# REHABILITATION AND RESETTLEMENT PLAN (RRP) FOR WESTERN CORRIDOR OF DEDICATED FREIGHT CORRIDOR PROJECT (PHASE 2) FOR JNPT-VADODARA AND REWARI-DADRI SECTIONS

# **DRAFT REPORT**

# **NOVEMBER 2011**

Dedicated Freight Corridor Corporation of India Ltd. (A Govt. of India Undertaking under Ministry of Railways)

# **Rehabilitation and Resettlement Plan for**

# Western Corridor of Dedicated Freight Corridor Project (Phase 2)

## for JNPT-Vadodara & Rewari-Dadri Sections

# **Draft Report**

# **Table of Contents**

| S.No. | Chapters     | Contents   | Page Nos. |
|-------|--------------|--|-----------|
| 1.    | Chapter – 1  | Introduction   | 1-8       |
| 2.    | Chapter – 2  | Scope of Land Acquisition and Resettlement                 | 1-5       |
| 3.    | Chapter – 3  | Measures to Minimize Land Acquisition and losses           | 1-16      |
| 4.    | Chapter – 4  | Socio-Economic Features of the<br>Project-Affected Persons | 1-8       |
| 5.    | Chapter – 5  | Resettlement Policy and Entitlements                       | 1-10      |
| 6.    | Chapter – 6  | Resettlement Site  | 1         |
| 7.    | Chapter – 7  | Income Restoration   | 1-3       |
| 8.    | Chapter – 8  | Institutional Arrangements                                 | 1-4       |
| 9.    | Chapter – 9  | Implementation Schedule                                    | 1-3       |
| 10.   | Chapter – 10 | Participation and Consultation                             | 1-4       |
| 11.   | Chapter – 11 | Monitoring and Supervision                                 | 1-5       |
| 12.   | Chapter – 12 | Grievance Redress Mechanism                                | 1-2       |
| 13.   | Chapter – 13 | Cost Estimate  | 1-2       |
| 14.   | Chapter – 14 | Further Activities   | 1         |
|       |              | I.   |           |

### **ABBREVIATIONS**

BPL - Below Poverty Line
BSR - Basic Schedule of Rates
COI - Corridor of Impact

CPR - Common Property Resources
CSO - Civil Society Organisation
CSR - Common Schedule of Rates

DC - District Collector

DDP - Desert Development Programme
DFC - Dedicated Freight Corridor

DFCCIL - Dedicated Freight Corridor Company India Limited

GOI - Government of India
GR - Governmental Resolution
GRC - Grievance Redress Committee

JBIC - Japan Bank for International CooperationJICA - Japan International Cooperation Agency

LA - Land Acquisition

M&E - Monitoring and EvaluationMLA - Member of Legislative Assembly

MOR - Ministry of Railways

NGO - Non Governmental Organization

NRRP - National Rehabilitation and Resettlement Policy

OBC - Other Backward Class

ODA - Official Development Assistance

PAF - Project Affected Family
PAH - Project Affected Household
PAP - Project Affected Person

PVAC - Property Valuation Assessment Committee

R&R - Rehabilitation and Resettlement RAA - Railways (Amendment) Act

ROB - Road over Bridge ROW - Right-of-Way

RRO - Resettlement and Rehabilitation Officer
RRP - Rehabilitation and Resettlement Plan
RRS - Resettlement and Rehabilitation Specialist

RUB - Road under Bridge

SACS - State AIDS Prevention and Control Society

SC - Scheduled Caste

SIA - Social Impact Assessment

ST - Scheduled Tribe ToR - Terms of Reference

### **Definition of Terms**

Following definitions will be applicable for this draft RRP unless otherwise stated specifically.

<u>"Administrator for Rehabilitation and Resettlement"</u> means an officer not below the rank of District Collector in a State appointed for the purpose of rehabilitation and resettlement of affected persons (NRRP 2007);

<u>"Competent Authority":</u> means any person authorised by the Central Government, by notification, to perform the functions of the Competent Authority for such area as may be specified in the notification.

<u>"Independent Evaluator":</u> means an evaluator registered with government, hired by DFCCIL, if required Competent Authority, to provide inputs to the competent authority in arriving at the replacement cost of land. Independent Evaluator would follow the following criteria in arriving at replacement cost of land:

- i) Appraise recent sales and transfer of title deeds and registration certificates for similar type of land in the village or urban area and vicinity.
- ii) Appraise circle rate in urban and rural areas of the district.
- iii) Appraise agricultural productivity rate for land 20 years deed.

<u>"agricultural labourer"</u> means a person primarily resident in the affected area who does not hold any land in the affected area but who earns his livelihood principally by manual labour on agricultural land therein immediately before such declaration and who has been deprived of his livelihood:

"agricultural land" includes lands being used for the purpose of-

- i) agriculture or horticulture;
- ii) dairy farming, poultry farming, pisciculture, breeding of livestock or nursery growing medicinal herbs:
- iii) raising of crops, grass or garden produce; and
- iv) land used by an agriculturist for the grazing of cattle, but does not include land used for cutting of wood only (NRRP 2007)

### "appropriate Government" means,-

- i) in relation to the acquisition of land for the purposes of the Union, the Central Government;
- ii) in relation to a project which is executed by the Central Government agency or undertaking or by any other agency on the orders or directions of the Central Government, the Central Government;
- iii) in relation to the acquisition of land for purposes other than (i) and (ii) above, the State Government; and
- iv) in relation to the rehabilitation and resettlement of persons involuntarily displaced due to any other reason, the State Government (NRRP 2007);

- <u>"BPL family"</u>: The below poverty line (BPL) families shall be those as defined by the Planning Commission of India from time to time and included in a BPL list for the time being in force (NRRP 2007);
- <u>"Census"</u>: is a data collection technique of completing enumeration of all PAPs and their assets through household questionnaire. Census's objectives are (i) to prepare a complete inventory of PAPs and their assets as a basis for compensation, (ii) to identify non-entitled persons, and (iii) to minimize impact of later influx of "outsiders" to project area.
- <u>"Commissioner for Rehabilitation and Resettlement"</u>: means the Commissioner for Rehabilitation and Resettlement appointed by the State Government not below the rank of Commissioner 'or of equivalent rank of that Government (NRRP 2007);
- <u>"Compensation"</u>: means payment in cash or in kind to replace losses of land, housing, income, and other assets caused by a project.
- <u>"Cut-off date"</u>: This refers to the date prior to which the project affected family was in possession of the immovable or movable property within the affected zone. For non-titleholders and titleholders, it is the date on which the Notification is issued as per Section 20A of the Railways (Amendment) Act, 2008.
- <u>"DDP block"</u> means a block identified under the Desert Development Programme of the Government of India (NRRP 2007);
- <u>"Entitlement"</u>: is defined as the right of project affected persons (PAPs) to receive various types of compensation, relocation assistance, support for income restoration in accordance with the nature of their loss.
- <u>"Entitlement Matrix"</u> is a table to define different nature of PAPs' losses and compensation packages and other relocation assistance that PAPs can receive.
- <u>"family"</u> includes a. person, his' or her spouse, minor sons, unmarried daughters, minor brothers, unmarried sisters, father, mother and other relatives residing with him or her and dependent on him or her for their livelihood; and includes "nuclear family" consisting of a person, his or her spouse and minor children (NRRP 2007);
- <u>"Grievance Redress procedures"</u>: set out the time frame and mechanisms for resolutions of complaints about resettlement from PAPs. Grievance redress can be provided through informally-constituted local committees with representation from key stakeholder groups. Grievances can also be addressed through formal channels, with unresolved grievances being dealt with at progressively higher levels.
- <u>"holding"</u> means the total land held by a person as an occupant or tenant or as both (NRRP 2007);
- <u>"khatedar"</u> means a person whose name is included in the revenue records of the parcel of land under reference (NRRP 2007);
- <u>"land acquisition"</u> or <u>"acquisition of land"</u> means acquisition of land under the Land Acquisition Act, 1894 (1 of 1894), as amended from time to time, or any other law of the Union or a State for the time being in force (NRRP 2007) (<u>Although the definition in NRRP 2007</u> is the above, the Land Acquisition Act, 1894 is not be applied for the DFC project, but Railways (Amendment) Act, 2008 as per its prescription as the special railway project.);

<u>"marginal farmer"</u> means a cultivator with an un-irrigated land holding up to one hectare or irrigated land holding up to half hectare (NRRP 2007);

<u>"non-agricultural labourer"</u> means a person who is not an agricultural labourer but is primarily residing in the affected area who does not hold any land under the affected area but who earns his livelihood principally by manual labour or as a rural artisan immediately before such declaration and who has been deprived of earning his livelihood principally by manual labour or as such artisan in the affected area:

<u>"Non-titleholder"</u>: Affected persons/families with no legal title to the land, structures and other assets adversely affected by the project. Non-titleholders include encroachers, squatters, etc.

<u>"notification"</u> means a notification published in the Gazette of India or, as the case may be the Gazette of a State (NRRP 2007);

<u>"occupiers"</u> means members of the Scheduled Tribes in possession of forest land prior to the 13th day of December, 2005 (NRRP 2007);

<u>"Ombudsman"</u> means the person appointed under paragraph 8.3 of the RRP for redressal of grievances (NRRP 2007);

<u>"prescribed"</u> means unless otherwise specified, prescribed by guidelines or orders issued by the Central Government under the RRP (NRRP 2007);

"Project": Refers to the Dedicated Freight Corridor project (DFC project).

<u>"Project Affected Persons (PAPs)"</u>: indicates any person being as it may an individual, a household, a firm or a private or public who, on account of the execution of the project, or any of its components or sub-projects or parts thereof would have their right, title or interest in any house, land or any other asset acquired or possessed, in full or in part; or business, occupation, work, place of residence or habitat adversely affected; or standard of living adversely affected, including the follows.

- a family whose primary place of residence or other property or source of livelihood is adversely affected by the acquisition of land for a project or involuntary displacement for any other reason; or
- ii) any tenure holder, tenant, lessee or owner of other property, who on account of acquisition of land (including plot in the *abadi* or other property) in the affected area or otherwise, has been involuntarily displaced from such land or other property; or
- iii) any agricultural or non-agricultural labourer, landless person (not having homestead land, agricultural land, or either homestead or agricultural land), rural artisan, small trader or self-employed person; who has been residing or engaged in any trade, business, occupation or vocation, and who has been deprived of earning his livelihood or alienated wholly or substantially from the main source of his trade, business, occupation or vocation because of the acquisition of land in the affected area or being involuntarily displaced for any other reason:

**<u>Rehabilitation (Income restoration/Livelihood restoration)</u>:** means the process to restore income earning capacity, production levels and living standards in a longer term.

<u>Replacement cost/value</u>: Replacement cost is the cost of purchasing comparable assets elsewhere by the affected person in lieu of the acquired land, buildings, structures, and other immovable assets, etc. The compensation awarded for the acquired land and other amenities, buildings, etc. should be adequate to enable purchase of comparable assets elsewhere by the

affected person. Wherever compensation is not adequate enough to buy replacement lands/buildings, the DFCCIL and Competent Authority shall provide other assistance to overcome the shortfall.

- (i) For agricultural land, it is the pre-project or pre-displacement, whichever is higher, market value of land of equal productive potential or use located in the vicinity of the affected land, plus the cost of preparing the land to levels similar to those of the affected land, plus the cost of any registration and transfer taxes.
- (ii) For land in urban areas, it is the pre-displacement market value of land of equal size and use, with similar or improved public infrastructure facilities and services and located in the vicinity of the affected land, plus the cost of any registration and transfer taxes.
- (iii) For houses and other structures, it is the market cost of the materials to build a replacement structure with an area and quality similar to or better than those of the affected structure, or to repair a partially affected structure, plus the cost of transporting building materials to the construction site, plus the cost of any labour and contractors' fees, plus the cost of any registration and transfer taxes.

In determining the replacement cost, depreciation of the asset and the value of salvage materials are not taken into account, nor is the value of benefits to be derived from the project deducted from the valuation of an affected asset.

<u>"small farmer"</u> means a cultivator with an un-irrigated land holding up to two hectares or with an irrigated land holding up to one hectare, but more than the holding of a marginal farmer (NRRP 2007).

<u>Socio-economic survey</u>: is carried out in order to prepare profile of PAPs and to prepare for Basic Resettlement Plan. About 20 percent sample of PAPs population was surveyed through household questionnaire under the JICA SAPROF Study in 2008 and 2009. The survey result is used (i) to assess incomes, identify productive activities, and plan for income restoration, (ii) to develop relocation options, and (iii) to develop social preparation phase for vulnerable groups.

<u>"Tenant"</u>: A person who holds land under another person and is or (but for a special contract) would be liable to pay rent for that land to other person and includes the predecessor and successor-in-interest of such person but does not include mortgage of the rights of a landowner or a person to whom holding has been transferred or an estate or holding has been let in farm for the recovery of an arrear of land revenue or of a sum recoverable as such an arrear or a person who takes from Government a lease of unoccupied land for the purpose of subletting it.

<u>"Titleholder"</u>: A PAP/PAF who has legal title to land, structures and other assets in the affected zone.

<u>"Vulnerable Group"</u>: This includes Scheduled Caste families, Scheduled Tribe families, small and marginal farmers; families headed by women/female, disabled, handicapped, orphans, destitute, below BPL, etc. Vulnerable groups would also include those farmers who (after acquisition of land) become small/marginal farmers. For such cases, total land holding of the landowner in the particular revenue village will be considered.

<u>"Wage Earner"</u>: Wage earners are those whose livelihood would be affected due to the displacement of the employer.

### **CHAPTER 1 INTRODUCTION**

### 1.1 Project Scope

### 1.1.1 Project Background<sup>1</sup>

### (1) Railway's Role in Transport System of India

The Indian Government sanctioned the 11th Five-Year Plan (2007 - 2012) and issued in December, 2006. The Working Group Paper for the railway sector indicates enhancing of the transport capacity by construction of the Dedicated Freight Corridor (DFC), and plan to reinforce the rolling stock fleet by procurement of locomotives amounting to 1,800 units within a five year period. The development of logistic centres and management of freight terminal operation by public-private-partnership (PPP) is also recommended as areas of development in the freight transport business.

The railway traffic volume continues to increase year by year, while its share in transport of passenger and freight transport is decreasing. This is due to the improvements of the road network, and the growth in vehicle ownership, and the fact that the railway traffic volume is now approaching the capacity limit of rail network facilities. The railway transport capabilities need to be reinforced to increase its share within the transport sector. The enhancement of customer oriented transport services is also required for the railway sector to survive the competition with the road transport.

### (2) Social and Economic Situations in DFC Traversing Regions

The proposed new east-west freight line runs between the east coast state of Maharashtra (capital Mumbai) to the east coast state of West Bengal (capital Kolkata), and passes through a total of 10 states. These 10 states contain a total population of 620 million people. The west coast region, centred on the city of Mumbai (Maharashtra and Gujarat states) is served by several deep-sea ports, and is a thriving centre of industry and commerce. The region centred on the capital city of Delhi is densely populated, and is a developing centre of industry, commerce, and agriculture. The northern region includes the state of Punjab, blessed with fertile soils and known as the "bread basket" of India, and the district of Ludhiana, a fast industrializing hub of manufacturing and information technology. The east coast region (West Bengal State), centred on the city of Kolkata, has achieved remarkable economic growth over recent years. Adjoining West Bengal on its inland border is the state of Jharkhand, which is developing as a centre for heavy industries such as steel mills, which rely on the state's rich coal and iron ore resources.

### (3) Present Issues in Railway Freight Transport

Except for block train transport for bulk freight, the transport service provided by railways alone cannot complete the whole transport service. The rail transport requires connectivity to ports, freight collection facilities, inland container depots (ICDs), and connection to road transport. The containerisation of freight transport is presumed to be a global trend, making it a large business target of the Project. The container transport is based on intermodal transport and it realises the smooth transfer of freight. However for realisation of the enhancement of railway transport services of the container transport, it is imperative that the freight handling facility and collaboration with other modes of transport are well established. It shall be noted that improvement of the intermodal system is to secure the competitiveness of the railways against road transport.

The section referred to the "Volume 1, Executive Summary of the Final Report for the Feasibility Study on the Development of Dedicated Freight Corridor for Delhi-Mumbai and Ludhiana - Sonnagar in India, JICA, October 2007"

Many sections of the Indian Railways network deploy an Absolute Block System (ABS) which allows only a single train to operate between two consecutive stations. This is a major factor hindering the increase in number of trains that can operate on the network (line capacity). Transport capacities of the network need to be upgraded by introducing automatic signalling and railway traffic control systems. In addition, the operation of freight train services is not based on scheduled timetables. In order to improve the quality of freight train services, it is imperative to introduce a modernised train operation management system that would facilitate transport services by scheduled freight trains.

### 1.1.2 Project Objectives

Dedicated Freight Corridor Corporation India Limited (DFCCIL) under Ministry of Railways, Government of India is an executive agency for the development of DFC. Regarding the western corridor of the DFC between Delhi and Mumbai, state boundaries through which the DFC traverses include Delhi, Uttar Pradesh, Haryana, Rajasthan, Gujarat and Maharashtra. The prime objective of the DFC project is to facilitate speedier and smooth transportation of bulk goods without any interruption between the two metropolises Delhi and Mumbai and their respective hinterlands at lesser transport cost and lesser time. The project includes construction of railway track both parallel to the existing railway track as well as bypasses, ROB, RUB, etc. It is anticipated that the construction of DFC would induce economic development, generate employment and above all improve economic integration of regions in the country with improved links among major economic and trade centres.

### 1.1.3 Project Scope

As phased implementation of the DFC project, DFC section between Vadodara and Jawaharlal Nehru Port Trust (JNPT) and between Rewari and Dadri was determined as Phase 2 section during the Feasibility Study on the Development of Dedicated Freight Corridor for Delhi-Mumbai and Ludhiana - Sonnagar in India, supported by JICA in 2007.

Location map of the project area is shown in Figure 1.1.1. Total length of Phase 2 Section is approximately 565 km, consisting of approximately 420 km between JNPT and Vadodara and approximately 145 km between Rewari and Dadri. The area consists of 5 states namely Maharashtra, Gujarat, Rajasthan, Haryana, Uttar Pradesh and Delhi with 14 districts in total.

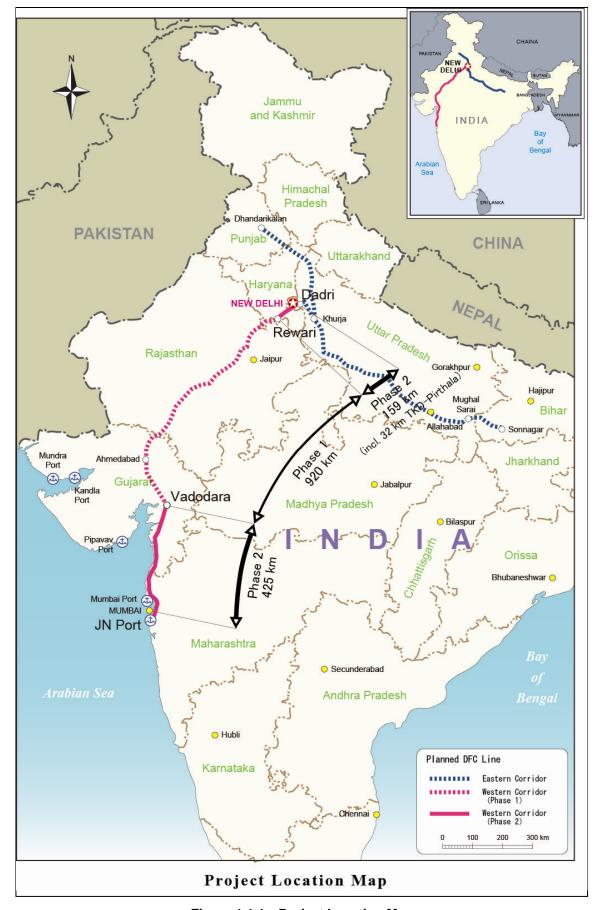


Figure 1.1.1 Project Location Map

### 1.2 Objectives of Rehabilitation and Resettlement Plan

At the same time the implementation of the project, adverse social impacts would occur, especially for land owners whose land would be acquired and those who would lose sources of livelihood. Obviously the land requirement in the parallel sections (i.e., along the existing railway track) would be much less than the land requirement for detour section. Contrarily, the number of structures affected would be more along the parallel section than that in the detour section. The broad adverse impacts envisaged due to the implementation of the project are as follows:

- Large scale land acquisition;
- Impacts on structures used for residential, commercial, and other purposes;
- Impacts on livelihood of land owners, those dependent on land owners, and businessmen whose land and business establishments would be affected by the DFC;
- Common property resources such as religious places, graveyard, cremation places, water resources, etc;
- Severance of social network due to difficulty in accessibility etc.

This draft Rehabilitation and Resettlement Plan (RRP) outlines the objectives, policy principles and procedures for land acquisition, compensation and resettlement and rehabilitation assistances for project affected persons (PAPs). The RRP including entitlements are based on the Railways (Amendment) Act, 2008 (RAA 2008), and the National Rehabilitation and Resettlement Policy, 2007 (NRRP 2007) and the former Japan Bank for International Cooperation (JBIC) Guidelines for Confirmation of Environmental and Social Considerations, April 2002 (Ex-JBIC Guidelines 2002).

This draft RRP was partially prepared for the DFC Phase 2 section with the available survey results of the Baseline Survey and Census since compilation and analysis of some survey data which field work was recently attempted until mid-October 2011 is in progress, and the field work of the Baseline Survey and Census is still not completed in 23 villages as of 26 October 2011. At this stage, the rest of affected villages in Phase 2 Section will be surveyed and included in the RRP at the later stage. Lastly, the draft RRP was prepared in line with the previous DFC RRP, namely the RRP for Phase 1 of DFC Western Corridor (December 2009) and the Resettlement Action Plan (RAP) for Bhaupur – Khurja Section of DFC Eastern Corridor (March 2011), so that the compensation and institutional arrangement should be uniform for the entire DFC Project.

### 1.3 Legal Framework

Applicable laws on land acquisition and resettlement for the DFC project are mainly the RAA 2008 and NRRP 2007. In addition, the Ex-JBIC Guidelines 2002 is adopted since the Japanese ODA loan will be utilized for the implementation of the project. In this section, provisions and requirements under these laws and guidelines are summarised as well as examining the gap between Indian laws and the Ex-JBIC Guidelines 2002 to be filled in preparation of the R&R policy for the project.

### 1.3.1 Railways (Amendment) Act, 2008

The Railways Act, 1989, an Act to consolidate and amend the law relating to Railways was amended in 2008. This Act is may be called the Railways (Amendment) Act, 2008 (RAA 2008). The RAA 2008 has been prepared for the execution of a special railway project,

which means a project, notified as such by the Central Government from time to time, for providing national infrastructure for a public purpose in a specified time-frame, covering one or more states or the Union territories.

The RAA 2008 provides land acquisition process and procedures for the special railway project such as DFC project, including valuation method of land compensation. The amendments include insertion of following clauses:

- 7A (competent authority) means any person authorized by the central Government by notification, to perform the functions of the competent authority for such area as may be specified in the notification;
- 29A (person interested) (i) all persons claiming an interest in compensation to be made on account of the acquisition of land under this Act; (ii) tribals and other traditional forest dwellers, who have lost any traditional rights recognized under the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006; (iii) a person interested in an easement affecting the land; and (iv) persons having tenancy rights under the relevant State laws;
- 37A (special railway project) means a project, notified as such by the Central Government from time to time, for providing national infrastructure for a public purpose in a specified time-frame, covering one or more States or the Union territories;
- Chapter IVA Land Acquisition for a Special Railway Project.

The main elements of Chapter IVA are shown in the following table:

|     | Section   | Description  |
|-----|---|--|
| 20A | Power to acquire land, etc  | Declaration of intention to acquire land required for execution of a special railway project. This is the first notification and empowers the competent authority to cause the substance of the notification.  |
| 20D | Hearing of objections, etc  | Objections must be made by interested persons within 30 days from the date of publication of the notification under sub-section (1) of section 20A.  |
| 20E | Declaration of acquisition  | On publication of the declaration under sub-section (1), the land shall vest absolutely in the Central Government free from all encumbrances.  |
| 20F | Determination of amount payable as compensation   | Amount to be paid as compensation shall be determined by an order of the competent authority. The competent authority shall make an award under this section within a period of one year from the date of publication of the declaration.  |
| 20G | Criterion for determination of market value of land   | -  |
| 20I | Power to take possession  | To surrender or deliver possession thereof to the competent authority or any person duly authorized by it in this behalf within a period of 60 days of the service of the notice.  |
| 20N | Land Acquisition Act 1 of 1894 not to apply   | Nothing in the LA Act, 1894 shall apply to an acquisition under this Act.  |
| 200 | Application of the National<br>Rehabilitation and<br>resettlement Policy (NRRP),<br>2007 to persons affected due<br>to land acquisition | The Provisions Of The NRRP, 2007 For The Project Affected Families, Notified By The Government Of India In The Ministry Of Rural Development vide number F.26011/4/2007-LRD, dated the 31st October, 2007, shall apply in respect of acquisition of land by the Central Government under this Act. |

A flowchart of the land acquisition process is shown below.

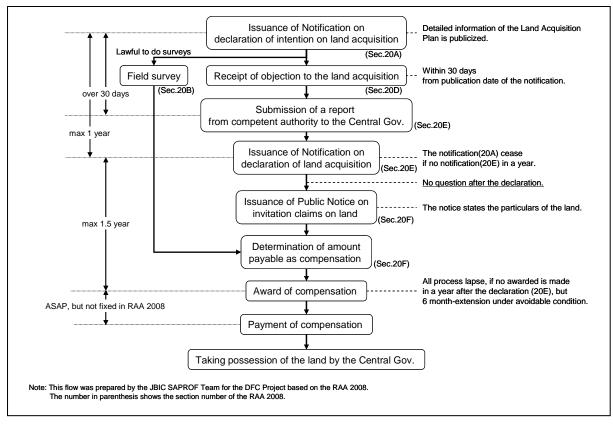


Figure 1.3.1 Flowchart of the Land Acquisition Process under Railways (Amendment) Act, 2008

### 1.3.2 National Rehabilitation and Resettlement Policy, 2007

As per Section 20O of the Railways (Amendment) Act, 2008, the National Rehabilitation and Resettlement Policy, 2007 (NRRP 2007) is adopted for the DFC Project.

The National Rehabilitation & Resettlement Policy, 2007 for Project Affected Families (PAFs) have been prepared by the Department of Land Resources, Ministry of Rural Development, and Government of India. The policy stipulates the minimum benefits to be ensured for persons displaced due to acquisition of land for public purposes. The objectives of the Policy are:

- (a) to minimize displacement and to identify the non-displacing or least-displacing alternatives;
- (b) to plan the Resettlement and Rehabilitation of project affected families (PAFs), or project affected households (PAHs), including tribal and vulnerable households;
- (c) to provide improved standard of living to PAFs or PAHs; and
- (d) to facilitate a harmonious relationship between DFCCIL/Competent Authority (CA) and PAFs.

The Policy is applicable to projects displacing 400 or more families *en masse* in plain areas, or 200 or more families *en masse* in tribal or hilly areas, Desert Development Programme (DDP) blocks, areas mentioned in Schedule V and Schedule VI of the Constitution of India. However, the basic principles of policy can be applied to rehabilitation and resettlement of PAFs regardless of the number of PAFs. The policy provides specific measures for vulnerable

and poor groups. As of now there is no law on rehabilitation and resettlement in the country. The Rehabilitation and Resettlement Bill 2007 (Bill No. 98 of 2007) has been introduced in Lok Sabha (parliament of Indian government).

### 1.3.3 JBIC Guidelines for Confirmation of Environmental and Social Considerations

The JBIC Guidelines for Confirmation of Environmental and Social Considerations, April 2002 (Ex-JBIC Guidelines) apply commonly to Ex-JBIC's International Financial Operations and Overseas Economic Cooperation Operations. The environmental and social considerations refer not only to the natural environment, but also to social issues such as involuntary resettlement and respect for the human rights of indigenous peoples.

The objective of the Guidelines is to encourage project proponents seeking funding from JICA to implement appropriate environmental and social considerations in accordance with the Guidelines. In doing so, it endeavours to ensure transparency, predictability and accountability in its confirmation of environmental and social considerations.

One of the basic principles of Guidelines regarding confirmation of environmental and social considerations is that the responsibility for environmental and social considerations for the project shall be that of the project proponent. JICA confirms environmental and social considerations by undertaking screening, environmental review, and monitoring and follow-up.

Environmental and social considerations required for funded projects cover underlying principles, examination of measures, scope of impact to be examined, compliance with laws, standards and plans, social acceptability and social impacts, involuntary resettlement, indigenous peoples and monitoring.

The following are summary of requirements under the Guidelines.

