-261-2633250; Fax: 91-261-2633250
- ❖ CPM Office Vadodara:
13-14, 17-18, Panorama Complex, 3rd Floor, R. C. Dutt Road, Alkapuri, Vadodara – 395 007, Gujarat
Tel: 91-265-2326024; Fax: 91-265-2326027
- ❖ AGM Office Rewari-Dadri:
“Star House”, First Floor, A-102, Sector-4, Noida, Uttar Pradesh
Tel: 91-120-4309720; Fax: 91-120-4134554

Major Stations where the Final ESIA Report is available

- ❖ Maharashtra
Panvel (Jn), Kalyan (Jn), Vaitarna, Kelve Road, Palghar, Dahanu Road
- ❖ Gujarat
Sanjan, Vapi, Valsad, Bilimora (Jn), Navsari, Sachin, Kosamba (Jn), Bharuch (Jn)
- ❖ Haryana, Rajasthan, UP, Delhi
Rewari (Jn), Faridabad, Dadri