- 1) Social acceptability and social impacts
- Projects must be adequately coordinated so that they are accepted in a manner that is socially appropriate to the country and locality in which the project is planned. For projects with a potentially large environment impact, sufficient consultations with stakeholders, such as local residents, must be conducted via disclosure of information from an early stage where alternative proposals for the project plans may be examined. The outcome of such consultations must be incorporated into the contents of the project plan; and
- Appropriate consideration must be given to vulnerable social groups, such as women, children, the elderly, the poor, and ethnic minorities who are susceptible to environmental and social impact and who may have little access to the decision-making process within society.

### 2) Involuntary resettlement

- Involuntary resettlement and loss of means of livelihood are to be avoided where feasible, exploring all viable alternatives. When, after such examination, it is proved unfeasible, effective measures to minimize impact and to compensate for losses must be agreed upon with the people who will be affected;
- People to be resettled involuntarily and people whose means of livelihood will be hindered or lost must be sufficiently compensated and supported by project proponents, etc., in a timely manner. The project proponents, etc must make efforts to enable people affected by project, to improve their standard of living, income opportunities and production levels, or at least to restore them to pre-project levels. Measures to achieve

this may include: providing land and monetary compensation for losses (to cover land and property losses), supporting the means for an alternative sustainable livelihood, and providing expenses necessary for relocation and re-establishment of community at relocation sites; and

• Appropriate participation by the people affected and their communities must be promoted in the planning, implementation and monitoring of involuntary resettlement plans and measures against the loss of their means of livelihood.

### 3) Indigenous peoples

• When a project may have adverse impact on indigenous peoples, all of their rights in relation to land and resources must be respected in accordance with the spirit of the relevant international declarations and treaties. Efforts must be made to obtain the consent of indigenous peoples after they have fully informed.

### CHAPTER 2 SCOPE OF LAND ACQUISITION AND RESETTLEMENT

### 2.1 Land Acquisition

Alignment for the Western Corridor of DFC Project Phase 2 between JNPT and Vadodara and between Rewari and Dadri has been narrowed down 5 states and 14 districts with 374 villages. The land acquisition is required for construction of the Project in full stretch of length which is approximately 565 km. In general, two kinds of land will be required for this project, one within parallel including Govt land and the other, in detour area.

In this draft RRP, the total land to be required for the Project is around 1,963.6 ha. District-wise land acquisition details are given in Table 2.1.1.

Table 2.1.1 District-wise Land Details for the Project

| District                | No. of Villages | Total Area (ha) |  |  |  |  |  |  |
|-------------------------|-----------------|-----------------|--|--|--|--|--|--|
| Vadodara - JNPT Section |                 |                 |  |  |  |  |  |  |
| Raigad                  | 41              | 19.3            |  |  |  |  |  |  |
| Thane                   | 95              | 192.6           |  |  |  |  |  |  |
| Valsad                  | 37              | 76.3            |  |  |  |  |  |  |
| Navsari                 | 22              | 92.2            |  |  |  |  |  |  |
| Surat                   | 35              | 160.6           |  |  |  |  |  |  |
| Bharuch                 | 29              | 243.6           |  |  |  |  |  |  |
| Vadodara                | 10              | 114.1           |  |  |  |  |  |  |
| Sub-total               | 269             | 898.7           |  |  |  |  |  |  |
| Rewari - Dadri Secti    | on              |                 |  |  |  |  |  |  |
| Rewari                  | 17              | 119.1           |  |  |  |  |  |  |
| Alwar                   | 13              | 375.5           |  |  |  |  |  |  |
| Mewat                   | 19              | 158.5           |  |  |  |  |  |  |
| Gurgaon                 | 9               | 43.2            |  |  |  |  |  |  |
| Palwal                  | 8               | 117.1           |  |  |  |  |  |  |
| Faridabad               | 28              | 216.8           |  |  |  |  |  |  |
| Gautam Budh Nagar       | 11              | 34.7            |  |  |  |  |  |  |
| Sub-total               | 105             | 1,064.9         |  |  |  |  |  |  |
| Total                   | 374             | 1,963.6         |  |  |  |  |  |  |

Source: Notification 20E and Draft 20E

### 2.2 Baseline Survey and Census

The Baseline Survey and Census of the Project Affected Families (PAFs) was conducted to generate an inventory of (1) PAFs with basic socio-economic and census information such as the type of affected land, structures and ownership, social profile, and poverty status and (2) the information of affected common property resources in order to develop proper mitigation measures and basic resettlement action plan for the PAFs.

The entire survey was initially carried out from November 2010, and the majority of the field survey was completed in October 2011; however, in the remaining villages with public unrest, the field work is still in progress or pending.

### 2.2.1 Survey Method

The survey method of the Baseline Survey and Census is explained as follows:

### (1) Identification of PAFs

The field survey was conducted for the PAFs identified by the Land Plans and 20E Notification (including draft 20E notification/land record/Joint Measurement Result, so called JM List). Additionally, any other PAFs identified by the surveyors in the field were also studied.

### (2) Questionnaire Survey

The Baseline Survey and Census was conducted not only the land plots with the affected structures, but also land plots without affected structures and also covered the affected common properties as per the NRRP 2007. Additionally, the survey was conducted for all the land plots to be acquired and the PAFs unless the respondents refused to answer the questions, were deceased, migrated or continuously absent.

A structured questionnaire as shown in Attachment 1-1 was used to collect basic information on PAFs.

### (3) Preparation of the Baseline and Census Survey Report

The entire results of the Baseline Survey and Census will be separately prepared as a report in December 2011 (planned).

### 2.3 Findings/Survey Coverage of the Baseline and Census Survey

This report contains the partial survey data of the Baseline Survey and Census because the field survey was in progress when preparing this draft report as previously explained.

### 2.4 Categories of Land & Properties Affected within ROW

Based on results of the survey, village-wise land use category of surveyed plots is shown in Table 2.4.1. The baseline survey identified that a total number of affected plots is 8,202 as per the Notification 20E and draft 20E. Out of 8,202 plots, 5,561 were surveyed including 642 government land plots. Out of this, 10.1% is mixed use land, 75.4% is agricultural land, 0.8% is residential/commercial and 1.9% is common property resources (CPR).

Table 2.4.1 District-wise Land Use Category of the Project Area

| District    | Agricultural<br>Land w/o<br>Affected<br>Private<br>Structures | Agricultural Land with Affected Private Structures (Mixed Use) | Agricultural<br>Land with<br>affected<br>Common<br>Assets | Residential/<br>Commercial<br>land with<br>Affected<br>Private<br>Structure | Residential/<br>Commercial<br>land with<br>Affected<br>Common<br>Assets | Gov<br>land | Vacant<br>land | Common<br>Property<br>Resources<br>(CPR) | Total |
|-------------|---|--|---|---|---|-------------|----------------|--|-------|
| Raigad      | -   | -  | -   | -   | -   | -           | -              | -  | -     |
| Thane       | 600   | 128  | 0   | 14  | 1   | 88          | 0              | 0  | 831   |
| Valsad      | 267   | 51   | 0   | 24  | 3   | 0           | 6              | 7  | 358   |
| Navsari     | 320   | 20   | 0   | 2   | 0   | 2           | 1              | 31                                       | 376   |
| Surat       | 297   | 57   | 0   | 1   | 0   | 57          | 0              | 2  | 414   |
| Bharuch     | 458   | 1  | 0   | 0   | 0   | 4           | 0              | 25                                       | 488   |
| Vadodara    | 194   | 16   | 0   | 0   | 0   | 0           | 0              | 4  | 214   |
| Rewari      | 410   | 67   | 0   | 0   | 0   | 71          | 8              | 7  | 563   |
| Alwar       | 270   | 63   | 0   | 0   | 0   | 124         | 0              | 5  | 462   |
| Mewat       | 467   | 60   | 0   | 0   | 0   | 111         | 0              | 1  | 639   |
| Gurgaon     | 84  | 35   | 2   | 0   | 0   | 52          | 0              | 0  | 173   |
| Palwal      | 328   | 18   | 0   | 0   | 0   | 36          | 0              | 10                                       | 392   |
| Faridabad   | 433   | 41   | 0   | 0   | 0   | 97          | 0              | 0  | 571   |
| G. B. Nagar | 63  | 3  | 0   | 0   | 0   | 0           | 0              | 14                                       | 80    |
| Total       | 4,191   | 560  | 2   | 41  | 4   | 642         | 15             | 106                                      | 5,561 |
| Percentage  | 75.4%   | 10.1%  | 0.1%  | 0.7%  | 0.1%  | 11.5%       | 0.3%           | 1.9%                                     |       |

Note: 1. Common Property Resources consists of common land with or without common assets.

Source: Baseline Survey and Census, 2010-2011

Affected structures under various categories are presented in Table 2.4.2.

Table 2.4.2 Number of Project-Affected Structures

| District          | Residential | Commercial | Religious | Common<br>Asset | Others | Total |
|-------------------|-------------|------------|-----------|-----------------|--------|-------|
| Raigad            | -           | -          |           | -               | -      | -     |
| Thane             | 500         | 47         | 1         | 2               | 48     | 598   |
| Valsad            | 72          | 12         | 2         | 3               | 35     | 124   |
| Navsari           | 77          | 30         | 3         | 3               | 112    | 225   |
| Surat             | 55          | 9          | 0         | 0               | 209    | 273   |
| Bharuch           | 1           | 0          | 1         | 5               | 9      | 16    |
| Vadodara          | 1           | 1          | 0         | 0               | 30     | 32    |
| Rewari            | 40          | 2          | 0         | 5               | 33     | 80    |
| Alwar             | 17          | 8          | 48        | 2               | 2      | 77    |
| Mewat             | 34          | 13         | 0         | 0               | 90     | 137   |
| Gurgaon           | 14          | 1          | 1         | 1               | 27     | 44    |
| Palwal            | 21          | 2          | 0         | 1               | 75     | 99    |
| Faridabad         | 19          | 14         | 3         | 2               | 103    | 141   |
| Gautam Budh Nagar | 6           | 1          | 0         | 0               | 17     | 24    |
| Total             | 857         | 140        | 59        | 24              | 790    | 1,870 |
| Percentage        | 45.8%       | 7.5%       | 3.2%      | 1.3%            | 42.2%  | 100   |

Note: 1. The above figures include both fully and partially affected structures.

Source: Baseline Survey and Census, 2010-2011

Various types of structures are being affected due to the DFC project. Out of total 1,870 affected structures, 857 structures (45.8%) are of residential, followed by 790 (42.2%) of other structures including well and water tank/pipe. 140 (7.5%) commercial structures, 59 (3.2%) religious structures and 24 (1.3%) common assets such as community centre and pump house will be affected as well.

### 2.5 Number of Affected Persons

Based on the Baseline and Census Survey, 4,655 families with 38,310 persons are likely to be affected. The details of PAFs are summarized in the following table.

Additionally, the number of the affected titleholders should be the maximum number of the affected titleholder households but is not equivalent to the actual affected titleholder households in practice in many cases. First of all, in Table 2.5.1, 4,655 is the total number of the affected titleholder families and non-titleholder families identified in the field survey, not exactly the number of all the titleholders listed in the notification 20E. There are mainly 4 reasons for the discrepancies between the affected titleholder families identified by the field and the titleholders listed in 20E: (1) The titleholders in 20E include the deceased titleholders; (2) the titleholders in 20E does not include the latest titleholders who are the natural descendants of the titleholders or the buyers of the land; (3) the titleholders listed in 20E sometimes include the migrated titleholders (such as those who migrated to a big city or out of country (Non-Resident Indians); (4) it does not mean that each titleholder listed in 20E forms one family, and sometimes they can be in the same family such as a brother and sister or a father/mother and a son/daughter.

Table 2.5.1 Number of Project-Affected Families (PAFs) - Family and Population

| Titlehol          |   |            | der I   | łН         |              | Non-titl   | eholder l | НН         |       | Total      |
|-------------------|---|------------|---|------------|--------------|------------|-----------|------------|-------|------------|
| District          | No. of Titleholder HH w/only affected land (Non-resettlers)  No. of Titleholder HH w/affected Residential Structures (Resettlers) |            | No. of<br>Non-titleholder<br>HH w/only<br>affected land<br>(Non-resettlers) |            | (Resettlers) |            |           |            |       |            |
|                   | HH  | Population | НН  | Population | HH           | Population | HH        | Population | HH    | Population |
| Raigad            | -   | -          | -   | -          | -            | -          | -         | -          |       |            |
| Thane             | 455   | 3,282      | 415   | 2,133      | 131          | 896        | 84        | 502        | 1,085 | 6,813      |
| Valsad            | 354   | 2,377      | 67  | 476        | 51           | 327        | 4         | 37         | 476   | 3,217      |
| Navsari           | 386   | 2,011      | 30  | 216        | 71           | 437        | 34        | 205        | 521   | 2,869      |
| Surat             | 320   | 2,476      | 55  | 373        | 3            | 23         | 0         | 0          | 378   | 2,872      |
| Bharuch           | 444   | 3,352      | 1   | 4          | 1            | 3          | 0         | 0          | 446   | 3,359      |
| Vadodara          | 206   | 1,598      | 1   | 5          | 6            | 36         | 0         | 0          | 213   | 1,639      |
| Rewari            | 210   | 1,820      | 39  | 447        | 9            | 53         | 1         | 6          | 259   | 2,326      |
| Alwar             | 275   | 3,032      | 15  | 198        | 16           | 197        | 1         | 15         | 307   | 3,442      |
| Mewat             | 221   | 3,140      | 29  | 485        | 38           | 579        | 4         | 47         | 292   | 4,251      |
| Gurgaon           | 118   | 922        | 13  | 96         | 1            | 10         | 1         | 14         | 133   | 1,042      |
| Palwal            | 182   | 1,849      | 15  | 214        | 9            | 101        | 3         | 22         | 209   | 2,186      |
| Faridabad         | 203   | 2,913      | 18  | 247        | 25           | 384        | 1         | 12         | 247   | 3,556      |
| Gautam Budh Nagar | 64  | 577        | 6   | 41         | 19           | 144        | 0         | 0          | 89    | 762        |
| Total             | 3,438   | 29,325     | 704   | 4,935      | 380          | 3,190      | 133       | 860        | 4,655 | 38,310     |

Note: Non-titleholder include natural descendants not registered in the land record or listed in the Notification 20E, squatters & encroachers

Source: Baseline Survey and Census, 2010-2011

Table 2.5.2 Number of Project-Affected Persons (PAFs) – Population by Gender

| District          |        | Population |        |
|-------------------|--------|------------|--------|
| DISTRICT          | Male   | Female     | Total  |
| Raigad            | -      | -          |        |
| Thane             | 3,577  | 3,236      | 6,813  |
| Valsad            | 1,633  | 1,574      | 3,207  |
| Navsari           | 1,519  | 1,350      | 2,869  |
| Surat             | 1,478  | 1,371      | 2,849  |
| Bharuch           | 1,764  | 1,595      | 3,359  |
| Vadodara          | 857    | 782        | 1,639  |
| Rewari            | 1,315  | 1,011      | 2,326  |
| Alwar             | 1,945  | 1,497      | 3,442  |
| Mewat             | 2,369  | 1,894      | 4,263  |
| Gurgaon           | 553    | 489        | 1,042  |
| Palwal            | 1,203  | 980        | 2,183  |
| Faridabad         | 1,963  | 1,593      | 3,556  |
| Gautam Budh Nagar | 410    | 352        | 762    |
| Total             | 20,586 | 17,724     | 38,310 |

Source: Baseline Survey and Census, 2010-2011

### 2.6 LAND PLOT OWNERS AS PER 20E NOTIFICATION

As per 20E Notification, the total number of land plot owners of this stretch is 24,045 for 8,202 affected plots. The details of the land owners and families are presented in Table 2.6.1.

Table 2.6.1 Land Plot Owners as per 20E Notification

| District                | No of<br>Affected<br>Plots as per<br>20E <sup>1</sup> | No of<br>Affected<br>Plots<br>Surveyed | No of<br>Affected<br>Titleholders<br>as per 20E | No of Affected<br>HH Identified<br>in the Field | No of Affected<br>HH not Listed in<br>20E but<br>Identified in the<br>Field | No of HH Provided Socio- economic Information |
|-------------------------|---|--|---|---|---|---|
| Raigad                  | 137   | 137                                    | 612   | 347   | 7   | 242   |
| Thane <sup>2</sup>      | 1,105   | 832                                    | 3,260   | 1,085   | 89  | 1,085   |
| Valsad                  | 417   | 357                                    | 2,859   | 476   | 3   | 476   |
| Navsari                 | 460   | 376                                    | 1,466   | 521   | 29  | 521   |
| Surat                   | 632   | 414                                    | 2,742   | 375   | 0   | 375   |
| Bharuch                 | 719   | 478                                    | 2,939   | 446   | 0   | 446   |
| Vadodara                | 305   | 214                                    | 638   | 213   | 0   | 211   |
| Rewari                  | 707   | 562                                    | 1,400   | 259   | 0   | 259   |
| Alwar                   | 512   | 462                                    | 1,178   | 307   | 0   | 307   |
| Mewat                   | 889   | 639                                    | 3,050   | 292   | 0   | 292   |
| Gurgaon                 | 292   | 173                                    | 433   | 133   | 1   | 133   |
| Palwal                  | 665   | 392                                    | 1,887   | 209   | 0   | 209   |
| Faridabad <sup>2</sup>  | 1,237   | 571                                    | 1,347   | 247   | 0   | 247   |
| G.B. Nagar <sup>2</sup> | 125   | 80                                     | 234   | 89  | 2   | 89  |
| Total                   | 8,202   | 5,687                                  | 24,045  | 4,999   | 131   | 4,892   |

Note: 1. JM and/or PAP lists are used in Raigad, Thane, Bharuch and Vadodara districts; 2: Partially surveyed. Source: Notification 20A & 20E/Draft 20E including JM list & PAP list and Baseline Survey and Census, 2011-2011

### 2.7 Number of Affected Non-Titleholders

Due to the land acquisition for the Project, 511 non-titleholder PAFs/4,089 persons will be affected by the project.

**Table 2.7.1 Affected Non-Titleholders** 

| District    | Total of Non-Titleholders |            | Total of Squatters Encroachers |            | Natural Descendent<br>not Registered in<br>Land Record |            | Others |            |    |            |
|-------------|---------------------------|------------|--------------------------------|------------|--|------------|--------|------------|----|------------|
|             | HH                        | Population | НН                             | Population | НН   | Population | НН     | Population | НН | Population |
| Raigad      |                           |            |                                |            |  |            |        |            |    |            |
| Thane       | 213                       | 1,385      | 53                             | 329        | 0  | 0          | 148    | 994        | 12 | 65**       |
| Valsad      | 55                        | 364        | 1                              | 11         | 0  | 0          | 54     | 353        | 0  | 0          |
| Navsari     | 105                       | 655        | 29                             | 154        | 0  | 0          | 76     | 501        | 0  | 0          |
| Surat       | 3                         | 23         | 0                              | 0          | 0  | 0          | 3      | 23         | 0  | 0          |
| Bharuch     | 1                         | 3          | 0                              | 0          | 0  | 0          | 1      | 3          | 0  | 0          |
| Vadodara    | 6                         | 36         | 0                              | 0          | 0  | 0          | 6      | 36         | 0  | 0          |
| Rewari      | 10                        | 59         | 0                              | 0          | 0  | 0          | 10     | 59         | 0  | 0          |
| Alwar       | 17                        | 212        | 0                              | 0          | 0  | 0          | 17     | 212        | 0  | 0          |
| Mewat       | 42                        | 626        | 0                              | 0          | 0  | 0          | 42     | 626        | 0  | 0          |
| Gurgaon     | 2                         | 24         | 0                              | 0          | 0  | 0          | 1      | 10         | 1  | 14*        |
| Palwal      | 12                        | 123        | 0                              | 0          | 0  | 0          | 12     | 123        | 0  | 0          |
| Faridabad   | 26                        | 396        | 0                              | 0          | 0  | 0          | 26     | 396        | 0  | 0          |
| G. B. Nagar | 19                        | 183        | 0                              | 0          | 0  | 0          | 17     | 152        | 2  | 31*        |
| Total       | 511                       | 4,089      | 83                             | 494        | 0  | 0          | 413    | 3,488      | 15 | 0          |

Note: \* Names not registered in the draft 20E; \*\* tbc Source: Baseline Survey and Census, 2010-2011

# CHAPTER 3 MEASURES TO MINIMIZE LAND ACQUISITION AND LOSSES

### 3.1 Introduction

Linear pattern of land acquisition and resettlement will be required for railway project design. To avoid or minimize the demolition of permanent structures in densely populated urban areas, local communities, city planning areas, swampy areas, quarry sites, protected areas (e.g. a national park and ecosensitive zones) along the project right-of-way, the detours have been considered. The alignment runs parallel to the existing railway line while in Surat, Dhanu, Vasai, Kunde Bahar and Rewari-Dadri, the alignment takes detour.

### 3.2 Examination of Alternatives

### 3.2.1 Overall Examination of Alternatives

The specifications of the line are commensurate with high axle load and double-stacked container transportation. In the early stage of project planning four options were discussed as given below.

- Construction of New Freight Lines (Alt.1),
- Construction of New Passenger Lines (Alt.2),
- Improvement of Existing Lines (Alt.3)
- Without Project (Zero Option)

The process of alternative study was as follow:

**Setting of alternatives**To identify functions and purposes of respective alternatives and define routes of respective alternatives.

**Evaluation of merits and demerits of each alternative** 

In order to recognize the peculiarities of each alternative, merits and demerits of respective alternatives are evaluated qualitatively.

Preliminary (first stage) evaluation by comparison of demand and capacity The future demand (using tentative figures) and the line capacity are compared and consideration is made on whether or not the alternative can meet the demand. It shall be noted that since study on the line capacity is not complete at this stage, the evaluation is done using provisional figures regarding line capacities in this report.

**Second stage cost evaluation** 

The cost of each alternative is estimated and evaluated

Based on the study, the following results were turned out:

- Improvement of the existing line can not satisfy the future traffic demand in 2011 from the viewpoint of line capacity.
- The DFC is the most advantageous from the viewpoint of line capacity.
- Improvement of existing line is the most advantageous from the viewpoint of construction cost, and the DFC follows it.
- Improvement of the existing line has an advantage to other two alternatives from the viewpoint of social impacts.

From the above evaluation results, it was concluded that the DFC route is the optimum option among three alternatives. Keeping this in mind, a new DFC is proposed throughout the Western Corridor. The main point in examination of alignment has been:

- DFC line Parallel to the existing line
- DFC line Detouring the existing line

The factors which determine the selection between parallel and detour alignments are:

- Flexibility on availability of land width for minimum ROW (even for developing facilities)
- Social considerations for Rehabilitation and Resettlement measures
- Environmental Impacts
- Security for Future expansion
- Cost of construction

### 3.2.2 Examination of Detail of Alternatives

### 1) Examination of Detour Alignment

Detour alignment has been mainly proposed to avoid major disturbances to the building structures as well as to the population residing close to the existing track. Site topography and technical design criteria constraints near the existing track are the other factors which also resulted in proposing detour alignment. In Phase 2, the entire mainline section of Rewari-Dadri is a complete detour. For providing connection to Tuglakabad ICD, a single TKD line is partly on detour route and partly parallel to the existing Delhi-Mathura line. In JNPT-Vadodara section, detour has been largely considered to avoid heavily built-up areas involving major rehabilitation problems of large number of people and difficulties in land acquisition even on high cost as well as difficulties in execution of the project in heavily built-up area. Detour routes have been carefully planned so as to minimally affect fertile agricultural land though complete avoidance is not possible. In such cases, each farm owner shall be suitably compensated as per the approved compensation package plan. Other environmental aspects associated with a new detour route shall be suitably addressed through appropriate mitigation measures.

Table 3.6.1 shows an indicative comparison of the relative difficulty levels of the key parameters for the detour and parallel alignments applied in urban and rural/semi urban areas falling within DFC Western Corridor.

Table 3.6.1 Impact on Urbanised and Rural/Semi Urban Area of the Proposed Corridor

| Parameters                                    | Urbanize | ed Areas  | Rural/ semi urban |          |
|---|----------|-----------|-------------------|----------|
| Farameters                                    | Detour   | Parallel  | Detour            | Parallel |
| Flexibility on availability of land width for | More     | Less      | More              | More     |
| minimum ROW (even for developing facilities)  |          |           |                   |          |
| Ease of implementing Rehabilitation and       | Easy     | Difficult | Easy              | Easy     |
| Resettlement measures                         |          |           |                   |          |
| Associated Environmental Impacts              | Less to  | More      | Less              | Less     |
|   | Medium   |           |                   |          |
| Security for future expansion                 | More     | Very Less | More              | More     |
| Cost of construction                          | High     | Very High | Medium to         | Low      |
|   |          | _         | High              |          |

Table 3.6.2 shows alternatives for the detour alignments in JNPT-Vadodara section within DFC Western Corridor.

### Table 3.6.2 Alternatives for Detours in JNPT-Vododara Section

| S.<br>No | Detour   | Number of<br>Alternatives | Selected<br>Alternative | Reason of the selection  |
|----------|--|---------------------------|-------------------------|--|
| 1        | Kunde Vahal<br>Detour                                  | 3                         | Alternative 3           | - Sharp curve of the existing IR track - Main habitation of Kunde Vahal Village getting bifurcated by DFC track - Avoidance of metal quarry mountainous site   |
| 2        | Detiwali Detour  | 1                         | Alternative 1           | -Heavy built-up area in and around Dativali Station - Marshy area near Ulhas Creek - Many sharp curves of the existing IR track  |
| 3        | Vasai Detour   | 1                         | Alternative 1           | - Large scale built up area at 3 stations at Vasai<br>Road, Nalasopara and Virar on existing IR track<br>- Illegal settlers on railway land at these 3 stations<br>- Marshy area near Vaitarana River<br>- Difficult to rebuild 3 ROBs as the area is fully<br>developed around them   |
| 4        | Dahanu Detour  | 2                         | Alternative 2           | - Difficult to rebuild ROB near Dahanu Road Station as the area is fully developed - Dahanu Road Station is already developed as a yard for suburban services and any access for DFC track is not feasible - Number of on-going construction activities in and around existing track leading to and from Dahanu Road Station - Existing IR track in Dahanu area is surrounded by swampy area and number of salt pans |
| 5        | Surat Detour   | 3                         | Alternative 3           | - Large number of illegal slum dwellers within and around railway land along existing railway track between Udhna Junction and Surat Junction - Unsuitable site conditions for constructing bridge on Tapi River on this route - Expansion of Surat City Development on the eastward side and towards DFC track  |
| 6        | Bharuch Detour<br>(a part of Sanjali<br>Nadiad Detour) | 1                         | Alternative 1           | - Heavy built-up area of Bharuch and Ankleshwar City     - Number of industrial units close to existing IR track in Ankleshwar     - Existing bridge at Bharuch is passing through the main city and an additional bridge cannot be built here   |

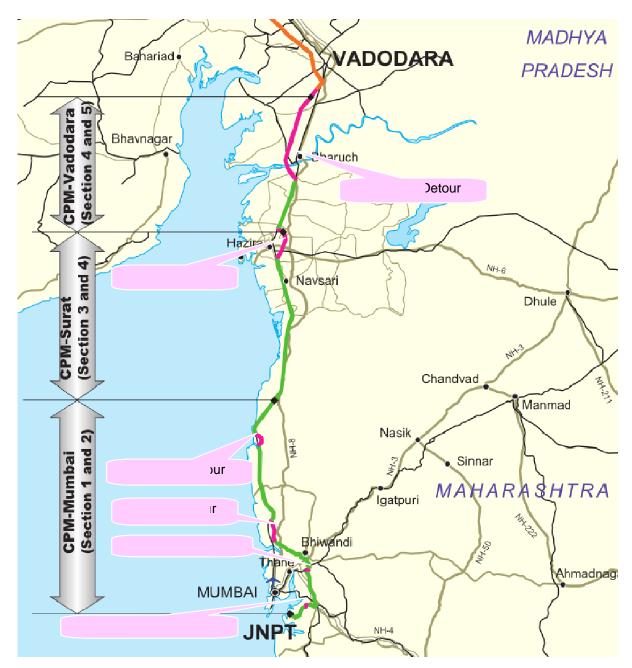


Figure 3.6.1 Location of Alternatives for Detours in JNPT-Vododara Section

From the above qualitative evaluation, it was concluded that providing detour alignment is considered better than redeveloping difficult stretches in parallel alignment. The detail examination of the detour sections are discussed below:

### i) Kunde Vahal Detour

The "Kunde Vahal detour" of total length of approximately 3 km is proposed between Jasai and Panvel Stations which will run on the west side of the existing Central IR track. The proposed detour alignment will start at Bambavi Village and end at Dapoli Village in Panvel Tehsil, Raigad District. The selected alternative alignment will traverse the site area adjoining metal quarry mountainous site and agricultural field, and will cross over the Dapoli-Targarh State Highway, major stream (Nala) and some shallow ponds. The detour route has been aligned away from the main habitation area and will pass between outer boundary of Kunde Vahal Village and Ovale Village.

The need for detour route arose because of technical constraint since the existing IR track in the section has a sharp curve of a radius of 350 m (5°) which is against the design criteria specified for DFC alignment such as curve radius of 700 m (2.5°). The two major issues which came into considerations while selecting the alternatives to the proposed detour alignment included avoidance of metal quarry mountainous site and minimizing resettlement at Kunde Vahal Village. The DFC project considered the following three alternatives (Figure 3.6.2) based on site conditions and design criteria for DFC alignment.

Alternative 1: To smoothen out the radius of curve, it was proposed to provide detour of the length of 3.45 km from outside of the village. Avoidance of metal quarry mountainous site, however, was impossible. The existing mountain in the area is presently being developed as metal quarry site and day by day, they are cut. It was also considered to provide tunnel alignment, on seeing the extent of quarrying operation in the area, it was, however, concluded that these mountain would be vanished by the time DFC project come in the stage of the construction. Moreover, this proposed alignment route was also traversing through a large area of agricultural land.

Alternative 2: Another alternative was suggested that the proposed alignment with an open cut to cross over the already degraded mountain would pass through Kunde Vahal Village i.e. 50 to 65 m away from the existing IR track in a stretch of 400 to 500 m. However, many of the existing habitation in the Kunde Vahal Village were getting affected significantly and entail the major issue of rehabilitation and resettlement. Further, the local community in the village was completely getting affected due to a division of village into two parts by DFC embankment. Since the excavation work in the metal quarry site was under various stages of development, it was anticipated that this activity would interfere in the development of DFC Corridor.

Alternative 3: Another alternative was further studied critically to overcome limitations of the above mentioned options. It was considered to keep alignment route with a total length of 2.30 km which would pass along the edge of metal quarry mountainous site and between outer boundary of Kunde Vahal and Ovale Villages as shown in Figure 3.6.2. This alignment route was finally selected as it gives many advantages – reduced length of detour alignment, minimal effect on loss of agricultural land, minimal effect on resettlement issue, minimal interference of quarrying operations on DFC activities, and other social and environmental benefits. However, this route will affect Electrified High Tension Towers (HTT) line in the area which probably needs to be relocated and shall be decided on further examination of the alignment route during the detailed engineering stage.







Photo 3.6.1 Current Field Situation of the Kunde Vahal Detour

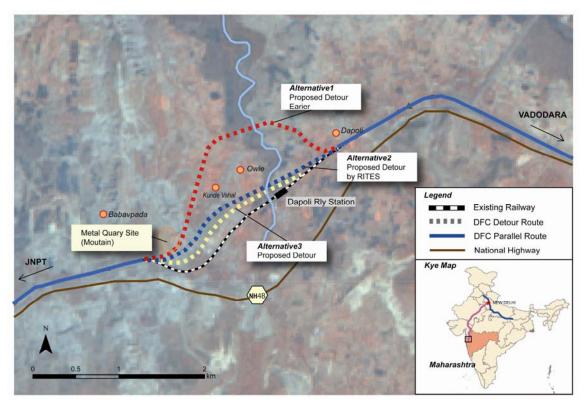


Figure 3.6.2 Alternatives for the Kunde Vahal Detour

### ii) Datiwali Detour

The project will provide the "Datiwali detour" of a total length approximately 5 km between Nilje and Kopar Road Station on the east side of the existing Central IR track. The proposed detour alignment will start at Katai Village and end at Ayre Village in Kalyan Tehsil, Thane District. Other villages falling on the detour route are — Usarghar, Betavadi, Bhopar and Nandivali. The proposed Datiwali detour will take off after crossing existing IR station at Nilje and before Datiwali Station. After traversing through undulating terrain with mainly wasteland area, land covered with only scanty vegetation and some agricultural fields (Photo 3.6.2), the detour alignment will cross six tracks of Diva-Kalyan main line through flyover and become parallel on the east side along the Diva-Vasai Road branch line of Central Railway towards Juchandra Station.

The DFC project considered only one alternative (as shown in Figure 3.6.3) to the parallel alignment based on site conditions, technical constraint, and design criteria for DFC alignment.

<u>Only Alternative</u>: This detour route is needed to avoid built up area in and around Datiwali Station, marshy area near Ulhas creek, and many sharp curves of existing IR track. Considering that the parallel alignment would be confronted with a number of difficulties, it was decided to provide detour route which had an added advantage of reduced length of alignment. No existing village habitation will be affected by this detour route. In the parallel alignment immediately after detour and south of Ulhas River, it is proposed to provide reinforced vertical wall near the built up area where embankment will be approximately 10-meter height.



Photo 3.6.2 Current Field Situation of the Datiwali Detour

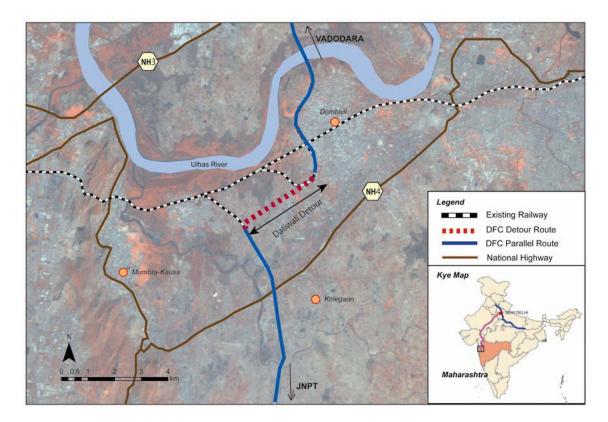


Figure 3.6.3 Alternatives for the Datiwali Detour

### iii) Vasai Detour

The "Vasai detour" of a total length approximately 18 km will be provided between Juchandra and Vaitarana Stations to overcome a wide array of problems. Vasai detour will avoid a number of built up areas in between these stations at Vasai Road, Nalasopara and Virar in particular. In the surrounding area of Vaitarana River, there is marshy land. There are lots of development activities along the existing Railway track. Also, there are three Road over Bridges (ROB) which will have to be rebuilt. It is extremely difficult to rebuild these ROBs as the area is fully developed.

The detour route which is proposed in the project will involve construction of one closed tunnel having a length of 540 m on a straight alignment and falling in forest Villages Bhatpadi and Shirgaon of Vasai Taluka in Thane District. Initially, it was planned to build another closed tunnel of a length 160 m at a distance of 1.5 km from the first tunnel (towards Juchandra Station) but stone cutting activities for last one year have totally opened up this particular hill. As a result, the need for constructing any closed tunnel is now precluded and will now only be an open cut construction.

The parallel alignment was found not feasible due to a large scale built up area at three stations at Vasai Road, Nalasopara, and Virar in particular where is on the south of Ulhas River. The construction of residential buildings is on-going nearby to these three stations. To minimize the number of resettlement, it was found to provide a full scale of detour.

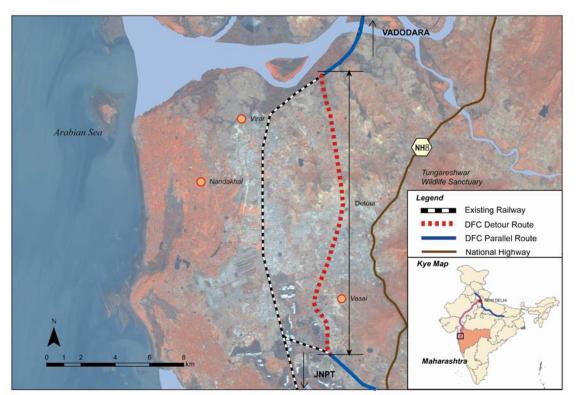


Figure 3.6.4 Alternatives for the Vasai Detour

### iv) Dahanu Detour

The "Dahanu detour" of a total length approximately 12 km will be provided to by-pass dense built-up area around existing Suburban Dahanu Road Station of Indian Railways. Dahanu is a coastal city and a municipal council in Thane District on the western coast of Maharashtra State. It is located in 120–kilometre-north of Mumbai. The proposed detour alignment will start at Aagwan Village and end at Ambewadi Village in Dahanu Tehsil, Thane District. Other villages falling on the detour route are – Saravali, Patilpada, Manfod, Junnarpada, Nandore, Dahanu, Kasar and Waki. The detour route will traverse through cultivated land, green area, small orchard farms, some marshy area, and rivulets (Photo 3.6.3). The proposed detour will also be likely to affect some existing private structures.

The alignment in Section 2 between Vaitarna and Bhilad will be mostly running parallel to the existing IR track on the east side except for a detour at Dahanu Road Station. The need for this detour route emanated mainly from social, environmental, and topographical constraints. Two alternatives were considered to the parallel alignment (Figure 3.6.5) to avoid present conditions along the existing railway line.

<u>Alternative 1</u>: Initially, it was planned to provide detour of length of 7 km around Dahanu Road Station due to the following two reasons.

Firstly, there exists a ROB near Dahanu Road Station which is difficult to re-construct as the area is fully occupied by residential buildings and the traffic on this ROB is so heavy that it is not possible to suspend traffic on ROB during re-construction period.

Secondly, as part of the augmentation of the Suburban services, a new goods shed has been constructed on the south east side of the Dahanu Station and in the north there will be EMU terminal with circulating area in the east. As a result, it will not be possible to have any access

for the DFC tracks through the yard. Moreover, many new construction activities are on-going in the area adjoining the station and also along the existing western railway line before and after Dahanu Station.

<u>Alternative 2</u>: It was found that the above alternative had some limitations. The southern part of Dahanu Road Station or the eastern side along the existing railway line has swampy area and also surrounded by a number of salt pans. As a result, this part of area was found not suitable for providing DFC alignment as it would need extensive soil stabilization measures for proper foundation treatment to run heavy load DFC trains.

It was, therefore, decided to extend detour route on the southern end by another 5 km to avoid both swamp area and salt pans. Overall efforts were made to select appropriate alignment route for detour so as to minimally affect existing vegetation and habitation area in Dahanu but in view of the DFC design criteria, some area having matured trees will be affected. The project will compensate the loss of trees by adopting pre-afforestation measures which will be done in consultation with the Dahanu Taluka Environmental Protection Authority (DTEPA).



Photo 3.6.3 Current Field Situation of the Dahanu Detour

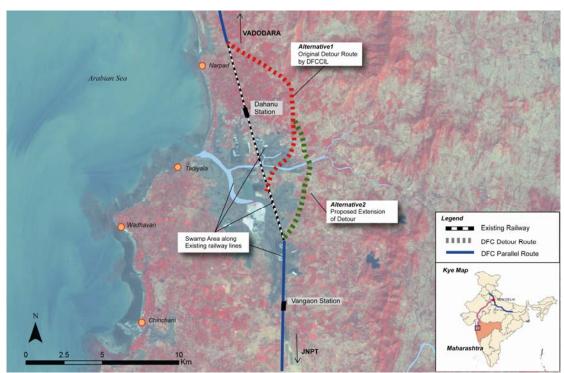


Figure 3.6.5 Alternatives for the Dahanu Detour

### v) Surat Detour

The "Surat detour" of a total length of approximately 21 km is proposed between Sachin and Gothangam Stations of Indian Railways. The alignment in Section 4 will be running parallel to the existing Indian Railway alignment on the east side from Sachin Station to Bhedvad Station. From Bhedvad Station onwards, the DFC alignment will take deflection and run parallel to the existing Udhna feeder railway line and take full detour route near Devadh Village. After flying over the Udhna – Jalgaon branch line of Indian Railways, this detour route will extend up to Gothangam Station. The detour will traverse through plain terrain and mostly through cultivated agricultural fields, and en route also cross over NH6 and Tapi River.

This detour route was necessary to avoid heavily built up area of Surat City and Udhna Yard besides providing a suitable crossing on Tapi River. The three alternatives were considered based on site conditions, technical constraint and design criteria for DFC alignment. These are: Alt.1 – Parallel Route, Alt.2 – Full detour from Sachin to Gothangam, and Alt.3 – Detour at Northern part and parallel with the feeder line.

<u>Alternative 1</u>: It was considered to provide a parallel route along existing railway track. Considering a large number of illegal settlement along existing railway track between Udhna Junction and Surat Junction, it was, however, found that this option was not feasible. In case this alternative is implemented, it would require a large scale of resettlement plan for illegal slum dwellers and would invite a lot of social issues. Also, site conditions were not found conducive for construction of important bridge on Tapi River on this route.

<u>Alternative 2</u>: Another alternative was considered to provide full detour from Sachin to Gothangam. In this alternative, there is no settlement along the alignment route but the entire route would traverse through cultivated agricultural fields. However, expansion of Surat City development on the eastward side and towards the DFC line would pose a serious challenge to this alignment option.

<u>Alternative 3</u>: Another alternative was considered to provide parallel route of 4 km along the existing feeder line before taking a full detour route at Northern part. In this alternative, there is no settlement along the alignment route. Considering the further expansion of Surat City to the

eastward side, this alternative would give some advantage as compared to the Alternative 2 but addressing the entire issue would be difficult due to long and high embankment of DFC detour on the east side. It is also being considered to provide viaduct structure after parallel line to the feeder route toward Tapi River Bridge but the cost-benefit analysis is under consideration.



Photo 3.6.4 Current Field Situation of the Surat Detour

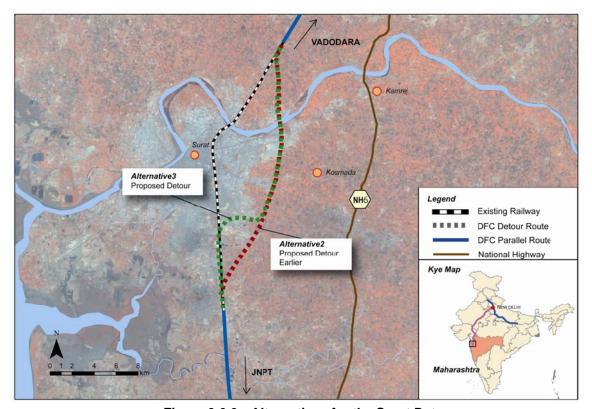


Figure 3.6.6 Alternatives for the Surat Detour

### vi) Sanjali Nadiad Detour

The project will provide a complete detour route of length approximately 30 km between Sanjali and Varediya in Section 4 and of length approximately 30 km between Varediya and Makanpura in Section 5. The proposed alignment from Gothangam Station (end of Surat Detour) would run parallel to the existing track on east side up to Sanjali. The alignment crosses Mumabi-Delhi mainline of Indian Railways on north of Sanjali Station by a flyover and then runs along the detour route on west side of existing track till the end of Phase 2 alignment in JNPT-Vadodara Section.

It was necessary to provide a diversion beyond Sanjali Station to avoid heavily built-up area of Bharuch and Ankleshwar City and provide proper crossing over Narmada River (Figure 3.6.7). Ankleshwar is the main industrial town of Gujarat and many industrial units exist close to the existing railway line. At Bharuch, the existing bridge is passing through the heart of town and an

additional bridge cannot be built here. The detour alignment will cross over rail line of Bharuch-Dahej by a flyover. En route, the alignment will also cross many State Highways such as Bharuch-Dahej Road, Ankleshwar-Hashot Road, Bharuch-Jambursar Road.

The detour alignment in this stretch passes mostly through plain terrain, cultivated agricultural land, and wasteland. In general, the type of soil in this section is clayey with patches of black cotton, morrum and sandy soil.

The alignment in Section 5 also runs on a detour route and traverse through mainly farm lands covered with clayey soil having patches of sandy soil and black cotton soil.

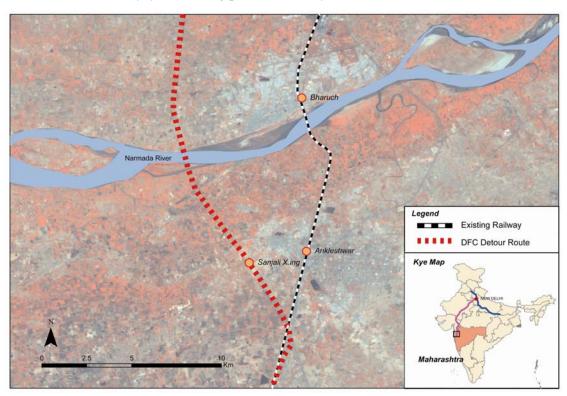


Figure 3.6.7 Alternatives for the Bharuch Detour (a part of Sanjali-Nadiad Detour)

The alignment between Rewari and Dadri will be entirely on a new line since it is not possible to follow parallel alignment due to heavy built-up area, high settlement and a large number of industrial units close to the existing IR track. The topography of the entire section is mostly plain except a small portion of stretch near Aravalli Hills. The detour alignment in this stretch passes mostly through cultivated agricultural land, barren land, and wasteland. The alignment on en route will cross over Yamuna River, Hindon River, irrigation canals and eight-lane Noida Expressway. DFC will take the alignment along the contours of the Aravalli Hills near Mewat District and will involve deep rock cutting up to a depth of 30 m.

The project has also proposed to construct a single line from the DFC mainline near Faridabad District to Tuglakabad ICD.

### 2) Detail Examination of Parallel Alignment

Less urbanized areas have more land width available for ROW near the existing railway track. Even minor rehabilitation and resettlement of illegal settlers who have settled within or near railway land is cost effective as compared to adopting an option of detour route. All possible environmental impacts such as drainage, tree cutting, noise and vibration in parallel alignment could be easily addressed. Also the cost of the project is considerably reduced even after including cost of compensation for resettlement. Hence for the less developed areas near the existing IR tracks, the alignment is preferably considered for parallel alignment. The detail examination of some of the critical parallel sections in Maharashtra and Gujarat section is discussed below:

### i) Panvel Parallel Alignment

The main consideration of providing Panvel parallel alignment between Dapoli Station and Kalamboli Station was to avoid detour route passing through legally protected Matheran Eco-sensitive zone on east side of Panvel city. Also, there were strong objections from the local people and community on the detour route. Accordingly parallel alignment was considered based on wide number of options. The selected alignment route is primarily parallel except having a small portion of detour route in the form of bulb like loop (Figure 3.6.8). The parallel alignment deflects away (towards north) from the existing track of IR after flying over JNPT-Panvel double line and thereafter fly over Panvel-Mangalore (Konkan Railway) line. The alignment then takes a bulb like loop before again crossing Panvel-Karjat track by a flyover and then runs parallel to the existing alignment before coming to Panvel Yard. The main purpose of providing loop was to lower the formation level at the Matheran ROB in order to avoid rebuilding of the ROB. This has also avoided taking the elevated track near the existing buildings, heavy built-up area along the existing line near Panvel Station. The introduction of loop has increased the length of alignment which would mean an additional construction cost, recurring maintenance cost and longer lead time for freight trains.

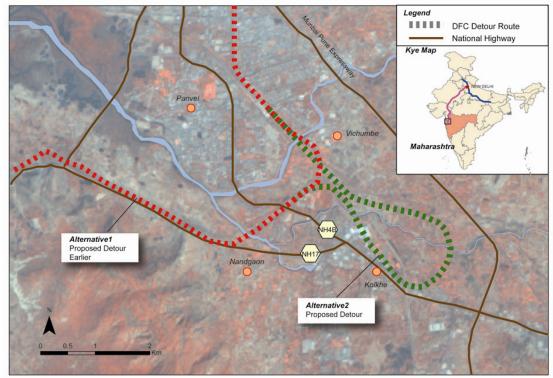


Figure 3.6.8 Panvel Parallel Alignment

### ii) Dombivli Parallel Alignment

Dombivli parallel route is located on the south of Ulhas River and is in Kalyan Tehsil of Thane District. Immediately after the end of Dativali Detour, the proposed DFC alignment will run parallel on the east side of the existing Diva-Vasai Road branch line of Central Railway up to Juchandra Station of IR. The existing rail line in Dombivli area passes through the built-up area with high rise residential buildings along the route on both sides. There is a Central Railway under-crossing at Dombivli area and the possibility of constructing embankment towards road side is impossible (Photo 3.6.5).

Initially, it was considered to have the possibility of taking detour on the west side of the existing city along Ulhas River. Alternatively, after working on different options, it was decided to keep alignment parallel to the existing IR track. Instead of providing embankment, it was planned to acquire minimum ROW with 25 m width and construct a reinforced vertical wall to secure DFC alignment from encroachment or resettlement activities. Moreover, it was also

decided to cross over the existing crossing lines of Diva-Kalyan main line of Central Railway by high embankment with around 10 m height.







Photo 3.6.5 Current Field Situation near Dombivli Parallel

### iii) Saphale-Palghar-Boisar Stations Parallel Alignment

Most of the alignment in Section 2 is parallel except detour in Dahanu. On this parallel route, the project alignment crosses number of existing stations such as Saphale, Kelve Road, Palghar, Umroli, and Boisar in Palghar Tehsil of Thane District. There are many illegal settlements, especially near Saphale, Palghar and Boisar Stations. Most of the illegal occupants have settled within the IR land and posing serious challenge to the implementation of DFC project.

The project considered two options for dealing with the issue of these slum dwellers or encroachers or squatters. One option is to provide via duct structure above the station area without relocation of illegal settlers. The other option is to compensate these illegal dwellers for their buildings and also some additional payment to relocate by themselves. The second option has been found to be more cost and time effective. The socio-economic profile of these squatters is being covered in Baseline Survey and Census and accordingly, the details of suitable compensation will be integrated in the RRP report.

### iv) Vapi-Valsad-Navsari-Sachin Parallel Alignment

The entire Section 3 between Bhilad to Sachin is parallel to the existing IR track on the east side. The proposed alignment passes through number of existing stations such as Vapi, Udvada, Pardi, Valsad, Dungri, Bilimora, Amalsad, Ancheli, Vedchha, Navsari, Maroli and Sachin. In this section, the alignment will cross over number of important rivers. At certain locations between Navsari and Sachin stretch, river channel is running along the existing IR track and it will be necessary to provide slope protection works to protect DFC track from flooding.

There will be number of ROBs in this stretch which need to be rebuilt. The alignment is proposed to have elevated track on viaducts while passing through Valsad Yard. Navsari Station will require resettlement activities before constructing DFC alignment.

### 3.2.3 Finalized Project Plans

The finalized DFC project details showing the parallel and detour alignments have been summarized below.

### (1) Detour Alignment

Table 3.6.3 shows the summary of finalized detour alignment and details.

Table 3.6.3 Summary of Planned Detours under Phase 2

| Name of Detour                                 | Between IR Stations       | Approximately<br>Length (km) | Main Reasons for Provision of Detour  |
|--|---------------------------|------------------------------|---|
| Kundevahal<br>Detour                           | Jasai and Panvel          | 3                            | <ul> <li>Sharp curve of the existing IR track</li> <li>Main habitation of Kunde Vahal Village getting bifurcated by DFC track</li> <li>Avoidance of metal quarry mountainous site</li> </ul>  |
| Panvel Loop<br>(In between Panvel<br>Parallel) | Dapoli and<br>Kalamboli   | 3                            | <ul> <li>Avoidance of rebuilding of Matheran ROB</li> <li>Avoidance of any consideration of detour route which has to pass through Matheran Eco-sensitive zone</li> <li>Avoidance of taking elevated tack near existing buildings, heavy built up area</li> <li>Avoidance of electric transmission lines</li> </ul>   |
| Dativali (Diva)<br>Detour                      | Nilje and Kopar<br>Road   | 5                            | <ul> <li>Heavy built-up area in and around Dativali Station</li> <li>Marshy area near Ulhas Creek</li> <li>Many sharp curves of the existing IR track</li> </ul>  |
| Vasai Detour                                   | Juchandra and<br>Vaitarna | 18                           | <ul> <li>Large scale built up area at 3 stations at Vasai Road, Nalasopara and Virar on existing IR track</li> <li>Illegal settlers on railway land at these 3 stations</li> <li>Marshy area near Vaitarana River</li> <li>Difficult to rebuild 3 ROBs as the area is fully developed around them</li> </ul>  |
| Dahanu Detour                                  | Dahanu Road               | 12                           | <ul> <li>Difficult to rebuild ROB near Dahanu Road Station as the area is fully developed</li> <li>Dahanu Road Station is already developed as a yard for suburban services and any access for DFC track is not feasible</li> <li>Number of on-going construction activities in and around existing track leading to and from Dahanu Road Station</li> <li>Existing IR track in Dahanu area is surrounded by swampy area and number of salt pans</li> </ul> |
| Surat detour                                   | Sachin and Gothangam      | 21                           | <ul> <li>Large number of illegal slum dwellers within and around railway land along existing railway track between Udhna Junction and Surat Junction</li> <li>Unsuitable site conditions for constructing bridge on Tapi River on this route</li> <li>Expansion of Surat City Development on the eastward side and towards DFC track</li> </ul>   |

| Name of Detour             | Between IR Stations                         | Approximately<br>Length (km) | Main Reasons for Provision of Detour  |
|----------------------------|---|------------------------------|---|
| Sanjali –Nadiad            | Varediya and<br>Makarpura                   | 60                           | <ul> <li>Heavy built-up area of Bharuch and Ankleshwar City</li> <li>Number of industrial units close to existing IR track in Ankleshwar</li> <li>Existing bridge at Bharuch is passing through the main city and an additional bridge cannot be built here</li> </ul>            |
| Rewari-Dadri<br>(Mainline) | Rewari to Pirthala<br>and Pirthala to Dadri | 126                          | <ul> <li>Heavy built-up area, high settlement and a large number of industrial units close to the existing IR track</li> <li>Inadequate provision of land width for ROW</li> <li>Limitations at Tuglakabad Station Yard to cross DFC line with double stack containers</li> </ul> |
| Rewari-Dadri<br>(TKD line) | Faridabad and<br>Tuglakabad                 | 11                           | None  |
| Total                      |   | 258                          |   |

### (2) Parallel Alignment

The lengths of the sections having parallel alignment details are outlined in Table 3.6.4.

Table 3.6.4 Summary of Planned Parallel Sections under Phase 2

| Parallel Sections                   | Length (km) | Name of Critical Parallel Section      |
|-------------------------------------|-------------|--|
| JNPT-Bhilad (Sections 1 and 2)      | 156         | 1. Panvel Parallel in Panvel Tehsil,   |
|                                     |             | Raigad District                        |
|                                     |             | 2. Dombivli Parallel in Kalyan Tehsil, |
|                                     |             | Thane District                         |
|                                     |             | 3. Saphale-Palghra-Boisar Station      |
|                                     |             | Parallel in Palghar Tehsil, Thane      |
|                                     |             | District                               |
| Bhilad- Itola (Sections 3, 4 and 5) | 143         | 1. Vapi-Valsad-Navsari-Sachin Parallel |
|                                     |             | in Gujarat                             |
| Rewari-Dadri (TKD line)             | 8           | None                                   |
| Total                               | 307         |  |

# CHAPTER 4 SOCIO-ECONOMIC FEATURE OF THE PROJECT-AFFECTED PERSONS/FAMILIES

#### 4.1 Socio-Economic Survey of PAFs/PAPs

Socio-economic information was collected from PAFs through the Baseline Survey and Census. This chapter presents the selected socio-economic profile of PAFs/PAPs for the surveyed villages of Phase 2 sections as of Early Oct. 2011.

#### 4.1.1 Contents of the Baseline Survey and Census Questionnaire on Socio-economic Information

Major questions of the Baseline Survey and Census questionnaire are as follows:

- 1) Occupation, family members, education level, religion, & social categories of the PAFs;
- Type of affected structures:
- 3) Income source, assets including livestock, agricultural equipments, household goods, savings and loans;
- 4) Access to public facilities such as school, markets, workplace, and religious buildings;
- Perception on the expected social impacts of resettlement and compensation and/or the DFC Project itself.

#### 4.2 Social Profile of PAFs/PAPs

Based on findings of the Baseline Survey and Census, the social profile of the PAFs/PAPs such as social category, religion, income level and other socio-economic characteristics are presented in the following sections.

#### 4.2.1 **Social Category of PAFs**

The social category of the whole project area shows that the majority is General Cast family (1,939 families/39.6%). The second stratum of the social grouping in the area is of Other Backward Caste (OBC) family (1,819 families/37.2%) followed by Scheduled Tribe (607 families/12.4%) and Schedule Caste (SC) family (285 families/5.8%). The district-wise social category is presented in Table 4.2.1.

**Total Respondent** District

Table 4.2.1 Social Features of PAFs

| District          | General | ORC   | SC  | ST  | нĤ    |
|-------------------|---------|-------|-----|-----|-------|
| Raigad            | -       | -     | -   | -   | 242   |
| Thane             | 186     | 421   | 62  | 416 | 1,085 |
| Valsad            | 82      | 255   | 30  | 109 | 476   |
| Navsari           | 168     | 283   | 36  | 34  | 521   |
| Surat             | 302     | 34    | 16  | 23  | 375   |
| Bharuch           | 344     | 83    | 11  | 8   | 446   |
| Vadodara          | 157     | 27    | 22  | 5   | 211   |
| Rewari            | 112     | 142   | 5   | 0   | 259   |
| Alwar             | 23      | 241   | 43  | 0   | 307   |
| Mewat             | 71      | 182   | 30  | 9   | 292   |
| Gurgaon           | 66      | 64    | 3   | 0   | 133   |
| Palwal            | 174     | 19    | 13  | 3   | 209   |
| Faridabad         | 195     | 46    | 6   | 0   | 247   |
| Gautam Budh Nagar | 59      | 22    | 8   | 0   | 89    |
| Total             | 1 030   | 1 810 | 285 | 607 | 4 892 |

Source: Baseline Survey and Census, 2010-2011

# 4.2.2 Religious Categories of the PAFs

The project area is dominated by Hindu community as they form 84.5% (3,928 families) of the PAFs as presented in the Table 4.2.2.

Table 4.2.2 Religious Categories of the PAFs

| District    | Hindu HH | Muslim HH | Christian<br>HH | Jain HH | Sikh HH | Other HH | Total<br>Respondent HH |
|-------------|----------|-----------|-----------------|---------|---------|----------|------------------------|
| Raigad      | -        | -         | -               | -       | -       | -        | 242                    |
| Thane       | 1,062    | 16        | 0               | 0       | 0       | 7        | 1,085                  |
| Valsad      | 460      | 13        | 0               | 0       | 0       | 3        | 476                    |
| Navsari     | 490      | 27        | 0               | 4       | 0       | 0        | 521                    |
| Surat       | 337      | 37        | 0               | 0       | 0       | 1        | 375                    |
| Bharuch     | 172      | 274       | 0               | 0       | 0       | 0        | 446                    |
| Vadodara    | 186      | 25        | 0               | 0       | 0       | 0        | 211                    |
| Rewari      | 259      | 0         | 0               | 0       | 0       | 0        | 259                    |
| Alwar       | 266      | 36        | 0               | 0       | 5       | 0        | 307                    |
| Mewat       | 58       | 234       | 0               | 0       | 0       | 0        | 292                    |
| Gurgaon     | 129      | 4         | 0               | 0       | 0       | 0        | 133                    |
| Palwal      | 188      | 20        | 0               | 0       | 0       | 1        | 209                    |
| Faridabad   | 247      | 0         | 0               | 0       | 0       | 0        | 247                    |
| G. B. Nagar | 74       | 4         | 0               | 0       | 11      | 0        | 89                     |
| Total       | 3,928    | 690       | 0               | 4       | 16      | 12       | 4,892                  |
| Percentage  | 84.5%    | 14.8%     | 0%              | 0.1%    | 0.3%    | 0.3%     |                        |

Source: Baseline Survey and Census, 2010-2011

#### 4.2.3 Vulnerable Families

The vulnerability was screened based on the definition of the vulnerable in the NRRP 2007. The NRRP 2007 defines vulnerable persons as disabled, destitute, orphans, widows, unmarried girls, abandoned women or persons above 50 years of age; who are not provided or cannot immediately be provided with alternative livelihood, and who are not otherwise covered as part of a family (para 6.4 (v), NRRP 2007).

According to the Baseline Survey and Census, the most common category of vulnerability is PAFs with elderly over 50 years old (1,903 families), followed by widow-headed PAFs (818) and PAFs with unmarried girl (682).

Table 4.2.3 Vulnerability Status of PAFs

| District    | Total No of<br>Households | HH with<br>Disabled | BPL<br>HH <sup>1</sup><br>(TBC) | Women<br>Headed<br>HH | Elderly<br>over 50<br>Years | Widow<br>Headed<br>HH | HH with<br>Unmarried<br>Girl | HH with<br>Abandoned<br>Women | HH with<br>Orphans |
|-------------|---------------------------|---------------------|---------------------------------|-----------------------|-----------------------------|-----------------------|------------------------------|-------------------------------|--------------------|
| Raigad      | 242                       | -                   | -                               | -                     | -                           | -                     | -                            | -                             | -                  |
| Thane       | 1,085                     | 9                   | 198                             | 0                     | 363                         | 217                   | 214                          | 12                            | 0                  |
| Valsad      | 476                       | 5                   | 94                              | 2                     | 208                         | 100                   | 75                           | 0                             | 0                  |
| Navsari     | 521                       | 8                   | 68                              | 3                     | 141                         | 33                    | 28                           | 0                             | 0                  |
| Surat       | 375                       | 7                   | 16                              | 0                     | 209                         | 59                    | 35                           | 0                             | 0                  |
| Bharuch     | 446                       | 9                   | 22                              | 0                     | 203                         | 79                    | 88                           | 1                             | 0                  |
| Vadodara    | 211                       | 4                   | 8                               | 0                     | 94                          | 45                    | 28                           | 0                             | 0                  |
| Rewari      | 259                       | 1                   | 1                               | 4                     | 143                         | 49                    | 4                            | 2                             | 0                  |
| Alwar       | 307                       | 3                   | 8                               | 0                     | 176                         | 79                    | 11                           | 0                             | 1                  |
| Mewat       | 292                       | 8                   | 2                               | 0                     | 175                         | 5                     | 43                           | 0                             | 0                  |
| Gurgaon     | 133                       | 0                   | 7                               | 0                     | 49                          | 18                    | 13                           | 0                             | 0                  |
| Palwal      | 209                       | 0                   | 8                               | 1                     | 81                          | 29                    | 35                           | 2                             | 0                  |
| Faridabad   | 247                       | 0                   | 0                               | 1                     | 38                          | 95                    | 105                          | 1                             | 0                  |
| G. B. Nagar | 89                        | 1                   | 2                               | 0                     | 23                          | 10                    | 3                            | 1                             | 0                  |
| Total       | 4,892                     | 55                  | 434                             | 11                    | 1903                        | 818                   | 682                          | 19                            | 1                  |

Note: 1 Below Poverty Line (BPL) Family: BPL families are calculated by comparing annual household income and the latest BPL threshold income figure determined by Planning Commission, Government of India (which is INR30,240 for urban households and INR19,872 for rural households). Since some households did not provide information about their income, this is the minimum number of the BPL households in the affected area.

Source: Baseline Survey and Census, 2010-2011

## 4.2.4 Average Household Income

The district-wise annual average income by source is presented below. On average, affected households in Surat district are found to have the highest average annual income. The district with the lowest average annual income is Thane (where the number of non-titleholder is highest).

Table 4.2.4 Average Annual Family Income by Source (INR)

| District    | Respondent HH | Agriculture | Wage<br>Labour | Business/<br>Trading | Service | Livestock<br>& Animal<br>Husbandry | Cottage<br>Craft | Other | Average<br>Annual<br>Income<br>per HH |
|-------------|---------------|-------------|----------------|----------------------|---------|------------------------------------|------------------|-------|---------------------------------------|
| Raigad      | -             | -           | -              | -                    | -       | -                                  | -                | -     |                                       |
| Thane       | 1,085         | 24,571      | 23,077         | 27,750               | 31,049  | 285                                | 3,039            | 0     | 109,771                               |
| Valsad      | 476           | 51,978      | 32,322         | 113,171              | 50,463  | 3,848                              | 1,027            | 0     | 252,810                               |
| Navsari     | 521           | 76,089      | 18,286         | 54,132               | 33,122  | 1,514                              | 442              | 0     | 183,003                               |
| Surat       | 375           | 391,450     | 13,206         | 134,907              | 155,253 | 9,002                              | 2,500            | 0     | 706,318                               |
| Bharuch     | 446           | 290,445     | 4923           | 3,982                | 22,961  | 4,674                              | 0                | 0     | 326,985                               |
| Vadodara    | 211           | 536,031     | 1,592          | 8,426                | 17,078  | 3,458                              | 455              | 796   | 567,838                               |
| Rewari      | 259           | 144,581     | 55,241         | 97,753               | 243,388 | 55,923                             | 1,529            | 0     | 208,049                               |
| Alwar       | 307           | 121,146     | 26,713         | 33,984               | 90,653  | 4,404                              | 3,029            | 0     | 279,929                               |
| Mewat       | 292           | 133,822     | 106,094        | 38,123               | 17,664  | 45,655                             | 103              | 0     | 341,461                               |
| Gurgaon     | 133           | 147,168     | 90,711         | 210,666              | 186,857 | 24,000                             | 0                | 0     | 180,648                               |
| Palwal      | 209           | 170,554     | 10,146         | 3,263                | 240,452 | 1,015                              | 0                | 0     | 259,819                               |
|             |               |             |                |                      |         |                                    |                  |       |                                       |
| Faridabad   | 247           | 372,482     | 8,332          | 8,745                | 212,162 | 2,429                              | 0                | 0     | 604,150                               |
| G. B. Nagar | 89            | 156,838     | 3,236          | 26,427               | 23,326  | 0                                  | 0                | 0     | 203,231                               |

Note: Village-wise Average Income of Each Income Category: the total income for each income category of a particular village divided by the number of respective responded households in the village; Average Annual Income per HH: the total income of all categories (e.g. agriculture, service, etc.) divided by the total number of the responded households of a particular village

Source: Baseline Survey and Census, 2010-2011

#### 4.2.5 Occupation of Surveyed PAFs

In the project area, the major sector engaged by PAFs is agriculture (2,520 PAFs/53%), followed by miscellaneous sector (1,357 PAPs/28.6%) as shown in Table 4.2.5.

Table 4.2.5 Sectors Engaged by Surveyed PAPs

| District          | Agriculture | Govt. Service | Manufacturing | Pvt.<br>Service | Misc  | Total<br>PAF |
|-------------------|-------------|---------------|---------------|-----------------|-------|--------------|
| Raigad            | -           | -             | -             | -               | -     | -            |
| Thane             | 503         | 7             | 41            | 131             | 403   | 1,085        |
| Valsad            | 257         | 24            | 47            | 128             | 120   | 476          |
| Navsari           | 164         | 3             | 17            | 88              | 249   | 521          |
| Surat             | 181         | 0             | 12            | 54              | 128   | 375          |
| Bharuch           | 315         | 1             | 3             | 16              | 111   | 446          |
| Vadodara          | 192         | 1             | 6             | 5               | 9     | 211          |
| Rewari            | 113         | 2             | 27            | 58              | 59    | 259          |
| Alwar             | 171         | 0             | 10            | 16              | 110   | 307          |
| Mewat             | 128         | 0             | 8             | 35              | 121   | 292          |
| Gurgaon           | 107         | 1             | 13            | 4               | 8     | 133          |
| Palwal            | 209         | 0             | 0             | 0               | 0     | 209          |
| Faridabad         | 102         | 8             | 57            | 46              | 34    | 247          |
| Gautam Budh Nagar | 78          | 0             | 4             | 2               | 5     | 89           |
| Total             | 2,520       | 47            | 245           | 583             | 1,357 | 4,650        |

Source: Baseline Survey and Census, 2010-2011

#### 4.2.6 Educational Status of PAPs

Education level of PAPs is presented in Table 4.2.6. According to the Baseline Survey and Census, 6,666 PAPs are illiterate (17.4%). The majority is PAPs completed high school (12,873PAPs/33.5%) followed by PAPs with primary education (6,955PAPs/18.1%).

Table 4.2.6 Educational Status of PAPs

| District    | Illiterate | Below<br>6 years | Only<br>can<br>read | Can<br>write | Primary (5th) | High<br>School<br>(12th) | Graduate | Professional<br>Education | Total<br>surveyed<br>PAPs |
|-------------|------------|------------------|---------------------|--------------|---------------|--------------------------|----------|---------------------------|---------------------------|
| Raigad      | -          | -                | -                   | -            | -             | -                        | -        | -                         | -                         |
| Thane       | 1,356      | 494              | 657                 | 531          | 1,240         | 1,834                    | 512      | 189                       | 6,813                     |
| Valsad      | 472        | 165              | 213                 | 72           | 679           | 1,136                    | 321      | 149                       | 3,207                     |
| Navsari     | 177        | 80               | 296                 | 34           | 430           | 1,230                    | 455      | 167                       | 2,869                     |
| Surat       | 173        | 201              | 205                 | 94           | 424           | 1,179                    | 395      | 178                       | 2,849                     |
| Bharuch     | 221        | 111              | 246                 | 81           | 652           | 1,705                    | 296      | 137                       | 3,359                     |
| Vadodara    | 242        | 66               | 137                 | 10           | 345           | 695                      | 104      | 40                        | 1,639                     |
| Rewari      | 470        | 93               | 75                  | 147          | 463           | 830                      | 197      | 51                        | 2,326                     |
| Alwar       | 950        | 69               | 287                 | 295          | 645           | 953                      | 191      | 52                        | 3,442                     |
| Mewat       | 1,330      | 115              | 793                 | 655          | 790           | 484                      | 67       | 29                        | 4,263                     |
| Gurgaon     | 150        | 13               | 41                  | 144          | 144           | 460                      | 50       | 40                        | 1,042                     |
| Palwal      | 490        | 48               | 96                  | 287          | 338           | 716                      | 148      | 60                        | 2,183                     |
| Faridabad   | 563        | 36               | 129                 | 308          | 683           | 1,304                    | 419      | 114                       | 3,556                     |
| G. B. Nagar | 72         | 7                | 22                  | 117          | 122           | 347                      | 42       | 33                        | 762                       |
| Total       | 6,666      | 1,498            | 3,197               | 2,775        | 6,955         | 12,873                   | 3,197    | 1,239                     | 38,310                    |

Source: Baseline Survey and Census, 2010-2011

# 4.2.7 Anticipated Difficulties after Resettlement by PAFs to be Displaced

Finding a new house appears to be the most common concern among resettlers (63.9%) in terms of difficulties after resettlement.

Table 4.2.7 Anticipated Difficulties after Resettlement by PAFs to be Displaced

| District    | Responded<br>HH<br>(Resettlers) | New Income<br>Source | New House | New Suitable<br>farmland | Suitable<br>School | Access to<br>Utilities |
|-------------|---------------------------------|----------------------|-----------|--------------------------|--------------------|------------------------|
| Raigad      | -                               | -                    | -         | -                        | -                  | -                      |
| Thane       | 500                             | 104                  | 400       | 145                      | 27                 | 11                     |
| Valsad      | 71                              | 13                   | 36        | 26                       | 0                  | 1                      |
| Navsari     | 64                              | 13                   | 46        | 14                       | 2                  | 0                      |
| Surat       | 54                              | 15                   | 37        | 28                       | 0                  | 1                      |
| Bharuch     | 1                               | 1                    | 0         | 0                        | 0                  | 0                      |
| Vadodara    | 1                               | 0                    | 1         | 1                        | 1                  | 0                      |
| Rewari      | 40                              | 35                   | 5         | 12                       | 0                  | 1                      |
| Alwar       | 16                              | 11                   | 1         | 7                        | 0                  | 0                      |
| Mewat       | 33                              | 28                   | 1         | 19                       | 1                  | 0                      |
| Gurgaon     | 14                              | 3                    | 4         | 7                        | 0                  | 0                      |
| Palwal      | 15                              | 3                    | 2         | 10                       | 0                  | 0                      |
| Faridabad   | 19                              | 18                   | 0         | 18                       | 0                  | 0                      |
| G. B. Nagar | 6                               | 0                    | 0         | 0                        | 6                  | 0                      |
| Total       | 834                             | 244                  | 533       | 287                      | 37                 | 14                     |

Source: Baseline Survey and Census, 2010-2011

# 4.2.8 Positive and Negative Impacts Expected during Construction by the PAFs

Business opportunity and establishment of industry are two popular positive impacts during the construction phase as expected by the affected PAFs. On the other hand, income loss and temporary loss of land are identified as two major negative impacts during the construction phase. The district-wise expected positive and negative impacts are shown in Table 4.2.8.

Table 4.2.8 Anticipated Positive and Negative Impacts during Construction

|             |                    | Positiv                | e Temporary                 | Impacts                        | Negative Temporary Impacts |                              |                               |                     |                               |  |
|-------------|--------------------|------------------------|-----------------------------|--------------------------------|----------------------------|------------------------------|-------------------------------|---------------------|-------------------------------|--|
| District    | Respond<br>ed PAFs | Wage<br>Employ<br>ment | Business<br>Opportun<br>ity | Industry<br>Establish<br>ments | Income<br>Loss             | Temporary<br>Loss of<br>Land | Access to<br>Social<br>infra. | Security<br>Problem | Commun<br>icable<br>Diseases# |  |
| Raigad      | -                  | 1                      | 1                           | 1                              | 1                          | -                            | 1                             | 1                   | -                             |  |
| Thane       | 1,085              | 123                    | 226                         | 152                            | 77                         | 353                          | 55                            | 26                  | 23                            |  |
| Valsad      | 476                | 27                     | 37                          | 92                             | 24                         | 36                           | 0                             | 2                   | 2                             |  |
| Navsari     | 521                | 16                     | 39                          | 49                             | 51                         | 21                           | 1                             | 2                   | 0                             |  |
| Surat       | 375                | 14                     | 15                          | 10                             | 204                        | 63                           | 21                            | 25                  | 15                            |  |
| Bharuch     | 446                | 6                      | 9                           | 9                              | 91                         | 37                           | 19                            | 10                  | 8                             |  |
| Vadodara    | 211                | 3                      | 0                           | 4                              | 98                         | 45                           | 8                             | 19                  | 9                             |  |
| Rewari      | 259                | 2                      | 2                           | 2                              | 11                         | 1                            | 0                             | 0                   | 1                             |  |
| Alwar       | 307                | 2                      | 2                           | 0                              | 2                          | 0                            | 0                             | 0                   | 0                             |  |
| Mewat       | 292                | 5                      | 6                           | 18                             | 3                          | 3                            | 0                             | 0                   | 0                             |  |
| Gurgaon     | 133                | 1                      | 1                           | 0                              | 71                         | 15                           | 0                             | 1                   | 0                             |  |
| Palwal      | 209                | 9                      | 0                           | 1                              | 36                         | 22                           | 22                            | 17                  | 18                            |  |
| Faridabad   | 247                | 0                      | 3                           | 3                              | 0                          | 0                            | 0                             | 1                   | 0                             |  |
| G. B. Nagar | 89                 | 11                     | 9                           | 0                              | 19                         | 29                           | 10                            | 6                   | 7                             |  |
| Total       | 4,650              | 219                    | 349                         | 340                            | 687                        | 625                          | 136                           | 109                 | 83                            |  |
| Percentage  | -                  | 4.7%                   | 7.5%                        | 7.3%                           | 14.8%                      | 13.4%                        | 2.9%                          | 2.3%                | 1.8%                          |  |

Source: Baseline and Census Survey, 2010-2011

# 4.2.9 Positive and Negative Impacts Expected during Operation by the PAFs

Overall, business opportunity and establishment of industry are two popular positive impacts during the operation phase as expected by the affected PAFs. The district-wise details are shown in the following table.

Table 4.2.9 Anticipated Positive Impacts during Operation

|             | Damadad           |                    | Positive                | Permanent Impac            | ts                              |
|-------------|-------------------|--------------------|-------------------------|----------------------------|---------------------------------|
| District    | Responded<br>PAFs | Wage<br>Employment | Business<br>Opportunity | Industry<br>Establishments | Overall Economic<br>Development |
| Raigad      | -                 | -                  | -                       | -                          | -                               |
| Thane       | 1,085             | 263                | 125                     | 210                        | 8                               |
| Valsad      | 476               | 32                 | 21                      | 27                         | 32                              |
| Navsari     | 521               | 19                 | 9                       | 53                         | 3                               |
| Surat       | 375               | 7                  | 3                       | 1                          | 3                               |
| Bharuch     | 446               | 13                 | 11                      | 18                         | 3                               |
| Vadodara    | 211               | 1                  | 3                       | 1                          | 1                               |
| Rewari      | 259               | 1                  | 1                       | 3                          | 0                               |
| Alwar       | 307               | 0                  | 0                       | 0                          | 0                               |
| Mewat       | 292               | 5                  | 6                       | 3                          | 15                              |
| Gurgaon     | 133               | 0                  | 0                       | 0                          | 0                               |
| Palwal      | 209               | 1                  | 0                       | 0                          | 0                               |
| Faridabad   | 247               | 1                  | 0                       | 2                          | 0                               |
| G. B. Nagar | 89                | 11                 | 3                       | 0                          | 0                               |
| Total       | 4,650             | 354                | 182                     | 318                        | 65                              |
| Percentage  | -                 | 7.6%               | 3.9%                    | 6.8%                       | 1.4%                            |

Source: Baseline and Census Survey, 2010-2011

On the other hand, the respondents expected that the major negative impact during operation is loss of farmland and income source (1,880 and 1,679 respondents respectively). The district-wise details of the responses are shown in the following table.

Table 4.2.10 Anticipated Negative Impacts during Operation

|             |                   |                             |                              | Negative Per                   | manent Impact               | ts                          |                       |
|-------------|-------------------|-----------------------------|------------------------------|--------------------------------|-----------------------------|-----------------------------|-----------------------|
| District    | Responded<br>PAFs | Loss of<br>Income<br>Source | Total Loss<br>of<br>Farmland | Partial<br>Loss of<br>Farmland | Commute<br>to Work<br>Place | Loss of<br>Working<br>Place | Split of<br>Community |
| Raigad      |                   |                             |                              |                                |                             |                             |                       |
| Thane       | 1,085             | 269                         | 416                          | 287                            | 426                         | 40                          | 22                    |
| Valsad      | 476               | 12                          | 75                           | 17                             | 14                          | 2                           | 1                     |
| Navsari     | 521               | 82                          | 85                           | 25                             | 8                           | 10                          | 0                     |
| Surat       | 375               | 271                         | 253                          | 189                            | 24                          | 14                          | 22                    |
| Bharuch     | 446               | 190                         | 235                          | 189                            | 42                          | 4                           | 45                    |
| Vadodara    | 211               | 145                         | 117                          | 121                            | 33                          | 25                          | 2                     |
| Rewari      | 259               | 139                         | 161                          | 34                             | 12                          | 0                           | 1                     |
| Alwar       | 307               | 155                         | 161                          | 3                              | 0                           | 0                           | 0                     |
| Mewat       | 292               | 3                           | 3                            | 0                              | 0                           | 0                           | 0                     |
| Gurgaon     | 133               | 86                          | 49                           | 54                             | 10                          | 4                           | 1                     |
| Palwal      | 209               | 49                          | 40                           | 23                             | 23                          | 17                          | 22                    |
| Faridabad   | 247               | 241                         | 247                          | 0                              | 3                           | 0                           | 0                     |
| G. B. Nagar | 89                | 37                          | 38                           | 16                             | 13                          | 8                           | 9                     |
| Total       | 4,650             | 1,679                       | 1,880                        | 958                            | 608                         | 124                         | 125                   |
| Percentage  |                   | 36.1%                       | 40.4%                        | 20.6%                          | 13.1%                       | 2.7%                        | 2.7%                  |

Source: Baseline and Census Survey, 2010-2011

# 4.2.10 Environmental-related Impacts Expected during Construction and Operation by the PAFs

Overall, an increase in vibration level (10.3%) and noise level (6.8%) are two major environmental impacts during the construction phase. Meanwhile, more respondents (9.2%) consider an increase in noise level to be a major permanent environmental issue than an increase in vibration level (5.4%) during the operation phase. The district-wise environmental impacts are presented in Table 4.2.11.

Table 4.2.11 Anticipated Negative Environmental-related Impacts during Construction and Operation

|             |                   | Tempo                    | orary (Constru                  | ction)            | Permanent                | (Operation)                     |
|-------------|-------------------|--------------------------|---------------------------------|-------------------|--------------------------|---------------------------------|
| District    | Responded<br>PAFs | Increased<br>Noise Level | Increased<br>Vibration<br>Level | Increased<br>Dust | Increased<br>Noise Level | Increased<br>Vibration<br>Level |
| Raigad      |                   |                          |                                 |                   |                          |                                 |
| Thane       | 1085              | 41                       | 303                             | 31                | 158                      | 22                              |
| Valsad      | 476               | 4                        | 23                              | 1                 | 20                       | 6                               |
| Navsari     | 521               | 8                        | 16                              | 2                 | 12                       | 2                               |
| Surat       | 375               | 89                       | 28                              | 47                | 60                       | 67                              |
| Bharuch     | 446               | 66                       | 55                              | 30                | 78                       | 89                              |
| Vadodara    | 211               | 46                       | 22                              | 23                | 48                       | 31                              |
| Rewari      | 259               | 9                        | 0                               | 0                 | 0                        | 0                               |
| Alwar       | 307               | 1                        | 0                               | 0                 | 2                        | 1                               |
| Mewat       | 292               | 0                        | 0                               | 0                 | 0                        | 0                               |
| Gurgaon     | 133               | 4                        | 1                               | 1                 | 1                        | 0                               |
| Palwal      | 209               | 35                       | 16                              | 28                | 36                       | 24                              |
| Faridabad   | 247               | 0                        | 3                               | 0                 | 4                        | 0                               |
| G. B. Nagar | 89                | 12                       | 10                              | 6                 | 9                        | 9                               |
| Total       | 4,650             | 315                      | 477                             | 169               | 428                      | 251                             |
| Percentage  |                   | 6.8%                     | 10.3%                           | 3.6%              | 9.2%                     | 5.4%                            |

Source: Baseline and Census Survey, 2010-2011

# CHAPTER 5 RESETTLEMENT POLICY AND ENTITLEMENTS

# 5.1 Objectives of Rehabilitation and Resettlement

Recognising the adverse impacts of the project and the need to address the involuntary displacement and other related adverse social impacts, MOR and DFCCIL have formulated the Resettlement and Rehabilitation Policy including entitlements keeping in view the national laws and international guidelines: The Railways (Amendment) Act, 2008 (RAA 2008), the National Rehabilitation and Resettlement Policy, 2007 (NRRP 2007), and Japan Bank for International Cooperation (Ex-JBIC) Guidelines for Confirmation of Environmental and Social Considerations, April 2002. The RRP will govern all cases of rehabilitation and resettlement due to the DFC project. Based on these, the following core involuntary resettlement principles applicable are:

- Avoid or minimize land acquisition and involuntary resettlement impacts by exploring all viable alternative designs;
- Where displacement is unavoidable, prepare time-bound RRP for PAPs so that they are not worse off than the present socio-economic condition after the implementation of the project. In other words, assist affected persons in improving their former living standards and income earning capacity with additional assistance to vulnerable groups;
- Ensure wide range of meaningful consultations with stakeholders including likely PAPs on compensation, disclosure of resettlement information, participation of PAPs in planning and implementation of the resettlement program in order to suitably accommodate their inputs and make rehabilitation and resettlement plan more participatory and broad based;
- Facilitate harmonious relationship between the Executing Authority and PAPs through mutual co-operation and interaction;
- Ensure payment of compensation and assistance to PAPs for lost assets at replacement value as per the Entitlement Matrix;
- Ensure payment of compensation and resettlement assistance prior to taking over the possession of land and commencement of any construction activities;
- Provision of rehabilitation assistance for loss of livelihood/income:
- Establishment of institutional arrangements such as grievance redress mechanism, NGO if required.
- In case of linear acquisitions, in projects relating to railway lines, highways, transmission lines, laying of pipelines and other such projects wherein only a narrow stretch of land is acquired for the purpose of the project or is utilised for right of way, each khatedar in the affected family shall be offered by the requiring body an ex-gratia payment of such amount as the appropriate Government may decide but not less than twenty thousand rupees, in addition to the compensation or any other benefits due under the Act or programme or scheme under which the land, house or other property is acquired:

# 5.2 Rehabilitation and Resettlement Policy

The Resettlement and Rehabilitation policy is based on the principles that the project affected persons would not be worse-off on account of the project than they were before.

# 5.2.1 General Principles

General principles for the rehabilitation and resettlement for the Project are shown below.

# Table 5.2.1 General Principles for the Rehabilitation and Resettlement for the Project

- 1) Project-affected persons/families (PAPs/PAFs) will be categorized as titleholders, non-titleholders, tenants, users of the land plot including kiosks, vendors, etc.
- 2) The compensation and assistance will be provided as per the "Entitlement Matrix" for different categories of PAPs.
- 3) PAPs will be assisted in improving or regaining their standard of living at project cost.
- 4) Vulnerable PAP will be eligible for additional resettlement and rehabilitation assistance as provided in entitlement matrix.
- 5) PAPs will receive applicable compensation for lost assets at replacement cost as per the entitlement matrix.
- 6) PAPs not enumerated during the census shall be included in the list of PAPs based on documentary evidence.
- 7) However, anyone moving into the project area after the cut-off date will not be entitled to assistance
- 8) The project will have separate resettlement budget.
- 9) All information related to rehabilitation and resettlement policy, mitigation measures, resettlement plan preparation and implementation will be disclosed to all stakeholders including likely PAPs.
- 10) Meaningful participation of stakeholders would be ensured at various stages of the project.
- 11) Appropriate grievance redress mechanism will be established to ensure speedy resolution of disputes.
- 12) Consultations carried out with stakeholders and PAPs will be documented. It will be ensured that meaningful consultations continue during the implementation of the Rehabilitation and Resettlement Plan.
- 13) Any change in the status of title-holding/tenancy after the cut-off dates shall not be considered.

# 5.2.2 Minimization of Adverse Impacts

Efforts are made to minimize land acquisition and involuntary resettlement impacts as far as possible by exploring all viable alternative designs throughout the implementation of the project as explained in Chapter 3.

# 5.2.3 Prevention of Influx of New Encroachers and Squatters

The following measures are undertaken to prevent influx of new encroachers and squatters within the proposed ROW after the cut-off date:

- PAPs will be identified and recorded as early as possible through the Baseline Survey and Census and/or the Joint Measurement Survey.
- One of the DFCCIL officers of the rank of Executive Engineer shall be made responsible for the identification, reporting and initiation of action for eviction of encroachers and squatters that occur after the cut-off date as per the existing law. DFCCIL carry out monitoring of the entire section under his/her jurisdiction with the help of other support staff. Monthly monitoring will be reported to senior officer in DFCCIL for further information and guidance.
- Fencing or construction of wall in the urban sections and other potential locations to prevent entry of illegal occupants in future within the proposed ROW during the project implementation period.

# 5.3 Eligibility for Compensation/Assistance/Rehabilitation

Eligibility for compensation, assistance, and rehabilitation is shown below.

# Table 5.3.1 Eligibility for Compensation, Assistance, and Rehabilitation

- 1) The cut-off date for entitlement is the date on which notification is issued as per the notification prescribed under the Section 20A of the RAA 2008 for titleholders and non-titleholders.
- 2) Eligibility of different categories of PAPs will be as per the Entitlement Matrix as shown in the subsequent section below.
- 3) The unit of entitlement will be family.
- 4) Titleholder PAPs will be eligible for compensation as well as assistance.
- 5) Non-titleholder PAPs will not be eligible for compensation of the land occupied by them However, they will receive applicable compensation for the investment made by them on the land such as replacement value of structures and other assets as per the Entitlement Matrix. They will also be eligible for R&R assistance as per Resettlement Policy and Entitlement Matrix.
- 6) In case a PAP could not be enumerated during census, but has reliable evidence to prove his/her presence before the cut-off date in the affected zone shall be included in the list of PAPs after proper verification by the grievance redress committee.
- 7) PAPs from vulnerable group will be entitled for additional assistance as specified in the Entitlement Matrix.
- 8) PAPs will be entitled to take away or salvage the dismantled materials free of cost without delaying the project activities.
- 9) If a notice for eviction has been served on a person/family before the cut-off date and the case is pending in a court of law, then the eligibility of PAP will be considered in accordance with the legal status determined by the court and the PAP will be eligible for compensation/assistance in accordance with the RRP provisions.

# 5.4 Compensation and Assistance

Main policy on the compensation of land acquisition for the Project is shown below.

# Table 5.4.1 Main Policy on the Compensation of Land Acquisition for the Project

- 1) Land acquisition will be the responsibility of the MOR as project proponent and DFCCIL as project implementation agency from the Central Government, and Competent Authority from State government authorized by the Central Government.
- 2) Additional land required for the project shall be acquired as per the RAA 2008 therein from time to time.
- 3) Land will not be acquired for the project by invoking emergency clause of the RAA 2008.
- 4) The compensation amount for land will be paid to the land losers as per the RAA 2008.
- 5) The completion of land acquisition will be considered complete in completion of the procedure prescribed under the Section 20(I) of RAA 2008.
- 6) If the land losers decide to surrender residual land plot to the Project in such case DFCCIL will be bound to acquire the residual plot and pay compensation and R&R assistances as per provisions of the policy.
- 7) All land measurements shall be based on the latest revenue map of the concerned village.
- 8) If compensation money is not claimed by the interested persons for one year after the notice for collection of compensation amount then in such cases the compensation amount will be kept with DFCCIL/CA in a separate account till the currency of the project. Interested parties either directly or through their legal heirs as the case may be can claim their compensation after satisfactory documentary verification. After project completion however, the money will be kept in the Govt. treasury as "unclaimed money".

Main items for the compensation and assistance for the Project are shown below.

#### Table 5.4.2 Main Items for the Compensation and Assistance for the Project

- 1) Independent valuator authorized by DFCCIL will determine the replacement value of land, structures, trees and crops and other assets wherever required.
- 2) The difference between the replacement cost as determined by the independent valuator and the amount paid as compensation shall be paid as assistance by DFCCIL/Competent Authority (CA). Thus the replacement cost is the total of compensation and assistance.
- 3) Replacement cost of structures and other assets affected shall be paid without depreciation
- 4) In case the structure is partly acquired, then cost to maintain the viability and safety of the remaining part of structure shall be taken into consideration while estimating the replacement cost.
- 5) Absentee titleholder PAPs will be eligible for compensation only.
- 6) PAPs losing source of livelihood shall be eligible for transitional allowance as specified in the Entitlement Matrix. Loss of livelihood will be verified by the DFCCIL/CA for providing transitional assistance.
- 7) PAPs losing their place of residence/business or both (displaced) shall be eligible for shifting allowance for carrying household items and transport allowance for transporting salvaged materials from dismantled structure.
- 8) PAPs losing sources of livelihood shall be eligible for cash compensation of Rs.4000/- in lieu of training to upgrade their skills (one person per affected family) at project cost.
- 9) Compensation and assistance will be paid before taking possession of the acquired land and properties.
- 10) Non-title holders shall be paid applicable compensation for structure and other assets before taking over the land for civil construction work.
- 11) Civil works will start only after the compensation and/or assistance has been paid to the PAPs.
- 12) Advance notice of appropriate period such as 3 months shall be given by DFCCIL/CA for harvesting of standing crops.
- 13) Assistance on account of damage to standing crops shall be based on the estimate provided by the Agriculture Department. Market rate of crops will be determined by DFCCIL/CA in consultation with agricultural department or procurement rate announced by the concerned government, whichever is higher.
- 14) Advance notice of appropriate period such as 3 months will be served by DFCCIL/CA to vacate encroached homestead or vacant land.

# 5.5 Resettlement and Rehabilitation

The compensation for rehabilitation and resettlement shall be paid as per the Entitlement Matrix.

#### 5.6 Entitlement Matrix

A detailed description of compensation and assistance is given in the Entitlement Matrix as shown in Table 5.6.1. PAPs will be eligible for a combination of compensation and assistance measures depending upon the nature of ownership rights of lost assets, type of impact and socio-economic status of PAPs.

Table 5.6.1 Entitlement Matrix for DFC Project Based on RAA 2008 and NRRP 2007

| S.No  | Application                            | Definition of Affected<br>Persons   | Entitlement  | Details  |
|-------|--|---|--|--|
| A. Lo | oss of Private Agricu                  | ltural, Homestead & Commer  | cial Land  | 1  |
| 1     | Land on the<br>Project Right of<br>Way | Legal Title holders and<br>Affected Parties with<br>traditional land rights | 1.Compensation at replacement cost 2.Resettlement and Rehabilitation | (i) Cash compensation for the land at market value, which will be determined as mentioned in note (A) (section 20 G of RAA 2008)   |
|       |  |   |  | (ii) 60% solatium on the compensation determined in (i) above (section 20F(9) of RAA 2008).  |
|       |  |   |  | (iii) In case where a State Government through any act or Gazette Notification or as approved by any authority of State Government (duly authorized for the purpose) as per their approved procedure has fixed a rate for compensation of land, the same may be adopted by the Competent Authority in determining the compensation for land in lieu of (i) & (ii) above. |
|       |  |   |  | (iv) Additional ex-gratia amount of Rs 20,000/- for those losing land up to 1,500 sqmts (para 7.19 NRRP 2007); Plus @ Rs.15 per sqmt for area acquired above 1,500 sqmt  |
|       |  |   |  | (v) If as a result of land acquisition, the land holder becomes landless or is reduced to the status of a "small" or "marginal" farmer, rehabilitation assistance equivalent to 750 days of minimum agricultural wages would also be given   |
|       |  |   |  | (vi) The Competent Authority may in case of doubt/conflicting claims of compensation of market value may take inputs from an independent evaluator also before deciding the award. Detailed procedure in this regard is in note B  |
|       |  |   |  | (vii) Policy for acquisition/<br>compensation for residual land will be<br>as per note C   |
|       |  |   |  | (viii) Refund of stamp duty and registration charges incurred for replacement land to be paid by the project; replacement land must be bought within a year from the date of payment of compensation to affected party as defined in section 20(H) of RAA 2008   |
| 2     |  | Registered tenants, contract cultivators & leaseholders                     | Compensation for standing crops at market rate                       | Registered tenants, contract cultivators & leaseholders are not eligible for compensation for land. They will only be eligible for compensation for standing crops at market rate if 3 months' advance notice is not served by EA.   |
| 3     |  | Un-registered tenants, contract cultivators,                                | Compensation for standing crops at                                   | Un-registered tenants, contract cultivators, leaseholders &  |

| S.No      | Application                           | Definition of Affected<br>Persons | Entitlement   | Details   |
|-----------|---------------------------------------|-----------------------------------|---|---|
|           |                                       | leaseholders, sharecroppers       | market rate   | sharecroppers are not eligible for compensation for land. They will only be eligible for compensation for standing crops at market rate if 3 months' advance notice is not served by EA. In case of share croppers, compensation shall be in the ratio as mutually agreed by the share croppers and land owners.  |
| B. Loss   | of Private Structur                   | es (Residential/Commercial)       | L   | and faile 6 Wileign   |
| B. Loss 4 | Structure on the Project Right of Way | Title Holder/Owner                | Compensation at replacement rate Resettlement & Rehabilitation Assistance | (i) Cash compensation for the structure at replacement cost which would be determined as per note D.  (ii) Right to salvage material from the demolished structures.  (iii) Three months' notice to vacate structures.  (iv) Refund of stamp duty and registration charges for purchase of new alternative houses/shops at prevailing rates on the market value as determined in (i) above. Alternative houses/shops must be bought within a year from the date of payment of compensation to affected party as defined in section 20(H) of RAA 2008.  (v) Resettlement & Rehabilitation Assistance as applicable as under:  (a) Transition Allowance of Rs 4,000/-per household.  (b) Each affected family getting displaced shall get a one-time financial assistance of Rs 10,000 as shifting allowance (para 7.10 NRRP 2007).  (c) Each affected family that is displaced and has cattle, shall get financial assistance of Rs 15,000/- for construction of cattle shed (para 7.10 NRRP 2007).  (d) Each affected person who is a rural artisan, small trader or self employed person and who has been displaced shall get a one-time financial assistance of Rs 25,000/- for construction of working shed or shop (para 7.12 NRRP 2007). |
|           |                                       |                                   |   | equivalent to the latest construction cost of Indira Awas Yojana Scheme for Rural Areas and cost of house construction under JNURM for Urban Areas.   |

| S.No    | Application                                 | Definition of Affected<br>Persons  | Entitlement   | Details  |
|---------|---|--|---|--|
| 5       | Structure on the<br>Project Right of<br>Way | Tenants/Lease Holders  | Resettlement & Rehabilitation Assistance                                  | (i) Registered lessees will be entitled to an apportionment of the compensation payable to structure owner as per applicable local laws. (ii) In case of tenants, three months written notice will be provided along with Rs 10,000 towards shifting allowance (NRRP 7.11). (iii) Three months' notice to vacate structures. In case notice is not provided, then three months' rental allowance will be provided in lieu of notice.   |
| C. Loss | Standing Trees,                             | Owners & beneficiaries of  | Commonsation at   | (i) 3 months' advance notice to affected   |
| o o     | Crops on Project<br>Right of Way            | land   | Compensation at market value  | parties to harvest fruits, standing crops and remove trees (ii) Compensation to be paid at the rate estimated by: (a) the Forest Department for timber trees (b) State Agriculture Extension Department for crops (c) Horticulture Department for perennial trees (d) Cash assistance to title holders and non title holders including informal settlers/ squatters for loss of trees, crops and perennials at market value  |
|         |   | mmercial Structures by Non   |   |  |
| 7       | Structures on the Project ROW               | Owners of structures identified as on date of notification (20A).                              | Compensation at replacement cost Resettlement & Rehabilitation Assistance | (i) Encroachers (as defined in Note F) shall be given three months' notice to vacate occupied land or compensation for loss of crops or structures, if notice is not given. Cash assistance to squatters (as defined in Note F) for their structures at replacement costs which will be determined as mentioned in Note D  (ii) Resettlement & Rehabilitation assistance as under: (a) Transition Allowance of Rs 4,000/per household. (b) Shifting allowance of Rs 10,000 per household (para 7.11 NRRP 2007). (c) Assistance of Rs 15,000/- for loss of cattle shed (para 7.10 NRRP 2007). (d) If the affected party getting displaced is a rural artisan, small trader or self employed person assistance of Rs 25,000/- for construction of working shed or shop (para 7.12, NRRP 2007)  (e) House construction assistance for those living below poverty line equivalent to the latest construction cost of Indira Awas Yojana Scheme for Rural Areas and cost of house construction under JNURM for Urban Areas. |
| E. Loss | of Livelihood                               |  |   |  |
| 8       | Households<br>living on Right of<br>way     | Title Holders/ Non-Title<br>holders/share-croppers,<br>agricultural labourers and<br>employees | Rehabilitation<br>Assistance  | (i) Rehabilitation grant equivalent to 750 days of minimum agricultural wages to those families losing livelihood (para 7.14,NRRP) (land title holders availing assistance of 750 days minimum wages under section 1 (v) above would not be eligible for this  |

| S.No   | Application   | Definition of Affected<br>Persons  | Entitlement  | Details   |  |  |  |  |  |
|--------|---|--|--|---|--|--|--|--|--|
|        |   |  |  | assistance)   |  |  |  |  |  |
|        |   |  |  | (ii) Training Assistance of Rs 4,000/- for income generation per household  |  |  |  |  |  |
|        |   |  |  | (iii) Temporary employment in the project construction work to Affected Persons with particular attention to APs Below Poverty Line (BPL) by the project contractor during construction, to the extent possible   |  |  |  |  |  |
| E1 Add | litional support to V   | ulnerable Group (as defined in   | n Note E) & those Belo   | w Poverty Line  |  |  |  |  |  |
| 9      | Households<br>affected by ROW   | Households affected by ROW   | Resettlement &<br>Rehabilitation<br>Assistance   | One time additional financial assistance equivalent to 300 days of minimum wages  |  |  |  |  |  |
| E2     | Additional assistar   | nce to Scheduled Tribe affected  | d families   |   |  |  |  |  |  |
| 10     | of Community Infragrations  Structures & other resources (eg land, water, access to social services etc) on | Households affected by ROW  astructure/Common Property Affected communities and groups | Rehabilitation Assistance  | (i) Each ST affected family shall get an additional one time financial assistance equivalent to five hundred days minimum agricultural wages for loss of customary right or usage of forest produce (para 7.21.5 NRRP 2007) (ii) In case of land acquisition from each ST affected family, at least one third of the compensation amount due shall be paid to the affected families at the outset as first instalment and the rest at the time of taking over the possession of the land (para 7.21.4 NRRP 2007)  Reconstruction of community structures and replacement of common property resources in consultation with the community as appropriate |  |  |  |  |  |
| G Tem  | ROW<br>porary impact durii  | ng Construction  |  |   |  |  |  |  |  |
| 12     | Land & assets   | Owners of land & assets  | Compensation for   | The contractor shall bear the   |  |  |  |  |  |
| 12     | temporarily<br>impacted during<br>construction  | Owners of failu & assets   | temporary impact during construction like disruption of normal traffic, damage to adjacent parcel of land/ assets due to movement of heavy machinery | compensation cost of any impact on  |  |  |  |  |  |

#### Note A

- Compensation would be determined by Competent Authority as per provisions in RAA 2008, Section 20 (G) which specifies the following criterion for assessing and determining market value of the land:
  - (i) the minimum land value, if any, specified in the Indian Stamp Act, 1899 for the registration of sale deeds in the area, where the land is situated; or
  - (ii) the average of the sale price for similar type of land situated in the village or vicinity, ascertained from not less than 50% of the sale deeds registered during three years, where higher price has been paid, whichever is higher.
- 2. Wherever the above provisions are not applicable, the concerned State Government shall specify the floor price per unit area of the said land based on the average higher prices paid for similar type of land situated

in the adjoining areas or vicinity, ascertained from not less than 50% of sale deeds registered during the preceding 3 years where higher price has been paid, and the competent authority may calculate the value of the land accordingly (Section 20(G) of RAA 2008 to be followed).

- 3. While determining the compensation amount, competent authority or arbitrator shall also take into account the following, as per provisions in Section 20 F (8) of RAA 2008:
  - (i) damage, if any sustained by the person interested at the time of taking possession of the land, by reason of the severing of such land from other land.
  - (ii) damage, if any, sustained by the persons interested at the time of taking possession of the land, by reason of the acquisition injuriously affecting his other immovable property in any manner, or his earnings
  - (iii) if, in consequence of the acquisition of the land, the person interested is compelled to change his residence or place of business, the reasonable expenses, if any, incidental to such change.
- 4. Before assessing and determining the market value of the land being acquired, competent authority shall:
  - (i) ascertain the intended land use category of such land; and
  - (ii) take into account the value of the land of the intended category in the adjoining areas or vicinity.
- 5. In case where the right of the user or any right in the nature of an easement on, any land is acquired, an amount calculated at ten percent of the compensation amount determined under Section 20 F(1) of RAA 2008, shall be paid by the EA to the owner and any other person whose right in enjoyment of the land has been affected.

#### Note B

DFCCIL would also hire an Independent Evaluator registered with Government, who can assist to assess the replacement cost of land as follows and provide inputs to the competent authority:

- (i) Appraise recent sales and transfer of title deeds and registration certificates for similar type of land in the village or urban area and vicinity
- (ii) Appraise circle rate in urban and rural areas of the district
- (iii) Appraise agricultural productivity rate for land 20 years yield.

The Competent Authority may take inputs from the independent evaluator before deciding the compensation for the land.

#### Note C

If the residual plot(s) is (are) not economically viable, the EA will follow the rules and regulations applicable in the state and compensate accordingly; if there are no state specific rules and regulations available regarding residual land is less than average land holding of the district after EA purchase, the EA in agreement with the Affected Party, will follow one of the following:

- i. The EA will buy the residual land for the project following the entitlements listed in the entitlement matrix; or
- ii. The EA will pay the Affected Party 25% of the land hardship compensation for that portion of land without its purchase.

#### Note D

The compensation for houses, buildings and other immovable properties will be determined on the basis of replacement cost by referring to relevant Basic Schedule of Rates (B.S.R) as on date without depreciation. While considering the B.S.R, the independent evaluator registered with the Government will use the latest B.S.R for the residential and commercial structures in the urban and rural areas of the region, and in consultation with the owners

#### Note E

NRRP 2007 defines Vulnerable Persons as disabled, destitute, orphans, widows, unmarried girls, abandoned women or persons above 50 years of age; who are not provided or cannot immediately be provided with alternative livelihood, and who are not otherwise covered as part of a family (para 6.4 (v) NRRP 2007)

#### Note F

#### **Definitions:**

<u>Marginal farmer</u> - A cultivator with an un-irrigated land holding up to 1 hectare or with an irrigated land holding up to half hectare.

<u>Small farmer</u> – A cultivator with an un-irrigated land holding up to 2 hectares or with an irrigated land holding up to 1 hectare, but more than a marginal farmer.

Encroacher- A person/family, who transgresses into the public land (prior to the cut of date), adjacent to his/her own land or other immovable assets and derives his/her additional source of shelter/livelihood.

<u>Squatter</u> – A person/family that has settled on the public land without permission or has been occupying public building without authority prior to the cut-off date and is depending for his or her shelter or livelihood and has no other source of shelter or livelihood.

#### Government Resolution for the State of Maharashtra

- ✓ Govt. of Maharashtra has issued a GR (Government Resolution) for determination of rate of compensation of land for acquisition of Pvt. Land for DFCCIL. The Committee will consist of Collector (Chairman), Special Land Acquisition Officer/Competent Authority (Member Secretary) and 5 members and will be formed to decide the rate of compensation for land to be acquired by DFC in Maharashtra state.
- ✓ To fix the rate of land, the committee may take into account of Note A of the Entitlement Matrix, Para 20G of RAA 2008, and others such as the claims of PAPs, results of the Base Line Survey, findings of the Land Market Survey Report, development potential of the nearby area and any other local factor relevant to the land prices of the subject land.
- ✓ The committee should compare the Ready Reckoner rate with sales deed rates for the same year and offer the higher rate to land owners. If the landowners do not agree for this rate then the committee may ascertain the rate acceptable to villagers and recommend the same to acquiring body (i.e. DFCCIL) in writing for approval and then the committee will finalise the rate accordingly.
- ✓ The committee shall invariably meet once in a month to decide the rates for villages under consideration. The committee, who finalized rates of compensation for acquisition in those villages where the dedicated freight corridor has been planned in the Maharashtra State shall advise to Competent Authority for acceptance and disbursement of compensation.

# **CHAPTER 6 RESETTLEMENT SITE**

Due to nature of the linear project, there is no resettlement where most of village members are subject to the relocation; however, a small portion of village members is expected to be relocated due to residential structures affected by the project. Considering the situation that the entire social community is not to be displaced by the Project, no resettlement site will be prepared.

# CHAPTER 7 INCOME RESTORATION

# 7.1 Background

Development project may have an adverse impact on the income of project-affected persons. They also have a negative impact on the socio-cultural systems of affected communities. Restoration of pre project-levels of income is an important part of rehabilitating socioeconomic and cultural system in affected communities.

To achieve this goal, preparation of income restoration programme under RRP should be proceed exactly as it would have for any other economic development programme. IR scheme should be designed in consultation with affected persons and they should explicitly approve the programme.

The NGO may be engaged for R&R implementation if required otherwise, the work shall be done by a team of CPMs representatives and Social Consultants attached with Social and Environmental Management Unit (SEMU). They will ensure and provide all assistance to PAPs to restore their livelihood. Detail of the benefits for income restoration is being given in Entitlement Matrix.

# 7.2 Additional Support from On-going Poverty Reduction Programs

CPMs and their unit, Social Scientist of Social and Environmental Management Unit and consultants working will play a pro active role to mobilize PAPs to get benefits from various Central /State Government schemes and ensure accessibilities to PAPs by disclosing the same at various level i.e. Gram Panchayat, village, district and CPMs offices also.

The NGO may be engaged if required, for R&R implementation will assist PAPs in finding capital from various sources such as by forming self help group, from bank, from various government schemes or utilizing project assistance.

# 7.3 Steps in Income Restoration

# 7.3.1 Information on Economic Activity of PAPs

Basic information on PAPs will be available from the baseline survey and census. Information from baseline surveys will be available on features of economic activities of PAPs under two categories, viz,

- Land Based Economic activity
- Non Land Based Economic activities
- Total Income of PAPs from various sources

Based on this information IR activities can be planned. IR activities are of two types: short-term and long-term.

#### (1) Short Term IR activities

Short term IR activities means restoring PAPs income during periods of immediately before and after relocation. Such activities will focus on the following;

- Ensure that adequate compensation is paid before relocation,
- Relocation and transit allowance,
- Provide short term welfare grant

# (2) Long Term IR Activities

PAPs should participate in developing a range of feasible long term IR options. Long term options are affected by the scale of resettlement which may affect the feasibility of various non land based and land based IR options. The long term options are either project financed or government financed. Therefore DFCCIL officials will coordinate with government department to assure PAPs access to all schemes for improving IR services. Project financed programmes should be include a specific time frame.

# 7.3.2 Categories of Impacts

Project induced displacement may lead to loss or diminished income for project affected persons.

The main categories of impacts are as follows:

- Loss of agricultural land, partly or fully
- Loss of commercial establishment
- Loss of temporary commercial structure or mobile vendor (Squatters)
- Loss of livelihood (Commercial tenants, agricultural labours).

Project like railway construction involve acquiring strip of lands, as such as impact are not expected to be significant in many cases. However, mitigation measures need to be planned or implemented however insignificant the impacts may be.

The best way to tackle loss of farmland in part or full is to help the concerned PAP to buy equivalent farmland in a nearby area using land compensation received. Land for land is best way for income restoration. Since this is not applicable for DFCC project, the land compensation will be paid at market value and will be sufficient for buying replacement land.

# (1) Loss of Permanent Commercial structure

It is more complicated problem since the complementary issues of retaining the present customer base is to be simultaneously tackled. There is also the problem of tenants and owners. The required mitigation would involve reconstructing commercial area in nearby area so that present customer base is retained. Otherwise, PAPs will handle their own replacement structures under guidance and support of DFCCIL. Since the construction involve different activities, the money can be released into two instalments through scheduled bank.

#### (2) Loss of commercial spaces

For temporary structures and mobile vendors should be given utmost importance since these involves vulnerable section of PAPs. They also need to be given alternative space in an adjacent area for carrying on their trade or business. The temporary structure can be shifted in to new location and mobile vendor get station there.

# 7.4 Alternative Individual Income Restoration Scheme

- 1. Following measures for income restoration will be taken to recover PAPs livelihood as per approved Entitlement Matrix based on RAA 2008 & NRRP 2007.
- 2. If the affected party getting displaces is a rural artisan, small trader or self employed person assistance of Rs.25,000/- for construction of working shed for shop (para 7.12, NRRP 2007).
- 3. Rehabilitation grant equivalent to 750 days of minimum agricultural wages to those families losing livelihood (para7.14, NRRP 2007)

- 4. Training Assistance of Rs.4,000/- for income generation per household.
- 5. Temporary employment in the project construction work to affected persons with particular attention to APs below Poverty Line (PL) by the project contractor during construction, to the extent possible.
- 6. One time additional financial assistance equivalent to 300 days of minimum wages will be paid as an additional support for Vulnerable Groups to restore their Income.

# 7.5 Monitoring Individual Income Restoration Scheme

The monitoring for IR schemes will be carried out along with the monitoring of other components of RRP principle by CPMs and their units, Social Scientist of Social and Environmental Management unit and consultants under the supervision of GM/SEMU.

# CHAPTER 8 INSTITUTIONAL ARRANGEMENTS

#### 8.1 Introduction

DFCCIL is responsible for the overall technical aspects and execution of the Project. Chief Project Manager's Offices (CPM office) as field office have been already established at Mumbai, Surat, Vadodara and Noida for the Phase 2 area, and are headed by an officer of the rank of General Manager. At the Head Office, a Social and Environmental Management Unit (SEMU) has already been created headed by an officer of the rank of General Manager to look after Land Acquisition and Rehabilitation and Resettlement process. DFCCIL as project implementation agency is responsible for monitoring the use of loan funds and overall implementation process. DFCCIL, headed by Managing Director, will have overall responsibility for policy guidance, coordination and planning, internal monitoring and overall reporting of the Project. DFCCIL will set up a Project Management Unit (PMU) in its different divisional level for fully dedicated for the Project. The PMU will be functional for the whole Project duration.

# 8.2 R&R Institutional Level at the Headquarter Level:

- a) Managing Director: DFCCIL is over all responsible for successful implementation of the project. In respect of Social and Environment Management, the specific responsibilities include the following:
  - Interact regularly with SEMU and other DFCCIL engineers,
  - Participate in the policy related meetings in Railway Board on LA and R&R,
  - Ensure timely release of money to Competent Authority offices for activities included in RRP.
- b) **Director,** (**Infrastructure**): DFCCIL is the Chief Executive of the project and is responsible for successful implementation of the various project components including RRP. In respect of RRP, specific responsibilities include the following
  - Coordinate with the relevant state government authorities on land acquisition, R&R entitlements and other social components.
  - Report the progress in RRP implementation to MD, DFCCIL
  - Report to Railway Board (ED, LA) about progress in LA and R&R,
  - Interact regularly with SEMU staff,
  - Monitor progress of R&R with SEMU Staff and field CPMs.
  - Ensure timely release of money to CA offices required for RRP implementation and
  - Take up issues with MD for issues to be resolved at the Railway Board (MoR).
- C) Social and Environmental Management Unit (SEMU): Presently, the SEMU has a General Manager for the Western Corridor (GM/Electric), General Manager for the Eastern Corridor/Land Acquisition, Additional General Manager (SEMU, currently vacant), Additional General Manager (Land Acquisition), Deputy General Manager (Public Grievance), 1 social expert (consultant) and 1 environmental expert (consultant) as shown in the following figure. This Unit is responsible for smooth implementation of RRP. During the course of the project implementation, the SEMU will be responsible for the following
  - Report to MD and Dir. (Infrastructure) about the progress in LA and R&R,
  - Coordinate with the CPM offices, on the implementation of RRP,
  - Prepare formats and agree on criteria for the verification of PAFs,

- Review individual micro plan (including R&R entitlements) prepared by the CPM offices,
- Develop training modules for project staff and other functionaries on managing social aspects of the project.
- Guide CPM officers in matters related to resettlement and rehabilitation.
- Ensure budgetary provision for resettlement and rehabilitation of PAPs and relocation, rehabilitation and reconstruction of common property resources (CPRs).
- Ensure timely release of budget for implementation of RRP.
- Any other work that may be assigned from time to time by the higher authority

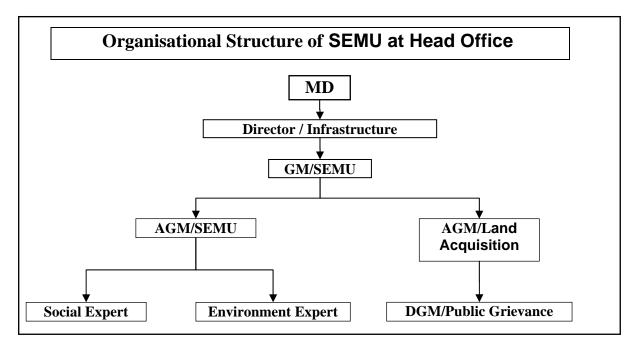


Figure 8.2.1 Organizational Structures for Head Office

# 8.3 R&R Institutions at the Field Level

The Chief Project Manager (CPM) assisted by Deputy Project Manager(s), Project Manager(s), Assistant Project Manager(s) (Social and Environment) and Consultants who are working in the field for performing the following duties.

- Co-ordinate with the District Administration, on Land Acquisition and R&R activities.
- To have a regular interaction with the Local Communities to develop good working relationship.
- Disclosure of information in field offices.
- Supervise implementation of RRP. NGO may be engaged, if required.
- Ensure meetings on resettlement and rehabilitation policy and RRP and intensive information dissemination.
- Ensure inclusion PAPs who could not be enumerated during census but have documentary evidence to be included in the list of PAPs.
- Develop and maintain a PAP level database including aspects related to losses, compensation, R&R entitlement, release of funds and utilization.

- Ensure that the R&R assistance is used for the purpose it is meant for;
- Ensure preparation of identity cards and distribution of the same to PAPs.
- Ensure disbursement of resettlement and rehabilitation assistance in a transparent manner.
- Participate in meetings related to resettlement and rehabilitation issues.
- Facilitate in opening of joint account of PAPs.
- Monitor physical and financial progress on LA, R&R.
- Prepare monthly progress report related to physical and financial progress of implementation of RRP.
- Ensure release of compensation and assistance before taking over the possession of land for start of construction work.
- Ensure relocation, rehabilitation and reconstruction of CPRs before dismantling through proper mechanism.
- Liaison with government and other agencies for inclusion of PAPs in employment and income generation programme/scheme.
- Organize fortnightly meetings with the their staffs and Competent Authority to review the progress of R&R
- Sending progress report of Land Acquisition and R&R to Head quarter.
- Attend meetings and participate in Grievance Redress Committee meetings for redress of grievances of PAPs.

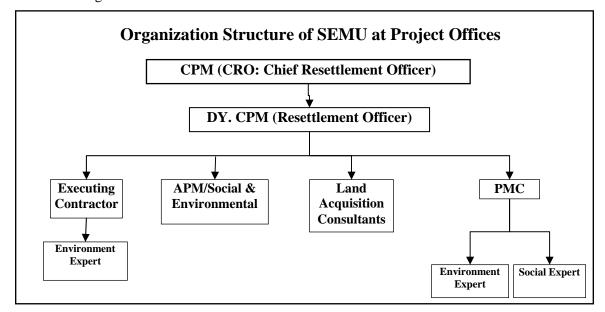


Figure 8.3.1 Organizational Structures for Field Office

# 8.4 Grievance Redress Committee (GRC)

In the RRP implementation, there is a need for an efficient grievance redress mechanism that will assist the PAPs in resolving queries and complaints. Therefore, formation of Grievance Redress Committee (GRC) will be most important for grievance redress and it is anticipated that most, if not all grievances, would be settled by the GRC. Chief Project Manager shall head the Grievance Redressal in his respective jurisdiction. GM/SEMU shall head the Grievance Redressal in the head quarter office. A detail has been discussed in Chapter 12.

# **CHAPTER 9 IMPLEMENTATION SCHEDULE**

#### 9.1 Introduction

Implementation of RRP mainly consists of compensation to be paid for affected structures; Rehabilitation and Resettlement activities. It is likely that the overall project will be implemented over a 5 years period and civil works likely to commence six months or so after loan approval. The civil works contract for each subproject will only be awarded after all compensation and relocation has been completed for subproject and rehabilitation measures are in place.

It is further cautioned that specific situation may require an increase in time, allotted to a task. Such situations include, but not limited to local opposition, seasonal factors, social and economic concerns, training of support staff and financial constraints. Complementation schedule will require detailed coordination between project authorities and various line departments.

The R&R officers in the PMU and CPM offices will receive training and orientation for implementation of RRP. The NGO will be trained to upgrade their skills to deliver the R&R components more effectively over time. This training and orientation will be conducted by the consultant who prepared the RRP. The following components will be covered in the training:

- Understanding of the JICA policy guidelines and requirements;
- Understanding of the policy and procedure adopted for the Project;
- Understanding of the implementation schedule activities step-by-step;
- Understanding of the monitoring and reporting mechanism; and
- Understanding of the economic rehabilitation schemes

# 9.2 Implementation Procedure

The proposed R&R activities are divided into three broad categories based on the stages of work and process of implementation. The details of activities involved in these three phases, i.e. Project Preparation Phase, RRP Implementation phase, Monitoring and Evaluation period are discussed in the following paragraphs.

#### 9.2.1 Project Preparation Phase

The major activities to be performed in this period include establishment of PMU and CPM office at project and subproject level respectively; submission of detailed RRP for JICA approval; appointment of consultants and establishment of GRC, etc. The information campaign & community consultation will be a process initiated from this stage and will go on till the end of the project.

# 9.2.2 RRP Implementation Phase

After the project preparation phase the next stage is implementation of RRP which includes

- Identification of cut-off date and notification for land acquisition as per Railway Amendment Act, 2008 regarding land acquisition (Notification 20A);
- Verification of properties of affected persons and estimation of their type and level of losses (Joint Measurement Survey);
- Issues regarding compensation of award by DFCCIL; payment of all eligible assistance (Notification 20F);

- Preparations of affected persons for relocation and rehabilitation of affected persons,
- Initiation of economic rehabilitation measures (monetary assistance, Notification 20F) and relocation and rehabilitation of the affected persons;
- Site preparation for delivering the site to contractors for construction and finally starting civil work

# 9.2.3 Monitoring and Evaluation Phase

The internal monitoring will be the responsibility of PMU assisted by R&R experts of Engineering Service (E/S), CPM office and implementing NGO (if required) and will start early during the project when implementation of RRP starts and will continue till the complementation of the subproject. The periodic independent and external monitoring and evaluation shall be done by an academic institution, local consultancy or social development-related NGO which is hired for the position of Social & Environmental Safeguard Monitoring & Review Consultant (SESMRC) by the PMU in line with the Phase 1 Section/Eastern Corridor Section preferably bi-annually as agreed and planned between MOR/DFCCIL and JICA.

# 9.3 R&R Implementation Schedule

A composite implementation schedule for R&R activities in the subproject including various sub tasks and time line matching with civil work schedule shall be prepared in further design stage of the project. However, the sequence may change or delays may occur due to circumstances beyond the control of the Project and accordingly the time can be adjusted for the implementation of the plan.

|     | Actions  | 2010 |    | 2011 |    |    |    | 2012 |    |    |    |    |    | )13 |    | 2014 |    |    |    |
|-----|--|------|----|------|----|----|----|------|----|----|----|----|----|-----|----|------|----|----|----|
| No. | rectons  | 3Q   | 4Q | 1Q   | 2Q | 3Q | 4Q | 1Q   | 2Q | 3Q | 4Q | 1Q | 2Q | 3Q  | 4Q | 1Q   | 2Q | 3Q | 4Q |
| 1   | Preparation of Land Plan                                   |      |    |      |    |    |    |      |    |    |    |    |    |     |    |      |    |    |    |
| 2   | Notification under Section 20A of RAA - 2008               |      |    |      |    |    |    |      |    |    |    |    |    |     |    |      |    |    |    |
| 3   | Hearing of Objections                                      |      |    |      |    |    |    |      |    |    |    |    |    |     |    |      |    |    |    |
| 4   | Identification of Plot Owner                               |      |    |      |    |    |    |      |    |    |    |    |    |     |    |      |    |    |    |
| 5   | Notification Under Section 20E of<br>RAA-2008              |      |    |      |    |    |    |      |    |    |    |    |    |     |    |      |    |    |    |
| 6   | Joint Verifications (Joint Measurement Survey)             |      |    |      |    |    |    |      |    |    |    |    |    |     |    |      |    |    |    |
| 7   | Baseline Survey and Census                                 |      |    |      |    |    |    |      |    |    |    |    |    |     |    |      |    |    |    |
| 8   | Preparation of Draft RRP                                   |      |    |      |    |    |    |      |    |    |    |    |    |     |    |      |    |    |    |
| 9   | Disclosure of Draft RRP                                    |      |    |      |    |    |    |      |    |    |    |    |    |     |    |      |    |    |    |
| 10  | PCMs for Draft RRP   |      |    |      |    |    |    |      |    |    |    |    |    |     |    |      |    |    |    |
| 11  | Finalization of Entitlement Matrix                         |      |    |      |    |    |    |      |    |    |    |    |    |     |    |      |    |    |    |
| 12  | Preparation of Final RRP                                   |      |    |      |    |    |    |      |    |    |    |    |    |     |    |      |    |    |    |
| 13  | Disclosure of Final RRP                                    |      |    |      |    |    |    |      |    |    |    |    |    |     |    |      |    |    |    |
| 14  | Preparation of Compensation for Land and R&R               |      |    |      |    |    |    |      |    |    |    |    |    |     |    |      |    |    |    |
| 15  | Award of Compensation as per<br>Section 20F of RAA 2008    |      |    |      |    |    |    |      |    |    |    |    |    |     |    |      |    |    |    |
| 16  | Deposit of Money with CA                                   |      |    |      |    |    |    |      |    |    |    |    |    |     |    |      |    |    |    |
| 17  | Disbursement of Payment to PAPs.                           |      |    |      |    |    |    |      |    |    |    |    |    |     |    |      |    |    |    |
| 18  | Taking possession of Land *                                |      |    |      |    |    |    |      |    |    |    |    |    |     |    |      |    |    |    |
| 19  | Execution of Work  |      |    |      |    |    |    |      |    |    |    |    |    |     |    |      |    |    |    |
| 20  | Monitoring of Resettlement<br>Impact (Internal)            |      |    |      |    |    |    |      |    |    |    |    |    |     |    |      |    |    |    |
| 21  | Monitoring of Resettlement<br>Impact (External, bi-annual) |      |    |      |    |    |    |      |    |    |    |    |    |     |    |      |    |    |    |
| 22  | Grievance Redressal  |      |    |      |    |    |    |      |    |    |    |    |    |     |    |      |    |    |    |

Note: \* Execution of work will be conducted only after completion of relevant land acquisition

Figure 9.3.1 Resettlement Timetable (Provisional)

# **CHAPTER 10** PARTICIPATION AND CONSULTATION

#### 10.1 Introduction

Public Consultation Meetings for RRP (PCM for RRP) are planned to be held by taluka for the all villages to be affected due to land acquisition and resettlement for the DFC Project. Therefore, participants of the PCMs are basically limited to the Project-Affected Persons (PAPs) who are directly affected by land acquisition of the Project. Approximately 374 villages are subject to the PCM. Methodology of the PCM for RRP and meeting results are shown below.

# 10.2 Public Consultation Strategy/Methodology

#### 10.2.1 Criteria on Selection of Venues

Since it is infeasible to conduct the PCM in each village under the limited time and resources, PCMs are organised for several villages, considering various conditions such as physical locations and area under jurisdiction of one competent authority. Main criteria for particular venue selection for conducting PCMs are described below:

- 1) A PCM is organied for several villages but considering maximum distance from far-away villages was approximately 10-15 km, so that people from distant villages also can attend these meetings.
- 2) Since the Competent Authorities (CA) are working for land acquisition process, a venue is selected by considering the jurisdiction of CA.
- 3) Area where more structures are going to be affected also considered selecting one venue.
- 4) These are remote villages. Therefore, availability of meeting hall and other logistic facility were also considered.
- 5) The villages with less land acquisition and compensation issues are selected so that public consultation can be organised peacefully. If appropriate, for the village with public resentment, a separate village meeting could be organised instead of a PCM.

#### 10.2.2 Participation from the Project Side

Participation of representatives from the CPM office of DFCCIL, who can appropriately explain about the project and RRP issues and answer to question, needs to be secured to keep adequate initiative of the project proponent for implementation of the PCM for RRP.

In addition, all of the Chief Secretaries of the states of Maharashtra, Gujarat, Rajasthan, Haryana and Uttar Pradesh along the Competent Authority of the concerned districts need to be informed about the schedule of the meeting with a request for their honoured presence in the meeting. All the dignitaries shall be invited a few days in advance, preferably 5-7 days before the meeting.

The concerned railway division heads, general managers and stations superintendents will be intimated about the schedule of the meeting with a request for their presence.

#### 10.2.3 Distribution of Invitation Letters and Notice

Invitation letters in English and a notice in Marathi, Gujarati or Hindi will be distributed among the village heads and the affected villages.

The invitation letters will be distributed to the village head/panchayat offices, and the notice will be also put on the notice board in the respective village administrative offices.

## 10.2.4 Registration of the Participants

General information of the participants such as name, name of the village, and affected survey number will be recorded at the entrance of the PCM.

#### 10.2.5 Contents of Disclosed Information

In principle, current policies in India on land acquisition and resettlement will be disclosed and explained in the PCM, which are the Railways Amendment Act 2008 (RAA 2008) and National Rehabilitation and Resettlement Policy 2007 (NRRP 2007).

# 10.2.6 Program Schedule and Agenda

The program schedule and agenda of the PCM is shown below:

- 1) Registration of the participants
- 2) Distribution of a handout, feedback form and writing pad and pen to the participants
- 3) Distribution of soft drinks in the waiting time
- 4) Welcome address to the participants on behalf of MOR & DFCCIL
- 5) Introduction of the DFCCIL and Railway officials present in the PCM to the participants
- 6) Introduction of Competent Authority, wherever present to the participants
- 7) Power Point presentation on Draft RRP using laptop and projector on the project brief, relevant legislation, land acquisition process, compensation package, grievance redress system, further information and contact of relevant organisations.
- 8) Tea Break
- 9) Question-Answer Session in which the questions raised by the participants are answered directly by the DFCCIL officials and the Competent Authority
- 10) Assistance in filling up of the feedback form upon request by the participants and collection of distributed feedback form.
- 11) Vote of Thanks

#### 10.2.7 Discussions, Questions and Answers

A session for question and answer will be held after completion of the major information dissemination on the Project in the PCM. A session for taking questions from the participants and answering to the questions if correct information is available, shall be appropriately held in order to disseminate full information of the Project at the time of holding the PCM.

#### 10.2.8 Record of the Meeting

# (1) Record the Participants:

Name, gender, occupation, village to which the participants belong and other appropriate features shall be recorded at the entrance of PCM and reproduced in the report.

#### (2) Record of the Contents of Meeting

The contents of the discussion of the PCM will be recorded by electronically recordable device and reproduced by transcribing the contents in the report.

# (3) Feedback Form

Feedback forms will be distributed to collect further comments and suggestions from participants, especially targeting comments and suggestions from vulnerable groups.

Assistant(s) (mainly female) who will help participants to fill out the form shall be arranged when assistance in writing is required. The results will be analyzed statistically and reproduced in the report. A form is less than one sheet of A4 size paper with major points of concern as follows:

- a) Name of the village
- b) Occupation
- c) Social Category
- d) How the participant is affected by the Project
- e) Any comments and suggestions on R&R

# 10.3 Results of the PCM for Draft RRP

The outcomes of the PCMs will be summarised in the following table, and the details will be attached in Appendices.

Table 10.3.1 Summary of the PCM (to be provided in the Final RRP)

| Venue                                       |   |
|---|---|
| Date  |   |
| Time  |   |
| Language                                    | xx language   |
| Agenda                                      | (1) Project brief; (2) objective of PCMs; (3) land acquisition process and policy under RAA 2008; (4) proposed entitlement and compensation package including rehabilitation and resettlement assistance; (5) grievance redress; (6) contact information of relevant DFCCIL office and local government; and (7) Q & A session  * See Agenda in Attachment 10-1 |
| PAP   |   |
| Participants                                | *See List of Participants in Attachment 10-2  |
| Participants<br>from govt                   |   |
| Major<br>Comments                           | *See Minutes of Meeting in Attachment 10-3  |
| Mode of                                     | -   |
| Invitation                                  | *See Notice and Invitation letters in Attachment 10-4   |
| PCM Materials                               | Presentation in xx language Handout in xx language *See Handout in Attachment 10-5  |
| Analysis<br>Results of<br>Feedback<br>Forms | *Feedback forms will be distributed and collected from the participants (See Analysis of the Feedback Forms in Attachment 10-6).  |

# 10.4 Public Disclosure of Draft RRP Report

#### Disclosure of Draft RRP Report

The draft RRP will be disclosed at CPM Offices, District Collectrate Offices, Competent Authority Offices and DFCCIL Head Office.

#### **Objectives**

The objectives of disclosures are as follows:

1. Disseminate information on the draft rehabilitation and resettlement policy including Entitlement Matrix of Project Affected families in the Project Affected Area.

2. Collection of comments and opinions from Project Affected people on the RRP which will be reflected in the final RRP report.

# Methodology of Information disclosure of RRP.

The process of information disclosure will be arranged in a systematic time bound and transparent manner ensuring widest possible public participation of the project. Methodology of the process is given below:

- Draft RRP report in English will be distributed for CPMs offices of DFCCIL, Head Office of DFCCIL, Competent Authority Office, District Collectorate Offices, major stations including junction stations.
- Summary of RRP especially Entitlement Matrix in a vernacular language, namely in either Marathi, Gujarati or Hindi will be distributed to all the project affected villages including Gram Panchyat Offices, District Collectorate Offices, Competent Authority Office, all major railway stations, CPMs offices, Head Office of DFCCIL.
- In order to facilitate proper information dissemination of availability of RRP, the public notice in a vernacular language, either Marathi, Gujarati or Hindi, will be put in the notice board of Gram Panchyat Offices, District Collectorate Offices, Competent Authority Office, all major railway stations, CPMs offices, Head Office of DFCCIL.
- Comments and opinion will be collected within approximately one week.
- Comments and opinion on RRP report will be accepted if only in writing through direct delivery, fax, post and emails to the respective CPM offices. After collection of all comments from the CPM offices it will be summarized and incorporated in the final RRP report.

# Information Disclosure Result

- The draft RRP will be disclosed in November 2011.
- At DFCCIL Head Office, the draft RRP will be on the website of DFCCIL for public viewing.
- During that period, comments on the draft RRP will be received by CPM Offices and DFCCIL Head Office.

# 10.5 Further Activities in Public Disclosure

#### Disclosure of the Final RRP Report

Final RRP will be disclosed after incorporating the comments from public, and it is currently planned after December 2011. Methodology for disclosure will be same as per disclosure of draft RRP report. The final RRP will be disclosed in website of DFCCIL for public viewing.

# CHAPTER 11 MONITORING AND SUPERVISION

#### 11.1 Introduction

Monitoring and evaluation are critical activities toward the finalization of the process of resettlement and rehabilitation. Monitoring involves periodic checking to ascertain whether the resettlement and rehabilitation activities are in progress in helping PAPs taking roots into the new resettlement areas. Evaluation is essentially a summing up of the progress of resettlement and rehabilitation at the end of the Project assessing the actual achievement in comparison to those aimed at during the implementation period.

The resettlement and rehabilitation plan includes indicators and bench marks for achievement of the objectives, which includes as follows:

#### (1) Process indicators

Process of the resettlement and rehabilitation which includes project inputs, expenditures, staff deployments, etc will be monitored by DFCCIL and its project office. DFCCIL should collect the information from the project site and assimilate in the form of monthly progress report to assess the progress and results of the implementation of resettlement and rehabilitation plan. In case there was a delay or any obstacles on the implementation works, adjust the work programme. The following is major items of monitoring for process indicators:

- Information campaign and consultation with PAPs;
- Status of land acquisition and payments on land compensation; and
- Resettlement of PAPs

#### (2) Output indicators

Output indicators are as follows:

- The results in terms of numbers of affected persons compensated and resettled;
- Incomes restored; and
- Additional assistance provision

#### (3) Impact indicators

Impact indicators are the factors related to the long-term effect of the project not only on PAFs but also on those people in the project affected area as a whole. Field level monitoring will be carried out as follows:

- Review of census information for all PAPs;
- Consultation and informal interviews with PAPs on the up-to-date feeling of them on their life in the resettlement areas;
- In-depth case studies if there were any particular case worth paying special attention:
- Informal sample survey of PAPs; and
- Key informant interviews

A performa data sheet will be developed and used in order to carry out monitoring works at the field level.

# 11.2 Internal Monitoring

# 11.2.1 Objective of the Internal Monitoring

The objective of the internal monitoring are:

- Daily operation planning
- Management and implementation
- Operational trouble shooting and feed back

# 11.2.2 Information Required for Internal Monitoring

For internal monitoring following information will be required:

- (i) Administrative Monitoring: daily planning, implementation, feed back and trouble shooting, individual PAP's database maintenance, and progress reports;
- (ii) Socio-economic Monitoring: case studies, using baseline information for comparing PAP's socio-economic conditions, evacuation, demolition, salvaging materials, morbidity and mortality, community relationships, dates for consultations, and number of appeals placed; and
- (iii) Impact Monitoring: Income standards restored/improved, and socioeconomic conditions of the affected persons. Monitoring and evaluation reports documenting progress on resettlement implementation and RRP completion reports will be provided by the CPM offices to DFCCIL Headquarter for review and approval from funding agency.

#### 11.2.3 Duration of Monitoring and Reporting System

DFCCIL Headquarter (SEMU) will be responsible for internal monitoring through CPM offices. It should prepare monthly reports on the progress of the implementation of resettlement and rehabilitation plan and adjust work program where necessary, in case of delays or any implementation problems as identified, monitoring reports will be submitted at regular intervals as specified. This monitoring will form parts of regular activity and reporting on this will be extremely important in order to undertake mid-way corrective steps.

Additionally, the consultant will be hired for the internal monitoring to provide technical assistance to SEMU such as assistance in preparing the periodic monitoring report and preparing the scope of the external monitoring during the implementation of land acquisition.

# 11.3 External Monitoring

Independent monitoring agency or a local consulting firm will carry out an external monitoring of the implementation of resettlement and rehabilitation plan.

#### 11.3.1 Objective of External Monitoring

The key tasks during external monitoring will include:

- Review and verify the internal monitoring reports prepared by DFCCIL;
- Review of socio-economic baseline census information of pre-displaced persons;
- Identification and selection of impact indicators;
- Impact assessment through formal and informal surveys with the affected persons;

- Consultation with PAPs, officials, community leaders for preparing review report; and
- Assess the resettlement efficiency, effectiveness, impact and sustainability, drawing lessons for future resettlement policy formulation and planning.

# 11.3.2 The Information Required for External Monitoring

The following should be considered as the basis for indicators in monitoring and evaluation of the project:

- a) Socio-economic conditions of the PAPs in the post-resettlement period;
- b) Communication and reactions from PAPs on entitlements, compensation, options, alternative developments and relocation timetables etc.;
- c) Changes in housing and income levels;
- d) Rehabilitation of informal settlers;
- e) Valuation of property;
- f) Grievance procedures;
- g) Disbursement of compensation; and
- h) Level of satisfaction of PAPs in the post resettlement period.

# 11.3.3 Duration of Monitoring and Reporting System

Observing and appraising various specific parameters and processes as objectively as possible will carried out. Periodic evaluation of these would indicate where and when policy changes could occur or where deficiency of implementation method and style are apparent. The boundaries of assessment will need the agencies to examine multiplier effect and linkage outside of affected people and areas.

The impact evaluation will be carried out after implementation RRP is over. Financial consideration often requires an impact evaluation shortly before or after the project concludes. However, project continues to evolve overtime.

The periodic external monitoring will be planned and will report on biannually basis to DFCCIL and funding agency. DFCCIL should select and hire this consulting firm within one month of loan approval.

Additionally, it is suggested that second impact evaluation (e.g. post-resettlement external monitoring) will be carried out when land acquisition and resettlement is completed and three years after the land acquisition and resettlement is completed.

Impact evaluation will look at all the affected populations; self-relocatee, assisted resettled population, host population. Further, this larger population will be further divided into vulnerable segment. Impact evaluation will be carried out on randomly selected segment of population.

# 11.4 Stages of Monitoring

Considering the importance of the various stage of project cycle, the DFCCIL will handle the monitoring at each stage as stated below.

## 11.4.1 Preparatory Stage

During the pre-relocation phase of resettlement operation, monitoring is concerned with administrative issues such as, establishment of resettlement unit, budget, land acquisition, consultation with AP's in the preparation of budget for Land Acquisition and Resettlement.

The key issue for monitoring will be shown below:

- Consultations:
- Identification of PAP and the numbers;
- Identification of different categories of PAPs and their entitlements;
- Collection of gender disaggregated data;
- Inventory & losses survey;
- Asset inventory;
- Entitlements:
- Valuation of different assets:
- Budgeting;
- Information dissemination;
- Institutional arrangements; and
- Implementation schedule review, budgets and line items expenditure.

# 11.4.2 Relocation and Rehabilitation Stage

Although land vs land is not provided as per the Entitlement Matrix, PAPs will be resettled somewhere. Monitoring during relocation phase shall cover aspects such as adjustment of PAPs in the new surroundings, attitude of the host population towards the new comers and development of community livelihood are also considered at this stage. The key issue for monitoring will be:

- Payment of compensation;
- Livelihood restoration assistance and measures (monetary);
- Relocation assistance;
- Delivery of entitlement;
- Grievance handling; and
- Consultations.

# 11.5 Indicators for Monitoring

The monitoring indicators can be divided in to four primary categories, which would provide insight to three types of benchmarks viz, process output and impact. The indicators are shown in the following table.

# Table 11.5.1 Monitoring Indicators

| (1) Physical Indicators  |
|--|
| 1) Extent of land acquired   |
| 2) No. of structures demolished  |
| 3) Number of land owner's and users and private structure owner paid compensation                    |
| 4) Number of families affected   |
| 5) Number of families approaching for purchase of agricultural land                                  |
| 6) Number of affected person's receiving assistance or compensation                                  |
| 7) Number of affected persons provides transport facilities/shifting allowance/transition allowance. |
| (2) Social Indicators  |
| 1) Taken care of displacement of SC, ST, Women and Vulnerable people.                                |
| 2) Number of appeals placed before DFCCIL and R&R/Grievance Committee                                |
| (3) Economic Indicators  |
| 1) Entitlement of PAP's cash   |
| 2) Overall livelihood  |
| (4) Grievance  |
| 1) Cases of LA referred to court pending and settled   |
| 2) Number of the R&R/Grievance Committee meeting   |
| 3) Number of field visit of Rehabilitation Resettlement Officer (CPMs)                               |
| 4) Number of cases disposed by R&R/Grievance Committee (CPM) and R&R/Grievance                       |
| Committee (Headquarters) to the satisfaction of PAP's  |
| 5) Number of cases disposed by Ombudsman   |
| 6) Number of cases disposed by Arbitorator   |
| (5) Financial Indicators   |
| 1) Amount of compensation paid for land/structure  |
| 2) Cash grant for shifting outsets   |
| 3) Cash grant for shifting cattle shed or work shed.   |
| 4) Amount paid for one time financial assistance   |

# 11.6 Monitoring Project Input and Output

5) Amount paid for community structure development

Project monitoring will be the responsibility of the SEMU of DFCCIL who will prepare the monthly progress reports. The report will compare the progress of the project to targets setup at the commencement of the project. The list of impact performance indicators will be used to monitor project objectives. The socioeconomic survey conducted will provide the benchmarks for comparison.

Sample forms of the monitoring report at different stages are shown in Attachments 11-1, 11-2 and 11-3.

# CHAPTER 12 GRIEVANCE REDRESS MECHANISM

#### 12.1 Need for Grievance Redress Mechanism

There is a provision for redress of grievances of PAFs relating to the application of the Entitlement Matrix in respect of Land Acquisition and Rehabilitation. There shall be R&R/Greivance Committees at the field and headquarter levels to hear and redress grievances made by PAP/PAFs and any other local residents having a stake in the DFC project implementation process, as per Section 8.1 of the NRRP, 2007.

# 12.2 Grievance Redress at the Field Level

There shall be an R&R/Grievance Committee convened by the Chief Project Manager, which will comprise the following:

- ✓ District Collector of the concerned District, or his nominee (Chair);
- ✓ Deputy-Chief Project Manager-DFC;
- ✓ Concerned Competent Authority/Administrator (R&R);
- ✓ Concerned Assistant Project Manager-Social;
- ✓ Zillah Parishad Chairperson/his nominee and
- ✓ Member of facilitating NGO.

# 12.3 Grievance Redress at Project Level

There shall be a Resettlement and Rehabilitation Committee convened by the General Manager (SEMU), which will comprise the following:

- ✓ Director (Infrastructure)
- ✓ Deputy General Manager-Grievance
- ✓ Social Specialist
- ✓ Representative of the MOR

#### 12.4 Role of Arbitrator

The Arbitrator, who in this case is the Commissioner of the concerned revenue division have been duly appointed vide gazette dated July 15, 2010 to hear and redress grievances related to compensation payable under the RAA, 2008 to the PAFs.

# 12.5 An Ombudsman

An ombudsman will be appointed by the MOR to hear and resolve grievances not addressed by the R&R/Greivance Committees established by DFCCIL to the satisfaction of the concerned project affected person/family upon receipt of request from him/her.

# 12.6 Meeting and Decision Making Process of the Committee

If the representation pertains to compensation for agricultural land and homestead land property, the representation shall be forwarded to the Field Level Cell (FLC) for relating the same to Headquarter Level Cell (HLC) for resolution. If the representation pertains to family level allowances and benefits, the FLC will verify the submitted documents and conduct a field check and after validating the information provided, will decide on the representation. If the representation is found to be genuine, then the FLC level will try to resolve the case with support by Competent Authority. If it will not be solved by FLC level, then it would be

escalated to the HLC for resolution. If the representation is incorrect or found to be lacking in documentary evidence, the case would be rejected and the decision would be conveyed to the HLC and ombudsman.

It is suggested that R&R/Grievance Committee at Field Level Cell and Competent Authority from State Government shall meet regularly (at least once in a month) on a prefixed date (preferably on first 7th day of the month). The committee will fix responsibilities to implement the decisions of the committee. This will not only help proper assessment of the situation but also in suggestive corrective measures at the field level itself. The committee shall deliver its decision within 30 days of the case registration.

At the Headquarter Level, Land acquisition and R& R related complaint will handled by DGM Public grievances under GM/SEMU and AGM Land. If any grievances are not solved, the case will be submitted to higher authority

## 12.7 Complaint Handling System in DFC Field Level and Corporate Level

### (1) Field Level Complaint Handling System

The complaints/grievances regarding compensation for agricultural land and residential and commercial properties and others will be handled by the CPM offices initially. After verification of documents if it is found genuine it will be solved CPM level only. If it is not solved at the field level, it will be referred to HQ.

### (2) Corporate Level Complaint Handling System

A centralized complaint handling system, which includes maintaining a project log and filing to monitor status of follow up of each received complaints, will be established by the DFCCIL.

Complaint handling system has been established in terms of MOR & Central Vigilance Commission (CVC) guidelines. Complaint registers have been opened at each regional office and with each GGM/GM at Corporate office. All complaints received by the concerned office shall be entered into this register. Complaints having vigilance angle shall be marked to CVO by the concerned officer. GM/IT has been nominated as the Chief Complaint Handling officer to monitor the disposal of complaints received and put up the status to the Board of Directors on monthly basis.

Recording and appropriate referral of all incoming grievances or complaints will be undertaken by the DFCCIL with each case generating an automatic, standard format report. DFC will respond to all complaints, received from any source, normally within fifteen days of receipt.

Comments, Suggestions and Grievances Handling component will be included on the web site (http://www.dffccil.org). This will be updated on a monthly basis. The site will also enable online tracking of complaints by the complainants.

Tracking of the status of investigations and measures taken will be reported in monthly reports to management.

For the complaint mechanism to function efficiently, the information concerning the alternative conduits for complaint shall be widely publicized on the website and on information boards at work sites and regional offices.

### CHAPTER 13 COST ESTIMATE

# 13.1 Statement of Financial Responsibility and Authority and Source of Funds and the Flow of Funds

- The money for the compensation shall be kept in joint account in the name of the competent authority and Assistant Manager/Manager (Finance) to take the personal approval of CPM in each case. All the payments of the compensation shall be released out of such account.
- Any amount, if likely undisturbed for more than a year from the date of last transaction in the Joint Bank Account of Competent Authority (Land Acquisition) and Assistant Manager/Manager (Finance), DFCCIL along with any amount of interest lying in the said account, shall be remitted back to account of DFCC after closing the joint account. The claims of compensation and arbitration award if any, after closing of joint account shall be recommended by competent authority to concerned CPMs who shall in turn refer it to the head quarter for release of payment.
- CPMs however, will ensure that payment, in all cases released to the genuine claimant, proper records are maintained and records including books of accounts are proper reconciled on a periodical basis. Assistant Manager/Manager (Finance) will advise and assist CPMs in discharging these functions.
- Disbursement of compensation will be done by cheques jointly signed by the account holders, DFCC will prepare all the documents required for taking possession of the land. The possession of the land will be taken by Railway official immediately and handed over to DFCCIL official and land handing over documents will be signed by Railways as well as DFCCIL officials subsequently lease agreement would be signed based on these documents.
- Once the compensation money has been disbursed DFCC will start submitting monthly
  accountal of the money released by the Railways as compensation with the various joint
  account and those actually disbursed as compensation.
- The estimate/award furnished by the Competent Authority as determined may be get approved by an in house committee in the chairmanship of GGM/Finance at the Corporate Office. Whenever the award for Competent Authority is not found to be reasonable/acceptable, DFCCIL may while depositing the amount in the joint account, refer the matter for arbitration.

### 13.2 Estimated Budget, by Cost and by Item, for All Resettlement Cost

The estimated budget will be prepared when the Baseline Survey and Census for the Phase 2, which is still in progress in the field, is completed. The cost components in the following table will be taken care for the estimated budget of the Land Acquisition and R&R.

## **Component of Cost**

| Sl No.  | Item   |  |  |  |  |  |  |  |  |  |
|---------|--|--|--|--|--|--|--|--|--|--|
| A. Lan  | d Acquisition Cost   |  |  |  |  |  |  |  |  |  |
| 1.      | Compensation for Acquisition of Private Land   |  |  |  |  |  |  |  |  |  |
| 2.      | Compensation for Acquisition of Govt. Land   |  |  |  |  |  |  |  |  |  |
| 3.      | Compensation for Acquisition of Forest Land  |  |  |  |  |  |  |  |  |  |
| B. Con  | 3. Compensation for Structures and other Assets  |  |  |  |  |  |  |  |  |  |
| 4       | Replacement cost of Structures   |  |  |  |  |  |  |  |  |  |
| 5       | Replacement cost of other assets like temporary structures (wells, cattle sheds, work shed) etc. |  |  |  |  |  |  |  |  |  |
| C. Assi | stance to PAPs   |  |  |  |  |  |  |  |  |  |
| 6       | Assistance to Land Less ,Small and Marginal Farmers  |  |  |  |  |  |  |  |  |  |
| 7       | Transition Allowance   |  |  |  |  |  |  |  |  |  |
| 8       | Shifting Allowance   |  |  |  |  |  |  |  |  |  |
| 9       | Training Assistance  |  |  |  |  |  |  |  |  |  |
| 10      | Special Support for Vulnerable People  |  |  |  |  |  |  |  |  |  |
| 11      | Rehabilitation Assistance for ST   |  |  |  |  |  |  |  |  |  |
| D. Con  | ppensation for Trees and Crops   |  |  |  |  |  |  |  |  |  |
| 12      | Compensation for Trees   |  |  |  |  |  |  |  |  |  |
| 13      | Compensation for Crops   |  |  |  |  |  |  |  |  |  |
|         | pensation for Common Property Resources  |  |  |  |  |  |  |  |  |  |
| 14      | Relocation of CPR  |  |  |  |  |  |  |  |  |  |
| 15      | Construction and Damage Charges of Public Utilities  |  |  |  |  |  |  |  |  |  |
| F       | Supporting Cost for Implementation of RRP and Monitoring   |  |  |  |  |  |  |  |  |  |
| G       | Public Consultation Cost   |  |  |  |  |  |  |  |  |  |
| H       | Others   |  |  |  |  |  |  |  |  |  |
| Sub To  | Sub Total (A+B+C+D+E+F+G+H)  |  |  |  |  |  |  |  |  |  |
| 16      | Contingency (10% of R&R Cost)  |  |  |  |  |  |  |  |  |  |
| Total   |  |  |  |  |  |  |  |  |  |  |

## **CHAPTER 14 FURTHER ACTIVITIES**

In subsequent stage of the Project, further activities and arrangements have to be done based on the RRP. Main items required for the further activities and arrangements for the Phase 2 RRP are explained below.

- ➤ The Baseline Survey and Census is still in progress due to public unrest and other reasons in 23 villages as of mid-Oct. 2011. After the field work is completed, the survey data shall be incorporated in the RRP, and this draft report shall be updated and finalised accordingly. As for the remaining survey, if the project timeline allows, the field survey shall be conducted as much as possible to cover the maximum number of the PAFs so that the more accurate pictures of the PAFs can be captured in order to avoid any confusion in the later implementation and monitoring stages such as when compensation is awarded and when the future monitoring is conducted.
- ➤ PCMs on the draft RRP for the affected villages will be organised. If appropriate, a separate village meeting will be organised for the villages where the socially vulnerable groups will be affected or public resentment is identified;
- > Information disclosure of the draft RRP and final RRP shall be conducted separately; and
- Finally, the further public consultation shall be organised continuously until land acquisition and R&R is completed. There seems to be some confusion on the compensation and assistance amongst PAPs, which is very common in the other projects, since the compensation issue is very complicated. Therefore, the continuous public consultation is required especially at the CPM level to clarify any issues raised by the PAPs and shall be recorded by the CPM Offices and DFCCIL Head Offices until the land acquisition is completed. In fact, in some villages, CPM Offices have been having a casual/informal consultation meeting on land acquisition and R&R issues, although they were not recorded. It is suggested that in the future, any meeting with PAFs shall be recorded since they are also part of public consultation and need to be monitored.

Attachment 1-1 **Questionnaire for Baseline Survey and Census** 

## Form 001 (a)

## **Census Questionnaire**

(Filled out for Category A, B, C, D, E)

I. Identification of Project Affected Families 1. Questionnaire No: ..... 2. Date: ..... 3. Unique ID: ..... 4. Village Name: ..... 5. Panchayat: ..... 6. Taluka: ..... 7. District: ..... 8. State: ..... 9. Status of the Village 1. Revenue 2. Hamlet (Non-Revenue) 10. Notification Published 1. 20A 2. 20A & E 3:Near ROB(for ROB only) 11. Type of Location 1:Parallel to railways 2:Near Detour. 4: Others (specify): ..... 12. Plot No: ..... 13. Land plan: Section: ..... 14. Land Plan: (Chainage/(km): ..... 15. Usage of Plot (to categorize the impact and applicable survey forms 001, 002, 003, 004) 1. Agriculture or any other land without structures (Non-resettlers) (Category A) 2.Residential and commercial land with structures (Resettlers) (Category B) 3. Land with Illegal occupiers (Category C) 4. Land with common property resources (Category D) 5. Land with Tenants (Category E) 16. Ownership Type 1. Individual(s) 2. Government 3. Community/Society 4. Rent/Lease 17. Do you have any legal documents (with date) 1. Sale deed 2. Patta Lease agreement from Govt. 4. Specify..... 5. No 18. Any tenant? Category-E 1. Leaseholders 2. Tenants 3. Sharecroppers 4. Informal Occupiers 5. No 19. Do you have legal agreements with your tenants 1. Lease agreement 2. Rent agreement 3. No 21. If not owned, please specify the name & address of the owner Address: ..... 22. Name of the titleholders and interested persons as per 20E (Attach list if space not available) ..... .....

| 23 Inf | ormation on actual descendants housel | nold heads (in case the | registered land owner is | s deceased or actual                                    |
|--------|---------------------------------------|-------------------------|--------------------------|---|
| land o | wners are different in the field)     |                         |                          |   |
| No     | Name                                  | Relation with owner     | (%) share                | Unique ID No of survey form for newly identified family |
| 1.     |                                       |                         |                          |   |
| 2      |                                       |                         |                          |   |
| 3      |                                       |                         |                          |   |
| 4      |                                       |                         |                          |   |
| 5      |                                       |                         |                          |   |
| 6      |                                       |                         |                          |   |
| 7      |                                       |                         |                          |   |
| 8      |                                       |                         |                          |   |
| 9      |                                       |                         |                          |   |
| 10     |                                       |                         |                          |   |
| 24. GF | PS Location of All Structure          |                         |                          |   |
|        |                                       |                         |                          |   |
|        |                                       |                         |                          |   |
| Name   | of Interviewee                        | Photo                   | Contact number           | Address   |
| Ivanic | of interviewed                        | Titoto                  | Somast Humber            | Addiess   |
|        |                                       |                         |                          |   |
|        |                                       |                         |                          |   |
|        |                                       |                         |                          |   |
|        |                                       |                         |                          |   |
|        |                                       |                         |                          |   |

#### Form 001 (b) Census Questionnaire Household Profile (Filled out for Category A, B, C, D, E)

Unique ID:
II. HOUSEHOLD PROFILE (Select the answer code from below) \*use multiple sheets if necessary

|     | (A)                     | (B)         | (C) | (D)      | (E)     | (F)       | (G)     | (H)        |          | (J)          | (K)           | (L)         |
|-----|-------------------------|-------------|-----|----------|---------|-----------|---------|------------|----------|--------------|---------------|-------------|
| Nia | Name of family many are | Dalation (  |     | (D)      | (L)     | (I')      | Castan  | Maion      | Vulnerab | Design a man | Income Grave  | Illness     |
| No  | Name of family members  | Relation to | Age | Gender   | Marital | Highest   | Sector  | Major      | vuinerab | Primary      | Income from   | inness      |
|     | including infants and   | household   |     | 1 Male   | Status  | Level     | Engaged | Occupation | ility    | Income (Rs/  | other sources | within past |
|     | children                | head        |     | 2 Female |         | Education |         |            |          | Month)       | (Rs/Month)    | 1 year      |
| 1   |                         |             |     |          |         |           |         |            |          |              |               |             |
|     |                         |             |     |          |         |           |         |            |          |              |               |             |
|     |                         |             |     |          |         |           |         |            |          |              |               |             |
| 2   |                         |             |     |          |         |           |         |            |          |              |               |             |
|     |                         |             |     |          |         |           |         |            |          |              |               |             |
|     |                         |             |     |          |         |           |         |            |          |              |               |             |
| 3   |                         |             |     |          |         |           |         |            |          |              |               |             |
|     |                         |             |     |          |         |           |         |            |          |              |               |             |
|     |                         |             |     |          |         |           |         |            |          |              |               |             |
| 4   |                         |             |     |          |         |           |         |            |          |              |               |             |
|     |                         |             |     |          |         |           |         |            |          |              |               |             |
|     |                         |             |     |          |         |           |         |            |          |              |               |             |
| 5   |                         |             |     |          |         |           |         |            |          |              |               |             |
|     |                         |             |     |          |         |           |         |            |          |              |               |             |
|     |                         |             |     |          |         |           |         |            |          |              |               |             |
| 6   |                         |             |     |          |         |           |         |            |          |              |               |             |
|     |                         |             |     |          |         |           |         |            |          |              |               |             |
|     |                         |             |     |          |         |           |         |            |          |              |               |             |
| 7   |                         |             |     |          |         |           |         |            |          |              |               |             |
|     |                         |             |     |          |         |           |         |            |          |              |               |             |
|     |                         |             |     |          |         |           |         |            |          |              |               |             |
| 8   |                         |             |     |          |         |           |         |            |          |              |               |             |
|     |                         |             |     |          |         |           |         |            |          |              |               |             |
|     |                         |             |     |          |         |           |         |            |          |              |               |             |
| 9   |                         |             |     |          |         |           |         |            |          |              |               |             |
|     |                         |             |     |          |         |           |         |            |          |              |               |             |
|     |                         |             |     |          |         |           |         |            |          |              |               |             |
| 10  |                         |             |     |          |         |           |         |            |          |              |               |             |
| 10  |                         |             |     |          |         |           |         |            |          |              |               |             |
|     |                         |             |     |          |         |           |         |            |          |              |               |             |
| 11  |                         |             |     |          |         |           |         |            |          |              |               |             |
| 11  |                         |             |     |          |         |           |         |            |          |              |               |             |
|     |                         |             |     |          |         |           |         |            |          |              |               |             |
|     |                         |             |     |          |         |           | l       |            | l        |              |               |             |

|     | (A)                    | (B)         | (C) | (D)      | (E)     | (F)       | (G)     | (H)        | (I)      | (J)         | (K)           | (L)         |
|-----|------------------------|-------------|-----|----------|---------|-----------|---------|------------|----------|-------------|---------------|-------------|
| No  | Name of family members | Relation to | Age | Gender   | Marital | Highest   | Sector  | Major      | Vulnerab | Primary     | Income from   | Illness     |
|     | including infants and  | household   |     | 1 Male   | Status  | Level     | Engaged | Occupation | ility    | Income (Rs/ | other sources | within past |
|     | children               | head        |     | 2 Female |         | Education |         |            |          | Month)      | (Rs/Month)    | 1 year      |
| 12  |                        |             |     |          |         |           |         |            |          |             |               |             |
|     |                        |             |     |          |         |           |         |            |          |             |               |             |
|     |                        |             |     |          |         |           |         |            |          |             |               |             |
| 13  |                        |             |     |          |         |           |         |            |          |             |               |             |
|     |                        |             |     |          |         |           |         |            |          |             |               |             |
|     |                        |             |     |          |         |           |         |            |          |             |               |             |
| 14  |                        |             |     |          |         |           |         |            |          |             |               |             |
|     |                        |             |     |          |         |           |         |            |          |             |               |             |
| 1.5 |                        |             |     |          |         |           |         |            |          |             |               |             |
| 15  |                        |             |     |          |         |           |         |            |          |             |               |             |
|     |                        |             |     |          |         |           |         |            |          |             |               |             |
|     |                        |             |     |          |         |           |         |            |          |             |               |             |

| For B on Relation   | 1. Myself 2. Wife; 3. Husband; 4. Son; 5. Daughter; 6. Father; 7. Mother; 8. Brother; 9. Sister; 10. Grand son;   |
|---------------------|---|
|                     | 11. Grand daughter; 12. Grand Father; 13. Grand Mother; 14. Other (specify)   |
| For E on Marital    | 1. Married; 2. Unmarried; 3. Divorced; 4. Widow   |
| Status              |   |
| For F on Education  | 1: Illiterate, 2: Can Read only, 3: Can read and write both, 4. Up to Class 5, 5: Upto Class 10, 6: Upto Class 12 7: Graduate & above 8: ITI, Diploma/Degree, CA, |
|                     | ICWA, MBA, etc; 9.Others (specify)  |
| For G on Engaged in | 1: Govt. Service 2: Private Service 3: Agriculture 4. Manufacturing 5. Others (specify)   |
| which Sector        |   |
| For H on Primary    | 1. Permanent Employee; 2. Self Employed; 3. Wage Labourer; 4. Rural Artisan; 5. Small Trader; 6. Housewife; 7: Unemployed; 8. Not Employable (children or         |
| Occupation          | Elderly); 9: Others (specify)   |
| For I on            | 1. Disabled, 2. Orphans, 3. Women-headed household, 4. Unmarried girls, 5. Abandoned women, 6. Elderly over 50 years old,   |
| Vulnerability       | 7. Child-headed household, 8. Widow, 9. Others (specify) * NRRP 2007 defines Vulnerability means disabled, destitute, orphans, widow, unmarried girls,            |
|                     | abandoned woman, or persons above 50 years.   |
| For L on illness    | 1. Diarrhea, 2 Skin Rash, 3. Dengue Fever, 5. Viral Fever, 6. Other Fever, 7. Malaria, 6 Others   |

| Signature of Interviewee | Signature of Interviewer | Signature of Supervisor |  |
|--------------------------|--------------------------|-------------------------|--|

**Form 002 Asset Inventory** (Filled out for Category A, B, C, D, E) **Unique ID:** 

12

13

14

\* use multiple sheets if necessary.

**Owner / Tenant** Land likely to be Lost Select one: (B) (C) (E) (F) (G) (H) (J) (K) (L) (M) No (A) (D) (I) (N) Ownership Period of Estimated No. & Land If rented. Name of Major Net Annual Estimated Type Number Estimated Type Total Age of the land vears of Market monthly Crops (Max. 3) Production if market value of Market Value use / of Area of of Value for Trees Ownership ownership rent (Rs./ any standing for crops Trees for trees Land (in Trees (Rs/kg/crop)\* Land Month) crops (Rs./Tree)\* pattern ha) (Rs)\* (kg/yr/crop) Туре Rabi Khariff No 4 5 6 8 10 11

| No | (A)        | (B)         | (C)                   | (D)         | (E)                 | (F)   |        | (G)                | (H)   |          | (I)                        | (J)                                    | (K)         | (L)         | (M)         | (N)                    |
|----|------------|-------------|-----------------------|-------------|---------------------|-------|--------|--------------------|-------|----------|----------------------------|--|-------------|-------------|-------------|------------------------|
|    | Type       | Ownership   | Period of             | Total       | Estimated           |       | & Land | If rented,         |       | of Major | Net Annual                 | Estimated                              | Type        | Number      | Age         | Estimated              |
|    | of<br>Land | of the land | years of<br>Ownership | Area<br>(in | Market<br>Value for | use / | ership | monthly rent (Rs./ | Crops | (Max. 3) | Production if any standing | market value for crops                 | of<br>Trees | of<br>Trees | of<br>Trees | Market Value for trees |
|    | Land       |             | Ownership             | ha)         | Land                | patte | _      | Month)             |       |          | crops                      | (Rs/kg/crop)*                          | 11003       | 11003       | 11003       | (Rs./Tree)*            |
|    |            |             |                       |             | (Rs)*               | P     |        | ,                  |       |          | (kg/yr/crop)               | (************************************* |             |             |             | (=====)                |
|    |            |             |                       | •           |                     | No    | Туре   |                    | Rabi  | Khariff  |                            | _                                      |             |             | •           |                        |
| 15 |            |             |                       |             |                     |       |        |                    |       |          |                            |  |             |             |             |                        |
| 16 |            |             |                       |             |                     |       |        |                    |       |          |                            |  |             |             |             |                        |
| 17 |            |             |                       |             |                     |       |        |                    |       |          |                            |  |             |             |             |                        |
| 18 |            |             |                       |             |                     |       |        |                    |       |          |                            |  |             |             |             |                        |
| 19 |            |             |                       |             |                     |       |        |                    |       |          |                            |  |             |             |             |                        |
| 20 |            |             |                       |             |                     |       |        |                    |       |          |                            |  |             |             |             |                        |
| 21 |            |             |                       |             |                     |       |        |                    |       |          |                            |  |             |             |             |                        |
| 22 |            |             |                       |             |                     |       |        |                    |       |          |                            |  |             |             |             |                        |
| 23 |            |             |                       |             |                     |       |        |                    |       |          |                            |  |             |             |             |                        |

<sup>\*</sup> Estimated market value will be collected from the interviewee for a reference purpose.

| A.  | Type of Land     | 1. Agriculture – Irrigated 2. Agriculture Un-irrigated 3. Residential 4. Commercial 5. Industrial 6. Grazing land 7. Forest Land 8. Mixed (specify) 9. Barren Land    |
|-----|------------------|---|
|     | J 1              | 10. Others (specify):   |
| B.  | Ownership        | 1: Self-owned 2: State-owned land for rental 3: Private-owned land for rental or borrow 4: Group or Community owned 5: Uncertain ownership 6: Illegal land occupation |
| F.  | No. & Land use / | 1. Registered Lessees 2. Contract Cultivator 3. Lease Holder 4. Unregistered Tenant 5. Share Croppers 6. Others (Specify)   |
| own | ership pattern   |   |
| K.  | Type of Trees    | 1. Fruit and fodder tree, 2. Firewood and timber wood   |
| H.  | Major Crops      | Khariff: 1. Rice 2. Sugarcane 3. Maize 4. Ground nut 5. Chillies 6. Bajra 7. Jawar 8. Other Pulses 9. Vegetables 10. Cotton 11 Tobacco 12. Others                     |
|     |                  | Rabi: 11. Wheat 12. Barley 13. Gram 14. Onion 15. Oilseed 16. Cereals 17. Massar 18. Barseen 19. Tur 20. Methi 21. Others   |

## II. Structures Likely to Be Lost

| No | (A)               | (B)                     | (C)                   | (D)                     | (E) | (F)                                 |       | (G)                  | (H)                  | (I)  | (J)                              |
|----|-------------------|-------------------------|-----------------------|-------------------------|-----|-------------------------------------|-------|----------------------|----------------------|--|----------------------------------|
|    | Type of Structure | Ownership of structures | Total Area in sq. mt. | Affected area in sq. mt | Age | No. & Type of<br>Losses<br>No. Type |       | Type of construction | Type of<br>Materials | Estimated Market<br>Value for<br>Structure (Rs)* | (J) If rented, monthly rent (Rs) |
| 1  |                   |                         |                       |                         |     | 110.                                | 1 ypc |                      |                      | Structure (RS)                                   | (RS)                             |
|    |                   |                         |                       |                         |     |                                     |       |                      |                      |  |                                  |
| 2  |                   |                         |                       |                         |     |                                     |       |                      |                      |  |                                  |
| 3  |                   |                         |                       |                         |     |                                     |       |                      |                      |  |                                  |
| 4  |                   |                         |                       |                         |     |                                     |       |                      |                      |  |                                  |
| 5  |                   |                         |                       |                         |     |                                     |       |                      |                      |  |                                  |
| 6  |                   |                         |                       |                         |     |                                     |       |                      |                      |  |                                  |
| 7  |                   |                         |                       |                         |     |                                     |       |                      |                      |  |                                  |
| 8  |                   |                         |                       |                         |     |                                     |       |                      |                      |  |                                  |
| 9  |                   |                         |                       |                         |     |                                     |       |                      |                      |  |                                  |
| 10 |                   |                         |                       |                         |     |                                     |       |                      |                      |  |                                  |
| 11 |                   |                         |                       |                         |     |                                     |       |                      |                      |  |                                  |
| 12 |                   |                         |                       |                         |     |                                     |       |                      |                      |  |                                  |
| 13 |                   |                         |                       |                         |     |                                     |       |                      |                      |  |                                  |
| 14 |                   |                         |                       |                         |     |                                     |       |                      |                      |  |                                  |
| 15 |                   |                         |                       |                         |     |                                     |       |                      |                      |  |                                  |
| 16 |                   |                         |                       |                         |     |                                     |       |                      |                      |  |                                  |
| 17 |                   |                         |                       |                         |     |                                     |       |                      |                      |  |                                  |

Select one: Owner / Tenant

| No | (A)               | (B)          | (C)               | (D)              | (E) | (F)     |         | (G)          | (H)       | (I)              | (J)          |
|----|-------------------|--------------|-------------------|------------------|-----|---------|---------|--------------|-----------|------------------|--------------|
|    | Type of Structure | Ownership of | Total Area in sq. | Affected area in | Age | No. & T | Type of | Type of      | Type of   | Estimated Market | If rented,   |
|    |                   | structures   | mt.               | sq. mt           |     | Losses  |         | construction | Materials | Value for        | monthly rent |
|    |                   |              |                   |                  |     | No.     | Туре    |              |           | Structure (Rs)*  | (Rs)         |
| 18 |                   |              |                   |                  |     |         |         |              |           |                  |              |
|    |                   |              |                   |                  |     |         |         |              |           |                  |              |
| 19 |                   |              |                   |                  |     |         |         |              |           |                  |              |
|    |                   |              |                   |                  |     |         |         |              |           |                  |              |
| 20 |                   |              |                   |                  |     |         |         |              |           |                  |              |
|    |                   |              |                   |                  |     |         |         |              |           |                  |              |

<sup>\*</sup> Estimated market value will be collected from the interviewee for a reference purpose.

| For A on Type of<br>Affected Structures | [Private Residential] 1. Residence 2. House Fence 3. Separate Kitchen 4. Toilet 5. Bathroom 6 Storage 7. Farm House 8. Animal Shed 9. Paddock fence 10. Well, 11. Water tank 12. Others (specify) [Private Enterprises] 13. Shop 14. Workshops 15. Stalls 16. Factories 17. Other business establishment (specify, e.g Restaurants, Dhabas etc.) |
|---|--|
| For B on Ownership                      | 1:Self-owned 2: State-owned structure for rental 3: Private-owned house for rental or borrow 4: Group- or Community-owned 5: Uncertain ownership, 6: Illegal Occupants   |
| For F No. and Type of Losses            | 1. Registered Lessees, 2. Tenant, 3. Others (Specify)  |
| For G on Type of Construction           | 1: Single detached oneGstorey 4: Apartment/Row house duplex 2: Single detached twoGstorey 5: Shanties connected to each other 6: Tents or tentative simple hut   |
| For H on Type of materials              | Roof] R1: G.I. sheets R2: Tiles R3: Nipa or other natural materials R4: Concrete R5: Others (specify) [Wall] W1: All concrete W2: Concrete and wood W3: All wood W4: Nipa or other natural materials W5: Others (specify)  |

Name and Signature of Interviewee:

Name and Signature of Interviewer:

Name and Signature of Supervisor:

## Form 003 Asset Inventory (Filled out for Category D Community Property)

\* conduct the survey by village-wise and use multiple sheets if necessary.

**Unique ID:** 

|    | ommon Propert       | y / Public Property                                   | /                       |                                  |                |   |  |                     |                  |                         |                      |   |
|----|---------------------|---|-------------------------|----------------------------------|----------------|---|--|---------------------|------------------|-------------------------|----------------------|---|
|    | (A)                 | (B)   | (C)                     | (D)                              | (E)            | (F)   | (G)  | (H)                 | (I)              | (J)                     | (K)                  | (L)   |
| No | Name of<br>Property | Type of<br>Common<br>Property /<br>Public<br>property | Number of<br>Properties | Ownersh<br>ip of the<br>Property | Type of Impact | Affected Size<br>of the Property<br>(area per<br>floor) | If partially<br>affected, total size<br>of the property<br>(areas per floor) | Age of the property | No. of<br>Floors | Type of<br>Construction | Type of<br>Materials | Estimated<br>Value of<br>Affected<br>Property (Rs)* |
| 1  |                     |   |                         |                                  |                |   |  |                     |                  |                         |                      |   |
| 2  |                     |   |                         |                                  |                |   |  |                     |                  |                         |                      |   |
| 3  |                     |   |                         |                                  |                |   |  |                     |                  |                         |                      |   |
| 4  |                     |   |                         |                                  |                |   |  |                     |                  |                         |                      |   |
| 5  |                     |   |                         |                                  |                |   |  |                     |                  |                         |                      |   |
| 6  |                     |   |                         |                                  |                |   |  |                     |                  |                         |                      |   |
| 7  |                     |   |                         |                                  |                |   |  |                     |                  |                         |                      |   |
| 8  |                     |   |                         |                                  |                |   |  |                     |                  |                         |                      |   |
| 9  |                     |   |                         |                                  |                |   |  |                     |                  |                         |                      |   |
| 10 |                     |   |                         |                                  |                |   |  |                     |                  |                         |                      |   |
| 11 |                     |   |                         |                                  |                |   |  |                     |                  |                         |                      |   |
| 12 |                     |   |                         |                                  |                |   |  |                     |                  |                         |                      |   |
| 13 |                     |   |                         |                                  |                |   |  |                     |                  |                         |                      |   |
| 14 |                     |   |                         |                                  |                |   |  |                     |                  |                         |                      |   |

<sup>\*</sup> Estimated market value will be collected from the interviewee for a reference purpose.

| Answer Options for t | ne Previous Table  |  |  |  |  |  |
|----------------------|--|--|--|--|--|--|
| For B. Type of       | [Common Land] 1. Village Common Land 2. Forest Woodland 3.Pasture 4. Fishing Area 5.Land for traditional tribal institutions |  |  |  |  |  |
| Common / Public      |  |  |  |  |  |  |
| Properties           | [Common / Public Structures/Asset]   | 2 D : 1  | AD 11' T (P 31') (P 1 1')                              |  |  |  |
|                      | 1. Community Centres 2. Roads  | 3. Bridge  | 4. Public Transport Facility (e.g. Bus shelters)       |  |  |  |
|                      | 5. Irrigation & Drainage channels  | 6. Water & Sewerage Lines  | 7. Wells/Tube wells/Hand Pumps /Domestic Water         |  |  |  |
|                      | 8. Livestock Watering Point  | 9. Bathing & Washing Platform                                      | 10. Community Ponds                                    |  |  |  |
|                      | 11. Fair Price shops   | <ul><li>12. Panchayat buildings</li><li>15. Post Offices</li></ul> | 13. Cooperative Societies 16. Bank                     |  |  |  |
|                      | 14. Seed cum fertilizer storage 17. Electricity line   | 18. Transmission tower   | 19. Electricity Pole                                   |  |  |  |
|                      | 20. Telephone Line   | 21. Base Transceiver Station                                       | 22. Schools  |  |  |  |
|                      | 23. Health Centre/hospitals  | 24. Places of Worship  | 25. Burial/cremation grounds                           |  |  |  |
|                      | 26. Historical Places  | 27. Trees (specify)  | 28. Others (specify)                                   |  |  |  |
| For D. Type of       | 1. Panchayat 2. Group of Socie   | (1 2/  | 4. Individual Family 5. Government (specify            |  |  |  |
| Ownership            |  |  |  |  |  |  |
| For E. Type of       | 1. Fully affected (needs to be relocated)  | 2.Partially Affected (no relocation)                               | 3. Others (specify)                                    |  |  |  |
| Affected Property    | 1.5  | • • • •  | A.T.   |  |  |  |
| For J Type of        | 1. Permanent,  | 2. Semi Permanent,   | 3.Temporary  |  |  |  |
| Construction         |  |  |  |  |  |  |
| For K Type of        | [Roof] R1. G.I. Sheet, R2. Tiles   | R3. Nipa or Other Natural Material                                 | ls R4. Concrete R5. Others (Specify)                   |  |  |  |
| Materials            | [Wall] W1. All Concrete W2. Concret  | e & Wood, W3. All Wood, W4.  | . Nipa or other Natural Materials W5. Others (Specify) |  |  |  |

| II. Open Question to Village Head/ Community Leader/ Influential | Persons |
|--|---------|
| Where do you want to re-construct this facility?                 |         |
|  |         |
|  |         |
|  |         |
|  |         |
|  |         |

Name and Signature of Interviewer:

Name and Signature of Interviewer:

Name and Signature of Supervisor:

## Socio-Economic Survey Questionnaire (Filled out for Category A, B, C, D, E) **Form 004**

## **Unique ID:**

|       | 1 - 1  |
|-------|--|
| BASI  | C PROFILE OF RESETTLERS/LANDOWNERS   |
| 1     | How many years have you been living here? (for household head)                     |
| 2     | Religion (chose one for household head)  |
|       | 1: Hindu 2: Muslim 3: Christian 4: Jain 5: Sikh 6: Buddhist 7: Other (specify)     |
| 3     | Social Category (chose one for household head)                                     |
|       | 1: General 2: SC 3: ST(Specify): 4: OBC  |
| Other | Formal / Informal Occupiers  |
| 4     | Is there any tenant in this house/ plots? If Yes, number of tenants?               |
|       | ( Question for owner )   |
| 5     | Are there any occupiers in this house/ plots? If Yes, number of occupiers?         |
|       | ( Question for owner )   |
| 6     | How many years has (have) the tenant(s)/occupiers resided?                         |
|       | (Answer for each occupier's household if you have more than one)                   |
| 7     | Description about Non Title holder of plot (Select the type)                       |
|       | 1: Illegal residents with station-related occupation 2: Shops of illegal occupancy |
|       | 3: Seasonal labour (Agriculture) 4: Seasonal labour (Factory/Construction)         |
|       | 5: Gangmen's colony 6: Migrant Tribe 7. Encroacher 8. Others *                     |

<sup>\*</sup> Same personal details should be separately filled for Non-Titleholders by Non-Titleholders Survey Team

| MOV | ABLE ASSETS  |      |
|-----|--|------|
| 8   | A. Livestock holding of the family (unit in nos.)  | No.  |
|     | 1. Cow   |      |
|     | 2. Ox  |      |
|     | 3. Buffalo   |      |
|     | 4. Sheep   |      |
|     | 5. Goat  |      |
|     | 6. Camel   |      |
|     | 7. Donkey  |      |
|     | 8.Horse  |      |
|     | 9. Pig   |      |
|     | 10. Chicken  |      |
|     | 11. Duck   |      |
|     | 12 Others livestock (specify)                      |      |
| 9   | B. Agricultural implements owned by the family No. | No.  |
|     | 1. Tractor   |      |
|     | 2. Power Trailer                                   |      |
|     | 3. Thresher  |      |
|     | 4. Harvester                                       |      |
|     | 5. Genset Sprayer                                  |      |
|     | 6. Pump Set  |      |
|     | 7. Electric Pump                                   |      |
|     | 8. Others (specify)                                |      |
| 10  | C. Household items owned by the family             | No.  |
| -   | 1. TV  | 1.51 |

|    | 2. Fridge                           |     |
|----|-------------------------------------|-----|
|    | 3. Mixer                            |     |
|    | 4. Electric Cooker                  |     |
|    | 5. Geyser                           |     |
|    | 6. Electric Fan                     |     |
|    | 7. Oven Toaster Grill (OTG)         |     |
|    | 8. Toaster                          |     |
|    | 9. Microwave                        |     |
|    | 10. Radio                           |     |
|    | 11. Gas Chullah                     |     |
|    | 12. Kerosene Chullah                |     |
|    | 13. Grain storing facilities        |     |
|    | 14. Others (specify)                |     |
| 11 | D. Other assets owned by the family | No. |
|    | 1 Cycle                             |     |
|    | 2 Scooter / Motor cycle             |     |
|    | 3 Three wheeler                     |     |
|    | 4 Jeep / Car                        |     |
|    | 5 Truck                             |     |
|    | 6 Bus                               |     |
|    | 7 Bullock / Camel Cart              |     |
|    | 8 Others (specify)                  |     |

| 12.HOUSEHOLD INCOME                 |                |                     |                    |  |  |
|-------------------------------------|----------------|---------------------|--------------------|--|--|
| Average Monthly/Annual Income (Rs.) |                |                     |                    |  |  |
| Source of Income                    | (1) Monthly    | (2) Annual Seasonal | Total Annual       |  |  |
|                                     | Regular Income | Income              | Income= (1)x12+(2) |  |  |
| a. Agriculture                      |                |                     |                    |  |  |
| b. Wage Labour                      |                |                     |                    |  |  |
| c. Business/Trading                 |                |                     |                    |  |  |
| d. Service Sector                   |                |                     |                    |  |  |
| e. Livestock & Animal Husbandry     |                |                     |                    |  |  |
| f. Fishing & Aquaculture            |                |                     |                    |  |  |
| g. Artisan / Cottage Craft          |                |                     |                    |  |  |
| h. Forestry                         |                |                     |                    |  |  |
| i. Others (specify)                 |                |                     |                    |  |  |
| Total Income                        |                |                     |                    |  |  |

| 13. HOUSEHOLD EXPENDITURE |                           |        |                    |  |  |
|---------------------------|---------------------------|--------|--------------------|--|--|
| Type of Expenditure       | Average Expenditure (Rs.) |        |                    |  |  |
|                           | Monthly                   | Yearly | Total = (1)x12+(2) |  |  |
| a. Food                   |                           |        |                    |  |  |
| b. Cooking Fuel           |                           |        |                    |  |  |
| c. Rent                   |                           |        |                    |  |  |
| d. Drinking Water         |                           |        |                    |  |  |
| e. Domestic Water         |                           |        |                    |  |  |
| f. Electricity            |                           |        |                    |  |  |

| g. Transportation                  |  |  |
|------------------------------------|--|--|
| h. Agriculture Expenditure (seeds, |  |  |
| agrochemicals, labour)             |  |  |
| i. Education                       |  |  |
| j. Health                          |  |  |
| k. Communication                   |  |  |
| I. Social Functions                |  |  |
| m. Clothing                        |  |  |
| n. Loan repayment                  |  |  |
| o. Other (specify)                 |  |  |
| Total Expenditure                  |  |  |
|                                    |  |  |

| 14. AVAILED BENEFITS OF ANY GOVERNMENT SCHEMES                           |   |                      |                |                      |  |  |  |  |
|--|---|----------------------|----------------|----------------------|--|--|--|--|
| Have you availed any benefit under any government scheme? 1. Yes 2. No   |   |                      |                |                      |  |  |  |  |
| If yes, please give details of the fa                                    | If yes, please give details of the facilities received under the scheme |                      |                |                      |  |  |  |  |
| 1. National Rural Employment Gu  | arantee scheme  | ; 2.Jawar Roj        | gar Yojna 3. F | PM Rojgar Yojna;     |  |  |  |  |
| 4. Integrated Rural Development  | Programme 5   | 5. Indira Awas Yojar | na 6.Others    |                      |  |  |  |  |
| Name of the scheme   | From when   | Kind of help         | If Loan, total | If training, kind of |  |  |  |  |
|  | you received  | 1. Loan              | amount         | training             |  |  |  |  |
|  | the help  | 2. Training          | received       |                      |  |  |  |  |
|  |   | 3. Employment        |                |                      |  |  |  |  |
|  |   |                      |                |                      |  |  |  |  |
|  |   |                      |                |                      |  |  |  |  |
|  |   |                      |                |                      |  |  |  |  |
|  |   |                      |                |                      |  |  |  |  |
|  |   |                      |                |                      |  |  |  |  |
| After availing this scheme did your annual income increased 1. Yes 2. No |   |                      |                |                      |  |  |  |  |
| If yes, how much (Rs.):  | If yes, how much (Rs.):   |                      |                |                      |  |  |  |  |
| If no, specify the reason:   |   |                      |                |                      |  |  |  |  |

| 15. ACCESSIBILITIES (DFC Related Issues)                        |          |              |             |
|---|----------|--------------|-------------|
| Please indicate the distance to major social infrastructure and | Distance | Disturbed    | Disturbed   |
| whether it is affected by the project                           | in       | during       | during      |
|   | km       | Construction | Operation   |
|   |          | 1-Yes 2- No  | 1-Yes 2- No |
| 1 Distance to school (km)                                       |          |              |             |
| 2 Distance to market (km)                                       |          |              |             |
| 3 Distance to religious centre (km)                             |          |              |             |
| 4 Distance to hospital/ nursing home(km)                        |          |              |             |
| 5 Distance to local govt. office (km)                           |          |              |             |
| 6 Distance to office/your work place (km)                       |          |              |             |
| 7 Distance to access to drinking water (km)                     |          |              |             |
| 8 others (please specify)                                       |          |              |             |

| 16 | IMPACT ON BUSINESS (FOR BUSINESS OWNER ONLY) |  |
|----|--|--|
| 1  | Annual Turn over                             |  |
| 2  | Annual Income                                |  |
| 3  | No. of Employees                             |  |

| 4      | Average Salary Range of the Employees   |                         |                          |                   |  |  |  |
|--------|---|-------------------------|--------------------------|-------------------|--|--|--|
|        | Upto Rs 1500 2. Rs 1501 to Rs3000 3. Rs 3001 to Rs 5000/- 4. Rs 5001 to Rs8000 5. Rs 8001 to  |                         |                          |                   |  |  |  |
|        | ),000/-     6. Rs 10001 to Rs 15000/-     7. R<br>50000 and above   | s 15001 to Rs 25000     | 8. Rs 25000 to Rs 8      | 50000             |  |  |  |
| 3113   | 9 KS 50000 and above  |                         |                          |                   |  |  |  |
| 17     | SAVING & INDEBTEDNESS (FOR ALL RESP   | ONDENTS)                |                          |                   |  |  |  |
| 1      | Total Annual Saving (Rs.)   |                         |                          |                   |  |  |  |
| 2      | Have you (household head) taken any loa   | n? 1: Yes, 2: No, 3: Do | on't Know                |                   |  |  |  |
| 3      | If yes, then please tell us reasons the follo   |                         |                          |                   |  |  |  |
| 1. Fo  | •   |                         | / Death / Mundan         | 6. Other social   |  |  |  |
| funct  | ions and festivals 7. Loan repayment  |                         | riculture based allied a | ctivity           |  |  |  |
| 9. Tra | nsport 10. Any other  |                         |                          |                   |  |  |  |
| Name   | e of the Loan Provider  | Amount (in Rs)          | Repaid (in-Rs)           | Balance (in Rs)   |  |  |  |
| 1. Baı | nk / cooperatives   |                         |                          |                   |  |  |  |
| 2. Rel | ative/ Friend   |                         |                          |                   |  |  |  |
| 3 Reg  | istered Money Lender  |                         |                          |                   |  |  |  |
| 3. Ma  | hajan   |                         |                          |                   |  |  |  |
| 4. SH  | G / Mahila Mandals  |                         |                          |                   |  |  |  |
| 5 Chit | t Funds   |                         |                          |                   |  |  |  |
| 6. Otl | ners (Specify :   |                         |                          |                   |  |  |  |
| 18     | PERCEPTION ON THE PROJECT   |                         |                          |                   |  |  |  |
| 1      | Do you think the project will bring any be  | nefits to the people?   |                          |                   |  |  |  |
|        |   | 't know                 |                          |                   |  |  |  |
|        | ASK ONLY TO THOSE WHO SAY 'YES' IN O  |                         | VE (multiple answers     | )                 |  |  |  |
| 2.     | If yes, what is the likely benefit(s) that you  |                         |                          |                   |  |  |  |
|        | 1: Temporary increase in wage employme  | ~                       |                          |                   |  |  |  |
|        | 2: Permanent increase in business opport  |                         |                          |                   |  |  |  |
|        | 3: Temporary increase in industry establis  | •                       | ruction                  |                   |  |  |  |
|        | 4: Permanent increase in wage employme  |                         | #!                       |                   |  |  |  |
|        | 5: Permanent increase in business opport  |                         |                          |                   |  |  |  |
|        | <ul><li>6: Permanent increase in industry establis</li><li>7: Overall economic development of India</li></ul>   |                         | ition                    |                   |  |  |  |
|        | 8. Any other  | a                       |                          |                   |  |  |  |
|        | ASK ONLY TO THOSE WHO SAY 'NO' IN QU  | JESTION NO. 1 ABOV      | E (multiple answers)     |                   |  |  |  |
| 3.     | If no, what is the likely negative impact(s)  |                         |                          |                   |  |  |  |
|        | 1: Temporary loss of income source during   | g construction          |                          |                   |  |  |  |
|        | 2: Permanent loss of income source  |                         |                          |                   |  |  |  |
|        | 3: Permanent loss of all or large part of the farmland  |                         |                          |                   |  |  |  |
|        | 4: Permanent loss of partial farmland   |                         |                          |                   |  |  |  |
|        | 5: Temporary loss of partial land during construction   |                         |                          |                   |  |  |  |
|        | 6: Becoming too far to commute working place after the resettlement   |                         |                          |                   |  |  |  |
|        | 7: Loss of working place such as loss of market   |                         |                          |                   |  |  |  |
|        | 8: Temporary noise disturbance by construction work   |                         |                          |                   |  |  |  |
|        | 9: Temporary vibration disturbance by construction work   |                         |                          |                   |  |  |  |
|        | 10: Temporary air quality (dust ) disturbance by construction work  |                         |                          |                   |  |  |  |
|        | 11: Temporary disturbance in access to social infrastructure during construction  |                         |                          |                   |  |  |  |
|        | 12: Temporary security problem during construction due to inflow of construction workers  13: Temporary transmitted disease problem during construction due to inflow of constructionworker |                         |                          |                   |  |  |  |
|        | 14: Permanent noise disturbance by the fi   | _                       |                          | 3ti uction worker |  |  |  |
|        | 15: Permanent vibration disturbance by the  |                         |                          |                   |  |  |  |
|        | 16: Split of community by the freight corridor 17: Others (specify)   |                         |                          |                   |  |  |  |

|   | SHOW THE ENTITLEMENT MATRIX (PHASE 1) AND EXPLAIN THE SAME ENTTILEMENT WILL BE PROVIDED TO THE DISPLACED PERSONS TO THE RESPONDENT |
|---|--|
| 4 | The compensation for land acquisition and resettlement & rehabilitation assistance   |
|   | programme will be provided to the displaced persons in accordance with the   |
|   | National Resettlement and Rehabilitation Policy of India as per the entitlement  |
|   | matrix, do you think the compensation and assistance in the entitlement matrix is  |
|   | adequate to help to recover the displaced person's livelihood?   |
|   | 1. Yes 2. No (specify) 3. Don't Know   |
| 5 | Are there any other concern (s) on land acquisition, resettlement and rehabilitation   |
|   | would be caused by the project?  |
|   | 1. Yes (specify) 2. No 3. Don't Know   |
| 6 | Are there any suggestions to mitigate the expected concern(s)?   |
|   | 1.Yes (specify) 2. No 3. Don't Know  |
| 7 | What kind of assistance regarding resettlement and rehabilitation do you request /   |
|   | suggest for the Project Implementing Authority?  |
|   | 1. Training for self employment 2. Cash grant equivalent to loss   |
|   | 3. Others (specify)  |
| 8 | In case you are to be displaced by the project, where would you like to re-settle?   |
|   | ( choose one)  |
|   | 1. In the same land plot (in case your land plot is big enough to shift the  |
|   | affected residential structure)  |
|   | 2. In the same community area  |
|   | 3. In the same district  |
|   | 4. Re-settlement location does not matter  |
|   | 5. Others ( specify)   |
| 9 | If any anticipation of difficulty after resettlement ?   |
|   | 1. Find new income source  |
|   | 2. Find new house  |
|   | 3. Find new suitable farmland in the resettlement area   |
|   | 4. Find suitable school for children   |
|   | 5. Access to public facilities, utilities or services (specify)  |
|   | 6. Others ( specify)   |

| Name and Signature of Interviewee: |  |
|------------------------------------|--|
| Name and Signature of Interviewer: |  |
| Name and Signature of Supervisor:  |  |

Attachment 10-1
Agenda
(to be provided in Final RRP after PCM for Draft RRP)

Attachment 10-2 List of Participants (to be provided in Final RRP after PCM for Draft RRP) Attachment 10-3
Minutes of Meeting
(to be provided in Final RRP after PCM for Draft RRP)

Attachment 10-4
PCM Handout & Presentation
in Marathi/Gujarati/Hindi and English
(to be provided in Final RRP after PCM for Draft RRP)

Attachment 10-5
Analysis of Feedback Forms
(to be provided in Final RRP after PCM for Draft RRP)

Attachment 10-6
Photos of PCM
(to be provided in Final RRP after PCM for Draft RRP)

Attachment 11-1 Sample Forms of Monitoring Form

## **Monitoring Form 1: Preparation and Implementation Period**

| Name of village:  |                                      |
|---|--------------------------------------|
| Date:   |                                      |
| Monitoring period:  |                                      |
| Name of person in charge of filling this form (n  | ame of agency):                      |
| 1. Consultation with PAP  |                                      |
| Planned period:   | Implemented period:                  |
| a) Describe the consultation activities cond  | ducted during the monitoring period: |
| b) Result of the consultation (reactions, op  | pinions, objections, etc.):          |
| c) Main reason(s) for delay of progress (if   | delayed):                            |
| 2. Agreement from PAP   |                                      |
| Planned period:   | Implemented period:                  |
| a) Number of households who agreed to be     b) Main reason(s) for delay of the negotiat                      |                                      |
| 3. Compensation payment   |                                      |
| Planned period:   | Implemented period:                  |
| <ul><li>a) Number of households who received co</li><li>b) Main reason(s) for delay (if delayed):</li></ul>   | ompensation: households              |
| 4. Relocation of PAP  |                                      |
| Planned period:   | Implemented period:                  |
| <ul><li>a) Number of households already relocated</li><li>b) Main reason(s) for delay (if delayed):</li></ul> | d: households                        |

Note: Monitoring for these items should be implemented from the start of the resettlement procedure to the end of all procedures of the physical resettlement with frequency of monthly base.

This monitoring form should be prepared for each village.

## Monitoring Form for Land Acquisition and Resettlement For DFC Project

## **Preparation and Implementation Period**

| Jurisdiction | Date | Land to be<br>acquired<br>(Ha) | No of affected<br>Household<br>/Commercial<br>Structures/Comm<br>on Property | Land<br>already<br>acquired<br>(Ha) | Household/Co<br>mmercial<br>Structures/. CP<br>already<br>relocated | Land<br>remaining to<br>be acquired<br>(Ha) | Household<br>/Commerc<br>ial<br>Structures/<br>. CP to be<br>relocated | Payment | Expected date of completion |
|--------------|------|--------------------------------|--|-------------------------------------|---|---|--|---------|-----------------------------|
| CPM Jaipur   |      |                                |  |                                     |   |   |  |         |                             |
| CPM Ajmer    |      |                                |  |                                     |   |   |  |         |                             |
| CPM          |      |                                |  |                                     |   |   |  |         |                             |
| Ahmedabad    |      |                                |  |                                     |   |   |  |         |                             |
| CPM Vadodara |      |                                |  |                                     |   |   |  |         |                             |

| 1. Land acquisition                          |                         |
|--|-------------------------|
| Planned completion date:                     | Actual completion date: |
| Main reason(s) for delay (if delayed):       |                         |
| 2. Relocation Status of Common Property Reso | ources                  |
| Planned period:                              | Actual completion date  |
| a) Water facilities                          |                         |
| b) School                                    |                         |
| c) Health centre                             |                         |
| d) Social hall                               |                         |
| e) Access road                               |                         |
| f) Cultural Centre                           |                         |
| g) Main reason(s) for delay (if delayed)     |                         |
| 3. Compensation payment                      |                         |
| Planned completion date:                     | Actual completion date: |
| Main reason(s) for delay (if delayed):       |                         |
| 4. Relocation of PAPs                        |                         |
| Planned completion date:                     | Actual completion date: |
| Main reason(s) for delay (if delayed):       | ·                       |

## **Monitoring Form 3: Post-Resettlement Period**

| ate:                            |                |                |                  |                           |       |
|---------------------------------|----------------|----------------|------------------|---------------------------|-------|
| Ionitoring period:              |                |                |                  |                           |       |
| <u> </u>                        | ling this form | (nome of o     | ~~~~\\.          |                           |       |
| fame of person in charge of fil | nng unis form  | (name of a     | gency):          |                           |       |
| . Status of livelihood          |                |                |                  |                           |       |
| 1) Income restoration           |                |                |                  |                           |       |
| a) Average income:              |                |                |                  |                           |       |
| (Before resettlement:           | )              |                |                  |                           |       |
| (Previous data:                 | )              |                |                  |                           |       |
| b) Number/Rate of househo       | olds whose inc |                |                  | household(s)/%            |       |
|                                 |                | (Previo        |                  | household(s)/%)           |       |
| c) Reason and proposed cou      | ıntermeasures  | (if b) incre   | ased):           |                           |       |
|                                 |                |                |                  |                           |       |
| d) Prospects in near future:    |                |                |                  |                           |       |
|                                 |                |                |                  |                           |       |
| 2) Occupation                   |                |                |                  |                           |       |
| a) Number/Rate of househo       | lds who chan   | ged their oc   | cupation or wo   | k place due to the resett | tleme |
| household(s)                    |                |                | nousehold(s)/%]  |                           |       |
| b) Reason and proposed cou      | untermeasures  | s (if a) incre | ased):           |                           |       |
|                                 |                |                |                  |                           |       |
| d) Average income of those      | who changed    | their occup    | oation or work p | lace due to the resettlen | nent: |
| (Previous data:                 | )              | •              | •                |                           |       |
| c) Prospects in near future:    | ŕ              |                |                  |                           |       |
| •                               |                |                |                  |                           |       |
| . Living condition              |                |                |                  |                           |       |
| 1) Perceptions of change in v   |                |                |                  |                           |       |
| a) Overall living conditions    |                | to original    | one:             |                           |       |
| `                               | evious data:   | %)             |                  |                           |       |
| - Worse: % (P1                  | revious data:  | %)             |                  |                           |       |
| - No change: % (Pro             | evious data: % | 6)             |                  |                           |       |
|                                 |                |                |                  |                           |       |
| b) Feeling toward public se     | rvices and soc | cial infrastru |                  | vious data):              | _     |
|                                 | Better         | Worse          | No change        | Remarks                   |       |
|                                 | (%)            | (%)            | (%)              | Kemarks                   |       |
| Housing                         |                |                |                  |                           |       |
| Water                           |                |                |                  |                           |       |
| Electricity                     |                |                |                  |                           |       |
| Transport services              |                |                |                  |                           |       |
| Schools                         |                |                |                  |                           |       |
| Health center                   |                |                |                  |                           |       |
| Religious worship               |                |                |                  |                           |       |
|                                 |                |                |                  |                           |       |
| Purchasing basic goods          |                | 1              |                  |                           |       |
| Peace and security              |                |                |                  |                           |       |
|                                 |                |                |                  |                           |       |

Note: The above monitoring should be implemented from the end of the relocation activity to the time when minimization of negative impact by the Project is confirmed in terms of situation of the employment and income restoration with frequency of semi-quarterly base in principle.

This monitoring form should be prepared for each village.

d) Prospects in near future: