

# **Joint Feasibility Study for Mumbai-Ahmedabad High Speed Railway Corridor**

## **Final Report Volume 6**

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**Japan International Cooperation Agency(JICA)  
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## Abbreviations

Abbreviations	Formal Name
A	Articulated
AC	Alternative Current
ADB	Asian Development Bank
AGV	Automotrice à Grande Vitesse
AP	Affected Person
ASI	Archaeological Survey of India
AT	Auto Transformer Feeding
ATC	Automatic Train Control System
ATP	Auto Transformer Post
AUDA	Ahmedabad Urban Development Authority
AVE	Alta Velocidad Española
BIS	Bureau of Indian Standards
BLT	Build, Lease & Transfer
BOT	Build, Operate & Transfer
BT	Booster Transformer Feeding
BT	Build & Transfer
BTO	Build, Transfer & Operate
CAI	computer-aided instruction
CAM	Cement Asphalt Mortar
CAPEX	Capital Expenditure
CB	Circuit Breaker
CBA	Cost Benefit Analysis
CD	Compact Disc
CDM	Clean Development Mechanism
CDP	City Development Plan
CER	Certified Emission Reductions
CIDCO	City and Industrial Development Corporation of Maharashtra Limited
CMDA	Chennai Metropolitan Development Authority
CMP	Comprehensive Mobility Plans
CMS	Centralized Information Monitoring System
COMTRAC	Computer Aided Traffic Control
CPCB	Central Pollution Control Board, India, India
CRIC	China Rail Investment Corporation
CRT	Cathode-Ray Tube display
CRZ	Coastal Regulation Zone
CTC	Centralized Traffic Control
CVC	Classified Volume Count
CVCF	Constant Voltage Constant Frequency
DB	Deutsche Bahn
DC	Direct Current
DCF	Discounted Cash Flow
DEA	Department of Economic Affairs
DFC	Dedicated Freight Corridor
DMIC	Delhi Mumbai Industrial Corridor development
DMRC	Delhi Metro Rail Corporation Ltd.
DNA-CDM	Designated National Authority-Clean Development Mechanism
DPR	Detailed Project Report
DSCR	Debt Service Coverage Ratio
EAC	Environmental Appraisal Committee, India
EC	Environmental Clearance
ECBs	External Commercial Borrowings
EIA/ESIA	Environmental Impact Assessment/Environmental and Social Impact

Abbreviations	Formal Name
	Assessment
EM&MP	Environmental Management & Monitoring Plan
EMP	Environmental Management Plan
EMU	Electric Multiple Unit
EPA	Environmental Protection Act
EPCS	Electric Power Control System
ERP	Electronic Road Pricing
ES	Executive Summary
EVT	Earthed Voltage Transformer
FEM	Finite Element Method
FMS	Facility Management System
FSI	Forest Survey of India
FSI	Floor Space Index
FTr	Feeding Transformer
GC	General Consultant
GDP	Gross Domestic Product
GHG	Greenhouse Gas
GIDC	Gujarat Industrial Development Corporation
GOI	Government of India
GRDP	Gross Regional Domestic Product
GUDC	Gujarat Urban Development Corporation
HDFC	Housing Development Finance Corporation Limited
HSR	High Speed Rail
HSRA	High Speed Rail Authority
HSRC	High Speed Rail Corporation of India Limited
HUDCO	Housing & Urban Development Corporation
ICC	Integrated Circuit Card
ICE	Inter City Express
ICT	Information & Communication Technology
IDC	Interest During Construction
IDFC	Infrastructure Development Finance Company
IEIA	Initial Environment Impact Assessment
IFCs	Infrastructure Finance Companies
IIFCL	India Infrastructure Finance Company Limited
IL&FS	Infrastructure Leasing & Financial Services Limited
IMF	International Monetary Fund
INR	Indian National Rupees
IOCC	Integrated Operations Control Center
IR	Indian Railway
IR	Involuntary Resettlement
IRFC	Indian Rail Finance Corporation Ltd.
IS	Indian Standard
JETRO	Japan External Trade Organization
JICA	Japan International Cooperation Agency
JNR	Japanese National Railways
JR	Japan Railways
JRTT	Japan Railway Construction, Transport and Technology Agency
LA	Land Acquisition
LA	Lightning Arrester
LAN	Local Area Network
LARAP	Land Acquisition and Resettlement Action Plans
LBS	Load-Break Switch
LCC	Life Cycle Cost
LCX	Leaky Coaxial Cable

Abbreviations	Formal Name
LGV	Ligne à Grande Vitesse
MAP	Million Annual Passengers
METI	Ministry of Economy, Trade and Industry, Japan
MEGA	Metro Link for Gandhinagar and Ahmedabad
MEXT	Ministry of Education, Culture, Sports, Science and Technology
MLIT	Ministry of Land, Infrastructure, Transport and Tourism
MMDA	Madras Metropolitan Development Authority
MMRDA	Mumbai Metropolitan Region Development Authority
MMTS	Multi Modal Transport System
MOEF	Ministry of Environment and Forest, India
MOR	Ministry of Railways, India
MOU	Memorandum of Understanding
MOUD	Ministry of Urban Development
MPSEZ	Mundra Port and Special Economic Zone Ltd
MSK	Minimum Shift Keying
MTC	Metropolitan Transport Corporation
MWCS	Maintenance Work Control System
MoEF	Ministry of Environment and Forest, India
NA	Not Articulated
NATM	New Austrian Tunneling Method
NBFIs	Non-Banking Finance Institutions
NEAA	National Environmental Appellate Authority, India
NH	National Highway
NHAI	National Highways Authority of India
NHSRA	National High Speed Rail Authority
NOC	None Objection Certificate
NRSC	National Remote Sensing Centre
NUDP	National Urban Development Policy
NW-4	National Waterway
O&M	Operation & Maintenance
OCC	Operation Control Center
OCS	Overhead Catenary System
OD	Origin-Destination
ODA	Official Development Assistance
OFC	Optical Fiber Cable
OPEX	Operating Expenses
PAP	Project Affected Person
PAX	Passengers
PC	Power Concentration
PC	Pre-stressed Concrete
PCCP	Power Concentration Concentrated Power
PD	Power Distribution
PDDP	Power Distribution Distributed Power
PDL	Passenger Designated Lines
PE	Private Equity
PH	Public Hearing
PHC	Pre Hardened Copper
PIAs	Project Influenced Areas
PNB	Punjab National Bank
PPDPD	Person Per Day Per Direction
PPM	Post-Project Monitoring
PPP	Public Private Partnership
PPP	Purchasing Power Parity
PRC	Programmed Route Control

Abbreviations	Formal Name
PRIDe	Peninsular Region Industrial Development Corridor
PSU	Public Sector Unit
QC	Quality Control
RBI	Reserve Bank of India (Central Bank)
RC	Reinforced Concrete
RCC	Reinforced Cement Concrete
RDSO	Research Design & Standards Organization, India
RFF	Réseau Ferré de France
RFP	Request for Proposal
RLDA	Rail Land Development Authority
RO	Regional Office
ROB	Road Over Bridge
ROC	Republic of China
ROW	Right of Way
RP	Resettlement Plan
RPC	Railway static unbalanced Power Compensator
RS	Rolling Stock
RSCS	Rolling Stock Control System
RTRI	Railway Technical Research Institute
RVNL	Rail Vikas Nigam Limited
RUB	Road Under Bridge
RYWMS	Railway Yard Work Management System
SBI	State Bank of India
SCADA	Supervisory Control and Data Acquisition
SDH	Synchronous Digital Hierarchy
SEA	Strategic Environmental Assessment
SEAC	State Level Expert Appraisal Committee, India
SEIAA	State Environmental Impact Assessment Agency, India
SFC	Single phase Feeding unbalanced power Conditioner
SHM	Stake Holder Meeting
SNCF	Société Nationale des Chemins de Fer Français
SOD	Schedule of Dimensions
SP	Sectioning Post
SPC	Special Purpose Company
SPCB	State Pollution Control Board, India
SS	Substation
SSB	Single Side Band
SSO	Single Sign-on
SSP	Sub Sectioning Post
SUICA	Super Intelligent Card
TAZ	Traffic Analysis Zone
TBM	Tunnel Boring Machine
TEU	Twenty-foot Equivalent Unit
TGV	Train à Grande Vitesse
THSRC	Taiwan High Speed Rail Corporation
TIFS	Tax Increment Financing Schemes
TOD	Transport Oriented Development
TPS	Transportation Plan System
TSC	Taiwan Shinkansen Consortium
TSI	Technical Specification for Interoperability
TSS	Traction Substation
UN	United Nations
UNFCCC	United Nations Framework Convention on Climate Change
UPS	Uninterruptible Power Supply

Abbreviations	Formal Name
USD	United States Dollar
UTI	Unit Trust of India
UTPCC	Union Territory Pollution Control Committee, India
VA	Volt Ampere
VCT	Voltage and Current Transformer
VFM	Value For Money
VGf	Viability Gap Funding
WACC	Weighted Average Cost of Capital
WPI	Whole Price Index
WTP	Willingness to Pay



## Appendix5 Preparation of Resettlement Action Plan

Report of RAP (Resettlement Action Plan) is attached from next page.

**Ministry of Railways (MoR)**  
Government of India

**Joint Feasibility Study**  
for  
**Mumbai – Ahmedabad High Speed Railway Corridor**

**Resettlement Action Plan (RAP)**  
April 2015

**Prepared by**

 **TARU**  
**TARU Leading Edge Pvt. Ltd.**  
New Delhi

**On behalf of**



The Consortium of  
Japan International Consultant for Transportation  
Oriental Consultants Global  
Nippon Koei

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## Abbreviations

Abbreviations	Formal Name
ALT	Alternative
APM	Assistant Project Managers
BC/OBC	Backward Caste
CA	Compensatory Afforestation
CCF	Chief Conservator of Forest
CEL	Centre for Environmental Law
CF	Conservator of Forest
CPCB	Central Pollution Control Board
CPM	Chief Project Manager
CPR	Common Property Resource
CRO	Chief Resettlement Officers
CRZ	Coastal Regulation Zone
CSW	Cross Section Width
DDP	Desert Development Programme
DFC	Dedicated Freight Corridors
DTEPA	Dahanu Taluka Environment Protection Authority
EC	Environmental Clearance
EIA	Environmental Impact Assessment
EMP	Environmental Management Plan
EPA	Environment Protected Act
ESZ	Ecological Sensitive Zones
FAC	Forest Advisory Committee
FY	Fiscal Year
HSR	High Speed Railways
HSRC	High Speed Railway Corporation
HST	High-Speed Train
HTL	High Tide Line
IA	Implementing Agency
IUCN	International Union for the Conservation of Nature
JICA	Japan International Corporation Agency
LTL	Low Tide Line
MAHSRC	Mumbai-Ahmedabad High Speed Railway Corridor
MOEF	Ministry of Environment and Forests
MoEFCC	Ministry of Environment, Forest and Climate Change
MOR	Ministry of Railways
MOS	Minister of State
MOU	Memorandum of Understanding
NACO	National AIDS Control Organization
NBWL	National board of Wildlife
NCZMA	National Coastal Zone Management Authority
NEP	National Environmental Policy

Abbreviations	Formal Name
NMA	National Monument Authority
NOC	Non-objection Certificate
NOF	Non forest land
NP	National Parks
PAFs	Project Affected Families
PAH	Project Affected Households
PAPs	project affected persons
PF	Protected Forest
PHCs	Primary Health Centres
PIU	Project Implementation Unit
R & R	Resettlement & Rehabilitation
RAA	Railways (Amendment) Act
RAP	Resettlement Action Plan
RF	Reserve Forest
RVNL	Rail Vikas Nigam Limited
SC	Scheduled Caste
SCZMA	State Coastal Zone Management Authorities
SEMU	Social & Environmental Management Unit
SGNP	Sanjay Gandhi National Park
SMU	Social Management Units
SPCBs	State Pollution Control Boards
ST	Scheduled Tribe
SWLB	State Wildlife Board
TWLS	Tungareshwar Wildlife Sanctuary
UIC	International Union of Railways
UNDP	United Nations Development Program
USDA	United States Department of Agriculture
WCS	Wildlife Conservation Society
WLS	Wildlife Sanctuary



# 1. DESCRIPTION OF THE PROJECT

## 1.1 INTRODUCTION

Taru Leading Edge Pvt Limited (hereafter referred to as Taru) has been appointed by Japan International Consultants for Transportation Co. Ltd., Oriental Consultants Co., Ltd. and Nippon Koei Co., Ltd (hereafter referred to as Client) to prepare a Resettlement Action Plan (RAP) for the affected area/people in the Mumbai–Ahmedabad High Speed Railway Corridor (hereinafter called HSR). The RAP is a part of the Joint Feasibility Study.

The RAP has been developed in accordance with the requirement of Japan International Cooperation Agency (hereinafter referred to as JICA). Environmental & Social Consideration Guidelines (April 2010)” and World Bank OP.4.12 guidelines (together referred to as the reference framework). The RAP provides a framework and a plan within which the resettlement, livelihood and other impacts linked/associated with the project will be addressed.

## 1.2 BACKGROUND OF THE PROJECT

India has undergone rapid economic growth in recent years, and along with this growth has come a sharp rise in the volume of people and goods being transported in the country. To meet this rise, Dedicated Freight Corridors (DFC) is being constructed to haul freight from Delhi to Mumbai and Kolkata. As for passenger transport, the Indian Ministry of Railway (MOR) prepared the “Indian Railways Vision 2020” in December 2009, and pre-feasibility studies are now being done in sequential order on seven routes that are candidates for the construction of high-speed-railways.

A report issued by an expert committee on modernization of India’s national railways that was established by MOR designates the line between Mumbai and Ahmedabad (approximately 500 km long) as the first high-speed railway section to be planned and constructed (hereafter referred to as the “Project”). A pre-feasibility study for this line was done by RITES of India, Systra of France and others in FY 2009. Japan (Ministry of Land, Infrastructure, Transport and Tourism: MLIT) conducted a study on project feasibility for the line in FY 2012.

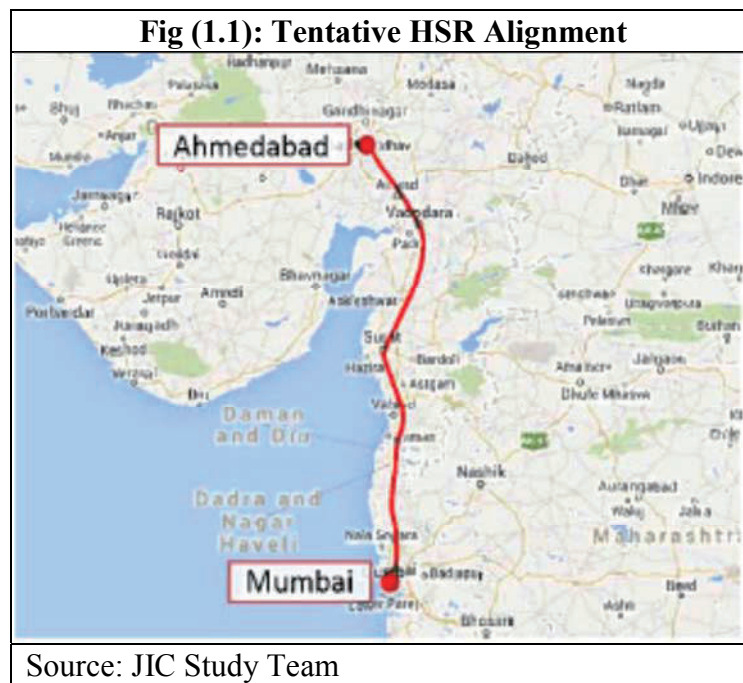
Against this backdrop, India and Japan issued a joint statement on May 29, 2013, that included a decision to conduct a joint study on the construction of HSR between Mumbai and Ahmedabad. The proposed High Speed Railway corridor between Ahmedabad and Mumbai (the Project) aimed at improving connectivity between the two business centres and make it more easily connected. In response, JICA and MOR of India signed a Memorandum of Understanding (MOU) for joint feasibility study on October 7, 2013. Included in the feasibility studies, are the assessment and mitigation of the social and resettlement impacts linked to the development of the proposed HSR and land acquisition therein.

High Speed Rail Corporation of India Limited (HSRC) has been formed under the Ministry of Railways, Government of India, for development and implementation of high speed rail projects. HSRC is a subsidiary/SPV of Rail Vikas Nigam Limited which is a Mini-Ratna public sector enterprise of Government of India. The HSRC will be responsible for development and implementation of the Project.

### 1.2.1 Project Description

The High Speed Railway Line (HSRL) will connect Mumbai, the capital city of the State of Maharashtra and the second most populous metropolitan area in India with Ahmedabad which is a metropolis in the State of Gujarat. The approximately 500 km long line will consist of High-speed Railway vision running along the Arabian Sea coast side and connecting with Surat and Vadodara en-route which are the second and third largest city in the State of Gujarat.

The alignment (i.e. Alternative 1, the most preferred option- discussed in section below and *the relevant alignment for this RAP report*) of the HSRL will pass through 3 districts (Mumbai, Thane and Palghar) in Maharashtra and 8 districts (Valsad, Navsari, Surat, Bharuch, Vadodara, Anand, Kheda and Ahmedabad) in Gujarat. The proposed alignment also passes through a small area section falling in the UT of Dadra. Schematic map of alignment along with details have been provided below.



### 1.2.2 Analysis of Alternatives

The HSR line will, as discussed above connect Mumbai, the capital city of the State of Maharashtra and the second most populous metropolitan area in India with Ahmedabad which is the metropolis in the State of Gujarat.

Three alternatives for the proposed route was prepared and reviewed considering a) convenience of transportation, b) land-use, c) passengers demand, d) safety, e) technical aspect, f) cost and g) environmental & social considerations.

The key comprehensive characteristics of the proposed alternatives have been discussed below.

- 1) **Alternative 1 (ALT1):** Dedicated route for which new terminal station is proposed at Mumbai , crossing Thane Creek by tunnel, connecting with new suburban station in Surat and juxtaposed to existing stations at Vadodara & Ahmedabad. High speed operation is available through all whole section.
- 2) **Alternative 2 (ALT2):** Dedicated route for which new terminal station is propose at Mumbai, crossing Thane Creek by Viaduct, juxtaposed to existing station at Surat and connecting with new suburban stations at Vadodara and Ahmedabad. High speed operation is available through all whole section.
- 3) **Alternative 3 (ALT3):** ALT3 route considers interoperability that HSR and existing railway are mixed in Mumbai, Surat, Vadodara and Ahmedabad areas. High speed operation is difficult in some sections.

The comprehensive analysis of alternatives of the three lines highlighting the key environment and social alternatives and risk mitigations has been presented in the table below.

**Table (1.1): Comprehensive Comparison of Alternatives**

	ALT1	ALT2	ALT3	No Action Plan
Length	508.5km	521km	496km	N/A
Number of Station	12 nos.	12 nos.	11 nos.	N/A
Structural Feature	At grade: 341 km Viaduct/Bridge: 140 km (Continuous elevated section: 123 km, River section: 13 km/37 number, RUB section: 4 km/121 number) Underground: 27.5 km	At grade: 342 km Viaduct/Bridge: 171 km (Continuous elevated section: 152 km, River section: 12 km/33 number, RUB section: 7 km/162 number) Underground: 8 km	At grade: 314 km Viaduct/Bridge: 177 km (Total length of mixed train operation: 72 km) (Continuous elevated section: 161 km, River section: 8 km/35 number, RUB section: 8 km/129 number) Underground: 5 km	No improvement
Time required	Super express (Stop at 3 stations): 2 hours 07 min. Local train (Stop at every station): 2 hours 58 min.	Super express (Stop at 3 stations): 2 hours 12 min. Local train (Stop at every station): 3 hours 01 min.	Super express (Stop at 3 stations): 2 hours 52 min. Local train (Stop at every stations): 3 hours 40 min.	No improvement
Transport network	A high speed operation is possible throughout the whole section. Thane/Vadodara/Ahmedabad/Sabarmati: connected to existing railway. Other Stations: New stations A transfer to Indian Railway is needed.	A high speed operation is possible throughout the whole section. Thane/Surat/Sabarmati: connected to existing railway. Other Stations: New stations A transfer to Indian Railway is needed.	A high speed operation is difficult in the section on which HSR and existing railway are mixed. A transfer to Indian Railway is not needed.	No improvement



Environmental and social considerations	Natural Conservation: Some forests are affected but Thane creek is not affected. Resettlement: it would be accompanied with 1,120 resettlement in total.	C	Natural Conservation: 7 km long of Thane creek is affected. Resettlement: It would be accompanied with 1,556 resettlement in total.	D	Natural Conservation: Some of forest is affected but Thane creek is not affected. Resettlement: It would be accompanied with 946 resettlement in total.	B	The impact is the least. It is not accompanied with resettlement.	A
Total evaluation	<p>The HSR system can be introduced throughout whole section. High safety and efficiency are kept. It is possible that the characteristic of HSR is exerted most. High demand is expected because major stations are in the urban area. In Mumbai area, the impacts of resettlement and natural environment are less because HSR is underground. The impact to natural environment is the least because the number of bridges to be constructed is less among alternatives.</p> <p><b>This is the most desirable plan.</b></p>	A	<p>The HSR system can be introduced throughout whole section. High safety and efficiency are kept. It is possible that the characteristic of HSR is exerted most. The demand expectation is less than ALT1 because major stations are in the suburban area. In Mumbai area, natural environmental along 7 km long of Thane creek is affected. This plan is inferior to ALT1.</p>	B	<p>The HSR system cannot be introduced throughout whole section (It is assumed HSR considering interoperability with existing railway served with cases in Europe). High safety and efficiency cannot be kept. Shortage in railway capacity. The time required is longer than ALT1 or ALT2. Modal shift is less. This plan is inferior to T1 or ALT2.</p>	C	<p>It is impossible that HSR is introduced in existing railway. The demand is lower because there is competition with other modes. The high safety cannot be kept.</p>	D

Note) Index of A, B, C and D in the above table each indicates Excellent, Better, Good, and Not preferable, relatively.

Source: Study Team

### 1.2.3 More about Preferred Alignment

This RAP is being developed for the preferred alignment (refer ALT 1 in the comparison table in the preceding section). The planned route passes through the states of Maharashtra (3 districts), Gujarat (8 districts) and the Union Territory of Dadra.

Based on assessment of various alignment alternatives, this option is preferred for its advantages in terms less Social and Environmental impacts. Further, it also provides for a dedicated line, required for high speed operations and associated safety considerations. As per existing technical plan, various rail track structure types will be constructed. District wise distribution of the entire HSR alignment is provided below.

Table (1.2): District wise HSR Alignment Rail Structure Types									
				Length (in KM) of Alignment Rail Track Structure Types					
State	District	KM post		Tunnel	Embankment	Cutting	Viaduct	River Bridge	Station
Maharashtra	Mumbai	-0.4	27.9	20.6	2.0	0.2	3.8	0.5	1.3
	Thane	27.9	85.0	4.8	10.5	3.1	35.4	2.2	1.2
Gujarat	Valsad	85.0	200.0	2.1	96.0	8.9	5.1	1.6	1.4
	Navsari	200.0	235.0	0.0	29.6	0.0	4.3	0.4	0.7
	Surat	235.0	305.0	0.0	44.9	0.0	21.9	0.9	2.3
	Bharuch	305.0	375.0	0.0	61.9	0.0	6.2	1.2	0.7
	Vadodara	375.0	415.0	0.0	20.9	0.0	18.4	0.0	0.8
	Anand	415.0	435.0	0.0	16.4	0.0	3.0	0.7	0.0
	Kheda	435.0	465.0	0.0	24.4	0.0	5.0	0.0	0.7
	Ahmedabad	465.0	507.8	0.0	22.3	0.0	18.4	0.7	1.5
Total		507.8		27.5	328.8	12.2	121.5	8.1	10.6
Source: JIC Study Team									

The proposed alignment will have 27.5 KMs of tunnel most of which will be in Mumbai and Thane. Similarly 121.5 KMs of viaducts will be constructed under the project, much of which will be in the urban areas with high population (and physical structure) density such as the big cities/ towns of Surat, Vadodara, Bharuch, Virar, Vapi, Valsad etc. The proposed design approach may thus also be seen as an attempt to minimize impact to households and properties that may fall along the HSR alignment.

The HSR project seeks to connect the capital cities of the two Indian states that contribute nearly a third of country GDP. The entire alignment from Mumbai to Ahmedabad is dotted with industrially developed pockets of manufacturing and other economic activities. There are several urban agglomerations such as Surat and Vadodara besides the metropolis of Mumbai/Thane and Ahmedabad that will be benefiting from high speed passenger train connectivity. The alignment largely runs parallel to existing railway track and the National Highway 8 connecting Mumbai and Ahmedabad.

The table below provides a demographic snapshot of project affected districts. Notably, Mumbai, Thane, Ahmedabad, Surat and Vadodara have high urban population. Some of the districts such as Navsari, Valsad, Surat, Bharuch, Vadodara and Thane are shown to have high to significantly high tribal population. However, it may be noted that the alignment largely passes along existing railway and road highways and hence tribal population in affected land corridor may not be as significant as is apparent from the table presented here. In most of the districts, the tribal pockets are largely situated in the eastern part of the district boundaries. However in the districts of Palghar (newly carved out district from Thane) and select blocks of Valsad bordering Maharashtra the alignment passes through tribal dominated areas<sup>1</sup>. This stretch of the alignment also has significant forest cover. The demographic details of the project people are discussed later in chapter 2.

<b>Table (1.3): Demographic profile of Project Affected Districts</b>								
State	District	Population (Census2011)			Percentage share of Total Population			
		Total	Rural	Urban	Rural	Urban	SC	ST
Maharashtra	Mumbai	3,145,966	—	3,145,966	—	100	5.5	0.6
	Thane	11,054,131	2,551,037	8,503,094	23.1	76.9	4.2	14.7
Gujarat	Valsad	1,703,068	1,068,993	634,075	62.8	37.2	2.6	54.8
	Navsari	1,330,711	921,599	409,112	69.3	30.7	3.2	48.1
	Surat	6,079,231	1,235,509	4,843,722	20.3	79.7	3.4	28.2
	Bharuch	1,550,822	1,022,413	528,409	65.9	34.1	4.5	32.4
	Vadodara	4,157,568	2,097,791	2,059,777	50.5	49.5	5.6	26.6
	Anand	2,090,276	1,456,483	633,793	69.7	30.3	5.3	1.2
	Kheda	2,298,934	1,775,716	523,218	77.2	22.8	5.2	1.6
	Ahmedabad	7,208,200	1,149,436	6,058,764	16	84.1	10.7	1
Source: Census 2011								
Note: Palghar was carved out of Thane after census data collection exercise.								

The HSR project is aimed at providing high speed connectivity between Mumbai and Ahmedabad and amongst other big cities and town that falling in the alignment. The table below lists the proposed stations that will come up under this project. All of the stations except for that in Mumbai (underground) will be on elevated structures (viaduct). All except those in Vadodara and Ahmedabad will be newly developed (at new site) stations. While in these 2 cities the HSR stations would be developed juxtaposing to existing railway stations. In places like Surat, the station will come up in suburban outer growth area of the city.

<b>Table(1.4): Details of HSR Station Locations</b>			
Station Name	State	District	Chainage (km)
Mumbai (Bandra Kurla Complex)	Maharashtra	Mumbai	0km000m
Thane	Maharashtra	Thane	27km920m
Virar	Maharashtra	Palghar	64km920m
Boisar	Maharashtra	Palghar	104km350m

<sup>1</sup> As per JICA requirements, a separate Indigenous People Plan is being prepared for the tribal communities who are likely to be affected by the project



Vapi	Gujarat	Valsad	168km900m
Bilimora	Gujarat	Navsari	217km300m
Surat	Gujarat	Surat	266km200m
Bharuch	Gujarat	Bahruch	322km950m
Vadodara	Gujarat	Vadodara	396km750m
Anand/Nadiad	Gujarat	Kheda	444km600m
Ahmedabad	Gujarat	Ahmedabad	499km590m
Sabarmati	Gujarat	Ahmedabad	505km200m
Source: JIC Study Team			

Besides the above, 2 depot and workshops are proposed in Thane and Sabarmati. Maintenance depots are further proposed to be developed at 7 locations that are Thane, Boisar, Vapi, Surat, Bharuch, Vadodara and Sabarmati. Two Confirmation Car Bases will also be developed in Billimora and Anand, to be situated at new stations.

### 1.3 PROJECT IMPACTS

The HSR project will entail significant land acquisition (the preferred alignment recommends for a separate dedicated line) and hence will necessarily have an impact of varying severity among stakeholder communities, falling under the realm of socio-economic and environmental assessments. Anticipated impacts associated with various project phases/activity type could be as the following:

- i. **Project Location** will likely be in terms of
  - Loss of land
  - Change in land usage pattern
  - Encroachment into forest land and thus loss of forest produce
  - Encroachment into natural reserves
  - Loss of historical and cultural monuments,
  - Effect on water resources inside and outside the project.
  - Risk due to earthquake.
  - Land acquisition
  - Rehabilitation and resettlement of people
- ii. **Project Design & Structure** be in form of
  - Interference with natural drainage system, surface and ground water (recharge)
  - Impacts related to design of structures,
  - Hindrance in passage for people, livestock and wildlife.
- iii. **Project Construction Activities** which could result (albeit temporarily) in
  - soil pollution at construction sites,
  - pollution by construction spoils,
  - health risks,
  - cultural hazards,
  - Air, Vibration and Noise pollution.
  - Influx of outsiders (laborers and others) and associated social disorder, safety and other issues

- iv. **Project Operation (Operation of High Speed train)** that may have both positive and negative impacts such as:

**Positive Impacts**

- Traffic decongestion
- Better infrastructures developing around new stations
- Reduction in pollution load
- Saving in travel time
- Employment Opportunity for local population

**Negative Impacts**

- Noise
- Vibration
- Gradual displacement of indigenous and poor communities
- Loss of cultural and social identities/practices of communities

For the purpose of preparation of RAP and as under the scope of this study report, broad impact (adverse) aspects primarily considered and assessed during the study are as following:

- Loss of structures (residential/commercial or residential cum commercial) and linked displacement/resettlement;
- Loss of agricultural land/orchid/plantation;
- Loss of livelihoods (linked to loss of agricultural land and commercial structures/properties);
- Orphan/unviable land pieces/parcels/commercial structure units due to fragmentation of land/structure units
- Loss of income (for tenants, wage earners, agriculture labourers etc.)
- Loss (or severance of access) to water resources such as pond, hand pump, water tank, access to river and other resources such as agricultural farms, orchards, forest etc.
- Loss (or severance of access) to grazing/pasture land;
- Loss of community infrastructure such as schools, health infrastructures, religious structures etc.)
- Health and safety concerns on account of train movements and discharges.

The study report also attempts to bring out all positive project impacts that may be held in stakeholders' perceptions.

## **1.4 OBJECTIVE AND PURPOSE OF THE RAP**

TARU is facilitating the preparation of a joint feasibility study to develop the Project. One aspect of the feasibility study is to assess the land, resettlement and other linked social impacts associated with the development of the Project in accordance with the requirements of the applicable framework. In line with the above objective the scope of work for the RAP includes;

1. Undertaking a Social Impact Assessment (SIA) based on census survey of affected structures to establish the baseline and current status of the potentially Project affected families, and assessing the resettlement and livelihood related impacts on them;

2. Understanding and assessing the existing statutory framework that governs land and resettlement issues/aspects in the project area, adequacy of the government-led resettlement and compensation/entitlement process vis-à-vis the requirements of the applicable standards. This includes an assessment of the compensation and other mitigation measures, the implementation procedures and the institutional arrangement for managing land and resettlement issues;
3. Providing options for the Project to build on and influence the government led land acquisition and resettlement process such that the benefits and impact mitigation measures and processes are aligned with the requirements of the applicable framework; and
4. Developing a RAP for the affected groups of people to provide adequate safeguards, to ensure that processes adopted are transparent and fair and that livelihoods are restored and Project benefits equitably distribution to the extent feasible.

### 1.4.1 Applicable Reference Framework

The applicable reference frameworks relevant to the Project are:

- JICA Guidelines for Environmental and Social Consideration, April 2010<sup>2</sup>
- The World Bank OP-4.12 on Involuntary Resettlement
- Railways Act, 1989 and Railways (Amendment) Act (RAA), 2008;
- National Rehabilitation and Resettlement Policy, 2007;

## 1.5 APPROACH & METHODOLOGY

The approach and methodology for undertaking the Social Impact Assessment and developing the RAP is discussed below.

### 1.5.1 Approach

The approach to development/preparation of RAP takes into cognizance;

- a) **The stage of the Project development and the limitations therein;** The Project is at a stage where the detailed engineering and technical designs have yet to be finalized. Hence, the clarity around land requirement, final route alignment and associated environment and social impacts is yet to emerge. This has limited the ability to assess to carry out household level survey/consultations with land owners and design individual entitlement matrix of compensation, benefits and assistance thus limiting assessment/prediction of impacts at a household/impacted family level. The outcome of this assessment is hence a detailed Framework which will need to be elaborated/strengthened with household level entitlements once the land acquisition details have been finalized;
- b) **Gaps in the existing regulatory/host country framework and applicable reference framework;** Land acquisition for the project will be done under the provisions of The Railways (Amendment) Act, 2008. The Act, in its current form, shape and interpretation has limitations as compared to the different provisions of the applicable reference (for the project) in its approach to dealing with land and R&R issues. However, on the ground this

<sup>2</sup> Effective from 1<sup>st</sup> July 2010

gap/differentiation may not deter the affected persons/communities from expecting better/more benefits;

- c) **Larger Policy Developments around Land and Resettlement issues in the Country;** The Policy Developments like the new Land Acquisition Act (Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013) and their implications for such large infrastructural projects. These policy developments have a rub off effect on the community in terms of expectations and demands from the projects. In light of the above, managing community expectations would be a key challenge in the whole land acquisition and resettlement process.
- d) **Socio-political environment and challenges** associated with dealing with land acquisition and resettlement issues in such large linear acquisitions and larger developments surrounding it. The dynamics of caste/community and political influences and the resultant impact play a significant part in successful and timely completion of such projects. In light of these challenges, participatory approach/processes based on principles of transparency and accountability as key determining factors in the successful and timely completion of the project and associated land and R&R activities.

The approach to the assignment takes into cognizance the aforesaid challenges that land and displacement issues pose for such turnkey infrastructure projects. It is sensitive to the need for carefully handling of these issues at the design, planning and implementation stages of the project. In light of the above, the methodology adopted for the assignment is detailed in the sections below.

## **1.5.2 Methodology**

- a) **Mapping the Alignment Route:** A desktop exercise was undertaken to map and understand the route of the proposed alignment. For the purpose, the entire alignment with RoW (vis-à-vis respective track type and as per current understanding) was drawn on google earth map. For further ease of data collection, the drawn map was broken and a section wise contiguous imagery (of 100-200 mts length each) of the alignment was developed. This exercise helped data collection team in better comprehending and identifying the alignment, the impacted land parcels and structures on ground. in plotting the alignment on the administrative map of the area/districts and also resulted in better understanding the current land use, demographic spread, rural/urban distribution and other environment and social receptors along the ROW. Based on this plotting and section map, the teams were designed/assigned for census survey and stakeholder consultations; Samples of various maps developed for field data collection, stakeholder engagements and team's own understanding are attached as Annexure (1.1).
- b) **Review of Secondary Literature/information:** Information and documentation pertaining available for the project (like feasibility studies conducted by RITES India, Systra of France and others in 2009, existing guidelines of world bank and JICA guidelines, unpublished document and newspaper reports, census information etc.) were reviewed and analyzed. Apart from this information on agricultural productivity, gross and net cropped area, income from different occupational streams prevalent in the area (like orchards, agriculture and wage labour etc.) was also carried out.

- c) **Census and Baseline Socio-economic Survey:** Based on currently available alignments and route map details, a census and inventory of loss survey of all physical structures falling within the right of way (RoW) was carried out. This survey documented the type of structures (size, area) and the nature of use. Along with the census survey of all the structures, socio-economic survey of affected families has been carried out to collect details of affected persons/families. Tools/methods employed for data collection included (Survey and Other Tools attached as annexure 1.2):
- Collection of information through questionnaires** and marking affected structures/assets on field survey maps (satellite imageries)
  - Observations/ physical verifications and capturing video/still images** of the structures likely to be affected.
  - Stakeholders Consultations/Meeting and Individual Interview/Discussions** (with line department officials)

The census survey of the structures and the socio-economic survey of affected families would be helpful/ used in establishing the Cut- Off date.

- d) **Stakeholders Consultation:** The social assessment and RAP preparation involved extensive Stakeholder Consultations/Meetings (SHM) at individual (during primary survey exercise) and district levels with a range of stakeholder groups as available and appropriate (all relevant Government agencies/officials such as departmental officers, heads or representatives of *panchayats and wards, zila panchayat*, rural development officers, tehsil officers, ICDS officers, teachers of schools, business community, religious leaders, leaders of CBOs/NGOs, and, police officers etc.). These stakeholder consultations were done with an objective of a) understanding the profile of communities/stakeholders along the alignment route; b) share information/details of the project; c) discuss alternatives to minimize impact; and d) assess and document their views, concerns, perceptions and feedback. Details of these stakeholder consultations have been documented in Chapter 5 of this report. The first round of SHM was held in December at all district headquarter level (refer Annexure 1.3) for event dates and other details)
- e) **Market/Replacement Cost Survey:** A market/replacement cost survey (RCS) was also carried out using collection of data/information from both secondary sources and primary sources (direct interviews with people in the affected areas, material suppliers, house contractors, local governments), and from both those affected and those not affected. The objective of this survey was to get an understanding of the prevalent replacements value for assets (immovable) impacted by the project. Details of this market/replacement value survey and its findings are discussed in chapter 8 of the report
- f) **District Level Meetings/Workshops with Line Departments:** Meetings were also held with the district level department officials primarily with those associated with land revenue/ land acquisition, agriculture department, forest department and tribal development and welfare. One of the major constraints however on the account of perception held among the officials that the alignment is yet to be formally communicated to them. However, direct meetings with officials of these departments (wherever accessible and available) were done during the stakeholder engagement exercise. The objective of such meetings were to gather information on existing land acquisition and R&R policies (specifically those followed under DFCC project of the

MoR), other governing state and central policies, perception about the project, policies and institutional arrangements and suggestions thereof. The opportunity was also leveraged to brief the departments about the project and share information about the tentative alignment. The details of interactions and its key outcomes are discussed in chapter 5 of this report.

- g) Data Analysis and Reporting:** Both qualitative and quantitative data analyzing methods were used to analyze the data collected/gathered from the primary as well as secondary survey. Statistical techniques along with qualitative data analysis methods were used to obtain required results. These have been analyzed and presented in this report. The RAP outlines the details of the project, description of the project location, the magnitude of impacts based on the census, and spells out the necessary implementation procedures for resettlement and rehabilitation of the entire project affected families including the entitlement matrix as well as the legal framework and policies. The Draft RAP has the following chapters/sections:

Chapter 1: Description of the project  
Chapter 2: Census and socio-economic survey  
Chapter 3: Land acquisition and resettlement impacts  
Chapter 4: Legal and policy framework  
Chapter 5: Consultation, participation and disclosure  
Chapter 6: Relocation, resettlement and income restoration  
Chapter 7: Implementation arrangements  
Chapter 8: Resettlement and compensation costs and budget  
Chapter 9: RAP implementation schedule  
Chapter 10: Monitoring and Evaluation

## 1.6 LIMITATIONS

The RAP is based on currently available data/ information with respect to the Project. As stated earlier, currently the details of the project including technical design and route alignments are in the process of finalization and the local district administration in particular have no information about the project. Land and resettlement aspects linked to the project will clearly emerge once these details have been finalized. The current report is based on the census survey of impacted structures along the broad alignment proposed for the Project. The study has not surveyed the land losers impacted by the project because the details of the impact are not yet known and such information can best be captured only after local administration (read land revenue department) are engaged to identify the owners/claimants of such land parcels. The findings in this report should therefore be viewed/ read in light of the above limitations.

Professional opinions expressed herein are based on currently available data and information. Wherever the report has not been able to provide an opinion or assess any process, it has highlighted that as an information gap and suggested as a way forward.

## **2. CENSUS AND SOCIO-ECONOMIC SURVEY**

### **2.1 INTRODUCTION**

Census and socio-economic survey was conducted with an objective of identifying the affected population by residence, business base and their locality, information on associated socio-economic parameters such as gender, literacy, occupation and livelihoods, ownership status (of affected structure) and type, household consumption and expenditure patterns, and thus a broad socio-economic baseline status of affected population. The survey output (which is presented in this chapter) is primarily based on field data collected during social survey and juxtaposed against secondary data (as appropriate) such as census handbooks / gazetteers / other relevant texts.

This chapter on Census and Socio-Economic Survey begins with brief description on methodology followed to collect relevant data and subsequent data analysis and reporting. It is followed with sections describing data findings pertaining to various parameters as described in paragraph above.

In the context of this RAP document, and this chapter in particular, it may be noted the findings presented are based on the data collected from only those households who were identified as stakeholders associated with structures likely to be affected due project related constructions. It must be recognized, as also emphasized as study limitations in chapter 1, that the survey does not include ‘land loser’ households. Such information can be included only upon finalization of the alignment and subsequent sharing with the state and local administration that in turn would identify the affected land owners.

### **2.2 METHODOLOGY FOR CENSUS AND SOCIO-ECONOMIC SURVEY**

The approach adopted to conduct census and socio-economic study has been in alignment with the scope of work for this RAP preparation task. The survey approach (and the tools designed therefore) followed the Japan International Cooperation Agency (JICA) guidelines and may broadly be divided into three parts as;

1. Data Collection
2. Data Analysis
3. Presentation of results

#### **2.2.1 Data Collection:**

Survey assignments for projects such as HSRC pre-determine the required data and associated primary stakeholder categories. Further literature review and client interactions were the basis of finalization of data collection tools and the approach.

Secondary data already available by means of feasibility studies conducted by RITES India, Systra of France and others in 2009, Study report (August 2014) by HSR Advisory Board on Social and Environmental Considerations, existing guidelines of world bank and JICA, reference to existing RAPs of similar JICA and WB supported projects, reports and other unpublished document were referred to and reflect in survey data collection design and the tools used.

The following methods were applied for ensuring authentic data collection from the stakeholders and Affected People:

- A. **Developing of maps** (including satellite imageries) of varying scales with layers of land corridors (along the central line of the alignment) drawn; clearly identifying the land parcels, structures and assets likely to be impacted. Sample maps have been attached as Annexure 1.1 (Figure A.1, A.2 and A.3).
- B. **Collection of information through questionnaires** and marking affected structures/assets on field survey maps (satellite imageries)
- C. **Observations/ physical verifications and capturing video/still images** of the structures likely to be affected.
- D. **Stakeholders Consultations/ Meeting and Individual Interview/Discussions** (with line department officials and for the Purpose of Replacement Cost Estimations)

Survey for data collection was carried out by team of experienced surveyors; divided into smaller teams of 4 surveyors and directly monitored by field supervisors.

#### *Type of data collected for the survey*

As mentioned above, broadly four types of tools were used to collect primary survey data. Key information captured under these are briefly discussed here

- A. **Field Survey Maps and other Maps:** Various maps were developed both for the purpose of data collection aid tools and for estimation and recording (through direct observation) of number of affected fruit bearing trees and identification of structures on maps. Maps were particularly useful in locating land corridors, identification of impacted (likely) structures/assets and validation of data collected (refer Annexure 1.1 for sample maps).
- B. **Survey questionnaire and Observation tools:** The survey purpose was to identify all impacted structures and assets and associated households likely to be affected on account of these. *It may be noted (as mentioned earlier), that the survey did not include those households likely to be affected due to loss of land only.*

For the purpose, the tools deployed included those for i) Inventory of Loss (both for private and Public/community structures/assets), ii) Census of Affected Household and iii) Socio Economic Survey and also attached as Annexure 1.2 for reference. Key information aspects collected and approach adopted for administration of these tools are mentioned below.

#### **Inventory of Loss (IOL):**

Key Information Items	Approach
<ul style="list-style-type: none"> <li>• Identification and location of Structures and assets (GPS coordinates etc.)</li> <li>• Basic Information (Village, district name etc.)</li> </ul>	Direct observation and recording the same on the IOL tool for all structure identified along the alignment land corridor, interaction with affected households/PAPs to identify them.



<ul style="list-style-type: none"> <li>• Structure details (type of structure, type of construction, structure dimensions such as no. of floors, area/size, type construction material, extent of likely impact, no. of affected PAPs)</li> </ul>	<p>A separate tool used for identification and recording of information (similar to those for private structures) were used.</p>
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### Census of Affected Households

Key Information Items	Approach
<ul style="list-style-type: none"> <li>• Identification and of affected households vis-à-vis affected structures/assets</li> <li>• Basic Information about affected households (Village, district name etc.), head of household identification- name, age, gender, socio-economic background</li> <li>• Ownership details of affected structure, tenure, type etc., identification of owner</li> <li>• Use of structures, availability of alternate land for relocation etc.</li> <li>• Household members details (age, gender, education, income and occupation etc.), vulnerability status</li> <li>• Access to basic facilities such as sanitation and drinking water</li> <li>• Household income and expenditure</li> <li>• Impact on business/income, details of business establishment</li> <li>• Perception about project and its impacts, R&amp;R expectations and preferences</li> </ul>	<p>Only such households were approached and data collected for who were affected by way of loss of structures. Only land losers were not covered as their identification will be possible only after alignment is finalized and shared with the state administration/land revenue department.</p> <p>Stakeholders included those owners, tenants and others whose livelihood is linked to the structures being impacted. <i>However, in case of business establishments it is likely that workers/staff may not have been covered in few instances due to non-cooperation by unit owners/managers.</i></p> <p><i>Further in few cases, due to noncooperation or refusal or absence of affected household members, the census information could not be completed. In such cases, information collected is limited to those covered through 'Inventory of Loss' tool.</i></p>

### Socio-Economic Survey

Key Information Items	Approach
<ul style="list-style-type: none"> <li>• Identification and of affected households vis-à-vis affected structures/assets</li> <li>• Basic Information about affected households (Village, district name etc.), head of household identification- name, age, gender, socio-</li> </ul>	<p>Socio Economic Survey was limited to 20 percent of the sample covered under Census Survey and chosen randomly.</p>

<p>economic background</p> <ul style="list-style-type: none"> <li>• Details of household assets such as livestock, agriculture implements, household items and other assets</li> <li>• Land ownership- type and area</li> <li>• Agriculture- type and production</li> <li>• Household income and expenditure- itemized details</li> <li>• Accessibility to various government welfare schemes</li> <li>• Accessibility to basic infrastructure facilities such as school, market, bus stop, hospital and project impact on these</li> <li>• Saving and indebtedness status and practices</li> </ul>	
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**C. Observations/ physical verifications** as a survey approach was applied in all survey tools. For all structures that were covered for preparation of inventory of losses, both still and video images were also captured. This helped both in validation of field data collected and also as a proof of structure condition/status (as on the day of the survey) for future ‘cut-off date’ reference purposes. Further, tree count for fruit bearing species were also done and recorded using primary field observations only.

**D. Stakeholder Consultations and Interviews** was done for multiple purposes. Stakeholder consultation was particularly important for initiation of primary data in each of the affected settlements. This primarily related to briefing about nature of survey and the purpose and getting consent of the stakeholders prior to data collection.

Stakeholder Meetings/ Consultations (SHMs) on a larger scale were held in each of the districts. First round of such meetings were held at each district head quarter during December 2014 (details such as event date and venue provided under annexure 1.3). In each such meeting, PAPs were invited from across villages to participate in the meeting and were briefed about the HSR project, its key features, proposed alignment, current status, broad policy frameworks that may apply. Occasion was also used to collect PAPs feedback on the project, their perceptions, concerns and suggestions about land acquisition and the governing R&R policies and the project overall. The documentation of the consultations held is provided in detail in Chapter 5.

District administration and officials from the line department constitute another important segment of project stakeholders. Every opportunity was used to engage and interact with the line department particularly those from land and revenue (and land acquisition cell, if existing), agriculture, tribal welfare and forest department. Such interactions have helped in developing better perspective about existing land acquisition and R&R practices and policies in the state, specifically in the context of similar project such as Dedicated

Freight Corridor, challenges and suggestions on the same. Documentation of these are again provided in Chapter 5.

The **replacement cost survey (RCS)** was done in parallel with Census and IOL activities by collecting information from both secondary sources and primary sources (direct interviews with people in the affected areas, material suppliers, house contractors, line governments and real estate agents of the area), and from both those affected and those not affected. Key to the approach was triangulating quoted market rate from one source with multiple other sources in the area for arriving at most approximate rate prevailing in the market. The findings of this exercise have been used in arriving at project compensation and resettlement cost, presented later in Chapter 8.

### 2.2.2 Data analysis

Both qualitative and quantitative data analyzing methods have been used for presenting findings on Census and Socio-Economic Status of PAPs. These include analysis of secondary data such as government Census 2011 data, livestock data, district statistical handbooks and others available from state departments and JIC Study team and analysis (statistical and others) of primary data collected through various tools mentioned in the section above.

### 2.2.3 Presentation of results

Findings upon data analysis are presented under subsequent sections of **this chapter** which provides information on identification of the PAPs and organized on various socio-economic parameters. Other outputs such as those related to project losses and impacts (Inventory of Losses) are discussed in **Chapter-3**. Documentation of stakeholders' participation and consultations is presented in **Chapter-5**. **Chapter-6** highlights the scope, preferences and recommendation pertaining R&R arrangement. **Chapter-7** is on institutional arrangement for implementation of resettlement action plan that also incorporates inputs from discussion with line department officials. **Chapter-8** on Project Compensation and Cost Estimates leverages from the findings of replacement cost survey undertaken in project area.

## 2.3 PROJECT AFFECTED PERSONS: POPULATION AND PAHs/PAPs

This section (and the other following it) discusses the findings of the census and socio economic survey carried out for HSRC project affected households and its members. The families were identified as stakeholder families associated with assets likely to be affected by the project. Data information was collected from all such families, who agreed to share information.<sup>3</sup> Major questions of the Census questionnaire were on occupation, family members, education level, religion, & social categories, Income source, assets including livestock, agricultural equipment's, household goods and access to public facilities such as school, markets, workplace, and religious buildings and the impact of the project during its construction and operation phases on the PAHs . Based on findings of the Census and Socio-Economic Survey, the social profile of the PAHs/PAPs such as social category, religion, income level and other socio-economic characteristics are presented in the following tables.

<sup>3</sup> It may be noted that not all families, identified on the basis of Inventory of Loss survey agreed to provide information for Census Survey; one of the prime reasons being that there has been no formal notification from the government with regards to HSRC project.

Census Survey information was collected from 1082 Project Affected Households (PAHs) with 5404 Project Affected Persons (PAPs) through the Socio-Economic and Census Survey. The table below provides distribution of PAHs and PAPs spread across 11 districts of Gujarat and Maharashtra.

<b>Table 2.1: Distribution Details of PAHs and PAPs</b>		
<b>State/Districts</b>	<b>PAHs</b>	<b>PAPs</b>
<b>Maharashtra</b>		
Thane	48	199
Palghar	195	951
Dadra Nagar Haveli (UT)	4	18
<b>Gujarat</b>		
Valsad	95	431
Navsari	54	273
Surat	86	410
Bharuch	64	324
Vadodara	105	470
Anand	65	349
Kheda	147	783
Ahmedabad	219	1196
<b>Grand Total</b>	<b>1082</b>	<b>5404</b>
<b>Source:</b> Census Survey Data, Sep-Dec 2014		

In the context of Palghar, it may be noted that one of the talukas (and the habitations) i.e. Vasai is situated in the suburban Mumbai and thus has high urban characteristics.

### 2.3.1 Duration of Living in the Project Area

Table 2.2 shows the time duration of the PAHs living in the project area. 82 PAHs out of 1082 PAHs have been living in the project area since last one year. 185 PAHs have been living in the project areas for a period 31 to 50 years. 343 PAHs has been living in the project area for more than 50 years. All the PAHs (4) in Dadra and Nagar Haveli location have been living in the project area for the last 50 years or more.

<b>Table 2.2: Duration of PAHs Living in the Project Area</b>							
<b>District</b>	<b>Last 1 Year</b>	<b>1-3</b>	<b>4-10</b>	<b>11-30</b>	<b>31-50</b>	<b>More than 50 Years</b>	<b>Grand Total</b>
Thane	5	-	19	26	-	-	50
Palghar	43	-	55	34	14	47	193

Dadra Nagar Haveli	-	-	-	-	-	4	4
Valsad	8	-	7	24	10	46	95
Navsari	2	2	5	14	4	27	54
Surat	6	4	10	30	22	14	86
Bharuch	2	-	-	8	5	49	64
Vadodara	1	6	34	35	14	15	105
Anand	1	3	10	22	12	17	65
Kheda	11	3	13	50	27	43	147
Ahmedabad	3	7	12	39	77	81	219
<b>Grand Total</b>	<b>82</b>	<b>25</b>	<b>165</b>	<b>282</b>	<b>185</b>	<b>343</b>	<b>1082</b>
<b>Percent</b>	<b>7.6%</b>	<b>2.3%</b>	<b>15.2%</b>	<b>26.1%</b>	<b>17.1%</b>	<b>31.7%</b>	<b>100.0%</b>
<b>Source:</b> Census Survey Data, Sep-Dec 2014							

### 2.3.2 PAHs and Population by Sex, Age Group and Religion

This section classifies PAHs and PAPs on parameters of sex, age and religion. Additional information has been provided on distribution these based on ownership (number of structures and ownership type) pattern.

#### Family Size

Affected Households covered under census survey may be classified in four categories based on number of family members, as presented in Table 2.3. Out of 1082 PAHs in total, 704 PAHs (65.1%) classify as small sized family, 355 PAHs (32.8%) as mid-size family, 20 PAHs (1.8%) as big family and only 3 PAHs (0.27 %) categorize as a large family.

<b>Table 2.3: Family Size</b>					
<b>District</b>	<b>Small</b>	<b>Mid-Sized</b>	<b>Big</b>	<b>Large</b>	<b>Grand Total</b>
Thane	41	8	1	-	50
Palghar	131	62	-	-	193
Dadra Nagar Haveli	4	-	-	-	4
Valsad	67	26	2	-	95
Navsari	32	19	1	2	54
Surat	58	24	4	-	86
Bharuch	43	19	1	1	64
Vadodara	84	20	1	-	105
Anand	43	21	1	-	65
Kheda	85	56	6	-	147
Ahmedabad	116	100	3	-	219

<b>Grand Total</b>	<b>704</b>	<b>355</b>	<b>20</b>	<b>3</b>	<b>1082</b>
<b>Percent</b>	<b>65.1%</b>	<b>32.8%</b>	<b>1.8%</b>	<b>0.3%</b>	<b>100.0%</b>

**Source:** Census Survey Data, Sep-Dec 2014

**Note:** Small family: 1-5 members; Mid-Sized Family: 6-10 members; Big Family: 11-20 members; Large Family: more than 20 members.

## Religion

District wise distribution of PAHs along religious faiths practised is presented in Table 2.4. Out of 1082 PAHs, 969 (89.6%) PAHs are Hindus, 96 (48.9%) PAHs are Muslim, 14 PAHs are Christian, and 1 PAH is a Buddhist. Most of the Muslim families are found to be located in Ahmedabad (60 out of total 96 Muslim PAHs). Such high concentration is expected as the alignment in the Ahmedabad passes along existing track, that witnesses growth of low/poor income settlements, with significant presence of Muslim population.

<b>Table 2.4: Religious Affiliation of PAHs</b>						
<b>District</b>	<b>Hindu</b>	<b>Christian</b>	<b>Islam</b>	<b>Buddhist</b>	<b>Others</b>	<b>Grand Total</b>
Thane	48		1	-	1	50
Palghar	177	3	11	1	1	193
Dadra Nagar Haveli	4	-	-	-	-	4
Valsad	88	1	6	-	-	95
Navsari	47	1	6	-	-	54
Surat	84	-	2	-	-	86
Bharuch	63	-	1	-	-	64
Vadodara	99	2	4	-	-	105
Anand	63	1	1	-	-	65
Kheda	142	1	4	-	-	147
Ahmedabad	154	5	60	-	-	219
<b>Grand Total</b>	<b>969</b>	<b>14</b>	<b>96</b>	<b>1</b>	<b>2</b>	<b>1082</b>
<b>Percent</b>	<b>89.6%</b>	<b>1.3%</b>	<b>8.9%</b>	<b>0.1%</b>	<b>0.2%</b>	<b>100.0%</b>

**Source:** Census Survey Data, Sep-Dec 2014

## Age-Sex Composition

Total of 1082 affected families (PAHs) is constituted of 5404 family members, out of which 2814 (52.07%) are male and 2590 (47.93%) are female. It may be noticed from Table 2.5 that the overall sex ratio among PAPs is 920. 101 PAPs come in the age group of less than 1 year whereas 172 PAPs come in the age group of more than 65 years. A large number of PAPs (1133) fall in the age group of 21-30 years. In the village Telod of Bharuch District, the females (111) outnumber the male which is (96).

<b>Table 2.5: Age-Sex Composition</b>										
<b>District</b>	<b>0-1</b>	<b>1-5</b>	<b>6-10</b>	<b>11-20</b>	<b>21-30</b>	<b>31-40</b>	<b>41-50</b>	<b>51-65</b>	<b>65+</b>	<b>Grand Total</b>

	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Thane	2	1	6	7	9	13	28	25	17	21	20	22	11	9	5	5	5	2	103	105
Palghar	7	13	41	45	47	59	135	87	100	108	88	80	41	31	28	19	6	7	493	449
Dadra Nagar Haveli	-	-	-	-	2	-	1	3	-	2	1	2	2	1	2	2	-	-	8	10
Valsad	3	5	9	15	14	11	45	38	47	48	28	34	30	25	29	28	12	10	217	214
Navsari	5		12	2	7	5	20	18	24	28	21	18	22	24	20	22	16	9	147	126
Surat	5	4	21	13	19	15	39	34	47	41	40	29	16	28	26	24	2	7	215	195
Bharuch	3	8	11	5	3	8	24	21	24	31	31	30	22	22	26	36	10	9	154	170
Vadodara	2	6	16	12	19	17	52	35	52	47	38	38	25	25	39	34	8	5	251	219
Anand	2		3	6	20	13	52	43	30	33	28	27	31	26	13	13	3	6	182	167
Kheda	4	7	31	22	47	18	87	75	80	62	68	63	45	57	50	39	13	15	425	358
Ahmedabad	11	13	37	42	58	43	128	129	157	134	81	75	67	63	68	63	12	15	619	577
<b>Grand Total</b>	<b>44</b>	<b>57</b>	<b>187</b>	<b>169</b>	<b>245</b>	<b>202</b>	<b>611</b>	<b>508</b>	<b>578</b>	<b>555</b>	<b>444</b>	<b>418</b>	<b>312</b>	<b>311</b>	<b>306</b>	<b>285</b>	<b>87</b>	<b>85</b>	<b>2814</b>	<b>2590</b>
<b>Source:</b> Census Survey Data, Sep-Dec 2014																				

### PAHs with Structures

Out of the 1082 Project Affected Households (PAHs), a majority of PAHs i.e. 95.3% has 1 structure falling in the HSRC alignment. About 35 PAHs (3.23%) have 2 structures and only 4 PAHs (0.4%) of PAHs have got more than 3 structures in the designated corridor of HSPR survey.

<b>Table 2.6: No. Of PAHs With Structures</b>					
<b>District</b>	<b>With 1 Structure</b>	<b>With 2 Structures</b>	<b>With 3 Structures</b>	<b>More than 3 Structures</b>	<b>No. of PAHs</b>
Thane	50	-	-	-	50
Palghar	180	9	3	1	193
Dadra Nagar Haveli	3	1	-	-	4
Valsad	87	5	3	-	95
Navsari	48	3	2	1	54
Surat	77	7	1	1	86
Bharuch	61	3	-	-	64
Vadodara	104	1	-	-	105
Anand	62	1	1	1	65
Kheda	143	4	-	-	147
Ahmedabad	217	1	1	-	219
<b>Grand Total</b>	<b>1032</b>	<b>35</b>	<b>11</b>	<b>4</b>	<b>1082</b>
<b>Percent</b>	<b>95.4%</b>	<b>3.2%</b>	<b>1.0%</b>	<b>0.4%</b>	<b>100.0%</b>

**Source:** Census Survey Data, Sep-Dec 2014

### Ownership Type

Based on the number of families affected, 930 (86%) PAHs out of 1082 PAHs are the owners of the structures. Only 142 (13%) PAHs are living as tenants whereas only 10 (0.9%) PAHs are identified as encroachers/squatters/illegal occupiers<sup>4</sup>. It is to be noted that PAHs belonging to the category of Encroacher/Squatter/Illegal Occupier has been identified in the Project Areas on the basis of respondents view and not been as per the Records of Revenue (RoR).

<b>Table 2.7: Ownership Type of PAHs</b>				
<b>District</b>	<b>Owner</b>	<b>Tenant</b>	<b>Encroacher/Squatter /Illegal Occupier</b>	<b>Grand Total</b>
Thane	44	6	-	50
Palghar	162	31	-	193
Dadra Nagar Haveli	4	-	-	4
Valsad	81	13	1	95
Navsari	48	6	-	54
Surat	69	17	-	86
Bharuch	62	2	-	64
Vadodara	67	38	-	105
Anand	57	8	-	65
Kheda	141	5	1	147
Ahmedabad	195	16	8	219
<b>Grand Total</b>	<b>930</b>	<b>142</b>	<b>10</b>	<b>1082</b>
<b>Percent</b>	<b>86.0%</b>	<b>13.1%</b>	<b>0.9%</b>	<b>100.0%</b>
<b>Source:</b> Census Survey Data, Sep-Dec 2014				

### 2.3.3 Social Category and Socio-Economic Dimensions of PAHs

Assessment of PAHs social background shows that the majority among them belong to General Caste (414 PAHs, 38.3%) and Backward Caste (BC/OBC) category (407 PAHs, 37.6%) followed by Scheduled Tribe (202 PAHs, 18.7%). The presence of Schedule Caste (SC) family in the project area is 59 PAHs as shown in Table 2.7. Scheduled Tribe families are found to be mostly in Palghar (72 PAHs, Talasari and Dahanu taluka), Valsad (32 PAHs) and Ahmedabad District (51 PAHs, Ahmedabad city area)

<b>Table 2.8: Social Category of PAHs</b>					
<b>District</b>	<b>Gen</b>	<b>BC/OBC</b>	<b>SC</b>	<b>ST</b>	<b>Grand Total</b>

<sup>4</sup> The number of PAHs under this category may be much higher which can be ascertained only upon formal project notification and official land ownership data provided by district administration.



Thane	26	8	1	15	50
Palghar	54	61	6	72	193
Dadra Nagar Haveli	4	-	-	-	4
Valsad	21	37	5	32	95
Navsari	8	31	10	5	54
Surat	22	29	24	11	86
Bharuch	31	23	1	9	64
Vadodara	69	22	7	7	105
Anand	43	22	-	-	65
Kheda	81	66	-	-	147
Ahmedabad	55	108	5	51	219
<b>Grand Total</b>	<b>414</b>	<b>407</b>	<b>59</b>	<b>202</b>	<b>1082</b>
<b>Percent</b>	<b>38.3%</b>	<b>37.6%</b>	<b>5.5%</b>	<b>18.7%</b>	<b>100.0%</b>
<b>Source:</b> Census Survey Data, Sep-Dec 2014					

### Economic Status of PAHs

The following table highlights the state recognized economic status of the PAHs. 359 (33%) PAHs in the project areas are below the Poverty line whereas 505 (47%) PAHs are above the poverty line. Rest of the families 218 (20%) couldn't give a clear answer regarding their economic status.

<b>Table 2.9: Economic Status of PAHs</b>				
<b>District</b>	<b>BPL</b>	<b>APL</b>	<b>Don't know</b>	<b>Grand Total</b>
Thane	3	24	23	50
Palghar	71	40	82	193
Dadra Nagar Haveli	1	3	-	4
Valsad	32	61	2	95
Navsari	25	19	10	54
Surat	36	27	23	86
Bharuch	27	37	-	64
Vadodara	14	63	28	105
Anand	25	30	10	65
Kheda	64	70	13	147
Ahmedabad	61	131	27	219
<b>Grand Total</b>	<b>359</b>	<b>505</b>	<b>218</b>	<b>1082</b>
<b>Percent</b>	<b>33.2%</b>	<b>46.7%</b>	<b>20.1%</b>	<b>100.0%</b>
<b>Source:</b> Census Survey Data, Sep-Dec 2014				

## PAHs as Beneficiary of Antyodaya and Annapurna Schemes<sup>5</sup>

Survey also attempted to identify such families who are vulnerable and recognized by the state through food security schemes support. Information given in Table 2.9 identifies the status of PAHs in the project areas regarding their beneficiary status vis-à-vis Antyodaya and Annapurna schemes. Only 60 (5.5%) PAHs have Antyodaya and 30 (2.7%) PAHs have Annapurna Card. Highest concentration of Antyodaya beneficiaries (among PAHs) was reported in Palghar (20 PAHs); a district having high tribal population in two of the project affected talukas.

<b>Table 2.10: PAHs having Antyodaya and Annapurna Card</b>					
<b>District</b>	<b>Antyodaya Beneficiary PAHs</b>		<b>Annapurna Beneficiary PAH</b>		<b>Grand Total</b>
	<b>Yes</b>	<b>No</b>	<b>Yes</b>	<b>No</b>	
Thane	1	49	1	49	50
Palghar	20	173	4	189	193
Dadra Nagar Haveli	-	4	-	4	4
Valsad	4	91	1	94	95
Navsari	5	49	6	48	54
Surat	2	84		86	86
Bharuch	2	62	-	64	64
Vadodara	8	97	13	92	105
Anand	5	60	1	64	65
Kheda	5	142	3	144	147
Ahmedabad	8	211	1	218	219
<b>Grand Total</b>	<b>60</b>	<b>1022</b>	<b>30</b>	<b>1052</b>	<b>1082</b>
<b>Percent</b>	<b>5.5%</b>	<b>94.5%</b>	<b>2.8%</b>	<b>97.2%</b>	<b>100.0%</b>
<b>Source:</b> Census Survey Data, Sep-Dec 2014					

## 2.3.4 Ethnicity, Marital Status, Literacy Levels and Occupation of PAPs

### Marital Status

Information collected about 5404 PAPs in the survey suggests that 2234 (41.3%) persons are single and 2939 (54.4%) persons are married. A small number (5, 0.09%) is divorced. 226 PAPs are widow/widower. In Vadodara district, 274 persons are married whereas 190 persons are single whereas one can find 58 numbers of widow/widowers in district Ahmedabad.

<b>Table 2.11: Marital Status of PAPs</b>					
<b>District</b>	<b>Single</b>	<b>Married</b>	<b>Divorced</b>	<b>Widow/Widower</b>	<b>Grand Total</b>

<sup>5</sup> Antyodaya is food security scheme for poorest of poor category families by the government while Annapurna is another food security scheme for old and infirm elderly people with no family support.

Thane	96	106	-	6	208
Palghar	482	442	-	18	942
Dadra Nagar Haveli	7	10	-	1	18
Valsad	163	242	-	26	431
Navsari	94	166	-	13	273
Surat	162	224	-	24	410
Bharuch	101	207	-	16	324
Vadodara	190	274	-	6	470
Anand	148	182	-	19	349
Kheda	258	484	2	39	783
Ahmedabad	533	602	3	58	1196
<b>Grand Total</b>	<b>2234</b>	<b>2939</b>	<b>5</b>	<b>226</b>	<b>5404</b>
<b>Percent</b>	<b>41.3%</b>	<b>54.4%</b>	<b>0.1%</b>	<b>4.2%</b>	<b>100.0%</b>
<b>Source:</b> Census Survey Data, Sep-Dec 2014					

### Educational Status

Education level of the affected population is presented in the table given below. Among the affected population 1183 (21.9%) have received no kind of education, 1311 (24.3%) have not completed elementary school, 712 (13.2%) of PAPs have completed elementary school, 729 (13.5%) have completed Class 10 level, and 289 (5.2%) has completed graduation. In District Valsad, 71 persons don't have formal education whereas 55 persons have finished college in district Vadodara. Districts like Palghar (29.65) and Ahmedabad (27.6%) have relatively higher percentage of persons in the category of no education in comparison to other districts.

**Table 2.12: Educational Status of PAPs**

District	Too young for school		No Education		Below Elementary		Completed Elementary		Below High School		Completed High School		Not completed college		Finished College		Grand Total
	No	%	No	%	No	%	No	%	No	%	No	%	No	%	No	%	
Thane	16	7.7	45	21.6	51	24.5	10	4.8	13	6.3	27	13.0	10	4.8	36	17.3	208
Palghar	106	11.3	279	29.6	196	20.8	63	6.7	81	8.6	171	18.2	21	2.2	25	2.7	942
Dadra Nagar Haveli	-	-	-	-	5	27.8		0.0	1	5.6	4	22.2	2	11.1	6	33.3	18
Valsad	32	7.4	71	16.5	104	24.1	40	9.3	45	10.4	94	21.8	20	4.6	25	5.8	431
Navsari	19	7.0	38	13.9	79	28.9	35	12.8	31	11.4	39	14.3	12	4.4	20	7.3	273
Surat	43	10.5	59	14.4	111	27.1	50	12.2	51	12.4	54	13.2	19	4.6	23	5.6	410
Bharuch	27	8.3	43	13.3	40	12.3	38	11.7	59	18.2	69	21.3	14	4.3	34	10.5	324

Vadodara	36	7.7	81	17.2	82	17.4	76	16.2	57	12.1	68	14.5	15	3.2	55	11.7	470
Anand	11	3.2	73	20.9	92	26.4	60	17.2	34	9.7	54	15.5	12	3.4	13	3.7	349
Kheda	64	8.2	164	20.9	218	27.8	138	17.6	89	11.4	64	8.2	13	1.7	33	4.2	783
Ahmedabad	103	8.6	330	27.6	333	27.8	202	16.9	111	9.3	85	7.1	13	1.1	19	1.6	1196
<b>Grand Total</b>	<b>457</b>	<b>8.5</b>	<b>1183</b>	<b>21.9</b>	<b>1311</b>	<b>24.3</b>	<b>712</b>	<b>13.2</b>	<b>572</b>	<b>10.6</b>	<b>729</b>	<b>13.5</b>	<b>151</b>	<b>2.8</b>	<b>289</b>	<b>5.2</b>	<b>5404</b>
<b>Source:</b> Census Survey Data, Sep-Dec 2014																	

### Primary Occupation of PAPs

Occupation-wise distribution of affected persons in the project area is presented in Table 2.13. 527 (9.7%) out of the 5404 PAPs are dependent upon Agriculture, whereas 420 PAPs (7.8%) are Unskilled Labour, 203 (3.75%) are engaged in Business/Trade and 36 PAPs (0.7%) are from Household/Cottage Industry. Only 195 PAPs (3.6%) are from Private Sector and a meagre 31 PAPs (0.6%) are Govt. Servants.

**Table 2.13: Primary Occupation of PAPs**

District	Agriculture	Allied Agriculture	Dairy	Forestry	Household/Cottage Industry	Business/Trade	Skilled Profession	Unskilled Labour	Pvt. Service	Govt. Service	Retired/Pensioner	Unemployed but capable to work	Too Young/Disabled	Others	Grand Total
Thane	2	-	-	1	-	27		6	5	-	-	4	84	79	208
Palghar	122	8	1	15	8	42	43	38	33	2	-	-	403	227	942
Dadra Nagar Haveli	2	-	-	-	-	3	-	-	-	-	-	-	7	6	18
Valsad	56	1	-	2	4	27	26	9	16	1	8	6	142	133	431
Navsari	28	12	-	-	1	12	12	31	7	1	3	4	76	86	273
Surat	4	12	-	-	15	19	10	31	32	4	10	-	150	123	410
Bharuch	53	30	-	1	2	2	3	17	15	2	-	3	94	102	324
Vadodara	17	3	-	3	1	30	20	35	35	12	6	84	143	81	470
Anand	61	7	9	-	2		4	16	3	1	5	8	137	96	349
Kheda	175	22	4	1	3	22	9	16	6	2	4	49	257	213	783
Ahmedabad	7			1		19	50	221	43	6	10	11	504	324	1196
<b>Grand Total</b>	<b>527</b>	<b>95</b>	<b>14</b>	<b>24</b>	<b>36</b>	<b>203</b>	<b>177</b>	<b>420</b>	<b>195</b>	<b>31</b>	<b>46</b>	<b>169</b>	<b>1997</b>	<b>1470</b>	<b>5404</b>
<b>Percent</b>	<b>9.8</b>	<b>1.8</b>	<b>0.3</b>	<b>0.4</b>	<b>0.7</b>	<b>3.8</b>	<b>3.3</b>	<b>7.8</b>	<b>3.6</b>	<b>0.6</b>	<b>0.9</b>	<b>3.1</b>	<b>37.0</b>	<b>27.2</b>	<b>100.0</b>
<b>Source:</b> Census Survey Data, Sep-Dec 2014															

### 2.3.5 Income and Poverty Dimensions of PAHs

Information collected during Census survey on income level of each PAH indicates of mixed income category households. It can be seen from Table 2.13 that out of total 1082 PAHs, about 225 (21%) PAHs of total PAHs are earning less than Rs. 5,000 per month, whereas only 120 (11.1%) PAHs are earning more than Rs. 20000 per month. Nearly two fifth of the PAHs have monthly income in Rs. 5000-10,000 range

<b>Table 2.14: Monthly Income (in INR) of PAHs</b>							
<b>District</b>	<b>Less than 5000 INR</b>	<b>5000-10000</b>	<b>10000-20000</b>	<b>20000-50000</b>	<b>50000-1 Lakh</b>	<b>More than 1 Lakh</b>	<b>Grand Total</b>
Thane	8	13	8	6	12	3	50
Palghar	34	120	31	8	-	-	193
Dadra Nagar Haveli	-		1	1	1	1	4
Valsad	20	34	32	5	3	1	95
Navsari	14	29	9		2	-	54
Surat	23	31	26	4	2	-	86
Bharuch	17	17	19	10	1	-	64
Vadodara	17	22	45	9	9	3	105
Anand	19	22	16	4	1	3	65
Kheda	37	43	48	12	5	2	147
Ahmedabad	36	112	59	11	-	1	219
<b>Grand Total</b>	<b>225</b>	<b>443</b>	<b>294</b>	<b>70</b>	<b>36</b>	<b>14</b>	<b>1082</b>
<b>Percent</b>	<b>20.8%</b>	<b>40.9%</b>	<b>27.2%</b>	<b>6.5%</b>	<b>3.3%</b>	<b>1.3%</b>	<b>100.0%</b>
<b>Source:</b> Census Survey Data, Sep-Dec 2014 1 lakh: 100,000							

### Distance to Source of Income

Census survey also inquired PAHs about distance of their Primary Source of Income from their home and vice-versa. The table below provides information on this aspect as per which out of 1082 families, 139 PAHs (12.8%) have their work station at home, whereas 349 PAHs (32%) travels within one Km. radius from their home to work. Around 353 PAHs travels more than 4 Kms. to work. 39 PAHs in settlements like Nalasopara in Palghar (a Mumbai suburb) and 63 PAHs in Ahmedabad travel more than 4 Kms. to work.

<b>Table 2.15: Distance of Primary Source of Income</b>						
<b>District</b>	<b>At Home</b>	<b>Less than 1 Km</b>	<b>Between 1 to 2 Km</b>	<b>Between 2 to 4 Km</b>	<b>More than 4 Km</b>	<b>Grand Total</b>
Thane	6	2	4	7	31	50
Palghar	26	37	26	15	89	193

Dadra Nagar Haveli	1	2	-	-	1	4
Valsad	21	14	7	11	42	95
Navsari	13	20	3	1	17	54
Surat	19	14	15	3	35	86
Bharuch	4	23	19	-	18	64
Vadodara	8	44	15	7	31	105
Anand	15	33	9	2	6	65
Kheda	13	93	27	3	11	147
Ahmedabad	13	67	57	10	72	219
<b>Grand Total</b>	<b>139</b>	<b>349</b>	<b>182</b>	<b>59</b>	<b>353</b>	<b>1082</b>
<b>Percent</b>	<b>12.8%</b>	<b>32.3%</b>	<b>16.8%</b>	<b>5.5%</b>	<b>32.6%</b>	<b>100.0%</b>
<b>Source:</b> Census Survey Data, Sep-Dec 2014						

### 2.3.6 Monthly Expenditure of PAHs

Information collected during Census survey on expenditure pattern among PAHs indicates that out of total 1082 PAHs, around 380 (35%) of total PAHs are spending than less than Rs. 5,000 per month, whereas only 7 (0.7%) PAHs are spending more than Rs. 1 Lakh per month.

<b>Table 2.16: Monthly Expenditure (in INR) of PAHs</b>							
<b>District</b>	<b>Less than 5000 INR</b>	<b>5000-10000</b>	<b>10000-20000</b>	<b>20000-50000</b>	<b>50000-1 Lakh</b>	<b>More than 1 Lakh</b>	<b>Grand Total</b>
Thane	17	10	6	12	5	-	50
Palghar	71	96	22	3	-	1	193
Dadra Nagar Haveli	-	-	1	2	1	-	4
Valsad	26	45	18	2	3	1	95
Navsari	22	22	8	-	2	-	54
Surat	36	30	17	2	1	-	86
Bharuch	26	15	14	9		-	64
Vadodara	23	37	27	11	6	1	105
Anand	31	24	6		1	3	65
Kheda	53	46	33	10	4	1	147
Ahmedabad	75	103	35	5	1	-	219
<b>Grand Total</b>	<b>380</b>	<b>428</b>	<b>187</b>	<b>56</b>	<b>24</b>	<b>7</b>	<b>1082</b>
<b>Percent</b>	<b>35.1%</b>	<b>39.6%</b>	<b>17.3%</b>	<b>5.2%</b>	<b>2.2%</b>	<b>0.6%</b>	<b>100.0%</b>
<b>Source:</b> Census Survey Data, Sep-Dec 2014 1 lakh: 100,000							

### PAHs Expenses Priority

Information suggests of 963 (89%) PAHs out of 1082 PAHs according expenditure on food items (than any other items) as their top most priority, whereas only 7 (0.6%) PAHs and 38 (3.5%) PAHs rank Health and Education as top priority for their expenses. In Thane, though, half of the PAHs rank education on top of their expenditure priority.

Table 2.17: PAHs Expense Priority					
District	PAHs	Food as Top Priority	Shelter as Top Priority	Health as Top Priority	Education as Top Priority
Thane	50	21	2	2	25
Palghar	193	169	20	-	4
Dadra Nagar Haveli	4	4	-	-	
Valsad	95	91	3	1	
Navsari	54	33	19	1	1
Surat	86	69	14	2	1
Bharuch	64	52	12	-	
Vadodara	105	95	3	1	6
Anand	65	64	-	-	1
Kheda	147	146	1	-	
Ahmedabad	219	219	-	-	
<b>Grand Total</b>	<b>1082</b>	<b>963</b>	<b>74</b>	<b>7</b>	<b>38</b>
<b>Percent</b>	<b>100.0%</b>	<b>89.0%</b>	<b>6.8%</b>	<b>0.6%</b>	<b>3.5%</b>

**Source:** Census Survey Data, Sep-Dec 2014

### 2.3.7 PAHs Access to Basic Amenities

*Socio-Economic Household Survey was conducted for about one fifth of project affected households covered under Census Survey. The following tables are based on the information collected from 224 PAHs. This section primarily highlights the physical accessibility of PAHs to major social infrastructure like School, Market, Religious Centre, Hospitals, Local Government Office, Work Place of the local Population and access to Drinking Water. This section will also discuss on the opinion of PAHs on whether or not they will be disturbed during the construction and operation of the proposed project.*

#### Accessibility to School and Project Impact

The table below presents information on accessibility aspect of Schools among 224 PAHs (covered under socio-economic survey) and the project impact. In 77 (34%) PAHs, children have to cover less than 1 Km. to reach their respective schools whereas in 142 (63%) PAHs, children travel between 1 to 5 Kms. to reach their schools. 41 (18%) PAHs felt that the accessibility to the schools will be affected during the construction of the project whereas 101 (45%) PAHs said that the accessibility to the schools will be affected during the operation of

the project.

<b>Table 2.18: Distance to School and affect by the Project</b>										
	<b>Distance to School (in KM)</b>			<b>Disturbed during Construction</b>			<b>Disturbed during Operation</b>			<b>Grand Total</b>
<b>District</b>	<b>Less than 1 Km</b>	<b>1-5</b>	<b>6-10</b>	<b>Yes</b>	<b>No</b>	<b>Can't Say</b>	<b>Yes</b>	<b>No</b>	<b>Can't Say</b>	
Thane	1	11				12	6	3	3	12
Palghar	13	24		1	2	34	15	14	8	37
Dadra Nagar Haveli		1	1			2	2			2
Valsad		16	3	1	1	17	11	5	3	19
Navsari	5	6		2	1	8	1	2	8	11
Surat	7	19		1	2	23	5	1	20	26
Bharuch	8	10		3	3	12	14		4	18
Vadodara	7	13		6	6	8	8	3	9	20
Anand	4	8		5	3	4	4	7	1	12
Kheda	10	12	1	8	8	7	10	11	2	23
Ahmedabad	22	22		14	15	15	25	10	9	44
<b>Grand Total</b>	<b>77</b>	<b>142</b>	<b>5</b>	<b>41</b>	<b>41</b>	<b>142</b>	<b>101</b>	<b>56</b>	<b>67</b>	<b>224</b>
<b>Percent</b>	<b>34.4%</b>	<b>63.4%</b>	<b>2.2%</b>	<b>18.3%</b>	<b>18.3%</b>	<b>63.4%</b>	<b>45.1%</b>	<b>25 %</b>	<b>30 %</b>	<b>100%</b>
<b>Source:</b> Census Survey Data, Sep-Dec 2014										

### Accessibility to Market and Project Impact

The table below presents information on accessibility to market and perceived project impact among 224 PAHs. Among the, 72 (32%) PAHs have to cover less than 1 KM. to visit market place whereas 125 (56%) PAHs travel between 1 to 5 Kms. to visit the market. 136 (61%) PAHs felt that the accessibility to the market place will be affected during the construction of the project whereas 111 (49.5%) PAHs said that the accessibility to the market place will be affected during the operation of the project.

<b>Table 2.19: Distance to Market and affect by the Project</b>											
<b>District</b>	<b>Distance to Market (in KM)</b>				<b>Disturbed during Construction</b>			<b>Disturbed during Operation</b>			<b>Grand Total</b>
	<b>Less than 1 Km</b>	<b>1-5</b>	<b>6-10</b>	<b>&gt;10</b>	<b>Yes</b>	<b>No</b>	<b>Can't Say</b>	<b>Yes</b>	<b>No</b>	<b>Can't Say</b>	
Thane	3	8	1		6	5	1	6	5	1	12
Palghar	6	24		7	15	15	7	15	14	8	37
Dadra Nagar Haveli		1	1		2			2			2



Valsad	4	13	2		19			14	5		19
Navsari	1	8		2	4	2	5	4	2	5	11
Surat	4	15		7	13	3	10	11	1	14	26
Bharuch	8	8	1	1	14	3	1	15	1	2	18
Vadodara	9	9		2	10	5	5	8	4	8	20
Anand	3	9			6	5	1	3	8	1	12
Kheda	8	14	1		21		2	10	8	5	23
Ahmedabad	26	16		2	26	9	9	23	13	8	44
<b>Total</b>	<b>72</b>	<b>125</b>	<b>6</b>	<b>21</b>	<b>136</b>	<b>47</b>	<b>41</b>	<b>111</b>	<b>61</b>	<b>52</b>	<b>224</b>
<b>Percent</b>	<b>32.1%</b>	<b>55.8%</b>	<b>2.7%</b>	<b>9 %</b>	<b>61%</b>	<b>21%</b>	<b>18%</b>	<b>50%</b>	<b>27%</b>	<b>23%</b>	<b>100%</b>
<b>Source:</b> Census Survey Data, Sep-Dec 2014											

### Accessibility to Religious Centre and Project Impact

Accessibility details in relation to religious centres/places are presented in the table. Out of 224 PAHs, 88 (3.6%) PAHs shared that they have to cover less than 1 KM. to visit their respective religious centre whereas 81 (36%) PAHs travel between 1 to 5 Kms. to visit the religious centre. 112 (50%) PAHs felt that the accessibility to the religious centre will be affected during the construction of the project whereas 90 (40.1%) PAHs said that the accessibility to the religious centre will be affected during the operation of the project.

<b>Table 2.20: Distance to Religious Centre and affect by the Project</b>											
	<b>Distance to Religious Centre (in KM)</b>				<b>Disturbed during Construction</b>			<b>Disturbed during Operation</b>			<b>Grand Total</b>
<b>District</b>	<b>Less than 1 Km</b>	<b>1-5</b>	<b>6-10</b>	<b>&gt;10</b>	<b>Yes</b>	<b>No</b>	<b>Can't Say</b>	<b>Yes</b>	<b>No</b>	<b>Can't Say</b>	
Thane	-	11	1		4	7	1	8	2	2	12
Palghar	5	22	1	9	12	16	9	12	14	11	37
Dadra Nagar Haveli	-	1	1		2	-	-	2	-	-	2
Valsad	3	12	1	3	16		3	10	6	3	19
Navsari	2	2	-	7		2	9		2	9	11
Surat	2	4	-	20	3	1	22	6	1	19	26
Bharuch	10	3	-	5	10	2	6	11	1	6	18
Vadodara	14	4	-	2	14	1	5	10	2	8	20
Anand	10	2	-	-	8	-	4	4	3	5	12
Kheda	17	5	-	1	19	2	2	8	9	6	23
Ahmedabad	25	15	-	4	24	11	9	19	11	14	44
<b>Total</b>	<b>88</b>	<b>81</b>	<b>4</b>	<b>51</b>	<b>112</b>	<b>42</b>	<b>70</b>	<b>90</b>	<b>51</b>	<b>83</b>	<b>224</b>
<b>Percent</b>	<b>39%</b>	<b>36.2%</b>	<b>1.8%</b>	<b>22.8%</b>	<b>50%</b>	<b>19%</b>	<b>31%</b>	<b>40%</b>	<b>23%</b>	<b>37%</b>	<b>100%</b>
<b>Source:</b> Census Survey Data, Sep-Dec 2014											

## Accessibility to Hospitals and Project Impact

In relation to accessibility to hospital, 116 (52% of 224) PAHs need to cover between 1 KM. to 5 KMs to visit nearest hospitals whereas 56 (25%) PAHs travel more than 10 KMs. for availing these facilities. 94 (42%) PAHs felt that the accessibility to the hospital will be affected during the construction of the project whereas 69 (31%) PAHs said that the accessibility to the hospital will be affected during the operation of the project.

<b>Table 2.21: Distance to Hospitals and affect by the Project</b>											
	<b>Distance to Hospitals (in KM)</b>				<b>Disturbed during Construction</b>			<b>Disturbed during Operation</b>			<b>Grand Total</b>
<b>District</b>	<b>Less than 1 Km</b>	<b>1-5</b>	<b>6-10</b>	<b>&gt;10</b>	<b>Yes</b>	<b>No</b>	<b>Can't Say</b>	<b>Yes</b>	<b>No</b>	<b>Can't Say</b>	
Thane	-	10	2		4	6	2	1	9	2	12
Palghar	-	20	10	7	11	18	8	12	13	12	37
Dadra Nagar Haveli	-		1	1	2			2			2
Valsad	-	5	12	2	18		1	13	5	1	19
Navsari	-	3	1	7		1	10		2	9	11
Surat	-	7		19	3	1	22	3	1	22	26
Bharuch	-	11	1	6	5	7	6	5	6	7	18
Vadodara	-	16	2	2	9	5	6	6	3	11	20
Anand	-	6	6		8		4	4	3	5	12
Kheda	-	5	11	7	18	2	3	7	5	11	23
Ahmedabad	-	33	6	5	16	18	10	16	15	13	44
<b>Grand Total</b>	-	<b>116</b>	<b>52</b>	<b>56</b>	<b>94</b>	<b>58</b>	<b>72</b>	<b>69</b>	<b>62</b>	<b>93</b>	<b>224</b>
<b>Percent</b>	-	<b>52%</b>	<b>23%</b>	<b>25.0%</b>	<b>42%</b>	<b>26%</b>	<b>32%</b>	<b>31%</b>	<b>28%</b>	<b>41%</b>	<b>100%</b>

**Source:** Census Survey Data, Sep-Dec 2014

## Accessibility to Govt. Office and Project Impact

Information collected on accessibility to government offices suggest that 108 (48% of 224) PAHs have to cover less than 5 Km. to visit the Govt. offices whereas 58 (26%) PAHs travel more than 20 Kms. 82 (37%) PAHs believe that the accessibility to the Govt. offices will be affected during the construction of the project whereas 57 (25.4%) PAHs said that the accessibility to the Govt. offices will be affected during the operation of the project.

<b>Table 2.22: Distance to Govt. Office and affect by the Project</b>											
	<b>Distance to Govt. Office (in KM)</b>				<b>Disturbed during Construction</b>			<b>Disturbed during Operation</b>			<b>Grand Total</b>
<b>District</b>	<b>Less than 5 Km</b>	<b>6-10</b>	<b>11-20</b>	<b>&gt;20</b>	<b>Yes</b>	<b>No</b>	<b>Can't Say</b>	<b>Yes</b>	<b>No</b>	<b>Can't Say</b>	
Thane	4	1	7		3	8	1	4	3	5	12

Palghar	20	1	9	7	9	19	9	8	14	15	37
Dadra Nagar Haveli			1	1	2			2			2
Valsad	7		8	4	14	1	4	8	7	4	19
Navsari	4			7		1	10		2	9	11
Surat	6			20	6	1	19	5	1	20	26
Bharuch	1	6		11	1	6	11	1	6	11	18
Vadodara	14		3	3	11	2	7	8	2	10	20
Anand	9		3		5	3	4	1	6	5	12
Kheda	10	1	11	1	17	1	5	6	8	9	23
Ahmedabad	33		7	4	14	18	12	14	18	12	44
<b>Grand Total</b>	<b>108</b>	<b>9</b>	<b>49</b>	<b>58</b>	<b>82</b>	<b>60</b>	<b>82</b>	<b>57</b>	<b>67</b>	<b>100</b>	<b>224</b>
<b>Percent</b>	<b>48%</b>	<b>4%</b>	<b>22%</b>	<b>26%</b>	<b>37%</b>	<b>27%</b>	<b>37%</b>	<b>25%</b>	<b>30%</b>	<b>45%</b>	<b>100%</b>

**Source:** Census Survey Data, Sep-Dec 2014

### Accessibility to Work Place and Project Impact

The table below suggests that 190 (85% of 224) PAHs cover less than 5 Km. to visit their work place whereas only 3 (1.3%) PAHs travel more than 20 KMs. 96 (43%) PAHs perceive that project will impact their accessibility to the work place during the construction phase while 72 (32%) PAHs felt that the accessibility to the work place will be affected during the operation of the project.

<b>Table 2.23: Distance to Work Place and affect by the Project</b>											
	<b>Distance to Work Place (in KM)</b>				<b>Disturbed during Construction</b>			<b>Disturbed during Operation</b>			<b>Grand Total</b>
<b>District</b>	<b>Less than 5 Km</b>	<b>6-10</b>	<b>11-20</b>	<b>&gt;20</b>	<b>Yes</b>	<b>No</b>	<b>Can't Say</b>	<b>Yes</b>	<b>No</b>	<b>Can't Say</b>	
Thane	10	1	1	-	3	4	5	4	2	6	12
Palghar	31	5	1	-	8	18	11	8	13	16	37
Dadra Nagar Haveli	1	-	-	1	2	-	-	2	-	-	2
Valsad	15	3	1	-	11	2	6	6	7	6	19
Navsari	10	1		-	1	1	9	1	2	8	11
Surat	20	3	3	-	10	2	14	9	1	16	26
Bharuch	15	2	-	1	11	5	2	10	3	5	18
Vadodara	16	3	-	1	10	3	7	7	3	10	20
Anand	11	1	-	-	8	-	4	5	3	4	12
Kheda	21	2	-	-	19	1	3	8	9	6	23
Ahmedabad	40	3	1	-	13	15	16	12	13	19	44

<b>Grand Total</b>	<b>190</b>	<b>24</b>	<b>7</b>	<b>3</b>	<b>96</b>	<b>51</b>	<b>77</b>	<b>72</b>	<b>56</b>	<b>96</b>	<b>224</b>
<b>Percent</b>	<b>85%</b>	<b>11%</b>	<b>3%</b>	<b>1%</b>	<b>43%</b>	<b>23%</b>	<b>34%</b>	<b>32%</b>	<b>25%</b>	<b>43%</b>	<b>100%</b>
<b>Source:</b> Census Survey Data, Sep-Dec 2014											

### Distance to access Drinking Water and affect by the Project

As per socio economic survey data, 117 (52.2% of 224) PAHs have drinking water sources within a kilometre of their homes/project affected structures. However, 69 (31%) PAHs travel more than 8 Kms.to get drinking water. 93 (41.5%) PAHs felt that the accessibility to get drinking water will be affected during the construction of the project whereas 66 (29%) PAHs said that the accessibility to get drinking water will be affected during the operation of the project.

<b>Table 2.24: Distance to access Drinking Water and affect by the Project</b>											
	<b>Distance to Access Drinking Water (in KM)</b>				<b>Disturbed during Construction</b>			<b>Disturbed during Operation</b>			<b>Grand Total</b>
<b>District</b>	<b>Less than 1 Km</b>	<b>2-4</b>	<b>5-7</b>	<b>&gt;8</b>	<b>Yes</b>	<b>No</b>	<b>Can't Say</b>	<b>Yes</b>	<b>No</b>	<b>Can't Say</b>	
Thane	11	-	1		7	-	5	8	-	4	12
Palghar	20	4	2	11	7	8	22	7	9	21	37
Dadra Nagar Haveli	-	-	-	2	-	-	2	-	-	2	2
Valsad	7	1	-	11	8	2	9	3	7	9	19
Navsari	5	1	-	5	2	1	8	2	2	7	11
Surat	5	-	7	14	5	1	20	4	1	21	26
Bharuch	11	-	2	5	15	1	2	14	1	3	18
Vadodara	13	2	5	-	10	3	7	7	2	11	20
Anand	11	-	1	-	8	1	3	5	2	5	12
Kheda	16	2	1	4	13	3	7	3	8	12	23
Ahmedabad	18	8	1	17	18	5	21	13	10	21	44
<b>Grand Total</b>	<b>117</b>	<b>18</b>	<b>20</b>	<b>69</b>	<b>93</b>	<b>25</b>	<b>106</b>	<b>66</b>	<b>42</b>	<b>116</b>	<b>224</b>
<b>Percent</b>	<b>52.2%</b>	<b>8.0%</b>	<b>8.9%</b>	<b>30.8%</b>	<b>41.5%</b>	<b>11.2%</b>	<b>47.3%</b>	<b>29. %</b>	<b>18.8%</b>	<b>51.8%</b>	<b>100.0%</b>
<b>Source:</b> Census Survey Data, Sep-Dec 2014											

### Water and Sanitation

Detailed information was collected with respect to access to water and sanitation facilities through census survey. As per information collected from 1082 PAHs, 125 (11.6%) PAHs are dependent on Hand Pumps for getting drinking water. A large number of 534 (49.3%) PAHs are dependent upon Piped Water Supply Govt. corporations, whereas only 5 (0.4%) PAHs get drinking water from Open well and Canal.

**Table 2.25: Source of Drinking Water for PAHs**

District	Hand Pump	Bore well	Piped Water from Govt.	Private Water Tanker	Govt. Water Tanker	Bottled Water	Open well/ Canal	Other	Grand Total
Thane	11	6	27			3	2	1	50
Palghar	56	74	28	7	21	6		1	193
Dadra Nagar Haveli		2						2	4
Valsad	19	37	9			22		8	95
Navsari	10	13	20		6	1		4	54
Surat	2	38	38	1	7				86
Bharuch		56	5	1	2				64
Vadodara	5	9	88	1	1	1			105
Anand	5	32	28						65
Kheda	12	48	84				3		147
Ahmedabad	5	6	207		1				219
<b>Grand Total</b>	<b>125</b>	<b>321</b>	<b>534</b>	<b>10</b>	<b>38</b>	<b>33</b>	<b>5</b>	<b>16</b>	<b>1082</b>
<b>Percent</b>	<b>11.6%</b>	<b>29.7%</b>	<b>49.4%</b>	<b>0.9%</b>	<b>3.5%</b>	<b>3.0%</b>	<b>0.5%</b>	<b>1.5%</b>	<b>100%</b>
<b>Source:</b> Census Survey Data, Sep-Dec 2014									

### PAHs Source of Water for Washing/Bathing

Information collected on water source for washing and bathing purposes is presented in Table 2.26 below. As per this, 122 (11.3%) PAHs are dependent on Hand Pumps to get water for washing and bathing. A large number of 562 (51.9%) PAHs receive this facility from Piped Water Supply by Govt. corporations/private suppliers whereas 19 (1.8%) PAHs source water from Open well and Canal for these purposes.

Table 2.26: PAHs Source of Water for Washing/Bathing									
District	Hand Pump	Bore well	Piped Water from Govt.	Private Water Tanker	Govt. Water Tanker	Bottled Water	Open well/ Canal	Other	Grand Total
Thane	11	6	32	-	-	-	-	1	50
Palghar	46	80	27	8	19	2	11	-	193
Dadra Nagar Haveli	-	2	-	-	-	-	-	2	4
Valsad	29	39	14		1	-		12	95
Navsari	11	10	22	1	6	-	1	3	54
Surat	4	31	50	1		-	-	-	86
Bharuch	-	55	7	-	2	-	-	-	64
Vadodara	4	9	88	1	1	1	1	-	105
Anand	6	30	27	-	-	-	2	-	65

Kheda	10	49	84	-	-	-	4	-	147
Ahmedabad	1	6	211	-	1	-	-	-	219
<b>Grand Total</b>	<b>122</b>	<b>317</b>	<b>562</b>	<b>11</b>	<b>30</b>	<b>3</b>	<b>19</b>	<b>18</b>	<b>1082</b>
<b>Percent</b>	<b>11.3%</b>	<b>29.3%</b>	<b>51.9%</b>	<b>1.0%</b>	<b>2.8%</b>	<b>0.3%</b>	<b>1.8%</b>	<b>1.7%</b>	<b>100%</b>
<b>Source:</b> Census Survey Data, Sep-Dec 2014									

### Toilet Facility for PAHs

The table given below indicates that 569 (52.6%) PAHs have got their own toilet within the house. A high number of 363 (33.6%) PAHs still defecate in the open whereas 129 (11.9%) PAHs use the public toilet.

<b>Table 2.27: Toilet Facility for PAHs</b>						
<b>District</b>	<b>Own Toilet within house</b>	<b>Public Toilet</b>	<b>In the field/open space</b>	<b>Near canal/River</b>	<b>Other</b>	<b>Grand Total</b>
Thane	28	6	15	1		50
Palghar	77	62	51	1	2	193
Dadra Nagar Haveli	4	-	-	-	-	4
Valsad	46	14	34	-	1	95
Navsari	36	6	12	-	-	54
Surat	59	3	24	-	-	86
Bharuch	48	1	10	5		64
Vadodara	76	7	20	-	2	105
Anand	34	3	28	-	-	65
Kheda	58	1	79	9	-	147
Ahmedabad	103	26	90	-	-	219
<b>Grand Total</b>	<b>569</b>	<b>129</b>	<b>363</b>	<b>16</b>	<b>5</b>	<b>1082</b>
<b>Percent</b>	<b>52.6%</b>	<b>11.9%</b>	<b>33.5%</b>	<b>1.5%</b>	<b>0.5%</b>	<b>100.0%</b>
<b>Source:</b> Census Survey Data, Sep-Dec 2014						

### Discharge of used water by PAHs

Information collected on practices/facilities relating to discharge of used water is presented in Table 2.28. Table data identifies that 249 (23%) PAHs use soak pit to discharge used water. A large number of 348 (32%) PAHs have access to covered drainage, whereas 258 (23.9%) PAHs discharge used water in the open.

<b>Table 2.28: Discharge of used water by PAHs</b>						
<b>District</b>	<b>Soak Pit</b>	<b>Covered Drainage</b>	<b>Open Drainage</b>	<b>Just Outside house in open</b>	<b>Others</b>	<b>Grand Total</b>

Thane	4	23	7	15	1	50
Palghar	77	19	60	37	-	193
Dadra Nagar Haveli	-	3	1	-	-	4
Valsad	60	15	7	12	1	95
Navsari	8	21	6	19	-	54
Surat	10	46	15	14	1	86
Bharuch	27	31	5	1	-	64
Vadodara	11	65	16	13	-	105
Anand	13	17	9	26	-	65
Kheda	21	21	21	84	-	147
Ahmedabad	18	123	41	37	-	219
<b>Grand Total</b>	<b>249</b>	<b>384</b>	<b>188</b>	<b>258</b>	<b>3</b>	<b>1082</b>
<b>Percent</b>	<b>23.0%</b>	<b>35.5%</b>	<b>17.4%</b>	<b>23.8%</b>	<b>0.3%</b>	<b>100.0%</b>
<b>Source:</b> Census Survey Data, Sep-Dec 2014						

### Disposal of Garbage by PAHs

In relation to disposal of garbage, census survey data suggests that 140 (52.6%) PAHs dispose their garbage through the Government/community garbage collector. 191 (33.6%) PAHs dump their garbage at designated garbage place whereas 530 (11.9%) PAHs dump and burn the garbage outside their home.

<b>Table 2.29: Disposal of Garbage by PAHs</b>						
<b>District</b>	<b>Through the Govt. Collectors</b>	<b>Dump at garbage place</b>	<b>Dump and Burn</b>	<b>Throw anywhere</b>	<b>Throw in the Canal</b>	<b>Grand Total</b>
Thane	22	4	18	5	1	50
Palghar	19	22	97	52	3	193
Dadra Nagar Haveli	-	-	4	-	-	4
Valsad	5	3	80	5	2	95
Navsari	3	4	42	5	-	54
Surat	8	6	54	11	7	86
Bharuch	-	28	35	1	-	64
Vadodara	36	31	22	16	-	105
Anand	4	17	19	25	-	65
Kheda	3	12	75	57	-	147
Ahmedabad	40	64	84	31	-	219
<b>Grand Total</b>	<b>140</b>	<b>191</b>	<b>530</b>	<b>208</b>	<b>13</b>	<b>1082</b>
<b>Percent</b>	<b>12.9%</b>	<b>17.7%</b>	<b>49.0%</b>	<b>19.2%</b>	<b>1.2%</b>	<b>100.0%</b>
<b>Source:</b> Census Survey Data, Sep-Dec 2014						

### 2.3.8 Household Assets

*Additional detailed information was collected on household assets among PAHs through socio-economic survey. This survey was conducted for about one fifth of project affected households covered under Census Survey. The following tables are based on the information collected from 224 PAHs. This section primarily presents information on movable assets owned by sample PAHs such as livestock, agricultural implements, household items and other assets.*

#### Livestock

The district wise ownership patterns of livestock among the PAHs is presented in Table 2.30. The Livestock owned by PAHs generally include cows, buffalos, sheep, oxen, goats etc. As evident from the table below, livestock ownership is not high among the PAHs. Maximum reporting among PAHs is related to buffaloes (33 families in total, 14 PAHs from Kheda alone).

Table 2.30: Livestock Holding of PAHs												
District	PAHs	Cow	Ox	Buffalo	Sheep	Goat	Camel	Donkey	Horse	Pig	Chicken	Duck
Thane	12	-	-	-	-	-	-	-	-			1
Palghar	37	7	6	5	2	2		2	-	4	1	1
Dadra Haveli	2	-	-	-	-	-	-	-	-		-	-
Valsad	19	-	-	-	1			-	-		-	-
Navsari	11	1		2		2	1	-	-	2	-	1
Surat	26	1		1				-	-		-	-
Bharuch	18		5	2		2		-	-		-	-
Vadodara	20	1		2	-	-	-	-	-	1	-	-
Anand	12	4		7	-	-	-	-	-		-	-
Kheda	23	1	1	14	-	-	-	-	-		-	-
Ahmedabad	44				-	-	-	-	-		-	-
<b>Total</b>	<b>224</b>	<b>15</b>	<b>12</b>	<b>33</b>	<b>3</b>	<b>6</b>	<b>1</b>	<b>2</b>	<b>-</b>	<b>7</b>	<b>1</b>	<b>3</b>
<b>Percent</b>		<b>7%</b>	<b>5%</b>	<b>15%</b>	<b>1%</b>	<b>3%</b>	<b>0.5%</b>	<b>0.9%</b>	<b>-</b>	<b>3%</b>	<b>0.5%</b>	<b>1%</b>
<b>Source:</b> Census Survey Data, Sep-Dec 2014												

#### Agricultural Implements

The district wise number of PAHs reporting ownership of various agricultural implements is presented below. Only 8 PAHs use Tractor for agriculture purpose whereas 11 PAHs use Pump set for irrigation purpose in the agricultural field.

Table 2.31: Agricultural implements owned by PAHs								
District	PAHs	Tractor	Power Trailer	Thresher	Harvester	Genset Sprayer	Pump Set	Electric Pump
Thane	12							



Palghar	37						1	1
Dadra Nagar Haveli	2							
Valsad	19	1			1			1
Navsari	11	2	1				1	2
Surat	26						1	1
Bharuch	18	2				7	4	5
Vadodara	20							
Anand	12	1				1	1	1
Kheda	23	1	1	1	1		3	1
Ahmedabad	44	1						
<b>Grand Total</b>	<b>224</b>	<b>8</b>	<b>2</b>	<b>1</b>	<b>2</b>	<b>8</b>	<b>11</b>	<b>12</b>
<b>Percent</b>		<b>4%</b>	<b>1%</b>	<b>0.4%</b>	<b>1%</b>	<b>4%</b>	<b>5%</b>	<b>5%</b>
<b>Source:</b> Census Survey Data, Sep-Dec 2014								

## Household Items

Information collected on reported ownership of various household items among PAHs is presented in Table 2.32 below. Most commonly owned household item is television (193 PAHs) and electric fan (179 PAHs); followed by Gas Chullah (121 PAHs) and fridge (104 PAHs).

Table 2.32: Household Items owned by PAHs														
District	PAHs	TV	Fridge	Mixer	Electric Cooker	Geyser	Electric Fan	OTG	Toaster	Microwave	Radio	Gas Chullah/ Burner	Kerosene Chullah/ Burner	Grain storing facilities
Thane	12	12	7	6	4	4	9		2	1	7	6	3	-
Palghar	37	34	25	25	14	14	29	2	-	1	23	20	15	-
Dadra Nagar Haveli	2	2	2	1	1	1	2		-	-		2	-	-
Valsad	19	17	11	7	1	4	15	1	-	-	6	15	2	1
Navsari	11	6	4	3	1	-	9	1	-	-		5	5	3
Surat	26	17	11	14	2	-	23	1	-	-	3	15	5	6
Bharuch	18	16	9	9	-	-	14		-	-	4	14	5	6
Vadodara	20	18	8	11	6	4	11	1	-	2	7	13	8	15
Anand	12	10	5	3	-	-	10		-	-	2	4	7	5
Kheda	23	20	3	6	3	-	21	1	-	-	1	6	16	14
Ahmedabad	44	41	19	18	16	2	36	1	-	1	16	21	24	17
Grand Total	224	193	104	103	48	29	179	8	2	5	69	121	90	67
Percent		86%	46%	46%	21%	13%	80%	4%	1%	2%	31%	54%	40%	30%
Source: Census Survey Data, Sep-Dec 2014														

## Other Assets Owned

Reported ownership of other assets (vehicles in particular) among PAHs in project affected districts is presented in the table below. As per the information collected, cycle (137 PAHs, 61% of the PAHs) is most commonly owned followed by scooter/motorcycle (106 PAHs) and car/jeep (8 PAHs).

Table 2.33: Other Assets owned by PAHs									
District	PAHs	Cycle	Scooter/Motorcycle	Three wheeler	Jeep/Car	Truck	Bus	Bullock/Camel Cart	
Thane	12	11	7	-	1	-	-		
Palghar	37	26	7	1	1	-	-	-	
Dadra Nagar Haveli	2	2	2	-	1	-	-	-	
Valsad	19	6	13	-	-	-	-	-	
Navsari	11	3	4	1	-	-	-	-	
Surat	26	11	16	-	-	-	-	-	
Bharuch	18	10	13	-	-	-	-	-	
Vadodara	20	14	14	-	2	-	-	-	
Anand	12	7	7	1	1	-	-	-	
Kheda	23	17	9	-	2	-	-	-	
Ahmedabad	44	30	14	-		-	-	-	
<b>Grand Total</b>	<b>224</b>	<b>137</b>	<b>106</b>	<b>3</b>	<b>8</b>	-	-	-	
<b>Percent</b>		<b>61%</b>	<b>47%</b>	<b>1%</b>	<b>4%</b>	-	-	-	
<b>Source:</b> Census Survey Data, Sep-Dec 2014									

### 3. LAND ACQUISITION AND RESETTLEMENT IMPACTS

#### 3.1 INTRODUCTION

The Mumbai-Ahmedabad High Speed Railway Corridor project is intended to produce a range of positive impacts, and particularly in terms of high speed connectivity between important cities situated along the alignment. However, the project will also adversely affect people, especially those residing within the proposed alignment on account of land acquisition and resettlement.

In the Mumbai-Ahmedabad corridor, the primary survey and secondary information suggest that 163 villages in 8 districts of Gujarat state, 44 villages in 3 districts of Maharashtra state, union territory of Dadra Nagar Haveli, 2761 families with structures within anticipated RoW and 1451 families those required to displace their residences will be affected by land acquisition under HSR project. This chapter mainly describes the scale and impact of land acquisition on the PAFs, losses of private and common structures, employment and business losses of PAFs.

#### 3.2 MINIMIZING LAND ACQUISITION AND DISPLACEMENT

HSRC project design and its implementation arrangements, in principle will first seek to avoid impacts to people. However, it is recognized that the project will induce impacts on people and their assets. Hence, as an approach, the project will adopt methods to minimize such impacts. Notable among these would be on the following aspects:

1. **Proposed Alignment:** The project technical design itself will respond to the stated principle of impact avoidance. Hence the proposed alignment will be such that it has minimal impact in terms of structures affected, specifically residential structures. A careful examination of the proposed alignment indicates that it avoids passing through congested and densely inhabited areas in the project corridor. In most of the areas, it passes through the outer peripheries of cities and towns.
2. **Track Structure Type:** A high proportion of the HSRC will have tunnel and viaduct track structures thus minimizing both impacts to structures and area of land to be acquired. As per details provided in 3.6.2 of this chapter, nearly 27.4 KM and 123.3 KM of the entire 509 KM alignment will be tunnel and viaduct structures. Tunnel structures will predominantly be in Mumbai and its suburbs while viaducts are at all such locations with high human settlements.
3. **Stakeholder Consultations:** this will be another critical mechanism to ensure minimizing of impacts. It is recognized that affected population will provide crucial inputs to project design on the aspects of alignment and structure types to bring down potential impacts, avoid impact to sensitive receptors (such as cultural and religious sites, schools and hospitals etc.). A series of consultations will be conducted at various stages including the ones conducted during RAP preparation now. Examples of such inputs have come up during consultations held during this RAP preparation exercise where people have suggested alteration of alignment e.g. exploring options to shift alignment further south to Silphata (in Thane) which will not only avoid impact to an important temple in Silphata

but also reduce structural impact, construction of culverts for smooth passage and access to schools, panchayat offices, agricultural farms at multiple location through the alignment etc. Such consultation will also need to be made during design finalization and construction phase.

4. **Resettlement Sites:** While the project will attempt to minimize displacement and relocation of project affected people, in cases where such displacements are unavoidable, various resettlement options will be provided to the people. Resettlement sites will be so chosen that displaced people are not severed from their existing socio-economic and cultural networks/sources.

Detailed references to approaches mentioned above may be found in chapter 4 and 5 of this report.

### 3.3 SCOPE OF LAND ACQUISITION

Land acquisition made under this project will essentially be to meet land requirements for primary constructions to be done under proposed high speed rail corridor. Further, additional land will be required to develop associated facilities like stations, maintenance and workshop depots etc. The aforesaid purposes also outline the scope of land acquisition that will be made under the HSRC project.

### 3.4 PROJECT IMPACTS

Detailed survey of structures within RoW and associated affected families were conducted that helped in identifying structures with physical and economical losses, assessment of type and extent of impact.

Survey on inventory of loss and census of affected people has brought forth a list of likely impacts that can broadly be classified under as follows:

- Loss of land for agriculture, residence and business purposes
- Loss of residence and other immovable properties/assets.
- Impacts on livelihood of land owners, those dependent on land owners, and business establishments.
- Loss of employment
- Loss of income
- Loss of community infrastructure such as schools, health infrastructures, religious structures etc.)
- Loss (or severance of access) to water resources such as pond, hand pump, water tank, access to river etc.

Sections following in this chapter, discuss the extent and types of impacts as per information collected during census and inventory of loss survey.

### 3.5 SIGNIFICANCE OF IMPACT

The scale and type of project impacts may be recognized in terms of how the affected population views about the project, what are the likely impacts perceived, who and how many families will be displaced physically or economically. These will also establish the significance of project impacts, and duly reflected in R&R implementation design and its priorities.

#### 3.5.1 PAH Perception about Project:

Primary survey (Census Survey) also sought to capture perception among the PAHs about the project and likely impacts. On query about whether the affected families viewed the project to accrue positive benefits to them, nearly ninety percent of them responded (refer table 3.1 below) in negative.

<b>Table 3.1: PAH Perception about Project Benefits</b>			
<b>District</b>	<b>Yes</b>	<b>No</b>	<b>Grand Total</b>
Thane	2	48	50
Palghar	56	137	193
Dadra Nagar Haveli		4	4
Valsad	5	90	95
Navsari	5	49	54
Surat	10	76	86
Bharuch	14	50	64
Vadodara	7	98	105
Anand	2	63	65
Kheda		147	147
Ahmedabad	3	216	219
<b>Grand Total</b>	<b>104</b>	<b>978</b>	<b>1082</b>
<b>Percent</b>	<b>9.6%</b>	<b>90.4%</b>	<b>100%</b>
<b>Source:</b> Census Survey Data, Sep-Dec 2014			

Further query on reasons for having such negative opinion on project benefits (to them), all of the respondents cited loss of physical assets (residential structures in particular) as the primary reasons. Amongst other reasons (refer table 3.2 below), 'loss of income' was cited by 26 percent of the PAHs. Similarly, 20 percent of the PAFs felt that the HSRC will create significant sound and vibration disturbance to them during its operational phase. Few other reasons cited were loss of land (19 percent), split of community (20 percent), difficulty in commutation (14 percent), loss of working/market place (11 percent) and visual obstruction (6 percent).

<b>Table 3.2: Perceived Negative Impacts among PAHs</b>								
<b>District</b>	<b>PAHs</b>	<b>Loss of Income Source</b>	<b>Loss of all or large part of the farmland</b>	<b>Too far to commute working place</b>	<b>Loss of working place such as market</b>	<b>Air quality/ noise/ vibration disturbance</b>	<b>Split of community by the track</b>	<b>Visual Obstruction</b>
Thane	50	14	10	8	6	16	11	3
Palghar	193	40	29	22	16	37	30	8
Dadra Nagar Haveli	4	1	1	1	0		1	0
Valsad	95	26	19	14	11	27	20	5
Navsari	54	14	10	8	6	11	11	3
Surat	86	22	16	12	9	13	17	5
Bharuch	64	15	11	8	6	8	11	3
Vadodara	105	28	21	16	12	17	22	6
Anand	65	18	13	10	8	10	14	4
Kheda	147	43	31	24	18	39	32	9
Ahmedabad	219	63	45	35	26	40	48	13
<b>Grand Total</b>	<b>1082</b>	<b>284</b>	<b>205</b>	<b>156</b>	<b>117</b>	<b>218</b>	<b>215</b>	<b>59</b>
<b>Percent</b>		<b>26.3%</b>	<b>19.0%</b>	<b>14.4%</b>	<b>10.8%</b>	<b>20.2%</b>	<b>19.9%</b>	<b>5.5%</b>
<b>Source:</b> Census Survey Data, Sep-Dec 2014								

Further, information collected on accessibility among sample PAHs (224 HHs) to basic amenities (refer section 2.3.7 in chapter 2) and project impact (during operational phase) reveal that nearly 45 percent of them believe that they will face difficulty in access to schools, 50 percent will face disturbance in accessing market, 40 percent will have difficulty in reaching to religious places, 31 percent will have difficulty in reaching hospitals, 25 percent will face problem in reaching government offices, 32 percent will face difficulty in reaching their work place.

Existing perception among PAHs about project impact may not be fully grounded, as proposed technical design is likely to ensure avoidance/minimizing of such impacts. The above concerns nonetheless will need to be factored in project implementation and design.

### 3.5.2 Project Induced Displacement:

The significance of project impact also lies in number of households that are likely to be affected. The district wise data on ‘number of affected families’ identifies 2761 such

families<sup>6</sup> (table 3.3). These are families who will be directly affected because of project impact on structures, falling in the RoW.

Amongst, the affected families, 1653 (60%) are House Owners. A significant, 847 (31%) families are those, where one of its members is an employee of the business/commercial establishment likely to be affected by the project. 116 families (4%) are tenants and rest of the 5% fall in the category of registered lease holder, illegal occupiers and others.

Out of the total PAHs, maximum number of families will be affected in Thane district (31%) followed by Palghar district (25%), Ahmedabad district (11%) and remaining 33% of the PAFs from Valsad, Kheda, Vadodara, Surat, Anand, Navsari, Bharuch, Mumbai and Dadra Nagar Haveli.

<b>Table 3.3 : Project Affected Families- Ownership Type</b>								
<b>District</b>	<b>House Owners</b>	<b>Registered Lease holders</b>	<b>Tenants</b>	<b>Employees</b>	<b>Illegal Occupiers</b>	<b>Others</b>	<b>Total families</b>	<b>Percent</b>
Mumbai	1	0	0	35	0	0	36	<b>1.3%</b>
Thane	79	13	3	760	3	2	860	<b>31.1%</b>
Palghar	586	14	28	16	15	24	683	<b>24.7%</b>
Dadra Nagar Haveli	8	0	0	0	0	2	10	<b>0.4%</b>
Valsad	131	0	20	0	0	23	174	<b>6.3%</b>
Navsari	84	1	4	0	0	6	95	<b>3.4%</b>
Surat	127	0	9	0	0	11	147	<b>5.3%</b>
Bharuch	50	1	4	0	0	2	57	<b>2.1%</b>
Vadodara	94	0	30	28	0	3	155	<b>5.6%</b>
Anand	73	0	6	3	0	2	84	<b>3.0%</b>
Kheda	152	0	1	2	0	9	164	<b>5.9%</b>
Ahmedabad	268	0	11	3	14	0	296	<b>10.7%</b>
<b>Grand Total</b>	<b>1653</b>	<b>29</b>	<b>116</b>	<b>847</b>	<b>32</b>	<b>84</b>	<b>2761</b>	<b>100.0 %</b>
<b>Percentage</b>	<b>59.9%</b>	<b>1.1%</b>	<b>4.2%</b>	<b>30.7%</b>	<b>1.2%</b>	<b>3.0%</b>	<b>100.0%</b>	
Source: Census Survey Data, Sep-Dec 2014								

<sup>6</sup> It may be noted that the number of project affected families will much higher as the data presented does not include 'land loser' category at this stage. This data will be available post 20A notification by the MoR and as per data provided by district administration and its validation by project proponents.



Project will induce both physical and economical displacement<sup>7</sup>. With respect to physical displacement, the project is likely to witness forced relocation of 1451 families (refer table 3.4), residing in 1191 residential houses or residential cum commercial structures. Of these, 1312 families claim ownership to the impacted residential structures. Other family categories include tenants (87), lease holders (9) and illegal occupiers/squatters<sup>8</sup> (23 PAHs).

Palghar district (specifically in Vasai Taluka, a Mumbai suburb) has the maximum affected in this category where 523 families (from 281 residential structures) will need to be displaced, followed by 286 families (from 222 structures) in Ahmedabad district and 133 families (126 structures) in Kheda district, 93 families (113 structures) in Valsad and remaining from other districts.

<b>Table 3.4: Structure-wise Details of Physically Displaced Families</b>									
	<b>Residential Structure</b>			<b>Project Affected Families</b>					
<b>District</b>	<b>Residence</b>	<b>Residential Cum Commercial</b>	<b>Total Residential structure</b>	<b>House Owners</b>	<b>Registered Lease holders</b>	<b>Tenants</b>	<b>Illegal Occupiers</b>	<b>Others</b>	<b>Total affected families</b>
Thane	40		40	40	1	0	1	0	42
Palghar	280	1	281	466	6	25	8	18	523
Dadra Nagar Haveli	4		4	4	0	0	0	0	4
Valsad	112	1	113	88	0	4	0	1	93
Navsari	69		69	63	1	4	0	0	68
Surat	94		94	82	0	9	0	0	91
Bharuch	81		81	42	1	4	0	0	47
Vadodara	103		103	78	0	28	0	1	107
Anand	58		58	55	0	2	0	0	57
Kheda	126		126	132	0	1	0	0	133
Ahmedabad	219	3	222	262	0	10	14	0	286
<b>G. Total</b>	<b>1186</b>	<b>5</b>	<b>1191</b>	<b>1312</b>	<b>9</b>	<b>87</b>	<b>23</b>	<b>20</b>	<b>1451</b>
<b>G.Total</b>	<b>99.5%</b>	<b>0.5%</b>	<b>100%</b>	<b>90%</b>	<b>1%</b>	<b>6%</b>	<b>2%</b>	<b>1%</b>	<b>100%</b>
Source: IOL Survey Data, Sep-Dec 2014									

The project will also have economic impact on people. In all 221 commercial structures will be affected, leading up to shifting of these structure or altogether a closure of some of them. It will thus have an economic displacement impact on 1027 families. Most of these affected

<sup>7</sup> It may be noted that of 2761 families identified as affected include families many will witness only minor impact to their structures (e.g. other residential structures such as boundary walls, cow shed, detached bathroom etc.) or are employess in the affected property and hence not reported amongst physically displaced families

<sup>8</sup> Number of squatters (from amongst claimed house owners) may be much higher, and can be validated post 20-A notification and upon data provided by district authorities.

families (826 PAHs) have at least a family member working as an employee in impacted (likely) commercial establishments. Affected families include 799 families (757 families of employees) from Thane district followed by 58 families in Palghar district and 47 families in Valsad district.

**Table 3.5: Structure wise details of Economically Affected Families**

District	Commercial Structure								Project affected families						
	Shop	Workshops	Stalls	Factories	Godown	Other Business Establishment	Residential Cum Commercial	Total Commercial Structure	House Owners	Registered Lease holders	Tenants	Employees	Illegal Occupiers	Others	Total affected families
Mumbai						1		1	1	0	0	35	0	0	36
Thane	2	1		7	18	1		29	29	11	2	757	0	0	799
Palghar	30			14		2	1	47	48	2	0	5	3	0	58
Dadra Nagar Haveli	1			3	1	1		6	3	0	0	0	0	0	3
Valsad	33	4		7	2	9	1	56	31	0	16	0	0	0	47
Navsari	1			2	1	1		5	4	0	0	0	0	0	4
Surat	4			5	3	1		13	11	0	0	0	0	0	11
Bharuch	1			1	1	1		4	0	0	0	0	0	0	0
Vadodara	14	1	4	3		2		24	5	0	2	23	0	1	31
Anand		1		1	5	4		11	8	0	0	2	0	0	10
Kheda				7	1	8		16	8	0	0	2	0	0	10
Ahmedabad	3			2	1		3	9	16	0	0	2	0	0	18
<b>G. Total</b>	<b>89</b>	<b>7</b>	<b>4</b>	<b>52</b>	<b>33</b>	<b>31</b>	<b>5</b>	<b>221</b>	<b>164</b>	<b>13</b>	<b>20</b>	<b>826</b>	<b>3</b>	<b>1</b>	<b>1027</b>
<b>Percentage</b>	<b>40%</b>	<b>3%</b>	<b>2%</b>	<b>24%</b>	<b>15%</b>	<b>14%</b>	<b>2%</b>	<b>100%</b>	<b>16%</b>	<b>1.3%</b>	<b>1.9%</b>	<b>80.4%</b>	<b>0.3%</b>	<b>0.1%</b>	<b>100%</b>

Further details on affected residential and commercial structures are mentioned ahead in section 3.6.1 (Affected Households and Business Structures).

### 3.6 ASSET INVENTORY AND ASSESSMENT OF LOSSES

A total of 1688 structures, in 207 villages, are identified to be potentially affected by the HSRC project. These include residential structures such as residential building block (leading to displacement), and other independent structures such as boundary wall, detached bathroom, hand pump, cowshed etc. and commercial structures such as shops, workshops, godowns, warehouse etc. District wise distribution of affected structures is presented in Table 3.6.

Out of the 1688 affected structures 50% of these are found to be in three districts i.e. Palghar, Ahmedabad & Valsad. Two villages Tralsi and Telod under Bharuch district account for 78% of total affected structures in the district. In Kheda district, 54% of the total affected structures are found to be in four villages i.e. Degam, Bavra, Gothaj & Chhapra. Two villages

of Surat district, Kumvarda & Kimamli account for 43% of the district's total. In Vadodara district, 35% of the district's total affected structures are reported from Chhani. Further details on village wise count of affected structure may be found in Annexure 2.1 of this report.

<b>Table 3.6: District wise Count of Affected Structures</b>		
<b>District</b>	<b>No. of Structures</b>	<b>Percentage</b>
Mumbai	1	0.06%
Thane	80	4.7%
Palghar	388	23.0%
Dadra Nagar Haveli	13	0.8%
Valsad	210	12.4%
Navsari	103	6.1%
Surat	152	9.0%
Bharuch	117	6.9%
Vadodara	142	8.4%
Anand	85	5.0%
Kheda	165	9.8%
Ahmedabad	232	13.7%
<b>Grand Total</b>	<b>1688</b>	<b>100.0%</b>
Source: IOL Survey Data, Sep-Dec 2014		

### 3.6.1 Affected Residential and Commercial Structures: Type, Structure Pattern, Roof and Wall Types

Out of 1688 structures, a total of 1467 residential structures (87%) are likely be affected by HSRC project. As provided in the Table 3.7 below, 1186 (81%) of these are residence building blocks, about 15% of these residential structures are house fence, detached kitchen, bathroom, farm house, cattle shed, water storage units. Remaining 55 (4%) of the affected structures are other residential structures

<b>Table 3.7: Type of Affected Residential Structures</b>														
<b>District</b>	<b>Residence</b>	<b>House Fence</b>	<b>Detached Kitchen</b>	<b>Detached Toilet</b>	<b>Detached Bathroom</b>	<b>Farm House</b>	<b>Cattle Shed</b>	<b>Pond</b>	<b>Well</b>	<b>Water tank</b>	<b>Irrigation Bore well</b>	<b>Tube well</b>	<b>others</b>	<b>Grand Total</b>
Mumbai														
Thane	40	3	2	1			1		2				2	51
Palghar	280	13	1	4	8	1	7		2	1	3	5	16	341
Dadra Nagar	4	1							1			1		7

Haveli														
Valsad	112	5		1	4	3	2		7	1	2	17		154
Navsari	69	4		2		2	5		3	1	1	7	4	98
Surat	94	10			1	12	2				4	1	15	139
Bharuch	81	7			8		2			1	6	2	6	113
Vadodara	103			2	1		1				3		8	118
Kheda	58			1	1		2	4			3	4	1	74
Anand	126			1	1	2	1	1			8	6	3	149
Ahmedabad	219						1		2		1			223
<b>Grand Total</b>	<b>1186</b>	<b>43</b>	<b>3</b>	<b>12</b>	<b>24</b>	<b>20</b>	<b>24</b>	<b>5</b>	<b>17</b>	<b>4</b>	<b>31</b>	<b>43</b>	<b>55</b>	<b>1467</b>
<b>Percentage</b>	<b>80.8</b>	<b>2.9</b>	<b>0.2</b>	<b>0.8</b>	<b>1.6</b>	<b>1.4</b>	<b>1.6</b>	<b>0.3</b>	<b>1.2</b>	<b>0.3</b>	<b>2.1</b>	<b>2.9</b>	<b>3.7</b>	<b>100.0</b>
Source: IOL Survey Data, Sep-Dec 2014														

Out of 1688 affected structures, 216 and 5 structures are identified as commercial and residential cum commercial structures respectively, constituting 13% of the total affected structures. The commercial structures are mainly shops, factories, godowns and other business establishment types. Out of 221 commercial structures 40%, 24% & 14% are shops, factories and other business establishment respectively. Valsad, Palghar (Vasai taluka), Thane and Vadodara have maximum number of impacted commercial structures.

**Table 3.8: Type of Commercial & Residential cum Commercial Structures**

District	Shop	Workshops	Stalls	Factories	Godown	Other Business Establishment	Residential Cum Commercial	Grand Total
Mumbai						1		1
Thane	2	1		7	18	1		29
Palghar	30			15		1	1	47
Dadra Nagar Haveli	1			3	1	1		6
Valsad	33	4		8	2	8	1	56
Navsari	1			2	1	1		5
Surat	4			5	3	1		13
Bharuch	1			1	1	1		4
Vadodara	14	1	4	3		2		24
Anand		1		1	5	4		11
Kheda				7	1	8		16
Ahmedabad	3			2	1		3	9
<b>Grand</b>	<b>89</b>	<b>7</b>	<b>4</b>	<b>54</b>	<b>33</b>	<b>29</b>	<b>5</b>	<b>221</b>

<b>Total</b>								
<b>Percentage</b>	<b>40.3</b>	<b>3.2</b>	<b>1.8</b>	<b>23.5</b>	<b>14.9</b>	<b>14.0</b>	<b>2.3</b>	<b>100.0</b>
Source: IOL Survey Data, Sep-Dec 2014								

### Structure Pattern

The below provides structural pattern for affected properties. As per the information collected, out of the 1688 affected structures, 1196 (71%) structures are detached building unit followed by 322 (19%) shanties connected to each other.

<b>Table 3.9: Type of Structures-Construction Pattern</b>						
<b>Districts</b>	<b>Detached Building Unit</b>	<b>Apartment/Row house duplex</b>	<b>Shanties connected to each other</b>	<b>Tents or tentative simple hut</b>	<b>Others</b>	<b>Grand Total</b>
Mumbai	-	-			1	1
Thane	69	2	8		1	80
Palghar	265	20	80	13	10	388
Dadra Nagar Haveli	11		2			13
Valsad	160	2	38	5	5	210
Navsari	88	2	3	4	6	103
Surat	129	4	4	2	13	152
Bharuch	111	5		1		117
Vadodara	52	8	76	2	4	142
Anand	66	1	12	2	4	85
Kheda	127	12	17	7	2	165
Ahmedabad	118	28	82	4		232
<b>Grand Total</b>	<b>1196</b>	<b>84</b>	<b>322</b>	<b>40</b>	<b>46</b>	<b>1688</b>
Source: IOL Data, Sep-Dec 2014						

### Construction Material for Roof

Data was also collected on construction materials used for roof (presented in Table 3.10) for all affected structures (where ever applicable). Different construction materials or combination of materials have been used for affected structures' roof. Predominant construction material for roof is G.I. sheets, 978 (58%) structures out of the total affected structure having G.I. sheets as their roof followed by concrete which is 413 (24%) of the total affected structure, however construction material of roof is not applicable for 131 structures like house fence, pond, well, water tank, irrigation bore well, hand pumps etc.

**Table 3.10: Construction Material for Roof**

Districts	G.I. sheets	Natural materials	Concrete	Plastic sheet/ scrap material	Tiles	Others	Not Applicable	Grand Total
Mumbai (Suburban)	-	-	1	-	-	-	-	1
Thane	48	2	21	6	2	-	1	80
Palghar	246	12	47	9	48	8	18	388
Dadra Nagar Haveli	7	-	3	-	-	-	3	13
Valsad	118	2	32	4	17	1	36	210
Navsari	48	1	24		1	11	18	103
Surat	68	7	44	2	2	2	27	152
Bharuch	76	-	25	2	-	6	8	117
Vadodara	59	-	76	2	-	-	5	142
Anand	35	3	37	6	-	-	4	85
Kheda	99	3	49	1	-	2	11	165
Ahmedabad	174	1	54	3	-	-		232
<b>Grand Total</b>	<b>978</b>	<b>31</b>	<b>413</b>	<b>35</b>	<b>70</b>	<b>30</b>	<b>131</b>	<b>1688</b>

Source: Census Survey Data, Sep-Dec 2014

### Construction Material for Wall

Similar information collected for construction material for wall is presented in Table 3.11. Brick/concrete is the most common wall material for project affected structures. Out of 1688 affected structure, 1275 (76%) having brick/concrete as their wall construction material followed by natural material, brick and wood mixed. Such information was not applicable for 107 structures like pond, well, water tank, irrigation bore well, hand pumps etc.

Table 3.11: Construction Material for Wall								
Districts	Brick/ concrete	Brick & wood mixed	Wood	Natural Material	Plastic/ scrap material	Others	Not Applicable	Grand Total
Mumbai (Suburban)	1	-	-	-	-	-	-	1
Thane	67	1			6	1	5	80
Palghar	252	41	2	49	21	3	20	388
Dadra Nagar Haveli	9	1					3	13
Valsad	147	15		14		2	32	210
Navsari	73	3		12			15	103
Surat	120	11	3	6	1	3	8	152
Bharuch	79	3		2		30	3	117

Vadodara	122	5		3	6	2	4	142
Anand	64	1		4	8	1	7	85
Kheda	135	9	2	7		2	10	165
Ahmedabad	206	6		15	5			232
<b>Grand Total</b>	<b>1275</b>	<b>96</b>	<b>7</b>	<b>112</b>	<b>47</b>	<b>44</b>	<b>107</b>	<b>1688</b>
<b>Source:</b> Census Survey Data, Sep-Dec 2014								

### 3.6.2 Affected Land

HSRC project construction would essentially involve building of tracks, developing of other associated facilities such as stations, depots for maintenance and workshops etc. Various type track structures are proposed under the project namely as Cut Section, embankment, river bridge, tunnel, and viaducts, each requiring a specific minimum Cross Section Width (CSW). For the purpose of RAP preparation, this technical structural width is considered as ROW for the project (and this may be liable to change at design finalization stage later).

In the table below (Table 3.12), district wise length of various alignment structure types is presented.

<b>Table 3.12: District wise length of Different HSRC Alignment Structure Types</b>						
<b>Districts</b>	<b>Cut Section (CSW*:22.2m)</b>	<b>Embankment (CSW: 32 m)</b>	<b>River Bridge (CSW:12 m)</b>	<b>Tunnel (CSW:12.6m)</b>	<b>Viaduct (CSW: 12m)</b>	<b>Grand Total</b>
Mumbai				6,544.3		6,544.30
Thane	301.1	2,000.0	564.2	10,532.6	21,083.1	34,481.00
Palghar	11,900.0	68,682.7	2,119.4	10,071.6	22,293.9	1,15,067.60
Dadra & Nagar Haveli		979.0			1,291.2	2,270.20
Valsad	950.0	58,529.6	1,317.3	271.4	1,764.2	62,832.50
Navsari		25,896.0	558.4		10,206.3	36,660.70
Surat		25,670.2	548.6		15,192.4	41,411.20
Bharuch		55,291.2	458.1		7,044.0	62,793.30
Vadodara		39,225.7	108.8		19,620.9	58,955.40
Anand		23,173.3	542.9		1,811.6	25,527.80
Kheda		34,274.8	301.5		4,835.4	39,411.70
Ahmedabad		5,251.9	350.5		18,236.3	23,838.70
<b>Grand Total</b>	<b>13,151.1</b>	<b>3,38,974.4</b>	<b>6,869.8</b>	<b>27,419.9</b>	<b>1,23,379.4</b>	<b>5,09,794.60</b>
Source: JIC Study Team						
*CSW: Cross Section Width (of the structure type) , in metre						
All length provided in metres						

The length figures above have been used to arrive at area of land to be acquired for track construction under the project; arrived at respective multiplication between length of the track type and its Cross Section Width. Table 3.13 provides this information for project affected districts.

The total approximate area proposed for alignment between Mumbai-Ahmedabad corridor is 15,252,617.6 m<sup>2</sup>. Predominant tunnel construction will be in Mumbai and Thane. Viaduct construction will be in most of the districts and in its dense human settlement area (where the alignment passes) such as in Thane, Surat, Ahmedabad and Vadodara. The table following provides land acquisition area on account of alignment track construction and a brief overview of the land topography and settlement types in project affected districts.



Table 3.13: Land Area to be Acquired for Alignment Track Structure Construction								
State	District	Tunnel Area (m <sup>2</sup> )	Embankment Area (m <sup>2</sup> )	Cut Area (m <sup>2</sup> )	Viaduct Area (m <sup>2</sup> )	River Bridge Area (m <sup>2</sup> )	Grand total (m <sup>2</sup> )	Remarks
Maharashtra	Mumbai	142423.9					142423.9	Mostly in tunnel.
	Thane	148573.7	72986.7	7960.3	297371.7	58271.9	585164.3	Proposed corridor will be passing through diverse topographical area such as agricultural land, tribal area, hilly area, rivers, back waters, open marshy land etc. Alignment also passes along areas of dense physical structures like apartments, residential blocks (shanties) of illegal occupiers, godowns etc. typical of outer growth areas in Mumbai suburbs.
	Palghar	104540.2	1817604.2	965438.1	361147.2	29170.1	3277899.8	In Vasai taluka, a Mumbai suburb, it passes along dense populated area with high number of physical structures, and Vasai onwards, it moves along hilly tracts, forest areas, and patches of farmlands and inhabited by tribal population
Dadra Nagar Haveli	Dadra Nagar Haveli	0	36227.2	0	17757.1	0	53984.3	Proposed alignment is a stretch of 2-2.5 K.M passing through Naroli village, but an peri urban settlement area in between Vapi and Silvassa
Gujarat	Valsad	756.9	2016800.2	18613.4	29658.2	251217.3	2317046.0	Alignment enters the district in a tribal dominated areas (up to Vapi). In and Vapi, the area is peri urban settlement and subsequently patches of human settlement

								area interspersed with agricultural land. Up to Valsad, there are few settlements of tribal population in patches. Near Vapi, 2-2.5 KM stretch falls under Dadra and Nagar Haveli (referred in row above)
Navsari		972166.7		141438.9	7972.8	1121578.4		Proposed track will be passes through from three rivers i.e. Ambika, Kaveri and Purna. Predominantly agricultural and agroforestry area (fruit orchards and developed farming observed in this district).
Surat		872471.1		270962.9	91627.8	1235061.9		To minimize the impact, presence of proposed corridor in Surat city is to the east of bypass (N.H.8), but still passing along area of significant peri urban growth having physical structures and, industries. Rest of the district it passes mostly in an open patch of land (agricultural plots and fruit orchards)
Bharuch		1766113.3		136174.3	162719.0	2065006.6		Alignment crosses two river i.e. Narmada and Tapi. Majorly farming land and fruit orchards and barren land in patches are present along the corridor. Proposed track will be passing through couple of villages and affecting households along.
Vadodara		1473849.3		230681.0	1601.8	1706132.1		Proposed corridor passes through farming land followed and a small patch of forest area along vishwamitri river. In Vadodara city area, it passes along existing track via viaduct structure. This nonetheless will impact few residential societies, market area, building blocks, commercial

									complexes etc. near the proposed station.
Anand			875596.2		25987.1	7728.4	909311.6		Proposed track will be passing through a village and couple of industrial areas. Rest of the alignment is in farming and barren land.
Kheda			1323549.0		46470.5	4542.4	1374561.9		Mostly farming and barren land, couple of villages will be affected.
Ahmedabad			199339.0		259986.3	5121.5	464446.8		Proposed corridor will be passing parallel to the existing track and affecting the adjoining slum area, apartments, hotels etc. in the city. In rural areas it passes through mostly in agricultural and barren land.
<b>Total</b>		<b>396294.7</b>	<b>11426702.9</b>	<b>992011.8</b>	<b>1817635.1</b>	<b>619973.0</b>	<b>15252617.6</b>		
<b>Percentage</b>		2.6	74.9	6.5	11.9	4.1	100.0		
Source: JIC Study Team									

HSRC project will also require construction of associated facilities such as station and depots. Land acquired on this account along with area for alignment track structures provides the total land area that this project will require.

As per the table below (Table 3.14), the project will have 12 stations, 7 maintenance depots<sup>9</sup>, 2 depot & workshops and 2 confirmation car bases. Land area to be acquired for these associated facilities will be 1,659,143.20 square meter. The total project land requirement will be 16,911,760.80 square meter.

<sup>9</sup> Area required for maintenance depot in Sabarmati is clubbed with area mentioned for Depot and Workshop under Table 3.14

Table 3.14: Project Land Requirement							
District	Associated HSRC Facilities					Alignment Area (m <sup>2</sup> )	Grand Total Area (m <sup>2</sup> )
	Station/ Depot	Station Area (m <sup>2</sup> )	Maintenance Depot Area (m <sup>2</sup> )	Depot & Workshop Area (m <sup>2</sup> )	Confirmation Car Bases Area (m <sup>2</sup> )	Total Area (m <sup>2</sup> )	
Mumbai	Mumbai	33,961.50				33,961.50	176,385.40
Thane	Thane	26,109.50	55,177.90	3,24,415.5		405,702.90	990,867.20
Palghar	Virar	23,301.10				23,301.10	3,376,917.10
	Boisar	26,088.80	49,627.40			75,716.20	
Dadra Nagar Haveli							53,984.30
Valsad	Vapi	26,175.40	49,627.40			75,802.80	2,392,848.80
Navsari	Billimora	26,100.00			17,900.30	44,000.30	1,165,578.70
Surat	Surat	26,365.60	31,230.10			57,595.70	1,292,657.60
Bharuch	Bharuch	26,115.50	49,627.40			75,742.90	2,140,749.50
Vadodara	Vadodara	37,646.50	58,937.10			96,583.60	1,802,715.70
Anand						909,311.60	909,311.60
Kheda	Anand/Nadiad	25,662.80			17,900.30	43,563.10	1,418,125.00
Ahmedabad	Ahmedabad	25,669.70				25,669.70	11,91,619.90
	Sabarmati	28,245.90		6,73,257.5		701,503.40	
<b>Total</b>		<b>331,442.30</b>	<b>294,227.30</b>	<b>997,673.00</b>	<b>35,800.60</b>	<b>1,659,143.20</b>	<b>16,911,760.80</b>
<b>Percentage</b>		<b>2%</b>	<b>2%</b>	<b>6%</b>	<b>0%</b>	<b>10%</b>	<b>100%</b>
Source: JIC Study Team							

### 3.6.3 Trees and Crops Affected

Tree census was carried out along the entire alignment between Mumbai and Ahmedabad so as to identify and record the number of trees that would be felled for project construction purposes. Proposed alignment passes through agricultural areas, fruit orchards and barren land in most parts of Gujarat and in through hilly area, forest covers, barren and marshy land in the state of Maharashtra.

District wise data on fruit trees identified during the tree census is mentioned in Table 3.15. As per data collected, out of 26,980 fruit bearing trees, 23,824 (88%) are mature fruit trees. Mango is the predominant fruit tree found along the corridor which is followed by Sapota (or Chikoo) trees.

Out of total, 14,522 (54%) trees are Mango trees, 5529 (20%) are Sapota trees and 4205 (16%) are in others category which includes fruit bearing trees like Papaya, Date Palm, Almond, Pineapple, Litchi etc.

<b>Table 3.15 : Fruit Bearing Tree Census Data</b>														
<b>Total Fruit Tree</b>								<b>Mature Fruit Tree</b>						
<b>District</b>	<b>Tamarind</b>	<b>Blue Berry</b>	<b>Sapota</b>	<b>Coconut</b>	<b>Mango</b>	<b>Others</b>	<b>Total</b>	<b>Tamarind</b>	<b>Blue Berry</b>	<b>Sapota</b>	<b>Coconut</b>	<b>Mango</b>	<b>Others</b>	<b>Total</b>
Mumbai	2	0	59	8	51	1	121	2	0	59	8	44	1	114
Thane	14	125	12	27	132	212	522	12	102	12	27	68	207	428
Palghar	416	98	871	829	2386	3111	7711	403	98	839	739	2143	2931	7153
Valsad	125	2	2037	412	9059	613	12248	121	2	1905	376	8611	569	11584
Navsari	21	1	2400	115	1598	15	4150	21	1	1320	109	1157	15	2623
Surat	27	7	52	115	199	12	412	22	7	45	97	180	12	363
Bharuch	123	2	30	44	108	23	330	111	2	30	40	44	22	249
Vadodara	63	8	68	34	324	108	605	55	8	68	21	290	75	517
Anand	12	21	0	23	342	16	414	10	17	0	20	294	15	356
Kheda	11	27	0	12	323	93	466	11	21	0	9	302	93	436
Ahmedabad	0	0	0	0	0	1	1	0	0	0	0	0	1	1
<b>G. Total</b>	<b>814</b>	<b>291</b>	<b>5529</b>	<b>1619</b>	<b>14,522</b>	<b>4205</b>	<b>26,980</b>	<b>768</b>	<b>258</b>	<b>4278</b>	<b>1446</b>	<b>13,133</b>	<b>3941</b>	<b>23,824</b>
<b>Percentage</b>	<b>3%</b>	<b>1%</b>	<b>20%</b>	<b>6%</b>	<b>54%</b>	<b>16%</b>	<b>100%</b>	<b>3%</b>	<b>1%</b>	<b>18%</b>	<b>6%</b>	<b>55%</b>	<b>17%</b>	<b>100%</b>

Source: IOL Survey Data, Sep-Dec 2014

Similar data was collected for timber trees, as per which out of total 53457 timber trees identified, 42092 (79%) are mature timber trees. Margosa (Neem) tree and Babool trees figure as the predominant mature timber tree species falling in the project corridor.

Out of the 24568 mature timber trees 6912 (16.5%) trees are Margosa (Neem) trees, 6325 (15.1%) trees are Babool trees and 27188 (64.6%) are in others category which includes timber trees like Catechu (*Khair*), *Ashoka*, *Gulmohar* and trees of other species.

Table 3.16 : Timber Tree Census Data												
Total Timber Tree							Mature Timber Tree					
District	Babool	Eucalyptus	Margosa	Banyan & Peepal	Others	Total	Babool	Eucalyptus	Margosa	Banyan & Peepal	Others	Total
Mumbai	0	27	20	0	380	427	0	27	20	0	375	422
Thane	2	15	14	4	2236	2271	2	9	13	4	2112	2140
Palghar	5642	635	770	266	10435	17748	1948	635	663	251	9235	12732
Valsad	83	361	1460	329	7575	9808	79	342	1239	315	6480	8455
Navsari	85	89	374	108	455	1111	83	84	275	77	408	927
Surat	130	36	485	34	111	796	112	29	368	30	90	629
Bharuch	1344	132	541	66	1403	3486	965	73	485	54	1229	2806
Vadodara	2719	219	2569	394	5874	11775	2351	157	2109	216	4878	9711
Anand	197	0	738	1	677	1613	138	0	596	1	500	1235
Kheda	851	71	1165	5	1355	3447	589	33	980	5	1008	2615
Ahmedabad	522	0	209	0	244	975	58	0	164	0	198	420
<b>Grand total</b>	<b>11575</b>	<b>1585</b>	<b>8345</b>	<b>1207</b>	<b>30745</b>	<b>53457</b>	<b>6325</b>	<b>1389</b>	<b>6912</b>	<b>953</b>	<b>26513</b>	<b>42092</b>
<b>Percentage</b>	21.7%	3%	15.7%	2.3%	57.3%	100%	15.1%	3.3%	16.5%	2.3%	62.8%	100%
Source: IOL Survey Data, Sep-Dec 2014												

### 3.6.4 Major Crop Cultivation

*While land based data and related agriculture data has not been collected in detail during the survey, limited information on crop cultivation was collected from a representative sample of 224 PAHs (selected randomly) as part of socio economic survey component. The following tables are based on the information collected from 224 PAHs and highlight the types of Khariff and Rabi Crops grown by the PAHs.*

In addition, secondary data review suggests that Rice, Cotton, vegetables and Bajra are the predominant crops grown along the project corridor during Kharif season. During the Rabi season, Wheat, Onion, Barley and gram are the major crops grown.

Primary data for Kharif crops, identifies only 13 percent of the surveyed PAH reporting cultivation of Rice, 10 percent reporting vegetable cultivation.

Similarly for Rabi crops, Wheat and Onions are the major reported crop variety by 17% and 8% of the PAHs respectively.

The figures reported is on the lower side, as the respondents are mostly from urban or peri urban settlements, where farming is not the mainstay. A more detailed information will be available from land based survey to be conducted later upon alignment finalization and 20A notification by the MoR.

<b>Table 3.17 : Major Crops Cultivation (Kharif) as Reported by PAHs</b>										
<b>Districts</b>	<b>Rice</b>	<b>Chillies</b>	<b>Bajra</b>	<b>Jawar</b>	<b>Other Pulses</b>	<b>Vegetables</b>	<b>Cotton</b>	<b>Tobacco</b>	<b>Fodder</b>	<b>PAHs</b>
Thane	1	1	-	-	-	2	2	-	2	12
Palghar	3	3		1	2	3	1	-	1	37
Dadra Nagar Haveli	1		-	-	-	-	-	-	-	2
Valsad	3	3	2	2	-	-	-	-	-	19
Navsari	1	1			1	2	-	-	-	11
Surat	1	1	1	1		3	2	3	2	26
Bharuch	8	3		-	-	1	-	-	-	18
Vadodara	2	3	-	2	4	4	2	1	2	20
Anand	4		-	-	-	2	1	-	1	12
Kheda	3	1	1	3		1	-	-	1	23
Ahmedabad	2	2	2	1	1	5	4	1	2	44
<b>Total</b>	<b>29</b>	<b>18</b>	<b>6</b>	<b>10</b>	<b>8</b>	<b>23</b>	<b>12</b>	<b>5</b>	<b>11</b>	<b>224</b>
<b>Percent</b>	<b>13%</b>	<b>8%</b>	<b>3%</b>	<b>4%</b>	<b>4%</b>	<b>10%</b>	<b>5%</b>	<b>2%</b>	<b>5%</b>	<b>100%</b>
<b>Source:</b> Census Survey Data, Sep-Dec 2014										

<b>Table 3.18 : Major Crops Cultivation (Rabi) as Reported by PAHs</b>										
<b>Districts</b>	<b>Wheat</b>	<b>Barley</b>	<b>Gram</b>	<b>Onion</b>	<b>Oilseed</b>	<b>Cereals</b>	<b>Massar</b>	<b>Barseen</b>	<b>Others</b>	<b>PAHs</b>
Thane	4	-	-	-	-	2	-	-	3	12
Palghar	4	2	1	5		2	1	1	1	37
Dadra Nagar Haveli	-	-	-	1	-	-	-	-	-	2
Valsad	3	1	-	2	2	-	-	-	2	19
Navsari	2	2	-	1	-	-	3		2	11
Surat	5	1	-	2	-	-	3	1	1	26
Bharuch	2	1	1	2		1		1	1	18
Vadodara	4	-	2	-	2		1	2	2	20
Anand	1	-	1	2	-	1			1	12
Kheda	5	1	2	3	-	2	1	2	1	23
Ahmedabad	8	4	2	1	2	1	2	3	5	44
<b>Total</b>	<b>38</b>	<b>12</b>	<b>9</b>	<b>19</b>	<b>6</b>	<b>9</b>	<b>11</b>	<b>10</b>	<b>19</b>	<b>224</b>
<b>Percent</b>	<b>17%</b>	<b>5%</b>	<b>4%</b>	<b>8%</b>	<b>3%</b>	<b>4%</b>	<b>5%</b>	<b>4%</b>	<b>8%</b>	<b>100%</b>
<b>Source:</b> Census Survey Data, Sep-Dec 2014										

### 3.6.5 Common Property Resources

Survey for the identification of structures related to common property resources was conducted along the proposed alignment between Mumbai & Ahmedabad with an objective of identifying structures of common property resources such as wells, bore wells, places of worship, electrical structures, educational institution etc. and other structures such as roads, Government buildings, expected to be affected by the proposed alignment. Common property resources are divided into Government structures and Community Owned Structures associated with public use.

In the surveyed area, 1610 structures were identified along the Mumbai-Ahmedabad corridor. District wise numerical figures for affected structures are presented in Table 3.19. Primary data suggests that affected structures are almost evenly distributed among the districts. Out of 1610 structures identified 261 (16%) affected structures are in Valsad district followed by 231 (14.3%) structures in Palghar district, 180 (11%) structures in Vadodara district, 171 (10.6%) structures in Navsari district, 177 (11%) structures in Ahmedabad and 170 (10%) structures in Kheda district.

<b>Table 3.19: District wise Count of Affected CPR Structures</b>		
<b>District</b>	<b>Total</b>	<b>Percentage</b>
Mumbai	2	0.1
Thane	39	2.4
Palghar	231	14.3
Dadra Nagar Haveli	20	1.2
Valsad	261	16.2
Navsari	171	10.6
Surat	138	8.6
Bharuch	136	8.4
Vadodara	180	11.2
Anand	92	5.7
Kheda	163	10.1
Ahmedabad	177	11.0
<b>Grand Total</b>	<b>1610</b>	<b>100.0</b>
<b>Source:</b> CPR Survey Data, Sep-Dec 2014		

District wise distribution of identified CPR structures is mentioned in Table 3.20. Out of the 1610 affected structures, 744 (46%) affected structures are electricity distribution poles followed by 358 (22%) roads, 76 (5%) electricity distribution lines/wires, 69 (4.3%) railway buildings, 60 (3.7%) places of worship and electricity transformers each, 56 (3.5%) government buildings, 22 (1.4%) wells/tube wells/hand pumps. Other CPR structures constitute of village common land, high transmission tower, panchayat building, community ponds, schools etc. In the context of road, it is understood that the impact will be of temporary nature, as the technical design is likely to have provisions of culverts and viaducts



ensuring smooth passage way during operational phase. The impact may be only during the construction phase.

Table 3.20: Details of Affected CPR structures																
District	Well/ Tube wells/ Hand Pump	Community Ponds	Panchayat buildings	Electricity line	High Transmission Tower	Electricity Pole	Places of Worship	Burial / cremation grounds	Government Buildings	Railway Buildings	Schools	Village Common Land	Roads	Electricity Transformer	Others	Grand Total
Mumbai													2			2
Thane		1		1	6	17							14			39
Palghar	7	2	1	25	13	70			7		1	9	83	6	7	231
Dadra Nagar Haveli				4	1	10			2				3			20
Valsad	4	3	1	12	3	137	3	4	4		3	2	66	15	4	261
Navsari	1	2		5	7	104	3		2				38	3	6	171
Surat		3	4	3	5	62	1		8			3	41	6	2	138
Bharuch		2		1		60	2		4		1	30	26	9	1	136
Vadodara	1			1	3	85	13		11	27		2	24	6	7	180
Anand	2	1		4	1	57	6		1				18	2		92
Kheda	6	1		8	2	80	17	2	4		1	1	29	11	1	163
Ahmedabad	1			12	3	62	15		13	42			14	2	13	177
Grand Total	22	15	6	76	44	744	60	6	56	69	6	47	358	60	41	1610
Percentage	1.4	0.9	0.4	4.7	2.7	46.2	3.7	0.4	3.5	4.3	0.4	2.9	22.2	3.7	2.5	100.0
Source: CPR Survey Data, Sep-Dec 2014																

An assessment of extent of impact based on location of the structures vis-a-vis project alignment and the type of CPR structure has brought forth the following table (Table 3.21).

Out of 1610 structures 1170 (72.7%) are expected to be fully affected (40 percent or more) structure and 440 (27.3%) structures are expected to be partially affected structures. These constitute of roads mainly and will bear temporary impact during construction phase.

<b>Table 3.21: Extent of Impact on CPR structures</b>			
<b>District</b>	<b>Fully Affected</b>	<b>Partially Affected</b>	<b>Grand Total</b>
Mumbai		2	2
Thane	25	14	39
Palghar	140	91	231
Dadra Nagar Haveli	15	5	20

Valsad	187	74	261
Navsari	130	41	171
Surat	82	56	138
Bharuch	84	52	136
Vadodara	148	32	180
Anand	74	18	92
Kheda	128	35	163
Ahmedabad	157	20	177
<b>Grand Total</b>	<b>1170</b>	<b>440</b>	<b>1610</b>
<b>Percentage</b>	<b>72.7</b>	<b>27.3</b>	<b>100.0</b>
<b>Source:</b> CPR Survey Data, Sep-Dec 2014			

### 3.7 SPECIAL MEASURES FOR VULNERABLE GROUPS

Vulnerability among affected PAHs may be viewed from different perspectives and these can be in terms of:

- a) Social group criteria
  - b) Economic criteria
  - c) Other vulnerability parameters as recognized by relevant policy framework
- a) **Social Group Criteria:** Following this criteria (refer table 2.8 in chapter 2), about 19 percent of the PAH belong to ST community and another 5.5 percent of them are from SC background. Socially, they constitute the most poor and vulnerable groups in the India community.
  - b) **Economic Criteria:** Recognized state parameters define a family as below poverty line based on their economic status. As per census data collected, nearly 33 percent of the PAHs (table 2.9 in chapter 2) are reported to BPL families. Another parameter of vulnerability as mentioned in table 2.10, 60 families among the PAHs are beneficiaries of Antyodaya scheme; a scheme targeted for food security of poorest of poor.
  - c) **Other Parameters:** 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). As per the census data about 281 families have one or the more members who could be termed as vulnerable. The details are provided under Table 3.22 below:

<b>Table 3.22: Vulnerability Status of PAHs</b>									
<b>District</b>	<b>PAHs</b>	<b>PAHs with disabled</b>	<b>Orphans in Family</b>	<b>Abandoned women in Family</b>	<b>Elderly People</b>	<b>Widow in the family</b>	<b>Women headed family</b>	<b>Family in abject Poverty</b>	<b>Grand Total</b>
Thane	50	-	-	-	-	3	2	1	6
Palghar	193	3	1	1		8	11		24
Dadra Nagar Haveli	4	-	-	-	-	-	-	-	0
Valsad	95				2	-	-	-	2
Navsari	54	0	1	1	0	6	5		13
Surat	86	4	3	2		10	11	0	30
Bharuch	64	3	2	2	16	9	8	0	40
Vadodara	105	4	2	0	0	6	6		18
Anand	65	1	1	1		12	10		25
Kheda	147	2	1	1	0	18	22		44
Ahmedabad	219	4	5	6	0	34	30		79
<b>Grand Total</b>	<b>1082</b>	<b>21</b>	<b>16</b>	<b>14</b>	<b>18</b>	<b>106</b>	<b>105</b>	<b>1</b>	<b>281</b>
<b>Percent</b>		<b>2%</b>	<b>1%</b>	<b>1%</b>	<b>2%</b>	<b>10%</b>	<b>10%</b>	<b>0.6%</b>	<b>26%</b>
<b>Source:</b> Census Survey Data, Sep-Dec 2014									

**Measures Proposed:** Key approach to minimize impact to vulnerable families would be the following:

- To systematically identify the vulnerable PAPs and the families, with details of name, location and family socio-economic status, as done in the Census Survey.
- Develop the RAP document that recognizes the vulnerability status among PAPs and PAHs, suggest for options to avoid or minimize impact to these families, in case unavoidable project requirements- make special provisions for assistance to them under R&R benefits. In this context, it may be noted that there is a provision of special plan for Indigenous people (STs). Similarly, there are provisions of special assistance in terms of wage employment and others to landless and such poor families. Such details may further be referred to the details provided in chapter 4 of this report.
- To develop RAP micro plan in recognition of the vulnerability status of the identified PAPs and the PAHs.
- To have strong M&E mechanism, proposed in the RAP implementation arrangements that monitors and safeguards the interests of vulnerable families and ensures legitimate R&R benefits reaching them.

### 3.8 EMPLOYMENT LOSS OF WAGE EARNERS

Census data identifies a total of 539 PAPs who are wage earners and likely to lose existing employment opportunities because of project related impacts. Maximum existence of PAPs under this category is reported from Ahmedabad (222 PAPs, 41% of the total). Other

significant presence is found in Palghar (61 PAPs) followed by Navsari, Surat, Bharuch and Vadodara.

Nearly 56 percent of the wage earner PAPs report of earning less than INR 10,000 per month. Only about 6 percent of the PAPs (in wage earner category) have monthly income above INR 20,000.

<b>Table 3.23: Employment Loss of Wage Earners</b>						
<b>District</b>	<b>PAPs</b>		<b>Less than 5000</b>	<b>5000-10000</b>	<b>10000-20000</b>	<b>More than 20000</b>
	<b>No.</b>	<b>Percentage</b>				
Thane	7	1%	2	2	3	0
Palghar	61	11%	15	20	23	4
Dadra Nagar Haveli	0	0%	0	0	0	0
Valsad	12	2%	3	4	5	1
Navsari	43	8%	10	14	16	3
Surat	43	8%	10	14	16	3
Bharuch	48	9%	12	15	18	3
Vadodara	41	8%	10	13	16	2
Anand	23	4%	6	7	9	1
Kheda	39	7%	9	12	15	2
Ahmedabad	222	41%	53	71	84	13
<b>Grand Total</b>	<b>539</b>	<b>100%</b>	<b>129</b>	<b>172</b>	<b>205</b>	<b>32</b>
<b>Percent</b>	<b>100%</b>		<b>24%</b>	<b>32%</b>	<b>38%</b>	<b>6%</b>
<b>Source:</b> Census Survey Data, Sep-Dec 2014						
<b>Figures are Monthly Income provided in INR</b>						

### 3.9 BUSINESS LOSS OF BUSINESS ENTERPRISES

Out of 1082 Households surveyed, 177 (16.4%) PAHs have business establishments falling under the direct project impact corridor. The table reflects that out of 177, 13 PAHs have small mobile Kiosk/Khokha for sustenance of their livelihood. Majority of the 97 (54.9%) PAHs in the business category are involved in selling of garments, household items, manufacturing, forest products, etc..

<b>Table 3.24: PAHs with affected Business</b>												
<b>District</b>	<b>PAHs</b>	<b>Small mobile Kiosk</b>	<b>Market Stall/Store</b>	<b>Restaurant</b>	<b>Hotel/Guest House</b>	<b>Other Services Shop</b>	<b>Office</b>	<b>Workshop/Garage</b>	<b>STD Booth</b>	<b>Factory</b>	<b>Others</b>	<b>Grand Total</b>
Thane	50		1							5	16	22
Palghar	193	4	2		2	8	1	7			4	28
Dadra Nagar Haveli	4			1						1		2

Valsad	95		7	1		2		2		1	6	19
Navsari	54										2	2
Surat	86	2	1						1	1	5	10
Bharuch	64			1								1
Vadodara	105	3	1	3	1	7		2		2	6	25
Anand	65										14	14
Kheda	147	3								4	39	46
Ahmedabad	219	1				2					5	8
<b>G. Total</b>	<b>1082</b>	<b>13</b>	<b>12</b>	<b>6</b>	<b>3</b>	<b>19</b>	<b>1</b>	<b>11</b>	<b>1</b>	<b>14</b>	<b>97</b>	<b>177</b>
<b>Source:</b> Census Survey Data, Sep-Dec 2014												

Business loss to these establishments may be inferred from the income earned from these sources. Information on this aspect was available from 176 of the 177 PAHs owning project affected commercial establishments, details of which are provided in the table below. Nearly half of the business properties earn their owners less than 10,000 per month, as reported during the census survey. Another 17 percent PAHs earns between 10 thousand per month to 20 thousand per month. 16 of the PAHs claimed to be earning more than one lakh from these properties. Project alignment suggests that all of 177 PAHs will be losing quoted income accruing from the affected business properties.

<b>Table 3.25: Business Income from Affected Commercial Establishments</b>							
<b>Row Labels</b>	<b>5000 or below</b>	<b>5001-10000</b>	<b>10001-20000</b>	<b>20001-50000</b>	<b>50001-1 lakh</b>	<b>Above 1 lakh</b>	<b>Grand Total</b>
Thane	1	1	1	6	6	7	22
Palghar	8	16	2	2			28
Dadra Nagar Haveli		1				1	2
Valsad	6	4	5	2	1	1	19
Navsari		1					1
Surat	2	5	2		1		10
Bharuch		1					1
Vadodara	7	7	6	3		2	25
Anand	4	5	1	1		3	14
Kheda	8	13	10	10	3	2	46
Ahmedabad	2	2	3		1		8
<b>Grand Total</b>	<b>38</b>	<b>56</b>	<b>30</b>	<b>24</b>	<b>12</b>	<b>16</b>	<b>176</b>
<b>Percentage</b>	22%	32%	17%	14%	7%	9%	100%
<b>Source:</b> Census Survey Data, Sep-Dec 2014							
<i>Figures mentioned are number of PAHs reporting respective monthly income range. Monthly income range is in INR.</i>							

### 3.10 INCOME LOSS FROM RENTED OUT STRUCTURES

From the census data collected, rent related data is available for 142 tenants/properties. About 62 percent of these properties are earning its owners a rental value of less than 10,000 INR per month. However, there are about 20 such rented properties where the monthly income is above 50,000 INR per month. The details are provided in Table 3.26 below.

<b>Table 3.26: Income Loss From Rented out Structures (Per Month)</b>					
<b>District</b>	<b>PAHs as Tenants</b>	<b>Less than 5000 INR</b>	<b>5000-10000</b>	<b>10000-50000</b>	<b>More than 50000</b>
Thane	6	1	3	1	1
Palghar	31	8	10	8	5
Dadra Nagar Haveli	-	-	-	-	-
Valsad	13	3	4	4	2
Navsari	6	2	2	1	1
Surat	17	6	5	4	2
Bharuch	2	-	1	1	-
Vadodara	38	8	14	9	7
Anand	8	3	2	3	-
Kheda	5	-	2	3	-
Ahmedabad	16	4	9	1	2
<b>Grand Total</b>	<b>142</b>	<b>35</b>	<b>52</b>	<b>35</b>	<b>20</b>
<b>Percent</b>	<b>100%</b>	25%	37%	25%	14%
<b>Source:</b> Census Survey Data, Sep-Dec 2014					

### 3.11 SHIFTING OF HOUSEHOLDS /SHOPS GOODS AND MATERIALS

As discussed in sections earlier in this chapter, the project will entail impact on 1186 residential structures which 1467 residence building blocks and another 221 commercial structures. The policy framework applicable for this project (discussed in detail in Chapter 4) provides for following provisions with regards to shifting of goods and materials

- Advance and due notice to PAHs for vacating of the properties.
- Provision to salvage materials from properties vacated/demolished
- One time shifting allowance to enable PAHs to move their goods and materials.

## 4. LEGAL AND POLICY FRAMEWORK

### 4.1 PURPOSE AND OBJECTIVE

The proposed project requires land. Land will be mainly required for route alignment of rail tracks, station buildings, platforms, entry/exit structures, traffic integration, car shed, power sub-stations, ventilation shafts, administrative buildings, property development and temporary construction depots and work sites etc. Land being a scarce commodity, the project shall displace people from their home and/or impact livelihood base. Project alignment (refer Chapter 1) suggests of design considerations to keep land requirement (and acquisitions) to the barest minimum. Nonetheless, the project will involve relocation of shops, commercial-cum-residential buildings and hutments and acquisition of farm land along the proposed corridors. The project would thus have socio-economic impacts, especially for land owners whose land would be acquired and those who would lose sources of livelihood. The broad adverse impacts envisaged due to the implementation of the project would be in following terms:

- 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 business establishments
- Acquisition resulting in lack of accessibility or loss of common property resources such as religious places, graveyard, cremation places,
- Severance of access to resources and amenities such as school, water resources, etc.
- Severance of social network due to difficulty in accessibility etc.

This chapter outlines the policy principles and procedures recommended to be followed for land acquisition, compensation and resettlement and rehabilitation assistances for project affected persons (PAPs). The RAP<sup>10</sup> including entitlements are based on the Railways (Amendment) Act, 2008 (RAA 2008), and the National Rehabilitation and Resettlement Policy, 2007 (NRRP 2007) while also ensuring that it aligns with the Japan International Cooperation Agency (JICA) Guidelines for Environmental and Social Considerations, April 2010 and World Bank OP.4.12 guidelines (together referred to as the reference framework).

### 4.2 LEGAL FRAMEWORK FOR LAND ACQUISITION AND R&R

The framework applicable for Land acquisition and Resettlement in this project requires an understanding of various policies and guidelines that would govern the project. Policy guidelines of relevance are:

- JICA Guidelines for Environmental and Social Consideration, April 2010<sup>11</sup>
- The World Bank OP-4.12 on Involuntary Resettlement
- Railways Act, 1989 and Railways (Amendment) Act (RAA), 2008;

<sup>10</sup> This chapter will further be populated with findings arrived at from the analysis of stakeholder engagements and data collected from primary survey from project locations. It is recognized that the chapter will undergo another round of revision post review and feedback from JIC study team and the MOR. *Also it may be noted that application of framework stated in this chapter is reflected in Chapter 6 (specifically) and Chapter 7 of this report.*

<sup>11</sup> Effective from 1<sup>st</sup> July 2010

- National Rehabilitation and Resettlement Policy, 2007;

#### 4.2.1 Railways (Amendment) Act, 2008<sup>12</sup>

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 HSR 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		Brief 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.

<sup>12</sup> Recently passed ‘The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013’ excludes ‘ Railways Act, 1989’ (implicitly the RAA, 2008 which is an amendment over the 1989 Act for special railway projects) from its purview, unless specific notifications made by the state for the purpose.. (reference: #105 (1), #105 (3) and Schedule Four of the Act)



20F	Determination of amount payable as compensation	<p>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.</p> <p>Compensation for market value of land acquired, other damage such as because of severing of land acquired from other land, property, source of livelihood, involuntary change of residence, business.</p> <p>Additional 60 percent (of market value) in addition to the market value (as determined by competent authority/arbitrator) considering compulsory nature of acquisition</p>
20G	Criterion for determination of market value of land	<p>Criteria used are a) minimum land value as specified in Indian Stamp Act 1899 for registration of similar land in the area b) average sale price of similar land type (to be ascertained from not less than 50 percent of sale deeds registered in past 3 years)</p> <p>Where above is not possible, value to be arrived based on prices/rates paid (to be ascertained in the manner described above) for similar land in adjoining area</p> <p>Consideration intended land use of the acquired land, value of the land of the intended category in vicinity</p> <p>Provision for using services of experts (as considered necessary) for value of buildings and other immovable structures, trees, crops etc.</p>
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.
20O	Application of the National Rehabilitation and resettlement Policy (NRRP), 2007 to persons affected due 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.

#### 4.2.2 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 recommended for R&R policies for projects such as HSRC.

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 Requiring Body/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.

Some of the highlights of this policy may be noted as follows:

- a) Recognizes apparent need for additional R&R benefits which must be beyond compensation of loss of land or structure.
- b) SIA as mandatory component where project is likely to impact 400 or more families *en masse* (in plain areas), or 200 or more families *en masse* in tribal or hilly areas.
- c) Detailed R&R planning in case anticipated displacement is more than 400 families in plains (200 families in hilly/tribal areas). The plan to have details such as extent of land to be acquired with names and identification of affected families, village wise list of affected persons, their profile, agricultural labourers as affected persons, people with livelihood affected, list of occupiers, public utilities, comprehensive list of benefits and packages to be provided to affected persons. Other information include- Resettlement site related details such as location and area, amenities to be provided, schedule for displacement and resettlement
- d) Special care to protect rights of weaker sections specifically SC and ST community and affirmative action by way of state obligation for their treatment with concern and sensitivity.
- e) R&R cost (arising out of benefits and packages beyond compensation) will be included as part of project cost.
- f) Compensation and resettlement activities to be done well in advance of ouster of affected families
- g) R&R benefits to be extended to all affected families. Benefits includes possible allotment of house site, one time assistance for house construction to BPL families (quantum aligned with existing house construction schemes by state), Replacement cost basis or land for land approach for PAFs who have become landless or marginal account of project impacts. Stamp duty and other fees to be borne by requiring body. Provisions of assistance for land development, cattle shed, shifting allowance (on

actual cost basis), assistance to rural artisans, self-employed for construction of working shed/shop. Conditional provision for employment of those rendered jobless or rehabilitation grant, subsistence allowance for displaced PAFs

- h) Requirement of developing of tribal development plan and recommended consultation with tribal advisory council where project entails displacement of 200 or more ST families. Consultation with Gram Sabha or Panchayats for land acquisition in scheduled areas.

*However, the policy makes exclusion for linear projects such as railway lines where small only narrow stretch of land is acquired. In such cases R&R benefits for the affected families be in terms of an ex gratia payment of amount (not less than twenty thousand) as decided by the appropriate government. Exceptions will be made for those families who become landless or reduced to marginal or small farmer as a result of land acquisition, and shall be provided the basket of R&R benefits as recommended in the policy.*

#### 4.2.3 Summary of Provisions under NRRP 2007 and RAA 2008

In the backdrop of the two key relevant legal policy frameworks (i.e. RAA 2008 and NRRP 2007) applicable to the project, the following summarizes key provisions vis-à-vis various entitlement categories for compensation and R&R benefits.

<b>Table (4.1): Entitlement Matrix (Outline) as per RAA 2008 and NRRP 2007</b>		
<b>1.</b>	<b>Application</b>	<b>Land on the Project Right of Way</b>
	<p><i>Definition of Affected Persons</i> Legal Title holders and Affected Parties with traditional land rights</p> <p><i>Entitlement</i> 1.Compensation at replacement cost 2.Resettlement and Rehabilitation</p> <p><i>Entitlement Details as per RAA 2008 and NRRP 2007</i> 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. Additional ex-gratia amount of not less than Rs 20,000/- for those losing land iv. One time assistance of not less than Rs 10,000 to affected families who have received agricultural land in lieu of land for agricultural production (7.9.2, NRRP 2007) v. One time assistance of not less than Rs 15,000 to affected families who have received wasteland / degraded land in lieu of land for land development (7.9.1, NRRP 2007) vi. In case, affected families who have lost land have not been provided agricultural land or employment they will be entitled to Rehabilitation grant equivalent to 750 days of minimum agricultural wage or higher amount as decided by appropriate government</p>	

	vii. 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 7.6 of NRRP 2007	
2	<b><i>Application</i></b>	<b><i>Structure on the Project Right of Way</i></b>
	<p><i>A. Definition of Affected Persons</i> Title Holder/Owner</p> <p><i>Entitlement</i> 1.Compensation at replacement cost 2.Resettlement and Rehabilitation assistance</p> <p><i>Entitlement Details as per RAA 2008 and NRRP 2007</i></p> <ul style="list-style-type: none"> <li>i. Cash compensation for the structures and other immovable property at market value as determined by competent authority by using services of competent engineer or other specialists, as considered necessary by competent authority. (RAA 20G, 4)</li> <li>ii. Housing site of carpet area of 100 sq metre (maximum) in rural area and 50 sq metre (maximum) in urban area for those affecting families owning house that has been acquired under the project. (7.2, NRRP 2007)</li> <li>iii. Stamp duty and registration charges for new alternative houses/shops allotted to be borne by requiring body as per 7.6 of NRRP 2007</li> <li>iv. Resettlement &amp; Rehabilitation Assistance as applicable as under: <ul style="list-style-type: none"> <li>- Each affected family getting displaced shall get a one-time financial assistance of Rs 10,000 as shifting allowance (para 7.11 NRRP 2007).</li> <li>- 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).</li> <li>- 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).</li> </ul> </li> </ul> <p><i>B. Definition of Affected Persons:</i> Tenants/ Lease Holders</p> <p><i>Entitlement</i> 1. Resettlement and Rehabilitation assistance</p> <p><i>Entitlement Details as per RAA 2008 and NRRP 2007</i></p> <p>In case of tenants benefit of Rs 10,000 towards shifting allowance (NRRP 7.11).</p>	

3	<table border="1"> <tr> <td><b>Application</b></td><td><b><i>Standing Trees, Crops on Project Right of Way</i></b></td></tr> </table> <p><i>Definition of Affected Persons</i> Owners &amp; beneficiaries of land</p> <p><i>Entitlement</i> Compensation at market value</p> <p><i>Entitlement Details as per RAA 2008 and NRRP 2007</i> Compensation to be paid at the rate estimated by competent authority using the services of experienced persons from the field of agriculture, horticulture, sericulture or any other field as considered necessary by it.</p>	<b>Application</b>	<b><i>Standing Trees, Crops on Project Right of Way</i></b>
<b>Application</b>	<b><i>Standing Trees, Crops on Project Right of Way</i></b>		
4	<table border="1"> <tr> <td><b>Application</b></td><td><b><i>Loss of Residential/Commercial Structures on project RoW by Non-Title Holders</i></b></td></tr> </table> <p><i>Definition of Affected Persons</i> Owners of structures identified as on date of notification (20A).</p> <p><i>Entitlement</i>  <ul style="list-style-type: none"> <li>i. Compensation at replacement cost for structures</li> <li>ii. Structure transfer cost</li> <li>iii. Structure Reconstruction cost</li> <li>iv. Shifting Allowance</li> <li>v. Resettlement &amp; Rehabilitation Assistance</li> </ul> </p> <p><i>Entitlement Details as per RAA 2008 and NRRP 2007</i>  <ul style="list-style-type: none"> <li>i. Resettlement &amp; Rehabilitation assistance as under:</li> <li>ii. Shifting allowance of Rs 10,000 per household (para 7.11 NRRP 2007).</li> <li>iii. Assistance of Rs 15,000/- for loss of cattle shed (para 7.10 NRRP 2007).</li> <li>iv. 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)</li> <li>v. Alternate House for BPL families without homestead land and residing for last 3 years (prior to declaration of project affected area) of minimum carpet area of 100 sq metre in rural area and 50 sq metre in urban area. If family does not opt for alternate house, a onetime financial assistance for house construction will be paid which shall not be less than amount payable under any house construction scheme by govt. of India.</li> </ul> </p>	<b>Application</b>	<b><i>Loss of Residential/Commercial Structures on project RoW by Non-Title Holders</i></b>
<b>Application</b>	<b><i>Loss of Residential/Commercial Structures on project RoW by Non-Title Holders</i></b>		
5	<table border="1"> <tr> <td><b>Application</b></td><td><b><i>Loss of Livelihood for Households living on Right of way</i></b></td></tr> </table>	<b>Application</b>	<b><i>Loss of Livelihood for Households living on Right of way</i></b>
<b>Application</b>	<b><i>Loss of Livelihood for Households living on Right of way</i></b>		

	<p><i>Definition of Affected Persons</i> Title Holders/ Non-Title holders/share-croppers, agricultural labourers and employees</p> <p><i>Entitlement</i> Rehabilitation Assistance Subsistence allowance</p> <p><i>Entitlement Details as per RAA 2008 and NRRP 2007</i></p> <ol style="list-style-type: none"> <li>Rehabilitation grant equivalent to 750 days of minimum agricultural wages to those families losing land and not provided agriculture land or employment (para 7.14,NRRP)</li> <li>Temporary employment in the project construction work to Affected Persons (APs) with particular attention to APs Below Poverty Line (BPL), unemployed affected persons, landless labourers by the project contractor during construction, to the extent possible (7.13.1, NRRP 2007)</li> <li>One time additional financial assistance equivalent to 300 days of minimum wages for family involuntarily displaced by project</li> </ol>	
6	<b><i>Application</i></b>	<b><i>Additional assistance to Scheduled Tribe affected families</i></b>
	<p><i>Definition of Affected Persons</i> ST Households affected by ROW</p> <p><i>Entitlement</i> Rehabilitation Assistance</p> <p><i>Entitlement Details as per RAA 2008 and NRRP 2007</i></p> <ol style="list-style-type: none"> <li>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)</li> <li>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)</li> </ol>	

As required by the Study Team, JICA guidelines and the World Bank policies (OP 4.12) on Involuntary Resettlement will be guiding principles characterizing the entitlement matrix. Some of the key underlying principles will hence be as following:

#### **4.2.4 JICA Policy on ‘Social and Environmental Considerations’ for Involuntary Resettlements**

With reference to JICA and the project context, the following constitute the key basic principles; also underlining the basis of its ‘Social and Environmental Considerations’:

1. The entitlement framework will consider and factor in wide range of project impacts, specifically socio-economic issues in the entitlement and compensation context
2. Measures for social considerations must be implemented from an early stage to a monitoring stage.

3. Stakeholder participation will be encouraged and their opinions will be incorporated in the decision making processes pertaining to social considerations through meaningful participation. Efforts will be made towards arriving at consensus with stakeholders on issues related to social considerations and stakeholders' queries (with JICA's replies) will be encouraged during meetings.
4. Disclosure of information on social consideration in collaboration with project proponents (i.e. MoR and the local authorities in this case) will be followed as measure of accountability and to encourage stakeholder participation.
5. JICA will make serious attempts for prompt implementation of projects while undertaking social considerations.

The Resettlement Action Plan (RAP) including the entitlement framework and the matrix required to be developed in accordance with the JICA policy on Involuntary Resettlement. Some of the key requiring provisions are:

1. The policy requires exploring of all alternatives so as to minimize involuntary resettlement and loss of means of livelihoods.
2. It further requires that 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. Prior compensation, at full replacement cost, will be provided. Support and compensation as recommended are in terms of land, money, supporting alternate means of sustainable livelihood etc.
3. Appropriate participation of affected people at all stages related to RAP.
4. Stakeholder consultation and sharing of information, answering queries and concerns of affected people, transparency etc. are encouraged for all such projects involving large scale involuntary resettlements
5. Policy recommends for adequate coordination and stakeholder consultations so as to bring about social acceptability of the project.
6. Due consideration for vulnerable social groups who might be the worst affected among the local community on account of project activity will need to be provided.
7. Recommendation for following the World Bank OP 4.12 for preparation of RAP.

#### **4.2.5 The World Bank OP 4.12 for RAP**

JICA recommends the World Bank policy OP 4.12 for RAP preparation and its implementation. The said policy operates with objectives that recommend avoidance of involuntary resettlement or minimizing it by exploring all options. In cases of involuntary resettlements, resettlement activities are to be conceived and executed as sustainable development programmes, with displaced persons also sharing from project benefits. Further, the displaced persons require to be assisted in their efforts to improve their livelihoods or at least restore to their pre displacement status. The policy recognizes impacts in terms of relocation or loss of shelter, loss of or loss of access to assets, loss of livelihood or income,

and loss of access to protected forest parts- as source of livelihoods, on account of project related land acquisitions.

Some of the highlights of the recommended policy measures may be noted as:

1. Where the negative impacts are unavoidable, the project-affected persons will be assisted in improving or regaining their standard of living. Vulnerable groups should be identified and assisted to improve their standard of living.
2. All information related to resettlement preparation and implementation should be disclosed to all concerned, and people's participation should be ensured in planning and implementation of the project.
3. Before taking possession of the acquired lands and properties, compensation and R&R assistance should be made in accordance with recommended policy (i.e. OP 4.12).
4. The project affected persons who do not own land or other assets but who have economic interest or claim to such land/assets or lose their livelihoods should be assisted as per the broad principles brought out in this policy.
5. Prompt and effective compensation at full replacement cost i.e. amount sufficient to replace lost asset and transaction cost where valuation does not factor in any depreciation in value of structures or assets.
6. Provision of assistance and allowances. Support to be provided during transition period i.e. between displacement and livelihood restoration. Similarly land related development assistance should also be provided such as credit facilities/access, training and skill upgradation, job opportunities etc.).
7. Land based resettlement strategies would be preferred for displaced families who depend on land based livelihood occupations. Equivalent productive assets to be provided against loss of land, residential houses etc.
8. All activities related to resettlement planning, implementation, and monitoring would ensure involvement of women. Efforts will also be made to ensure that vulnerable groups are included and particular attention will be paid to the needs of groups such as those below poverty line (BPL), destitutes, landless, elderly, women, women headed households, widows, disabled, children and orphans and ethnic minorities.
9. Appropriate grievance redressal mechanism will be established at the district level to ensure speedy resolution of disputes.
10. All consultations with PAPs shall be documented and continue during the implementation of resettlement and rehabilitation works.
11. A detailed Resettlement Plan that covers all of the above including detailed implementation time plan, institutional framework for implementation, M&E framework, a fully itemized budget and an implementation schedule linked to the civil works contract.



#### 4.2.6 Gaps between JICA and Applicable State Policy (RAA and NRRP) and Gap Filling Measures

The following table summarizes key deviations between the two sets of legal and policy frameworks i.e. JICA policies and the existing state policies relevant to this project. The table also makes recommendations for measures to plug these gaps.

**Table (4.2): Gaps between JICA and State Policies on Land Acquisition and R&R**

Sl. No.	JICA's Guidelines (2010)	GOI's Applicable State Policy (RAA and NRRP)- TARU	Gaps Between JICA's Guidelines and RAA and NRRP	Proposed Gap Filling Measures
1	Involuntary resettlement should be avoided wherever possible.	Stated aim to minimize large scale displacement. Encourages projects to be set up on waste land, degraded land, Un-irrigated land. (NRRP 2007, #1.4, Chap 1)	No	-
2	When population displacement is unavoidable, effective measures to minimize impact and to compensate for losses should be taken.	If unavoidable, Govt. to consider different alternatives to minimize displacement, total land acquired and total agricultural land acquired for non agricultural use (NRRP 2007, #1.4, Chap 1), RAA has provision for compensation for losses incurred.	No	-
3	People who must be settled involuntarily and people whose means of livelihood will be hindered or lost must be sufficiently compensated and supported, so that they can improve or at least restore their standard of living, income opportunities and production levels to pre0project levels.	Provisions made for R&R benefits to all; but subject to condition that non titleholders must be residing or drawing livelihood in the affected area for a period not less than 3 years preceding date of declaration of the affected area. (NRRP, #3.1.b.iii)	Yes, Non titleholders need to be residing continuously or drawing livelihood from the affected area for a period not less than 3 years preceding the date of declaration.  RAA silent on compensation rights of Non Titleholders for loss of land (illegally occupied), structures. R&R benefits such as housing improvement, development benefits, loss of crops, trees, transitional support etc to be provided only if residing/ drawing livelihood for a continuous 3 year period in the area,preceding declaration of 'affected area'	Recognize claims of Non Title holders (as identified by census survey and irrespective of their residing period status) and in respect of – - Compensation for structures, trees - Structure transfer assistance - Structure reconstruction assistance - Shifting assistance for residential house owner - Tenant shifting allowance  Assistance to be provided at par with similar R&R support extended to titleholder familiar
4	Compensation must be based on the full replacement cost as much as possible	Compensation made on market rate as per the rate reflected vide sale deed registration of similar land in the area or in the vicinity. (RAA, 20G #1&2)	Yes, Market rate as calculated by government is usually far below the actual prevailing market rates.	Compensation to be provided at prevailing market rate. Market rate to be established by an independent consultant/engineer/evaluator appointed by project proponents and by assessing

Sl. No.	JICA's Guidelines (2010)	GOI's Applicable State Policy (RAA and NRRP)- TARU	Gaps Between JICA's Guidelines and RAA and NRRP	Proposed Gap Filling Measures
				the actual rates in project area and in vicinity
5	Compensation and other kinds of assistance must be provided prior to displacement	Provisions exist in NRRP		-
6	For projects that entails large-scale involuntary resettlement, resettlement action plans must be prepared and made available to the public.	Requirement for RAP is mentioned subject to number of displaced exceeding 400 families in plains or 200 in hilly/tribal areas or Desert Development Programme (DDP) blocks.	Yes, numerical condition (400 in plain area, 200 in tribal, hilly or DDP blocks) attached. JICA requires this to be implemented if PAH number is higher than 50.	RAP to be prepared for this project.
7	In preparing a resettlement action plan, consultations must be held with the affected people and their communities based on sufficient information made available to them in advance.	Specific mention provided in NRRP	No	-
8	When consultation held, explanation must be given in a form, manner, and language that are understandable to the affected people	Provision made	No	-
9	Appropriate participation of affected people must be promoted in planning, implementation, and monitoring of resettlement action plans	Specified	No	-
10	Appropriate and accessible grievance mechanisms must be established for the affected people and their communities	Specified	Yes, R&R Committee to be set up only if in the project area more 400 families (in plains) or 200 in tibal/hilly areas are to be displaced	GR mechanism to be set up. Should be accessible to PAHs- to be constituted at district level for land acquisition purposes and at CPM level for R&R benefit aspects.  R&R implementing NGO/Consultant to have presence in each project affected district and facilitate and inform PAHs about GRM and its processes.
11	Affected people are to be identified and recorded as early as possible in order to establish their eligibility through an initial baseline survey (including population census that serves as an	Specified under NRRP for identification of all affected persons and under RAA for all land/asset losers- post notification under 20A of RAA.	No	-

Sl. No.	JICA's Guidelines (2010)	GOI's Applicable State Policy (RAA and NRRP)- TARU	Gaps Between JICA's Guidelines and RAA and NRRP	Proposed Gap Filling Measures
	eligibility cut-off date, asset inventory, and socio-economic survey), preferably at the project identification stage, to prevent a subsequent influx of encroachers of others who wish to take advantage of such benefit.			
12	Eligibility of benefits includes, the PAPs who have formal legal rights to land (including customary and traditional land rights recognized under la), the PAPs who do not have formal legal rights to land at the time of census but have a claim to such land or assets and the PAPs who have no recognizable legal right to the land they are occupying	Specified- R&R benefits to non titleholders provisioned by subject to them residing/ drawing livelihood for period not less than 3 years in the project affected area (from the date formal declaration)	Yes, Non titleholders if residing or drawing livelihood for a period less than 3 years are not eligible for R&R benefits	- All Non titleholders (as identified on the date of census survey) will also be eligible for R&R benefits
13	Preference should be given to land –based resettlement strategies for displaced persons whose livelihoods are land-based.	specified	No	-
14	Provide support for the transition period (between displacement and livelihood restoration)	specified	Yes, no such benefits provision for non titleholder residing/drawing livelihood for a period less than 3 years	- Transition benefits to be provided to all non titleholders (displaced and livelihoods impacted) who have been identified as per census survey.
15	Particular attention must be paid to the needs of the vulnerable groups among those displaced, especially those below the poverty line, landless, elderly, women and children, ethnic minorities etc.	Mentioned for vulnerable groups as defined under NRRP. Specific mention of additional provisions for SC and ST community mentioned under #7.21 of the NRRP. Requirement of a separate tribal development plan to be prepared if number of tribal displaced families exceeds 200 families.	No	- Separate Indigenous people plan to be prepared for ST community - Special R&R assistance to SC community. - Special attention to be made by the R&R implementing NGO, the vulnerable PAH/persons receive R&R support as made out for them in the RAP.

### 4.3 TYPE OF LOSS AND IMPACT CATEGORY

The proposed HSRC will involve significant land acquisition. The acquisition of land is likely to generate impacts<sup>13</sup> of varying severities (both positive and negative). These can broadly be categorized as

#### Impact Category

Adverse Impacts associated with:

- Loss of structures (residential/commercial or residential cum commercial) and linked displacement/resettlement;
- Loss of agricultural land/orchid/plantation;
- Loss of livelihoods (linked to loss of agricultural land and commercial structures);
- Orphan/unviable land pieces/parcels due to fragmentation of land
- Loss of income (for tenants, wage earners, agriculture labourers etc.)
- Loss (or severance of access) to grazing/pasture land;
- Loss of community infrastructure such as schools, health infrastructures, religious structures etc.)
- Loss (or severance of access) to water resources such as pond, hand pump, water tank, access to river etc.
- Health and safety concerns on account of train movements and discharges.

Positive Impacts associated with:

- Increase in employment/business opportunities specifically around locations where depot and stations are built.
- Increase in land rates and impact on overall Land market,
- Impacts on local economy and over all economic growth of the region
- Mobility in the project area,
- Safety in Travelling,
- Traffic Decongestion,

While some of these impacts will manifest (in varying degree of extent, degree, range and severity) during the planning and construction phase of the project, the manifestation of others will occur over the life cycle of the HSR.

The RAP document recognizes the following impacted (potentially) categories:

#### Impacted Category

**Physically displaced Families:** These are those families that have lost either structures or land or both and have been physically displaced as a result of it.

**Physically and Economically displaced families:** This category would include those families who would lose their private land as well as their houses due to land acquisition

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<sup>13</sup> Actual details and extent of impact would be known only upon field survey of the project area, yet to be conducted

**Ineligible families:** These include those families who claim are not acknowledged under the existing regulatory framework (RA Act). These may consist of a mix of physically displaced families, squatter, encroachers, sharecroppers, land losers, tenants etc.

**Others:** These include those families (mostly agricultural labourers) that were dependent upon and benefitted from economically productive engagement in the impact areas

#### **4.4 PRINCIPLES, LEGAL AND POLICY COMMITMENTS**

The adverse impacts linked to loss of land and resultant involuntary resettlement, will as discussed above, give rise to social and economic impacts. The need for resettlement and rehabilitation is triggered because the project activities will cause displacement, loss of income and occupation due to acquisition of land and loss of assets and access to natural resources.

This policy document describes the principles and approach to be followed in minimizing and mitigating negative social and economic impacts by the projects. The framework guidelines are prepared for addressing the issues limited to this projects for resettlement and rehabilitation of the project affected persons (PAPs).

##### **4.4.1 Broad Principles**

The overall objective of this Framework is to guide the preparation and implementation of RAP on the broad principles as mentioned below:

- The negative impact on persons affected by the project would be avoided or minimized (by exploring all viable alternative designs);
- Wherever negative/adverse impacts are unavoidable, the project-affected persons (PAPs) will be compensated at replacement value and assisted in improving or regaining their livelihood and standard of living
- The project will consider both physical as well as economic displacement;
- The project will compensate for loss of land, structure and assets as well as livelihoods.
- Land for land option will be given first preference for mitigation of land related impacts of the project.
- The project will recognize livelihood impacts from formal as well as informal land use and dependence. Accordingly users of land (in addition to the titleholders) and any other dependents on the impacted land will be compensated.
- Vulnerability has been defined for the project. Vulnerable groups/people include women headed households, differently abled people, the landless and old/infirm will be identified and specific assistance will be provided to them.
- All information related to resettlement preparation and implementation will be disclosed to all concerned, and people's participation is being ensured in planning and implementation of the project.

- Before taking possession of the acquired lands and properties, compensation and resettlement and rehabilitation (R&R) assistance will be made in accordance with this policy.
- The project will strive to mitigate adverse impacts on access routes, CPRs and other community sensitivities. Wherever unavoidable the project will provide alternatives for such losses and restore/strengthen community resources.
- There would be no/or minimum adverse social, economic and environmental effects of displacement on the host communities but if needed specific measures would be provided in the Resettlement Plan.
- Broad entitlement framework of different categories of project-affected people has been assessed and is given in the entitlement matrix. Provisions will be kept in the budget for those who were not present at the time of enumeration. However, anyone moving into the project area after the cut-off date will not be entitled to assistance.
- Appropriate grievance redress mechanism will be established at the district level to ensure speedy resolution of disputes.
- All activities related to resettlement planning, implementation, and monitoring would ensure involvement of women. Efforts will also be made to ensure that vulnerable groups are included.
- All consultations with PAPs shall be documented. Consultations will continue during the implementation of resettlement and rehabilitation works.
- Displaced and compensated persons will be assisted in their efforts to improve their livelihoods and standards of living or at least to restore them, in real terms, to pre-displacement levels or levels prevailing prior to the beginning of the project implementation, whichever is higher.
- The Resettlement Plan shall include a fully itemized budget and an implementation schedule linked to the civil works contract.
- The project will develop and implement a Livelihood Restoration Plan that will enable people to restore, and preferably enhance pre-project income levels.
- The Project will undertake a Community Development Plan that will address the local community's development needs and will be based on good CSR principles and practices adopted globally

#### **4.4.2 Definitions**

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

**Cut-off date:** Cut-off date shall be the following:

1. 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 titleholders, it is the date on which the Notification is issued as per Section 20A of the Railways (Amendment) Act, 2008
2. In cases where people lack title, the cut-off-date shall be the date of start of the Census survey.

**Project Affected Person:** Affected persons are those who stand to lose all or part of their physical and non-physical assets including homes, productive land, community resources, commercial properties; livelihood; and socio-cultural network.

**Project Displaced person:** A displaced person is a person who is compelled to change his/her place of residence and/or work place or place of business, due to the project.

### **Definition of Family:**

1. “Family” 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;
2. Major sons and daughters will be treated as separate family if their livelihood is separately affected by the project.

**Wage Earner:** A person who is working with a commercial establishment or working as a labour in an agriculture land, which is being affected by the project

**Encroacher:** A person, who has trespassed Govt. land, adjacent to his/her own land or asset, to which he/she is not entitled, and deriving his/her livelihood prior to the cut-off date. If such a person is vulnerable, he/she would be entitled to assistance as per the provisions in the policy.

**Squatter:** Squatter is a person who is land less and has settled on publicly owned land without permission and has been occupying publicly owned building without authority prior to the cutoff date.

**Income:** Income of a PAP shall mean the amount of income as shown in his Income Tax Return prior to the cut-off date. In absence of such a return, his income shall be calculated by an objective assessment applying the same method as adopted by the Govt. agencies for identifying (Below poverty Line) B.P.L. families. The certificate of B.P.L. from the block / Tehsil will be used for identifying the B.P.L.

**Vulnerable Person:** Unless otherwise specifically mentioned in this document, a person who has been designated under ‘Below Poverty Line’ category as identified by the concerned State Govt. level will be considered a vulnerable person. Disadvantaged persons belonging to SC, ST, disabled, handicapped, orphans, destitute persons and woman heading the household are also recognized as vulnerable person.

**Titleholders (THs):** Persons who possess legal documents in support of claims made towards ownership of structure or land are titleholder.

**Share croppers:** Persons who cultivate land of a titleholder on terms of sharing income/produce there from with the titleholder

**Landless agricultural labourer:** A person who does not hold any agricultural land and who has been deriving his main income by working on the lands of others as subtenant or as an agricultural labourer prior to the cutoff date

**Small farmer:** A farmer holding 2 hectares of un-irrigated or 1 hectare of irrigated land will be treated as a small farmer

**Marginal farmer:** A farmer holding 1 hectare of un-irrigated or 1/2 hectare of irrigated land will be treated as a marginal farmer

**Non-agricultural labourer;** means a person who is not an agricultural labourer but is primarily residing in the affected area on and prior to the declaration of the affected area and 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; (adapted from NRRP 2007).

**Kiosk:** Kiosk is a temporary structure not fixed to ground. Normally kiosks are wooden structure on four legs on the ground and can be easily moved.

**Replacement Cost:** Replacement cost is the cost of purchasing comparable assets elsewhere by the affected person in lieu of the acquired land and other amenities, buildings 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 project authority shall provide other assistance to overcome the shortfall.

**Definition and Types of Entitlements under R & R:** The entitlements given under entitlement framework are (1) Economic Rehabilitation Grant (ERG), (2) Transitional Allowance (TA)/ Sustenance Allowance, (3) Shifting Allowance (SA) and (4) Training Allowance.

**Economic rehabilitation grant (ERG):** Economic Rehabilitation Grant (ERG) is a grant given to a PAP belonging to a vulnerable family losing livelihood viz; loss of commercial unit (owner as well as helping hands); loss of land including title holder, daily labourer, share cropper, etc. ERG will be given only to those members who are dependent on the affected property (land or shop etc.).

**Transitional Allowance (TA):** Transitional Allowance is provided as assistance to adversely affected/displaced persons, except owners of kiosks.

**Shifting Allowance:** Shifting Allowance is a one-time lump sum amount to enable shifting of family and household assets. Anybody getting displaced is entitled for this allowance.



**Training Allowance:** Training Allowance is a fixed sum for providing training to the eligible PAPs. Vocational training is provided to PAPs losing livelihood, as per their identified new vocations and the related training needs.

**Competent Authority:** 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.

**Census:** 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.

**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

**Compensation:** means payment in cash or in kind to replace losses of land, housing, income, and other assets caused by a project.

**Entitlement:** 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.

**Entitlement Matrix** is a table to define different nature of PAPs' losses and compensation packages and other relocation assistance that PAPs can receive.

**Non- titleholder:** 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.

**Project:** Refers to the Joint Feasibility Study for Mumbai–Ahmedabad High Speed Railway Corridor [Line 1 of Mumbai– Ahmedabad High Speed Railway]

**Project Affected Family (PAFs):**

- i. 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;

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

**Resettlement Site:** A site developed with infrastructure and services for resetting physically displaced people.

**Socio-economic survey** is carried out in order to prepare profile of PAPs and to prepare for Basic Resettlement Plan. About 20 percent sample of Project Affected Households (PAHs) population have been surveyed as part of this assignment.

**Tenant:** 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.

## 4.5 ELIGIBILITY POLICY, COMPENSATION AND R&R FRAMEWORK

The adverse impacts linked to loss of land and resultant involuntary resettlement, will as discussed earlier, have linked social and economic impacts. The need for resettlement and rehabilitation is triggered because the project activities will cause displacement, loss of income and occupation due to acquisition of land and loss of assets and access to natural resources. This section describes the broad categories of PAPs eligible to claim compensation and R&R benefits and overall entitlement matrix encapsulating the eligibility criteria, impact categories and benefits (compensation and R&R) together.

### 4.5.1 Eligible PAP Categories

Different categories of PAPs eligible for compensation and R&R benefits are as below:

#### Eligible PAP Categories

1. Titleholders (people with clear legal title over land): These would include:
  - a. Agricultural land owners;
  - b. Structure owners (residential/commercial or residential cum commercial)
2. Non-titleholders (people with lack of or unclear land titles)
  - a. Land losers with unclear titles;
  - b. Encroachers;

- c. Squatters;
- 3. Tenants;
- 4. Wage earners;
- 5. Sharecroppers
- 6. Kiosks;
- 7. Common Property Resources

The definition of above mentioned PAPs have been provided under preceding section 4.4.2. One or more of the following entitlement types would be extended to the PAPs in case impacted by the project:

### **Broad Entitlement Categories**

- Compensation for loss of land, crops / trees etc.;
- Compensation for structures (residential/ commercial) and other immovable assets;
- Compensation and assistance for loss of income and livelihood restoration support;
- Assistance for resettlement, relocation and rehabilitation;
- Strengthening/Rebuilding and/ or restoration of community resources/ facilities.

### **4.5.2 Compensation and R&R Framework**

As against the above stated entitlement categories, the following approach would be followed vis-à-vis various PAP categories:

#### **a. Compensation for the Loss of Land**

##### ***Land losers with Clear title (Titleholders)***

1. Cash compensation for the loss of land at replacement cost will be paid to the legal titleholders and land owners (PAPs) whose land has been acquired for the project. If the compensation decided by the competent authority is less than the negotiated consent, the project proponents will agree to pay the additional amount;
2. In cases where, after acquisition the remaining parcel of the affected person is not left viable, the affected household/person will have the option of either keeping the remaining land or forgiving that land and get the negotiated value;
3. The entitled person will be eligible for training for skill up-gradation
4. In cases of disputes such as where land records are not updated/ mutated or where the affected persons are unable to produce the desired documents, then the compensation amount will be deposited with the competent authority till the disposal of dispute.
5. All fees, taxes and other charges, as applicable under the relevant laws, incurred by the PAPs will be borne by the project.
6. The titleholders will be notified in time, preferable two months in advance in which to remove their assets and harvest their crops

### ***Encroachers***

1. The project will devise a mechanism/ strategy to identify long term encroachers (who are not driven by opportunistic motives) who have been using the land/assets for income generating activities.;
2. Encroachers will be notified in time, preferable two months in advance in which to remove their assets and harvest their crops;
3. The encroachers will be paid compensation for structures (part or full) at replacement cost. The replacement cost will be calculated without depreciation;
4. All encroachers will have right to salvage their materials from the demolished structures.
5. Encroachers would be considered eligible for training for upgradation of skills.

### **b. Compensation for Loss of Structures and Immovable Assets**

1. The project will make all efforts to resettle communities prior to start of construction work;
2. In case the above is unavoidable, the project during the transition period provide for subsistence and rental allowance for the entitled PAPs/PAFs. The subsistence and rental allowance will be decided through a participatory process involving affected parties, panchayats, district administration and the project proponent;
3. Loss of houses and structures will be compensated with replacement cost;
4. The affected persons will have right to salvage their materials from the demolished structures;
5. Options for resettlement will be provided to the affected persons. These will include either self-relocation or relocation at resettlement site;
6. For affected persons choosing self-relocation the project will apart from cash benefits provide other resettlement benefits like transport/shifting allowance, help in construction, skill training, economic rehabilitation grant and other livelihood restoration support measures;
7. Resettlement site (if required) with developed infrastructure, amenities and communication networks will be developed for affected persons choosing the option of resettlement. They will be entitled to a house along with other resettlement benefits like transportation/shifting allowance, skill training, economic rehabilitation grant and other livelihood restoration support measures.

### **c. Compensation and Assistance for Loss of Income and Livelihood Restoration**

The following approach/measures will be taken for compensating for loss of income and assistance for livelihood restoration.

1. Economic displacement will be considered as a criterion for resettlement and rehabilitation related benefits/allowances.

2. Vulnerable PAPs will be provided with special vulnerability allowance/ Economic Rehabilitation Grant etc.
3. Economic Rehabilitation Grant to the vulnerable PAPs would be provided as one time grant preferably in the form of a productive asset.
4. Training for skill upgradation will be constitute one of the key R&R activities of the project
5. Able bodied PAPs will be given preference over others for semi skilled/ unskilled employment by the contractor under this project
6. General Rehabilitation allowance to all PAPs, calculated in terms number of wage employment days so as to allow the family/members to improve/ recover to pre existing living standards

**d. Resettlement Site**

The following criteria will be considered while selecting and developing the resettlement site.

1. The project will make attempts to relocate people in groups to ensure that community networks and social fabric remain intact;
2. The resettlement site will be located preferably in a place close to their area of prior residence. Impacts on host community, land quality, common property resources, social infrastructure will be considered for selection of the site;
3. The project proponents will develop civic amenities like drinking water, internal link roads, drains, electricity at the resettlement site. Facilities and services (either government or others) availed by the displaced families prior to the project will as far as possible be provided;
4. The site selection will be done in consultation with the community and the relevant stakeholders;

**e. Compensation for Loss of Common Property Assets**

1. The project will, only in unavoidable cases, impact the common property resources;
2. All such properties that can be replaced, will be relocated at a nearest available site, in consultation with the local communities;
3. Such permanent public resources as roads or farm track, meeting places, religious places, graves, and other public structures will be rebuilt at full cost of construction or replaced by the project in a condition better than the pre-project condition, in consultation with the community, considering their preferences;
4. Schools, health centers and other basic amenities will be replaced in the resettlement site.

## 4.6 ENTITLEMENT MATRIX

The Entitlement Matrix provides category-wise details regarding the entitlements in relation to the Compensation and R&R principles listed above. This also forms the basis of strategy and other specificities detailed out in Chapter 6 (on ‘Relocation, Resettlement and Income Restoration’).

**Table (4.3): Entitlement Matrix**

Item No.	Type of loss	Entitled Persons (Beneficiaries)	Entitlement (Compensation Package)	Implementation issues/Guidelines
1	Loss of homestead, commercial, Agriculture land, pond, ditches and orchards etc.	Legal owner(s) of land	i. Land Compensation will be done at replacement cost	<ul style="list-style-type: none"> <li>a. An independent evaluator will be engaged by the land acquiring authority/ project proponents to ascertain prevailing market rate/replacement cost for land lost.</li> <li>b. Market rate as recommended by independent evaluator and agreed by the project proponents/ MoR and the state government will be shared through public meetings before actual act of acquisition.</li> <li>c. Option of purchase of unviable land holding will be given to PAHs.</li> <li>d. In case of unclear or disputed titles too, compensation will be at replacement value and PAH will be treated at par with titleholders but upon resolution by court or consensus</li> <li>e. All fees, taxes and other charges, as applicable under the relevant laws, incurred in the relocation and resource establishment, to be borne by the project</li> </ul>
2	Loss of Crops	Legal owner/ grower/ socially recognized owner/ Tenants/ sharecropper/ lessee/ unauthorized occupant of land	i. Compensation for standing crops in case forced relocation @market value and cost of replacement of seeds for next harvest	<ul style="list-style-type: none"> <li>a. Advance 3 months notice to harvest standing crops/take away crops</li> <li>b. Assessment of market value for various crops and seed varieties to be done by independent evaluator in consultation with District Agriculture Office</li> <li>c. All tenants and sharecroppers will be identified during the detailed census survey exercise.</li> <li>d. Compensation will be paid prior to land acquisition and upon certification of compensation receipt by PAHs</li> <li>e. Cash compensation if received for crop loss will be shared between</li> </ul>

Item No.	Type of loss	Entitled Persons (Beneficiaries)	Entitlement (Compensation Package)	Implementation issues/Guidelines
				Owner and tenants in a manner similar to agreed sharecropping terms between the two parties. In case of disputes, final resolution will be done district level land acquiring and compensation body, relying on opinion of local elected representative (PRIs) of the area.
3	Loss of Trees/ Perennials/ fish stock	1. Person with Legal Ownership of the land 2. Socially recognized owner	i. Compensation “replacement value” at	a. Compensation for perennial crops, trees, ponds will be calculated as annual produce value multiplied by remaining life of the tree/ponds. b. For trees of timber value, the compensation will be as per market value tree’s timber value c. Owners will be allowed to fell the tree (within a stipulated time frame and at least with 3 month’s advance notice) and salvage the material
4	Loss of residential /commercial structure by owner(s)/ squatters	Legal Owners or squatters	i. Compensation at replacement cost for structures ii. Resettlement Allowance to all displaced at INR 50,000 per PAH iii. Transportation Allowance @INR 50,000 per PAH iv. Assistance for Petty Shop/Cattle Shed Construction at INR 25,000 per structure	a. Replacement cost to be established by independent evaluator appointed by land acquiring body/project proponents b. Compensation to be provided to both owners and squatters and before acquisition of land and the structures c. Option of self-relocation or relocation at the resettlement site (house with developed infrastructure) or a free plot of land and construction allowance (at market rate)  Option/provision of a) shop/establishment at commercially viable location within easily accessible distance OR b) commercial plot with construction cost (at market value) OR option of self-relocation with one time compensation d. Resettlement Allowance to all displaced e. Assistance in house construction (for those who opt for self-relocation) f. Right over salvagable material g. Transportation/shifting allowance h. Assistance/Allowance for construction of petty shops, cattle shed etc.

Item No.	Type of loss	Entitled Persons (Beneficiaries)	Entitlement (Compensation Package)	Implementation issues/Guidelines
				<p>i. In case of unclear or disputed titles too, compensation will be at replacement value and PAH will be treated at par with titleholders but upon resolution by court or consensus</p> <p>j. All fees, taxes and other charges, as applicable under the relevant laws, incurred in the relocation and resource establishment, to be borne by the project/waived off.</p>
5	Loss of access to Residential houses/ commercial structures (tenants/lease holder)	Tenants of rented/ leased properties	<p>i. Transportation and Shifting Allowance at INR 50,000 per PAH</p> <p>ii. Resettlement Allowance at INR 50,000 per PAH</p>	<p>R&amp;R assistance in terms of both transportation of household/ commercial goods housed in the structure impacted</p> <p>b. Additional resettlement allowance will be paid to tenants/lease holder</p> <p>c. Identification of tenants will be established through census survey conducted prior to acquisition.</p> <p>d. Advance 3 months notice will be served to tenants/lease holder as well</p>
6	Loss of business/ loss of income and work days due to dislocation/displacement	Owner/operator of the business as per census survey	<p>i. One time assistance against employment, business loss, annuity at INR 500,000 to all PAH losing livelihoods/business or employment to a PAH member in job created by project (upon skill building) ensuring minimum wages in force or annuity of not less than INR 2000 per month to PAH for 20 years</p> <p>ii. Additional Subsistence Grant at INR 36,000 per PAH (economically displaced)</p> <p>iii. Grant to artisan and small traders/kiosk owners at INR 25,000</p>	<p>a. Assistance for loss of income/business/livelihood to be provided to all PAHs as identified during census survey</p> <p>b. PAHs will be provided choices of employment, annuity or one time assistance and will be free to opt for any</p> <p>c. Assistance in construction (for those who opt for self-relocation)</p> <p>d. Training for up gradation of skills</p>
7	Poor and vulnerable households	Poor and vulnerable households as identified during census survey	<p>i. All of compensation and assistance as mentioned above</p> <p>ii. Additional assistance to SC and ST families at INR 50,000 per PAH</p>	<p>a. In case of displacement in Scheduled Areas, as far as possible, affected ST (tribal) families will be relocated in similar ecological zone</p> <p>b. Preference will be given to SC, ST and other vulnerable families for 'land for land' based compensation (land availability with government may be limited to meet compensation requirements), employment</p>



Item No.	Type of loss	Entitled Persons (Beneficiaries)	Entitlement (Compensation Package)	Implementation issues/Guidelines
				opportunities, relocation sites etc c. Skill training and upgradation by R&R implementing agency
9	Loss of Common Property Resources	Affected Common Property Resources (Mosque, school, community infrastructure etc.)	i. Replacement cost as grant for shifting/reconstruction of structures Or shifting/reconstruction of the property by Project ii. Assistance for reconstruction/restoration of properties/resources iii. Provision of alternate access to common properties/resources if access is permanently severed	a. Restoration of affected community buildings and structures to at least previous condition, or replacement of the structures/ sites in consultation with the community, and following their preferred process. b. Loss of fodder to be compensated by supporting/ growing fodder in common area/ and private agricultural field. c. Reconstruction or restoration to managed by local committee- to be identified by R&R implementing NGO or as designated by acquiring body. d. Ensure that access to common properties/resources is maintained through provision of adequate underpasses/foot over bridges both PAPs, cattle etc.
10	Temporary impact during construction	Community / Individual	i. The contractor shall bear the cost of any impact on structure or land due to movement of machinery and in connection with collection and transportation of borrow materials. ii. Ensuring alternate access options in case of temporary severance with properties/resources or in communication iii. All temporary use of lands outside proposed CoI to be through written approval of the landowner and contractor. iv. Land will be returned to owner rehabilitated to original preferably better standard	a. Community people should be consulted before starting of construction regarding air pollution, noise pollution and other environmental impact b. The laborers in the camp would be trained about safety measures during construction, aware of health safety, STDs, safe sex etc. The contractor shall ensure first aid box and other safety measures like condoms at construction site. c. Alternate access options will be provided in cases of temporary severance e.g alternate temporary roads where existing road is closed for construction reasons.

Note: Drawn from LARR 2013. The Act, currently under debate in Indian parliament is more progressive and accommodative to the needs of affected persons and its provisions ensure that PAHs get additional support (besides compensation, which is calculated on market rates). Hence instead of RAA and NRRP, the entitlement matrix has drawn from LARR 2013 which while adhering to likely applicable Indian law, will also respond to JICA norms for compensation and R&R.

## 5. CONSULTATION, PARTICIPATION AND DISCLOSURE

### 5.1 INTRODUCTION

Public and other stakeholder consultation has to be a continuous process throughout development of any infrastructure project, i.e. during project preparation, implementation, and monitoring stages. Participatory planning in which public consultation plays a major role has a bearing on the sustainability of any infrastructure development project. Involuntary resettlement generally causes numerous problems for the affected population which can be reduced to a great extent if people are properly informed and consulted about the project and allowed to make meaningful choices or preferences. This serves to reduce the insecurity and opposition to the project which otherwise are likely to occur during project implementation.

Keeping in mind the significance of consultation and participation of the people likely to be affected or displaced due to the proposed project, such activities were carried out during the entire socio-economic assessment process and preparation of this preliminary RAP draft. Public consultations are proposed to be held in two rounds; first during the primary socio-economic assessment or census and Inventory of Loss survey phase and the second upon preparation of the RAP document for disclosure purposes. Both formal and informal discussions were conducted with stakeholders during field visits from **04/12/2014 to 18/12/2014**. During field visits consultations with key stakeholders were held to inform and discuss issues regarding nature of project and its features, impacts on account of land acquisition, loss of structures and policy frameworks governing project implementation, mitigation measures and related suggestions. The second round of stakeholder consultations was held during the period **20/04/2015 to 30/04/2015**. These were held at all districts headquarters and primarily aimed at sharing of key contents of the RAP document prepared specifically the entitlement matrix. Further, this was also used as a platform to assure the stakeholders about transparency in the process such as incorporation of feedback and suggestions, received in the first round of such consultation, in to RAP document draft.

### 5.2 PROJECT STAKEHOLDERS

The proposed High Speed Rail project has multiple stakeholders including the MoR, Govt. of India to Project Affected Families and Project Affected Persons. Relevant to stakeholder consultations, the following constitute the key stakeholders:

- Project Affected Persons/families<sup>14</sup>
- NGOs/CBOs: that are active and operational in the project affected area and may have opinion about the project and its impact on community
- Media: print and visual media that covers and reports in the project affected area and
- District Level Officials from revenue department, agriculture department, forest department, tribal development department, etc.

Project affected persons/families are the primary stakeholders in the context of public consultations as they remain to be most affected by the project. Other stakeholders like the

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<sup>14</sup> Refers to all those who stand to lose all or part of their physical and non-physical assets including homes, productive land, community resources, commercial properties; livelihood; and socio-cultural network and includes categories such as land losers, squatters and encroachers

local media and the NGO/CBOs also hold significance as they may be the repositories and representative of collective knowledge and voice of the affected communities. The district level officials for this project are from various line departments that exercise its official jurisdiction over matters such as land and property, livelihoods, natural resources such as forest etc. and that which will be impacted by project implementation. Departments of land and revenue, agriculture, forest, tribal welfare are relevant departments in this instance. Consultations with these departments are also significant as it would provide critical inputs on aspects of availability of land, land acquisition and R&R processes and policies that can be integrated to develop an appropriate RAP.

Hence, public consultations held for this project invariably sought participation from all the above four stakeholder categories.

### 5.3 APPROACH AND METHODS OF CONSULTATION

Detailed and extensive consultations were carried out during base-line and socioeconomic survey stage held with various sections of affected persons such as traders, women, squatters, kiosks and other inhabitants. These consultations were held at all level with representation from prospective Project Affected Persons (PAPs) and officials from key Government department. Objective of such consultations were to inform affected persons about the project, its features (such as nature of physical constructions, alignment etc.), expected impacts, policies that govern project related land acquisitions and R&R benefits such as compensation, income restoration, employment generation, information flow, grievance redress etc. This report incorporates all issues raised during public consultation and recommends institutional strengthening measures in response to issues raised. The following methods were adopted for conducting public consultation:

- Informal individual/group consultation during the course of census and IOL survey by the field surveyors that informed the PAPs about the project, purpose of survey and clarifications on their queries
- In-depth individual interviews/discussion with key informants from community, opinion leaders and from the government departments
- District level stakeholders meetings with the affected families and district officials

While the first two of the approaches qualify more of an informal approach, the district level public consultations were organized in a more formal setting.

Formal stakeholder meetings were held at district level. One such meeting was organized in each of the project affected districts, keeping in view that the project is still at its feasibility assessment stage. A more detailed exercise will be taken up at later stage, once the project is conceptualized and formal go ahead is given by the Ministry of Railways, inviting all PAPs and the event organized at village/taluka level or as per directions from the project proponents.

The methodology adopted for conducting district level consultations included the following sequence of activities:

- **Informing all PAPs in advance** (during the census survey) about proposed stakeholder meeting at district level. The PAPs were informed about the purpose of such meetings; in

a way also ensuring the proposed SHMs observed the principle of Free, Prior and Informed Consultation.

- **Identifying suitable venues** for the meeting. These venues (at district headquarters) were chosen in a way so that they can be easily traced and reached by the district officials and the PAPs/PAFs coming from various villages.
- **Formal Invitation to participants** for the meeting. Participants included both the project affected persons and district officials from key line departments such as revenue, agriculture, forest, social welfare and tribal welfare. Invitation to district officials was sent through formal letter and sent in about 5-6 days in advance. Further follow up was done either through direct physical visit to their offices or over phone calls on day (or a day prior to) of the meeting. Such visits also provided the opportunity to brief district officials about the project and the objective of the proposed public consultations.

Keeping in view the stage (i.e. project feasibility study) that this project is in, public consultation was conducted on a limited scale<sup>15</sup>; involving a sample representative of project affected persons. Participants were identified and invited from randomly selected affected households from at least 8-10 villages spread along the proposed alignment in the district. On an average 50-60 participants were approached both over phone (contact number were collected during and through direct communication (by visiting to village/households), with 20-35 persons turning up on the event day. The procedure followed ensured that participants represented the geography and socio-economic strata of the project affected population.

- **Stakeholder Consultation/Meeting** at district level that included formal power point presentation before the participants followed by open discussion and clarifications around queries and concerns raised by event participants. The event on average lasted for 2 hours (11 AM to 1 PM).

Proceedings of the stakeholder meetings were recorded both on paper. In addition, video recordings of all events have also been prepared. Still images for some of these meetings have been provided as Annexure 5 of this report.

In addition to the public consultations (discussed above), separate discussions (outcomes discussed later in this chapter) were done with district officials to get further insight on their perception and recommendations on various aspects related to project implementation.

Following sections summarizes outcomes of various stakeholder consultations held, inputs obtained from participants.

## **5.4 DISCLOSURE AND PUBLIC CONSULTATIONS**

Apart from various small discussions during the socio-economic survey, district level stakeholder consultations/ meetings were conducted for all 11 districts (8 districts of Gujarat,

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<sup>15</sup> A more detailed exercise will be taken up post submission of feasibility report and upon finalization of the alignment and formal sanctioning of the project by the government. Such an event would invite participation from all affected households and be organized at village/taluka level (or as per directions from project proponents).

2 districts of Maharashtra and 1 Union Territory of Dadra and Nagar Haveli) at 1st round SHM. Table 5.1 and Table 5.2 below provide the schedule of event organized. The meetings witnessed participation from project affected persons, representatives from district level departments and local NGOs, details of which are provided in the table below:

<b>TABLE (5.1): PRIMARY DETAILS OF DISTRICT LEVEL CONSULTATIONS</b>				
<b>S. No</b>	<b>Date</b>	<b>District</b>	<b>No. of Participants*</b>	<b>Representation from District Department**</b>
1	04.12.14	Navsari	20 (5)	Deputy Collector (Land Acquisition), Navsari
2	05.12.14	Surat	15 (1)	Mamlatdar, Surat City, Head Clerk, District Agriculture Office
3	06.12.14	Valsad	30 (0)	Deputy Collector, Valsad
4	06.12.14	Dadar and Nagar Haveli	6 (0)	
5	08.12.14	Palghar	22 (3)	SDO&SDM, Palghar
6	10.12.14	Thane	28 (0)	
7	12.12.14	Vadodara	18 (2)	Special Land Acquisition Officer and Deputy Mamlatdar
8	15.12.14	Bharuch	15 (0)	
9	16.12.14	Anand	21 (0)	
10	17.12.14	Kheda	27 (0)	District Agriculture Office
11	18.12.14	Ahmedabad	96 (21)	
Source: Stakeholder Meetings Attendance Register, 2014				
*No. in parenthesis denote female participants present in the meeting				
** In addition to the above, in 2 districts there was representation from local NGOs (Adivasi Ekta Parishad, Palghar, Conservation Action Trust, Mumbai. Local Media presence was also observed in Navsari stakeholder consultation				

<b>TABLE (5.2): PRIMARY DETAILS OF DISTRICT LEVEL CONSULTATIONS</b>				
<b>S. No</b>	<b>Date</b>	<b>District</b>	<b>No. of Participants*</b>	<b>Representation from District Department**</b>
1	20.04.15	Ahmedabad	60 (20)	None
2	21.04.15	Kheda	8	None
3	22.04.15	Anand	14	None
4	23.04.15	Vadodara	13	None
5	24.04.15	Bharuch	14	None
6	25.04.15	Surat	7	None
7	27.04.15	Navsari	9	None
8	28.04.15	Palghar	36 (13)	

9	29.04.15	Thane	14	ADM and Sub Collector (2) from Dist. Collectorate
10.	30.04.15	Valsad (and Dadra)***	-	-

Source: Stakeholder Meetings Attendance Register, 2015

\*No. in parenthesis denote female participants present in the meeting

\*\* In addition to the above, in 1 district there was representation from local NGOs (Adivasi Ekta Parishad, Palghar).

\*\*\* *the meeting could not be organized in Valsad (and Dadra), as planned on account of prevailing antagonism among the participants who approached for the event. Various participants (from among the affected households) were approached over phone to attend the event. A sizeable number among them are from villages around Vapi and in Pardi and Umbergam taluka such as Kocharva, Tal, Rata etc. The participants, repeated their demand from the first round of SHM, wherein they wanted representation of MoR, meeting to be held at village level or in Vapi (instead of Valsad), change of alignment and non acceptance of proposed alignment. The response received was laced with extreme hostility and threat to disturb (not allow) the very conduct of the SHM, if actually held. Hence, as precaution (and in view to not sensationalize the matter given that the project is currently at feasibility stage only), the meeting was cancelled.*

For the purpose of consultations, conscious effort was made to ensure higher representation of women, amongst the project affected persons. Though invitation had sent to women, however many of them did not participate the meeting except of its at Mumbai.

Parallel to the district level stakeholder consultations, meetings were also held with various department officials in their offices in each of the districts. The objective of these meetings was to seek valuable inputs from relevant district offices on issues around land acquisition and R&R policies and practices and their perception vis-à-vis HSRC, likely challenges and suggestions in these respects. The table below mentions list of officials met for discussion during the consultation exercise.

These consultations were used as the platform for dissemination and disclosure of key information on the project such as the proposed route alignment, affected villages, brief on infrastructures to be constructed, applicable laws and policies on land acquisition and R&R activities etc. It also provided a snapshot of affected population perception about, project, concerns and suggestions with respect to proposed alignment and existing policies and practices on land acquisition and R&R.

The box below presents outline of a typical consultation event held in project districts.

#### **Stakeholder Meeting: Content Outline**

1. Welcome and Registration of the participants
2. Sharing of objective of the meeting that were
  - To brief potential stakeholders about proposed High Speed Passenger Railway
    - About track route
    - Type of construction
  - Brief about various stages/processes associated with an infrastructure project of such nature

- To collect stakeholder perception, concerns, opinion and suggestion and share with project proponents
  - About Impacts and its mitigation
  - About possible land acquisition process
  - About R&R policy and process
- 3. Brief about the project: Sharing the proposed alignment (on google earth), list of major towns, villages etc. falling along the alignment, types of construction involved (bridges, viaducts, tunnel etc.)- *participants were informed that project is currently at feasibility assessment stage*
- 4. Project Cycle: Briefing on various stages/milestones associated with infrastructure projects of this nature. Informing on various stages that this project will pass through till its closure. These typically include project conceptualization, pre feasibility and feasibility studies, project finalization and DPRs, Detailed SIA and EIA, systematic R&R and Land Acquisition related activities, project construction and subsequent closure activities- *Participants were informed that JICA/World Bank policies would influence R&R activities under this project.*
- 5. Current project status: Progress status of the project in the chain of activities/milstones
- 6. Key features of R&R policies of JICA (including concept of cut-off date)
- 7. Project related opinions/suggestions and concerns
  - About Impacts and its mitigation
    - What are these (positive and negative) and how?
    - Who will be most impacted if they are?
    - How best these can be mitigated considering project significance
  - About applicable land acquisition process
    - Opinion and suggestions
  - About R&R policy and processes
    - Suggestions on type of assistance and support (besides compensation)
    - Institutional and implementation arrangements
    - Any other suggestions?
- 8. Thanks and Meeting Closure (with refreshment and tea)

The consultative meeting has brought forth viewpoints and suggestions from the stakeholders relating to change of proposed alignment to minimize impact, use of existing surplus of land with railways, aligning it with DFC alignment and proposed road express ways, construction of over bridges, compensating loss with prevailing market rates, minimizing impact on livelihoods, barricading of the proposed line to avoid tress-passing, possible places for construction of over bridges, railway gates, and most importantly the need for greater engagement and participation of affected families in decision making processes specifically the HSR alignment. The detailed outcome of the meeting is discussed in the section following.

## 5.5 STAKEHOLDERS MEETING OUTCOME

As discussed in the previous section 11 district level meetings have been organized to understand perceptions, concerns and suggestions of affected persons and the local officials. In this section we are presenting the summary of outcome from these meetings.

Table (5.3) below summarizes the discussion held at various district level consultations.

**TABLE (5.3): SUMMARY OF DISCUSSIONS OF DISTRICT LEVEL CONSULTATIONS**

<b>Sl. No</b>	<b>Districts</b>	<b>Key Outcomes/Concerns/Suggestions from Meeting</b>
1	Navsari	<p><i>On Alignment and Structure</i></p> <ul style="list-style-type: none"> <li>Alignment should consider avoidance of impact to religious structures, open/dug wells, to the extent possible; Participants also identified a school in Manekpur village, having historical importance and requested for route alignment in a manner that avoids damage to it.</li> </ul> <p><i>On Impact</i></p> <ul style="list-style-type: none"> <li>Most of the participants belong to farming communities and hence acquisition of their farm land will impact their livelihoods. Government should therefore consider land against land for compensation</li> </ul> <p><i>On LA and R&amp;R Policy, Process and Measures</i></p> <ul style="list-style-type: none"> <li>Compensation for land acquisition should be done at more than the market rate.</li> <li>Disbursement of compensation should be done within a reasonable time;</li> <li>Sufficient advance notice should be served to affected families to enable them to shift affected structures.</li> <li>People have already lost their land under various government projects in the past. Further, they have not received adequate compensation for their losses hence requested for minimizing land acquisition.</li> </ul> <p><i>Others</i></p> <ul style="list-style-type: none"> <li>The ADM present in the meeting summed it up saying that people would not object to land acquisition, if proper and adequate compensation is provided to them. The participants, most of them agreed to the statement made!</li> </ul>
2	Surat	<p><i>On Impact</i></p> <ul style="list-style-type: none"> <li>Safety should be the first priority during construction and operation of the project.</li> </ul> <p><i>On Alignment and Structure</i></p> <ul style="list-style-type: none"> <li>Width of land for HSR Track should be reduced to minimize land acquisition.</li> <li>Flyovers / under passes should be constructed near important crossing especially near school and temples.</li> </ul> <p><i>On LA and R&amp;R Policy, Process and Measures</i></p> <ul style="list-style-type: none"> <li>Compensation for affected land and structures should be provided more than the prevailing market rates. Market rates should not be decided as per the circle rate/stamp duty register (<i>Jantri rate</i>) and</li> </ul>



		<p>fresh market value assessment should be done by the government before acquiring land.</p> <ul style="list-style-type: none"> <li>• In addition to the compensation for loss of land and assets, MoR/GoI should give priority to affected households for jobs in government departments in accordance with the qualification of the candidate.</li> <li>• All shop keepers should be rehabilitated by constructing market complex in nearby area. Compensation should be given for loss of land and structures.</li> <li>• Most of the business persons of village Chhedcha and Antroli were of the view that they would prefer to relocate their shops at Surat for which adequate support shall be provided by the project.</li> <li>• Disbursement of money should be done before the commencement of civil works; advance notice period should be served to the PAF.</li> </ul>
3	Valsad and Dadra and Nagar Haveli	<p><i>On Alignment and Structure</i></p> <ul style="list-style-type: none"> <li>• Participants suggested that alignment should be redesigned or should be underground to avoid dismantling of any structures or acquisition of land so as to minimize impact on their livelihoods.</li> <li>• Existing vacant land at Valsad District should be used for station instead of commercial and residential land of local people.</li> </ul> <p><i>On Impact</i></p> <ul style="list-style-type: none"> <li>• Majority of the villagers are dependent on agriculture for their livelihood and hence loss of agriculture land will have adverse impacts on their livelihood.</li> </ul> <p><i>On LA and R&amp;R Policy, Process and Measures</i></p> <ul style="list-style-type: none"> <li>• Affected persons should be duly consulted before finalization of options for rehabilitation and resettlement.</li> </ul> <p><i>Others</i></p> <ul style="list-style-type: none"> <li>• Participants also strongly recommended for organizing meetings at village level rather than at the district level for ensuring larger participation. Some of the stakeholders resisted the proceeding in the consultation and remarked all affected people should be invited for consultation about the project and allowed to make meaningful choices or preferences. <i>It was though explained to them such an exercise will be conducted once the project gets finalized.</i></li> <li>• Participants also asked for presence of MoR representative in such consultations in future</li> </ul>
4	Palghar	<p><i>On Alignment and Structure</i></p> <ul style="list-style-type: none"> <li>• Participants opposed the proposed route alignment as it will result in considerable damage to residential structures (particularly in Vasai taluka in Mumbai suburbs) and homestead land and requested re-consideration of the same.</li> <li>• Existing vacant land should be used for infrastructure creation rather than acquiring additional commercial and residential land.</li> </ul> <p><i>On Impact</i></p>

		<ul style="list-style-type: none"> <li>Project area (specifically in Talasari and Dahanu taluka) is mainly inhabited by tribal population. Most of the participants (from tribal community) vehemently shared their opposition to the project saying that they solely depend on farming for livelihoods and hence any acquisition of their farm land will impact their livelihoods. Alternatively they should be provided land against land.</li> </ul> <p><i>On LA and R&amp;R Policy, Process and Measures</i></p> <ul style="list-style-type: none"> <li>Participants requested for similar consultations to be held at village level, allowing all affected persons to participate in the meeting.</li> <li>One of the PTGs named Katkari are living in the area, so their needs and livelihood security need to be protected.</li> <li>People expressed the view that most of the area of Palghar district is coming under PESA rule wherein panchayat's written permission is required to take up any kind of work.</li> <li>Participants believe that there are separate rights for indigenous people which protects them from projects that may have adverse impact and such a eventuality the projects cannot come up.</li> </ul> <p><i>Others</i></p> <ul style="list-style-type: none"> <li>They fear that many other industrial and infrastructure projects are coming up in future in this district and most of the people from this area will be relocated which is not a sustainable way of development. The participants also shared that people have already given them land for ongoing Expressway (Road) in the district.</li> <li>One of the participants also expressed his displeasure, recalling a past instance where 4000-6000 acre of land was acquired in Dabtari village for dairy project, resulting in massive displacement. Later the project failed and the land instead of being returned to farmers, was sold for some other project at a higher price.</li> </ul>
5	Thane/ Mumbai	<p><i>On Alignment and Structure and Impact</i></p> <ul style="list-style-type: none"> <li>Rajiv Puri (Territory Manager, BPCL)- BPCL has started a company owned petrol pump at BKC which caters to around 2600 vehicles with 8000 lt. petrol/diesel per day. Hence any relocation of the petrol pump will also affect the local population. Company representative also shared that many of their petrol pumps have been closed due to litigation and finding a suitable place in such places is extremely difficult.</li> <li>Indian Corporation, a private company has warehouse structures in 754 acre and 117 acre plots in Bhiwandi and requested for minor realignment of the track to spare the infrastructure. The affected parties are willing to allow viaducts to pass over vacant land parcel owned by them however, a minor realignment will spare damage to the physical infrastructure</li> <li>In Vasai common ground for large residential areas is being affected by the prospective alignment and hence realignment is requested.</li> <li>In Kaman proposed track alignment is cutting the infrastructure of</li> </ul>

		<p>Siddhi Press diagonally which will result in loss of structure and livelihoods. Shall be compensated appropriately at market rate.</p> <ul style="list-style-type: none"> <li>In Shilphata, Datta Mandir, a 200 year old temple is being affected by the proposed alignment. Also a lot of residential structure will be affected if the proposed alignment is finalized. Participants have suggested an alternative line to avoid this loss- The proposed route can be via Nilgegaon and Daighar which will minimize the impact and thus save government's money on compensation</li> </ul> <p><i>Others</i></p> <ul style="list-style-type: none"> <li>Sufficient land has already been acquired for the proposed express highway between Mumabai – Ahmedabad. Participants requested if the proposed high speed railway line can use this already acquired land.</li> </ul>
6	Vadodara	<p><i>On Alignment and Structure</i></p> <ul style="list-style-type: none"> <li>Proposed track alignment should be parallel and along the Dedicated Freight Corridor.</li> <li>Inverted “S” shape alignment near Chhani (on northern outskirts of Vadodara) is very sharp, which may not be technically feasible.</li> <li>Major physical structures (Rajpath Club hotel, Lalita Tower, etc.) around the Baroda railway station may be damaged if the proposed alignment is approved. Alternate option of underground track and station (tunnel structures) should be considered within the city should be considered.</li> </ul> <p><i>On Impact</i></p> <ul style="list-style-type: none"> <li>There are many villages such as Sihor, Ikhriya, Berpur, Mezat, Khusipur and Kotwada which will face water inundation problem if the line is constructed as it would interfere with existing drainage pattern. Appropriate measures should be taken avoid such problems.</li> </ul> <p><i>On LA and R&amp;R Policy, Process and Measures</i></p> <ul style="list-style-type: none"> <li>Replacement cost should be given to PAFs including costs for both land and infrastructure. Acquisition benefits should also be given prior to land acquisition.</li> <li>Large part of Ambika Vijaya Society near Chani, where 48 families are residing, will be affected. These families are living in row house tenement. Most of them have business within 2 km of radius of their place of living. Hence any involuntary relocation should provide them resettlement site around their business locations only. Similar issue was raised by residents of Shilalekh society.</li> <li>All the acquisition should be done under the supervision of court.</li> </ul>
7	Bharuch	<p><i>On Alignment and Structure</i></p> <ul style="list-style-type: none"> <li>The proposed track alignment should be along the DFC line or the national highway as sufficient land has already been acquired for creation of these infrastructures, much of which remain unused.</li> </ul> <p><i>On Impact</i></p>

		<ul style="list-style-type: none"> <li>• Talkeswar Mahadev Temple in Telod village will be affected by the project. The temple is highly revered and place of high importance to the locals, as evident from the fact that village of its location too derives its name from the temple. Hence, the participants suggested that alignment would require to be changed, in absence of which the project will face vehement opposition from villagers and the matter would become sensitive. The villagers will also object to shifting of the temple as they consider the temple deity origin to be of natural creation and not manmade.</li> <li>• There is no land (of converted land use for residential purpose) available for constructing houses apart from their farmland and existing residential houses, the families would find it difficult to get new residential plot and construct their houses</li> <li>• People will also face difficulty in getting electricity connection for their farm bore wells which may be affected by the proposed project.</li> </ul> <p><i>On LA and R&amp;R Policy, Process and Measures</i></p> <ul style="list-style-type: none"> <li>• Monetary compensation has to be provided at market value to people whose properties/assets are being affected by the proposed track.</li> <li>• Many of the affected are living in joint families while the ownership is with one person. Hence compensation should consider these complexities also and provide benefits to individual family units.</li> </ul>
8	Anand	<p><i>On Alignment and Structure</i></p> <ul style="list-style-type: none"> <li>• Participants recognized the benefits and significance of the project. They however, suggested the alignment to be shifted along the express highway for expansion of which sufficient land has already been acquired.</li> <li>• Three over bridges will be required in Boriavi only as the proposed track is passing through 3 state highways- Chandra Nagar – Chaklasi, Samarkha – Sakti Nagar, Jivapara – Samarkha</li> </ul> <p><i>On LA and R&amp;R Policy, Process and Measures</i></p> <ul style="list-style-type: none"> <li>• There are several commercial establishments (shops, marriage plots, etc.) that draw and depend on location advantage. These affected people should be compensated with equally sized land parcels and the cost of construction/ land development (at market value) and within 2 km of their existing structure.</li> <li>• People whose 60 percent or more land is likely to be acquired would prefer the entire land parcel to be acquired by the government.</li> <li>• Participants also wanted to know about the fate of wells (irrigation resource) if the line passes between the well and agriculture land, making the irrigation source redundant.</li> </ul>
9	Kheda	<p><i>On Alignment and Structure and Impact</i></p> <ul style="list-style-type: none"> <li>• Participants suggested that the track should be shifted and taken along the express highway which has surplus land (acquired) by its side.</li> <li>• In Malataj (Also Sandra, Sanket, Nenpur) village, the proposed track</li> </ul>

		<p>is passing between houses of the village and their farms. This will make it difficult for people to approach their farms. Hence foot Over Bridges should be provided at appropriate places.</p> <ul style="list-style-type: none"> <li>• The proposed track is crossing a number of important connecting roads such as Nenpur-Malataj, Memdabad-Kheda, Bavra-Kakatpura-Memdabad, Kheda-Mahuda, etc. As per the alignment as shown on the google earth imagery, the proposed track is an embankment type structure. The participants, therefore suggested for bridges over these road crossings.</li> <li>• In Bavra village, the school and the dairy cooperative society will fall on the other side of the proposed track. These two places are frequently visited by the villagers and children and hence the proposed track will create lot of inconvenience. Further, there is no government land available in the village where the school can be relocated. Hence acceptable solutions and consideration must be made by government while executing this project.</li> <li>• In Degam village too, government school is being affected by the line and there are no alternative government land for its relocation.</li> <li>• Fencing of the line is suggested by the villagers to avoid accidents as this is high speed railway line and the response time (during crossing of the track) will be less.</li> </ul> <p><i>On LA and R&amp;R Policy, Process and Measures</i></p> <ul style="list-style-type: none"> <li>• Villagers of Bavra said that they should be given land and construction cost (as per market rate) should be given as compensation to the people whose house will be affected.</li> </ul>
10	Ahmedabad	<p><i>On Alignment and Structure</i></p> <ul style="list-style-type: none"> <li>• The track alignment should be such designed that it minimizes impact on residential and commercial structures.</li> </ul> <p><i>On Impact</i></p> <ul style="list-style-type: none"> <li>• Participants from Shahibaug area opined that both house (slum) and livelihoods will be affected.</li> <li>• People from Asarva Bridge/Fatwa Masjid said the affected people are mostly muslims with poor economic status</li> </ul> <p><i>On LA and R&amp;R Policy and Process and Measures</i></p> <p>Shahibaug area:</p> <ul style="list-style-type: none"> <li>• People in this area are mostly earning their livelihoods within a radius of 2 km therefore any relocation plan shall consider this fact so that their livelihoods are protected.</li> <li>• These people have been paying taxes for the places where they have been living, however they are not the owner of these houses rather their status in the receipt are shown as secondary occupant.</li> <li>• All the affected families from same locality shall be shifted to same place which is near to their present location.</li> <li>• They shall be given house against house not money and or land as</li> </ul>

		<p>relocation benefit.</p> <p>Asarva Bridge/Fatwa Masjid area</p> <ul style="list-style-type: none"> <li>Families residing in houses that may be affected by the proposed line will be interested in cash compensation (at market rate) only as they fear that in case of relocation they may not be relocated in adjacent locality/preferred location.</li> <li>There are a few people who have purchased houses recently but they do not have legal documents for ownership. Compensation and R&amp;R benefits should factor in these complexities as well</li> <li>Most of the affected are slum dwellers whose livelihood activities/operations are based out in nearby areas only. Hence any relocation and resettlement should be done in areas in vicinity of their current residence only.</li> </ul>
<b>Source:</b> SHM consultations, December 2014		

The 2<sup>nd</sup> round meetings were used as the platform to share key findings and recommendations (including the entitlement matrix) from the RAP document. It may also be observed that the participation of the PAHs was much lower in this round, primarily on account of perception (as communicated by the participants during invitation calls made to them) held among PAHs that such meetings do not serve well as the alignment and the project itself is not finalized or approved by the MoR. Irrespective of the above, the meetings were conducted and summary of consultation outcomes is presented below.

<b>TABLE (5.4): SUMMARY OF DISCUSSIONS OF DISTRICT LEVEL CONSULTATIONS</b>		
<b>Sl. No</b>	<b>Districts</b>	<b>Key Outcomes/Concerns/Suggestions from Meeting</b>
1	Ahmedabad	<p><i>On Alignment and Structure</i></p> <ul style="list-style-type: none"> <li>People wanted to know by when the track alignment will be finalized.</li> </ul> <p><i>On Impact</i></p> <ul style="list-style-type: none"> <li>Participants from Shahibaug area perceive that both their residences (slum) and livelihoods will be affected.</li> <li>People from Asarva Bridge/Fatwa Masjid reiterated the affected people are mostly Muslims with poor economic status</li> </ul> <p><i>On LA and R&amp;R Policy and Process and Measures</i></p> <ul style="list-style-type: none"> <li>Participants appreciated the proposed entitlement matrix and R&amp;R mechanism (as proposed in the RAP) and said that this would address all of their concerns.</li> <li>Some of the attendees opined that each PAF should be given the opportunity to exercise option which he/she prefers such as cash compensation or cash plus land or constructed house</li> <li>People from Shahibaug area (Maku Bhai's chal) and Asarva</li> </ul>

		<p>Bridge/Fatwa Masjid area once again (as they did in the 1<sup>st</sup> SHM) reminded that they should be relocated within a radius of 2 km as their livelihood activities and education of children are based out of the area where they are currently residing.</p> <p>They further added that if PAHs are to be shifted/ relocated in groups to distant place they should be provided with transportation facility for easy access to their existing work places located in the vicinity of project affected areas.</p> <ul style="list-style-type: none"> <li>• People stressed that there are multiple families residing in one single residential unit and should be compensated considering family as the unit. Consultants assured them of similar recommendation being made in the entitlement matrix proposed.</li> <li>• Other suggestions included that most of the affected families are slum dwellers whose livelihood activities/operations and education of their children are based out in nearby areas. Hence any relocation and resettlement should be done in areas in vicinity of their current residence only. It was conveyed to the participants such views are reflected in the RAP document as well.</li> </ul>
2	Kheda	<p><i>On Alignment and Structure and Impact</i></p> <ul style="list-style-type: none"> <li>• All concerns raised during the first round of meeting were reiterated by the participants.</li> <li>• Major concern and dilemma expressed was regarding the timeline of the project as to when the track will be finalized and work will start- Some of the households have plans of up-gradation, new construction, repairing, etc. of their houses. However they are clueless on whether to start the work or wait and if wait till when?</li> <li>• Participants wanted project to provide approach road to reach agriculture land if access is severed by the proposed railway line.</li> <li>• People are concerned that their residential structure may be affected by the vibration caused by the train running at such high speed (they are more concerned as even the trains that run on the existing Mumbai Ahmedabad line are learnt to be causing vibration).</li> <li>• Participants repeated their demand that the track should be shifted and taken along the express highway which has surplus land (acquired) by its side.</li> </ul> <p><i>On LA and R&amp;R Policy, Process and Measures</i></p> <ul style="list-style-type: none"> <li>• A query was raised that if the line passes through the middle of a land or house what will happen to the remaining land or house which is not useful for the owner. It was clarified that in such cases recommendation has been made to compensate for the entire property (if it is unviable or rendered orphan).</li> <li>• One of the participants raised the concern that he has bought a parcel of agriculture land for which registration has been done but ownership has not yet transferred to him. The ownership transfer is entangled in existing state policies that disallows (in</li> </ul>

		<p>his perception) state outsiders (which he is) to purchase agricultural land in the state. He is thus worried that if the said land parcel is to be acquired, who will be compensated by the state.</p> <ul style="list-style-type: none"> <li>• Participants from villages also felt that many among them do not have any formal estimate of the built structure and are thus not sure if the proposed compensation amount will be adequate and matching to the replacement cost or not. It was clarified that the recommendation has been made for replacement cost to be the basis of compensation.</li> <li>• Participants suggested that families whose businesses are affected by the project should be given permanent job if there is educated person in those families.</li> <li>• Participants also expressed concern about the adequacy of compensation amount and timing of payment.</li> </ul>
3	Anand	<p><i>On Alignment and Structure</i></p> <ul style="list-style-type: none"> <li>• Participants reiterated their suggestion of shifting the alignment and taking it along the express highway for expansion of which sufficient land has already been acquired.</li> <li>• People are a little worried regarding when the alignment will be finalized and also sharing information to all the affected families.</li> </ul> <p><i>On LA and R&amp;R Policy, Process and Measures</i></p> <ul style="list-style-type: none"> <li>• Participants suggested that farmers should be given detailed information such as whose land will be acquired, how much, line alignment, etc. before taking suggestions from them regarding LA and R&amp;R. It was shared that such detailed information can be made available only when the alignment is finalized and the project approved.</li> <li>• Few of the attendees want each impacted family to be given a permanent government job in lieu of losses suffered.</li> <li>• Suitable land should be given to farmers if their cultivable land is acquired.</li> <li>• Land ownership records may not be updated and hence actual ownership status should be properly assessed first and compensation should be given accordingly.</li> <li>• Participants also shared prevailing worry among the people regarding the fate of their planned investments - when line will be finalized, if they invest now and line is finalized then will they be compensated for the new investment, etc.</li> <li>• Participants also expressed the view that the consultations should be organized at the village level so that all the affected families should be able to express their views.</li> </ul>
4	Vadodara	<p><i>On Alignment and Structure</i></p> <ul style="list-style-type: none"> <li>• Participants asked whether the line is finalized or not as some of them are planning various kinds of investment such as coloring of house, extension of existing structure, etc. which they fear will not be appropriately compensated if the line is finalized.</li> </ul>



		<ul style="list-style-type: none"> <li>The proceedings also brought out prevailing confusion among the people whether this survey is for high speed train or bullet train which was clarified during discussions.</li> </ul> <p><i>On Impact</i></p> <ul style="list-style-type: none"> <li>Participants feel that the assessed impact (as reflected in the RAP document) is less than actual impact likely to be caused by the proposed alignment. It was clarified that survey was carried out meticulously however the observation made may be partially true as few residential units in and around Vadodara station did not permit the survey team to enter their premises and hence affected household related numbers may have remained underestimated.</li> </ul> <p><i>On LA and R&amp;R Policy, Process and Measures</i></p> <ul style="list-style-type: none"> <li>Participants fear that they will not have any opportunity to voice their concern as the new land Acquisition Act has no scope for public consultation.</li> <li>Some of the participants felt that they should get appropriate compensation (2 times of market rate in urban areas and 4 times of market rate in rural areas) and if done, they will have no problem in parting with their land/assets.</li> </ul>
5	Bharuch	<p><i>On Alignment and Structure</i></p> <ul style="list-style-type: none"> <li>Participants proposed track alignment should be along the DFC line or the national highway as sufficient land has already been acquired for creation of these infrastructures, much of which remain unused.</li> <li>Participants were eager to know whether the alignment is final or not and if not by when would it be finalized.</li> </ul> <p><i>On Impact</i></p> <ul style="list-style-type: none"> <li>Participants reiterated their earlier stated position that the current alignment will affect controversial assets such as temples which will be difficult to be relocate.</li> <li>Participants, during telephonic conversation, felt that such consultations should be conducted at the village level to secure a better participation and views of all affected people. It was conveyed to them such micro level events would be organized once the project is finalized and approved by the government.</li> <li>Participants raised a concern that train running at such high speed will cause disturbance due to vibration for the people living in vicinity to the proposed tracks.</li> </ul> <p><i>On LA and R&amp;R Policy, Process and Measures</i></p> <ul style="list-style-type: none"> <li>Participants appreciated the proposed entitlement matrix by saying that it reflects their demands and responds to various loss aspects.</li> <li>Some of the participants (who are farmers) said that land should be provided against land acquired as they do not have any other skill for earning their livelihoods.</li> <li>Many of the affected are living in joint families while the ownership</li> </ul>

		<p>is with one person. Hence compensation should consider these complexities also and provide benefits to individual family units.</p> <ul style="list-style-type: none"> <li>Participants also repeated their earlier demand that monetary compensation should be provided at market value against losses incurred.</li> </ul>
6	Surat	<p>Participation in the meeting was very low as most of the affected people who were called to inform about the meeting were busy in their daily activities and further they felt that participation in such meetings would be useful only when the alignment and the project is finalized.</p> <p><i>On Impact</i></p> <ul style="list-style-type: none"> <li>Some of the participants raised the concern that if they are relocated from their place of residence then their business will also be affected.</li> </ul> <p><i>On Alignment and Structure</i></p> <ul style="list-style-type: none"> <li>Few participants also have the notion that the project has been shelved given there is no provision for this project in the railway budget. It was told to them that such knowledge is unfounded and not true.</li> <li>Some of the participants reiterated their demand of having adequate provisions of flyovers / under passes constructed near important crossing especially near school and temples.</li> </ul> <p><i>On LA and R&amp;R Policy, Process and Measures</i></p> <ul style="list-style-type: none"> <li>Some of the participants have been allotted residential land by the government for house construction, they wanted to know whether they will be given alternative land or not.</li> <li>Participants felt that in case of relocation they should be given an opportunity to identify land suitable to them.</li> </ul>
7	Navsari	<p><i>On Alignment and Structure</i></p> <ul style="list-style-type: none"> <li>Participants were very eager to know when the line will be finalized.</li> <li>Demand was also raised regarding detailed and advance sharing of alignment with affected households. It was explained to the participants such sharing (at this stage) has already been done to the affected households during census survey and this will be done again once the alignment is finalized. Further, two rounds of SHMs have also been conducted with same objective. They were also informed that upon finalization of the alignment and project approval, the government will make public disclosure (through local newspapers) of plot wise information of land parcels to be acquired.</li> <li>Participants also made queries about the width of alignment for which land will be acquired. It was explained to them and further added that this alignment and the width is not finalized and will be made known to them once it is done.</li> </ul> <p><i>On Impact</i></p> <ul style="list-style-type: none"> <li>Participants were concerned regarding how the impact on temples</li> </ul>

		<p>will be avoided/ addressed by the project proponents?</p> <ul style="list-style-type: none"> <li>• People have suggested the possibility of taking the line under or above ground in order to minimize the impact.</li> </ul> <p><i>On LA and R&amp;R Policy, Process and Measures</i></p> <ul style="list-style-type: none"> <li>• Farmers among the participants expressed their preference for land against land as the basis of compensation.</li> <li>• Participants also raised concerns regarding compensation rate as to whether this will be on market rate and who will decide the market rate and how. The participants were briefed about the recommendations of the RAP and the entitlement matrix in this context.</li> <li>• Few people in this district are in the process of developing residential and/or market colonies. The participants in this context raised their concerns arising out of time line of the project specifically its finalization/approval. The uncertainty around this is making them unable to take decision on continuing continue with their projects as this may have high financial implications.</li> </ul>
8	Palghar	<p><i>On Alignment and Structure</i></p> <ul style="list-style-type: none"> <li>• Participants once again opposed the proposed route alignment as it will result in considerable damage to residential structures (particularly in Vasai taluka in Mumbai suburbs) and homestead land as well as farm land and requested re-consideration of the same.</li> <li>• They do not see any benefit from this project to them and do not want to part way with their farm land as they have invested a lot on their farm land which is their only source of income.</li> <li>• They do not want to this line to pass between the existing railway line and NH8 (set apart by 20 km distance). One of the participants questioned the need to align the line within this stretch, and wanted the proposed line to be aligned somewhere else. Alternatively the suggestion was made for the line to be laid along the sea or along the forest.</li> </ul> <p><i>On Impact</i></p> <ul style="list-style-type: none"> <li>• Large area of agriculture land that has been developed by the local tribal population will be acquired- was a major impact related concern raised by participants</li> </ul> <p><i>On LA and R&amp;R Policy, Process and Measures</i></p> <ul style="list-style-type: none"> <li>• They fear that financial compensation given to them will not be of any use as they tend to misuse it.</li> <li>• Participants felt that they such consultations at village level will be of more useful.</li> </ul> <p><i>Others</i></p> <ul style="list-style-type: none"> <li>• They fear that many other industrial and infrastructure projects are coming up in future in this district and most of the people from this area will be relocated which is not a sustainable way of development.</li> </ul>

		<p>The participants also shared that people have already given them land for ongoing Expressway (Road) in the district.</p> <ul style="list-style-type: none"> <li>• Participants said that the report shall clearly mention that the project will impact indigenous people in Palghar district as they feel that external agencies should restrict themselves from funding such projects.</li> <li>• People felt that in any infrastructure projects smaller farmers, etc. are often relocated while people with large land holding or influential households are never relocated which is not fair.</li> </ul>
9	Thane/ Mumbai	<p><i>On Alignment and Structure and Impact</i></p> <ul style="list-style-type: none"> <li>• In Shilphata, Datta Mandir, a 200 year old temple is being affected by the proposed alignment. Also a lot of residential structure will be affected if the proposed alignment is finalized.</li> <li>• Participants have suggested an alternative line to avoid the above loss- The proposed route can be via Niljegaon and Daighar which will minimize the impact and thus save government's money on compensation</li> <li>• Further suggestion was for the proposed alignment to pass in between Bhopar and Betwade villages that has large patch of open land belonging to Premier Car Company, MMRDA corridor has already been sanctioned near to this patch of land.</li> <li>• Between Dongripada and Kaman Railway station a marginal shift of around 100 ft towards left of line (Mumbai-Ahmedabad) will save around 200 structures both commercial (60) and residential (40) falling along 2 – 3km stretch. While acknowledging the suggestion made, it was clarified that all such alignments are finalized keeping the macro impact aspects in view and that any such suggested changes can/will be done only if it is technically feasible and also in the view that changes brought in do not result in larger impacts some where else.</li> </ul> <p><i>On LA and R&amp;R Policy, Process and Measures</i></p> <ul style="list-style-type: none"> <li>• People raised their concern regarding who will be compensated in case the land is being cultivated by someone who is not the legal owner of the patch of land.</li> <li>• Participants expressed satisfaction with the entitlement matrix disclosed during the meeting specifically on the provision made on replacement cost as the basis of compensation.</li> </ul> <p><i>Others</i></p> <ul style="list-style-type: none"> <li>• ADM and sub collector representing the district administration shared their knowledge of projects where affected/displaced stakeholders have been given the option of share-holding in the company managing project operation and such options may be explored in this project as well.</li> <li>• Quota and preference should be given to the PAFs in the business/commercial opportunities (such as shops/outlets serving passengers) arising out of this infrastructure development project.</li> </ul>

**Discussion with District Level Officials:** In addition to the public meetings held at district level, discussions were held with various district department officials (refer Annexure 5.2 for List of officials met and approached for discussion). Discussions were focused on the existing policy and practices on land acquisition pertaining to projects of the nature of HSRC (DFCC in particular), challenges faced, suggestions and recommendations, perceived project impacts etc. Key discussion outcomes are summarized below:

**Key Challenges** (as reported by district level department officials):

- One of the key problems faced by the district implementing authority is the lengthy time frame in processing of proposals / issuance of notifications and disbursement of payment.
- Another important problem is non-availability of proper land records / very old records with land revenue department, resulting in challenges in establishing land ownership etc.
- Inadequate manpower at Block / District level to implement the land acquisition plan is another problem.
- Absence of policy for dealing with encroachers/squatters who have encroached/settled recently, establishing their period of occupation and estimation of compensation.
- Other expected challenges are on account of local resistance and subsequent law & order situation; non-standardization of procedures – varying with projects and state boundaries.

**Suggestions/Remarks**

- Alignment of the track should be shared with the district administration as soon as possible so that land can be earmarked by the town planning authority / development authority for this project purpose (opinion expressed in Bharuch).
- Specialized land acquisition department / agencies by State Governments may facilitate land acquisition process.
- Uniform R&R Policy in the country will be of immense help for infrastructure projects such as these that involve multiple States.
- Regular updation of land records, digitization, Data bank of land for public purposes, Maintenance of comprehensive and intelligent map database, Instant production of Cadastral maps of any scales, themes and sizes, etc. will be helpful in proper and smooth implementation of the RAP.
- MMRDA in Mumbai area has land reserve and related development plans of its own. Hence due consultation should be done before finalizing the alignment.

**Key SHM Outcomes and Its Reflection in RAP**

This RAP document has incorporated and factored in viewpoints of participants from the SHMs and the state department offices. These are reflected in the entitlement matrix prepared and other R&R policy recommendations (chapter 4) and the implementation arrangements (Chapter 7) suggested. Few important considerations in this context may be noted as:

- Preference will be given to ‘land for land’ based compensation approach ensuring that land parcel provided is of equal productivity/value.
  - In cases where cash based compensation is adopted, replacement cost will be given to affected families.
  - Relocation sites will consider preferences of affected families.
  - Acquiring authority will acquire the whole of land parcel, in cases where a portion of affected land is orphaned because of acquisition.
  - Land alignment will be reconsidered, in order to minimize project impact (physical structures in particular and sensitive receptors like temples, schools etc.). Adequate provision of foot over bridge, under passes or viaducts will be made to minimize impacts.
  - Advance sharing of project alignment will be done with state administration for updation of land records. Grievance Redress Mechanism will also be set up timely to assist affected persons to resolve land record and ownership claim issues.
  - Special consideration and assistance and consultation will be done with tribal communities in Palghar and Valsad and alternate design option/change may be considered to minimize land acquisition in these areas.
- 
- Adequate advance notice will be given to affected families to allow them to salvage materials from affected structures and reorganize themselves.
  - Primary concern among the participants (and the PAHs being represented by them) is around the uncertainty over the finalization of the alignment. Many of the affected people are currently in the process of building or upgrading their properties (structures) or planning to do so. Given the uncertainty, they are not sure whether to continue with the investments being made or planned as it may have huge financial implications for them. An early confirmation about the alignment was requested in almost all SHM meetings.
  - At several meetings, suggestion/demands were made for reconsidering change in alignment specifically in the district Palghar where they wanted this to be along the existing track. Participants vehemently opposed the construction of the proposed line through their area as they have very less agriculture land remaining with them which they do not want to part with as they do not have any other source of income. They said the line should not be taken in between the existing railway line and highway.
  - People’s concern regarding the vibration of running train should be addressed appropriately through technical demonstration at select places, sharing appropriate IEC material, etc.
  - Overall satisfaction was observed among the participants with regards to entitlement matrix and its provisions (except for Palghar where they opposed to existing alignment and that any compensation or R&R would be inadequate to make up for the losses incurred, and in Valsad/Dadra where participants are also vehemently opposed to the project).

## 5.6 MECHANISM FOR STAKEHOLDERS PARTICIPATION

Consultations at this stage have clearly brought out the existing demand among the affected persons for greater participation and consultation during the design stage of the project. Such needs are recognized and recommended to be brought in to practice during the project roll out stage. Similar exercise will be carried out at a later stage for disclosure of RAP. It may be noted that this RAP document incorporates inputs received from public consultations held. Such public consultations are one of various options available to encourage stakeholder participation under the project.

Besides, the stakeholder consultations held for the RAP preparation and the one proposed for its disclosure, there will be several other mechanisms available for stakeholder participation. The list (but not limited to) below identifies these:

<b>TABLE (5.5) : MECHANISM OF STAKEHOLDER PARTICIPATION</b>		
	<b>Mechanisms/ Opportunities of Stakeholder Participation</b>	<b>Responsible Agency/ Stakeholder Agencies</b>
1	Census and SES (with queries on PAF perception and preferences for R&R options)	RAP preparation agency
2	Public Consultations (for RAP preparation)	RAP preparation agency
3	GRM	RAP Implementation Agency/ Local NGO/CBOs as vigilantes
4	Public Hearings (for environmental clearance purposes)	EIA preparation/Designated Agency
5	M&E related interface with Community	M&E agency
6	Additional Public Consultations (for further strengthening of existing RAP with information/ input from land losers, not included in this RAP)	Designated External Consultant

Source: SHM- Disclosure consultations, December 2014

## 5.7 DISCLOSURE OF THE RAP

As discussed above, public/stakeholder consultations also provide the platform for disclosure of the RAP. This RAP document will be shared with stakeholders through district level meetings, post its finalization and approval. The purpose of the disclosure will be to inform project affected persons about the applicable policy and process of land acquisition and resettlement and rehabilitation under HSRC project, invite suggestions if any before finalization of the document. Local consultant will organize district level meeting for RAP disclosure where key elements of the RAP document will be shared through presentation, aided by a brochure, developed in local language.

## 5.8 ELIGIBILITY OF CUT-OFF DATE

The JICA policy recommends for declaring census survey date as the cut-off date for compensation and other R&R benefit claim purposes, projects where the host country does not have its own policy in place. In this project's context, the GoI and MoR have a policy in force as per which date of government notification issued under the RAA 2008 will be

designated as the cut-off date for all purposes. All persons/families found to be residing or identified to be affected by the project as on or prior to cut-off date (to be established through census survey) will be eligible for compensation and R&R benefits as per the entitlement matrix developed. For further details, chapter 4 may be referred.

## **5.9 GRIEVANCES REDRESS MECHANISM**

Efficient Grievance Redress Mechanism (GRM) will be developed to assist the PAPs resolve their queries and complaints that may pertain to issues around compensation, R&R benefits, project construction etc. All complaints will first be addressed to the field level GR committee, and in unresolved cases, these may be taken forward to the committee setup at project level. The details of the proposed GRM are discussed in chapter 7; providing information on the institutional arrangements and associated role functions.



## **6. RELOCATION, RESETTLEMENT AND INCOME RESTORATION**

Land acquired for the project and its associated facilities will result in displacement (both physical and economic) of people and structures falling within the Right of Way (ROW) of the proposed HSR corridor. The scope of displacement associated with the project is closely linked to the impact resulting from this land acquisition and its current usage by affected land/structure owners. The project proponents will thus be required to formulate a strategy for relocation, resettlement and income restoration as is discussed in this chapter.

### **6.1 SCOPE OF DISPLACEMENT AND RELOCATION**

The project will entail both physical and economical displacement. Numerical details of project induced impact on structures and resultant displacement have been discussed in chapter 3 of this report. Recapitulating these figures that also define the scope of displacement and relocation necessitated, it may be noted that project related physical displacement will entail relocation of 1451 families, residing in 1191 residential or residential cum commercial structures. Of these, 1312 families claim ownership to the impacted residential structures. Other family categories include tenants (87), lease holders and illegal occupiers/squatters (23 PAHs).

Besides, in all 221 commercial structures will be affected, leading up to shifting of these structure or altogether a closure of some of them. It will have an associated economic displacement impact on 1027 families. Most of these affected families (826 PAHs) fall in the category that has at least one family member working as an employee in potentially impacted commercial establishments.

### **6.2 RELOCATION OF HOUSEHOLD AND OTHER ESTABLISHMENT**

Despite best of its efforts to minimize project induced displacement, HSRC project will have significant number of displaced households either residing in housing structures or dependent on commercial structures as source of their livelihoods (refer # 6.1 above). This will thus require sound relocation and impact mitigation strategies to be in place.

Impact mitigation strategies, discussed in this chapter, for the project includes planning for the resettlement sites and allotment of alternate land (if available) to the project displaced families. To this effect, a provision of resettlement sites will also be made. The development of resettlement sites will depend upon the willingness of the affected to opt for housing at the resettlement site and the economic viability of developing the resettlement site.

#### **6.2.1 Site Selection**

As discussed in the section above, impact mitigation strategies for the project would also include the provision of developing resettlement sites for providing housing facilities to the affected families (displaced). It should be noted that the provision (of developing resettlement sites) is optional and will be exercised based on the feedback and responses/need from the affected families. Further, the HSRC is essentially a linear infrastructure development project and hence its displacement impact will also be linear in nature. As on date of this reporting, the locations have not been planned or identified for the development of any resettlement

sites. The section below discusses the site selection criteria/parameters for the planning and development of resettlement sites.

Name	Criteria for Site Selection
<b>Location</b>	<p>The selected site should be located as close as possible to the last place of residence of the affected family/household. It should be located closer to the main activity center and social networks of the affected family/area.</p> <p>The site should be well connected with roads and other infrastructure/amenities.</p> <p><i>PAHs in Ahmedabad, for instance during the stakeholder meetings (refer chapter 5), have demanded for resettlement in the same area, citing their minority status.</i></p>
<b>Land</b>	<p>The land area should be a) free of any encumbrance/encroachments; b) have clear legal titelship; c) adequate/sufficient to house families and associated infrastructure/amenities and d) developed (land development) prior to any creation of new infrastructure. In all, the site should be suitable for habitation/living.</p>
<b>Infrastructure/ access to services:</b>	<p>The resettlement site should have the following infrastructure/amenities</p> <ul style="list-style-type: none"> <li>• Connectivity and access to main roads</li> <li>• Internal roads</li> <li>• Source of drinking water;</li> <li>• Medical facilities (Either a Health center at the site or in close vicinity)</li> <li>• School: (Either a school at the site or in close vicinity)</li> <li>• Access to Electricity</li> <li>• Connectivity to nearby market</li> <li>• Proper Sanitation arrangements;</li> <li>• Playground and Balwadi;</li> <li>• Temple/mosque or religious structure (based on the profile of the residents);</li> <li>• Open area</li> </ul>

The process of site selection should be participatory and involve all relevant stakeholders including the affected families/community. Views and concerns of the affected people should be considered and included while identifying the sites and planning housing, infrastructure/amenities at these sites. The construction phase at the sites should involve participatory monitoring to ensure that the affected families (who have opted for resettlement site option) are satisfied with the type and quality of construction. These measures will ensure confidence and facilitate/expedite easy movement/relocation of families to the resettlement site.

### 6.2.2 Housing Infrastructure

A key factor that would determine the acceptance of the resettlement sites amongst the affected households is the quality of housing, infrastructure/amenities available at the site and the overall suitability of living at these new site locations. To this effect, the role of housing infrastructure is critical to the acceptance of the resettlement site. Housing infrastructure will need to be designed keeping in mind the existing housing quality of affected/displaced people and the existing access to markets and social networks (like schools, offices/workplace etc.).

The key principle behind provision of housing is “betterment of life and living conditions” of the affected people. To the extent possible, the housing infrastructure should be geared to providing the affected families replacement housing based on the principle of “like for like”. This in effect would mean that the housing infrastructure provided should include equal/more number of rooms as compared to impacted structures. However, there could be several factors (like lack of adequate space/land) constraining the project to meet the “like for like” principle. To the extent possible the project should/will ensure that the housing infrastructure developed at the resettlement site would provide for better living conditions of the affected people/families.

### **6.2.3 Changing School**

The impacts associated with resettlement are more pronounced on children who are more vulnerable to the changes that happen in their surrounding environment. The social networks that children develop in their immediate environment are key to their sense of comfort and security. These networks may include neighbors, friends, markets, religious places (like temple, mosque etc.) and schools.

Primary data suggests that a total of 6 schools will bear direct impact besides several others that will have issues around accessibility for the children. Recognizing the vulnerability of children (to resettlement), the project proposes to take necessary measures to minimize adverse impacts and reduce inconveniences linked to shifting and relocation of families. It is therefore recommended (as also raised during stakeholder meetings by participants, refer chapter 5 for details) that the project will ensure sufficient safe passages (under passes/ foot over bridges) for students continued access to schools and academic activities. Further, wherever feasible, the project will facilitate in reconstruction/relocation of impacted school structures on alternate sites by way of making available land space in vicinity. Where ever, such facilitation is not possible, support will be provided for shifting of children to another school and necessary support in admissions. If required provision of transport to school going children will be provided free of cost. In addition to this it will be ensured that the psychological impacts associated with environment change are addressed through proper counseling and briefing sessions with teachers and parents. All the necessary costs associated with change of schools and shifting of children will be borne by the project. The project will, with the help of NGO (implementing partner) ensure that children’s academic processes are not disrupted and continuity is maintained.

## **6.3 PAPs PREFERENCE FOR RELOCATION**

PAPs preference for relocation (as discussed earlier under #6.1 of this chapter, and for brevity sake not discussed here again) will be accorded utmost consideration during site selection exercise. Stakeholder consultations specifically those to be forcibly displaced will be the primary tool in finalization of relocation strategy details. In this respect, R&R implementation NGO will be playing the key interface role between the project proponents and the PAFs.

## **6.4 REPLACEMENT OF AGRICULTURAL LAND**

Options for impact mitigation, as has been discussed in the entitlement framework will comprise of a variety of choices that will be offered to the project affected family. Replacement of lost land with alternate lands (agricultural) will be one of the choices that

will be offered. The project will, in attempting to provide for the option of alternate land, look for similar lands (land use and type) in the nearby vicinity. However, given the challenges of findings alternate agricultural lands in the immediate vicinity it is envisaged that this option might not be made available to all project affected families. Consideration to those rendered landless or marginal farmer, or vulnerable households by other parameters (ST households, women headed households etc.) will be given highest priority while making such options. The project will explore the option of creating a land bank that could be used to provide replacement agricultural land to affected people. This will include engaging with the state and district administration/line departments (e.g. forest department in Palghar district in case of affected tribal households) to identify lands and exploring possible dovetailing governmental schemes to benefit the affected people.

## **6.5 INCOME AND LIVELIHOOD RESTORATION STRATEGY**

The project will focus on livelihood restoration for the project affected communities and persons. Livelihood restoration will not only be aimed at minimizing the impacts of displacement but also to maximize the benefits by providing the members of the affected households with long term and sustainable sources of employment or such training facilities, that will make them self-reliant and able then to engage in self-employment.

Income and livelihood restoration strategies for the project will be built around the principle of empowering people/affected communities by providing training and capacity building support and by enabling them to start their own enterprise by providing seed capital. The end objective of these strategies/programmes would be to provide sustainable income and livelihoods, enabling them to not only sustain but also better their standards of living.

Means of employment are limited, especially in rural areas; as a result people migrate to cities and towns in search of jobs. However, there are possibilities of a number of business ideas/ ventures which can be started in rural areas with low budgets, such as pottery, agro-business, fisheries, saloon etc. A few business ideas, which require good management skills, a little effort and hard-work, could be started by the affected persons. Interested people may avail loans from the banks to buy the equipment's. The section below provides an indicative list of business options below which involves small investments to start and can be profitable if run efficiently;

*Sale of mobile and prepaid cards business;* The Project could encourage affected persons to start a business of mobile and prepaid cards which can prove to be profit making business. The Project could also provide seed money to interested persons to start this business;

*Grocery shop/store business;* Setting-up grocery shop/store especially in rural areas could be one of the most lucrative business ideas. The products have to be organized in the store so that customers feel easy and comfortable to shop. One could purchase the products from the wholesale market or directly from the manufacturer;

*Dairy Farm business in rural area;* Milk and milk products have a great demand in every part of the country. Small scale dairy farm could be put together to produce and sell milk, curd etc., which could be sold in the village and nearby areas. Residents could be encouraged to form cooperative dairy farming. Contrarily, if there are big dairy companies in the nearby areas, these local residents could sell the milk to these industries and make profits.

*Tailoring;* Tailoring business can be started by any person (male or female) who is interested in stitching clothes. A little training and tailoring skills can help to set-up a tailoring shop. There are many institutes which offer certification and short term course in tailoring, stitching and embroidery. The Project could sponsor interested person to join these courses. The tailoring business can be started from home. There are many government schemes, which provide financial assistance to help people living in rural areas to start the business;

*Tea stall/ Sweet shop business;* Affected people who have interest could be helped in setting-up a tea stall or sweet shop could be a good business idea. Tea is consumed by all strata of the society, where people gather at places/ stalls that serve tea along-with some snacks. Thus, people with expertise in making different kind of pakoras and tea; the tea stall business could run efficiently and profitably;

*Motor mechanic and puncture shop;* Puncture and motor repair shop can be started by any person who is interested; a little training can help to set-up a puncture and repair shop. There are institutes which offer certification and short term course in motor vehicle mechanics. The Project could sponsor interested person to join these courses. There are many government schemes, which provide financial assistance to help people living in rural areas to start the business.

*Domestic appliances repair shop;* Like-wise domestic appliances repair shop can be started by any person who is interested. There are institutes which offer certification and short term course in domestic appliances repair. The Project could sponsor interested person to join these courses. The domestic appliances repair business can be started from home. There are government schemes, which provide financial assistance to help people living in rural areas to start the business

The income and livelihood restoration programme will be implemented with the support of the NGO and other stakeholders. The role of R&R implementation NGO will be crucial in this respect where it will explore and identify income restoration scope (which may not just be limited to above mentioned income restoration strategies) in the project affected area. The options above are indicative in nature and more appropriate options are likely to emerge upon sustained dialogue between the NGO and the affected PAHs, profiling of PAPs skills and preferences, and local demand assessments. The design and implementation of these programmes will seek inputs and be guided by the interests and capacities of the affected communities. The implementation of these programmes and success/outcomes linked to it will be closely monitored by the independent M&E consultant.

## **6.6 CAPITAL SUPPORT**

As discussed above, capital support/seed money will be provided to those people who have been identified for the livelihood restoration programme and where capital support is needed. To the extent possible this capital support will be provided directly in terms of purchase of equipment's/machinery or other income enhancement products (like dairy, shop etc.). The provision of capital support will be closely linked to the progress made against the milestones in the livelihood restoration framework for the identified family (like identification of the family member, training, selection of trade etc.). The amount to be provisioned for capital support has been discussed and provided in the entitlement matrix. However, if required the project will have provisions for additional budgets to ensure sustainability of the

income/livelihood support. The utilization of capital support will be closely monitored by the implementing NGO and the independent consultant.

## **6.7 EMPLOYMENT IN CONSTRUCTION**

The project will, to the extent possible, provide employment opportunities (permanent, temporary or contractual) to the affected people. The construction phase of the project is likely to generate significant employment. Efforts will be made to maximize local content in employment in this phase. However, provision for employment is closely linked to skill/capacity and overall employability of the person and these aspects will play a key role in selection of the beneficiary. The construction phase employment will also mostly be through contractual and linked to construction contracts. It is envisaged that the NGO (implementing partner) would play a key role in preparation of list of the eligible beneficiaries, selection and overall roll out of the employment programme for the project. It will maintain a log of all employment that is generated from the project and the share of the affected persons. Demonstration of the project resulting in employment (through such an exercise) will expectedly lead to creation of goodwill for the project and result in larger community support.

## **6.8 RE-ESTABLISHING COMMON PROPERTY RESOURCES**

HSRC project will have its impact on 1610 properties identified as common and government properties (CPR) during primary project area inventory of loss survey (refer chapter 3 for details). Of these, majority (over 80 percent) of the structures are state owned government properties namely as electric poles, power transmission and distribution lines, roads etc. Of significance and contextual to this section, a certain number of community owned properties are likely to be affected by this project and include 60 structures/places of worship, 6 schools, 6 burial/cremation grounds, 47 Village/Community owned common land, 15 common ponds/water bodies, 6 panchayat owned buildings/structures etc.

Some of these assets as may be recognized are related to communities' faith and belief and hence attached to their sensitivities. Similarly, certain other assets serve as resources for common use such as ponds and panchayat buildings.

Project implementation will therefore require a participatory approach where adequate consultations are done with affected communities to bring in feasible design/alignment changes to avoid or mitigate project impacts. Public consultations (refer chapter 5 for details) have identified few such structures that have historically been regarded as important places worship among local communities. Such sentiments will be taken in to consideration during project implementation stage. NGOs engaged for R&R implementation will play the interface role to relay such concerns among affected population. Local community will also be consulted to identify relocation sites and preferred restoration strategies in this respect. All costs related to relocation and restoration of CPR structures/assets will be borne by project proponents.

## **6.9 ENVIRONMENTAL PROTECTION AND MANAGEMENT**

A separate environment management plan (EMP) will be prepared that will capture impacts linked to all environmental parameters (like air, water, noise etc.) and developed for all phases of project life cycle. It will be ensured that project implementation adheres to recommendations made in the EMP and that project mitigation activities in this respect are

carried out. EMP implementation will also be another area to be monitored by independent M&E consultants.



## 7. INSTITUTIONAL ARRANGEMENT

### 7.1 INTRODUCTION

The implementation of Resettlement Action Plan (RAP) would require involvement planning and coordination of various institutions and line departments. The section below suggests the institutional arrangement for the implementation of the RAP and identifies/defines roles and responsibilities of various stakeholders/institutions. It must be noted that the suggestive structure is indicative and based on the current understanding and roles/responsibilities of different line departments. Hence, necessary changes/modifications in this suggested institutional structure would be required based on changes (if any) in the involvement/roles and responsibilities of different institutions/departments.

### 7.2 MINISTRY OF RAILWAYS (MOR)/ HIGH SPEED RAILWAY CORPORATION (HSRC)

Overall, the High Speed Rail Corporation of India Limited (HSRC) formed under the Ministry of Railways (MOR) would be assumed as responsible for technical planning, executing and implementing the project.

It is envisaged that a Social & Environmental Management Unit (SEMU) would be constituted at the company/HSRC level to oversee and implement the environment and social safeguard measures. This SEMU, headed by a senior level personnel (General Manager or above) would be tasked with managing Land Acquisition and Rehabilitation and Resettlement process for the project. HSRC headed by Managing Director, will have overall responsibility for policy guidance, coordination and planning, internal monitoring and overall reporting of the Project. SEMU would facilitate land acquisition and compensation, relocation and resettlement, and the distribution of assistance for the PAPs. The main responsibility of SEMU would be monitoring and implementing all resettlement and rehabilitation activities, including land acquisition.

The SEMU would typically perform the following functions:

- Be responsible for all land acquisition activities;
- Liaison with Chief Project Manager's (CPM)/ field offices and guide them in matters related to resettlement and rehabilitation.
- Evolve mechanisms for coordinating the delivery of the compensation and assistance to entitled persons including provision of budgetary allocations and timely disbursement of funds;
- Review and provide social development perspectives and inputs to on-going project design and implementation by working closely with project planners, contractors, and construction supervision consultants;
- Oversee a grievance redress process, actively monitor RAP implementation, and cooperate with planned project evaluations.
- Report on progress and updates to the Managing Director and director/relevant officials.



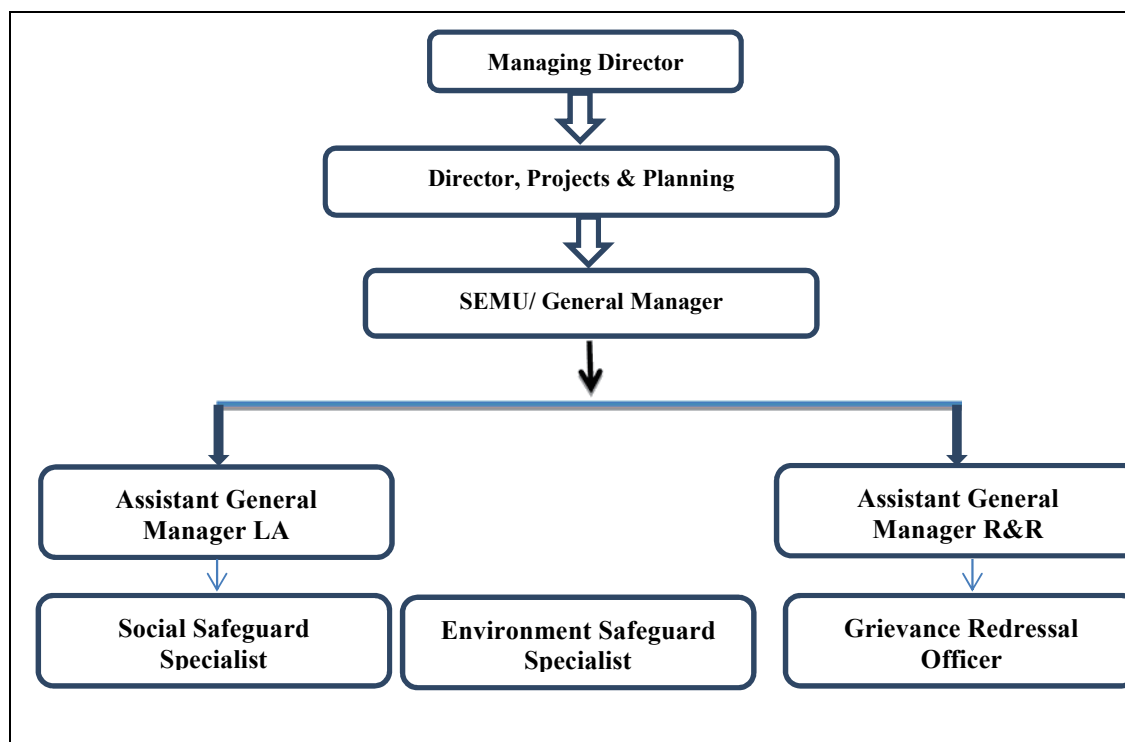
At the field level the Chief Project Manager's (CPM) office would coordinate the safeguard management and plan and execute the land acquisition and resettlement activities. The CPM will be supported by operational staff at headquarters and by field staff, supported as necessary by consultants who will work together to implement the RAP.

### 7.3 RESPONSIBILITIES OF THE RESETTLEMENT UNIT OFFICIALS

The roles and responsibilities/functional descriptions of the different resettlement unit officials have been summarized below:

#### 7.3.1 At the Headquarter Level:

1. The **Managing Director**, HSRC, would have overall responsibility for the implementation of the Project;
2. The **Director, Projects and Planning** would be responsible for successful implementation of the various project components including RAP and livelihood restoration. In respect of RAP, specific responsibilities of the office of Director would include:
  - a. Coordination with the MOR and relevant state government authorities on land acquisition, R&R entitlements and other social components.
  - b. Reporting the progress in RAP implementation to Managing Director;
  - c. Interacting regularly with SEMU staff,
  - d. Monitoring the progress of R&R with SEMU Staff and field CPMs.
  - e. Ensuring budgetary allocation and timely release of money for RAP implementation
  - f. Framing corporate policy including Entitlement Matrix, etc.
3. The **General Manager**, SEMU would be the overall in-charge of the LA and R&R for the project. He will be assisted by an Assistant General Managers (AGMs) and Social Development Specialist. The SEMU unit would also house the Grievance Redressal (GR) function and would have a dedicated personnel (of the rank of deputy/assistant general manager) rank. The SEMU, as reported above would be tasked with the operational responsibility of LA and RAP. However, they would not be the actual agency directly responsible for day to day LA and RAP implementation. This would be done by the CPM office. The key roles and responsibilities of the SEMU has been discussed in the section above. The flow chart below presents the broad organizational structure at the headquarter level;



### Roles and Responsibility of Resettlement officials at Headquarter Level

<b>General Manager (SEMU)</b>	<ul style="list-style-type: none"> <li>• Responsible for all work related to Environmental and Social Considerations of the project.</li> <li>• Responsible for coordinating with lenders for all environmental and social consideration of the Project.</li> <li>• Responsible for monitoring and overseeing the Process of Land acquisition and RAP implementation. Providing guidance and assistance to CPMs. Supported by AGM/land acquisition;</li> <li>• Grievance redress related to Land Acquisition / social and environmental considerations. Assisted by GR officer charged with disposal of all grievances related to LA and implementation of RAP for the project.</li> <li>• Ensure budgetary provision for resettlement and rehabilitation of PAPs and relocation, rehabilitation and reconstruction of common property resources;</li> <li>• Ensure timely release of budget for implementation of RAP.</li> </ul>
<b>AGM/SEMU</b>	<ul style="list-style-type: none"> <li>• Assisting GM SEMU in all social and environmental issues and reports to GM (SEMU),</li> <li>• Assisting in finalisation of Environmental and Social reports prepared by the consultants, ·</li> <li>• Public disclosure of EIA, EMP, SIA, SMF, RAP etc.</li> <li>• To provide assistance for devising suitable institutional mechanism to monitor and supervise effective implementation of EMP and RAP,</li> <li>• To act as the information repository and provide information to concerned stakeholders;</li> </ul>
<b>AGM/Land Acquisition</b>	<ul style="list-style-type: none"> <li>• Day to day coordination with the CPMs on the LA aspects;</li> <li>• Processing of proposals for land acquisition for notification at Corporate Office,</li> <li>• Coordinating the land acquisition cases in Ministry of Railways, Ministry of law,</li> </ul>

	Official language section, publication department and other concerned agencies. • Internal monitoring and reporting in progress and challenges on LA and related aspects;
<b>AGM/R&amp;R</b>	• Day to day coordination with the CPMs on the R&R aspects; • Planning resettlement and livelihood restoration aspects; • Processing of proposals for R&R at Corporate Office; • Internal monitoring and reporting in progress and challenges on R&R and related aspects
<b>Social Safeguard Specialist</b>	• Assist CPM and AGM (LA and R&R) office in the implementation RAP; • Provide on an on-going basis technical assistance to facilitating NGOs, build their capacities and ensure R&R program is implemented; • Data base management of LA and R&R; • Coordinate with NGOs towards implementation of RAP and monitoring their works/activities; • Review and prepare progress report on LA and R&R, • Design and implement livelihood restoration programmes in close collaboration and working with the CPM office, Project Affected Persons (PAPs) and NGOs, • Monitor the implementation of RAP and to prepare required monitoring reports,
<b>Grievance Redressal Officer</b>	• To process for redressing any complaint or grievance received directly in HSRC corporate office, • To assist GM/SEMU in responding to complaints/grievances on LA and R&R issues; • To maintain data base of complaint received and replies given to the complainants, • To assist GM/SEMU in monitoring the grievance redress process pertaining to R&R issues, • To process any RTI case / query related to land acquisition

### 7.3.2 At the Field Level

The Chief Project Managers (CPM) will act as the Chief Resettlement Officers (CRO) in-charge of planning and implementation of the LA and R&R programme. He will be assisted by a Deputy Chief Project Manager (Dy CPM if necessary and required) and Assistant Project Managers (APMs) as required and necessary. The CPM will take guidance and directions from SEMU in policy matters related to Land Acquisition and Resettlement and Rehabilitation. Social Management Units (SMUs) will be established and headed by the APMs reporting to the CRO. The SMU will be provided with additional support to manage the whole process of land acquisition and resettlement. To this effect revenue officers (either in service or retired), documentation and data management operators will be additionally provided. Necessary infrastructure (like computers, printers, phone, office space and utilities etc.) will be provided to this team for efficient and smooth functioning and performance of duties. A Land Acquisition Facilitation Consultant (LAFC) is also proposed to support and guide the CPM office/team and help in strategic planning/implementation of activities.

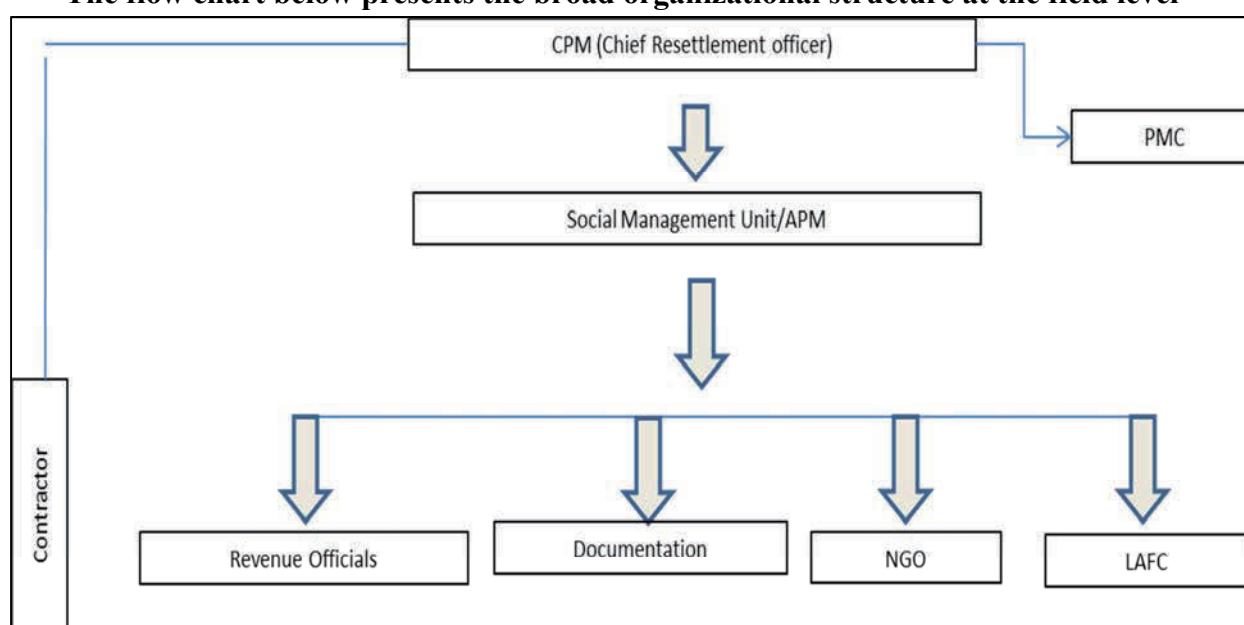
Capacity building of the team will need to be carried out to augment the understanding and skills of the staff/officers handling the LA and R&R aspects. It is suggested that such training and capacity building exercises are taken early on in the process to ensure that the LA and R&R is done as per the requirements and also to ensure that the approach followed is consistent in different areas.

The SMU will engage the services of experienced and qualified NGOs to support and facilitate the LA and R&R processes. This NGO will also act as an interface between the SMU and the affected community/people and provide field level field-level implementation support to the CPM/CRO/SMU and the team. The mandate along with roles/responsibilities of this NGO has been discussed in the section below.

The expected role and responsibility of the CPM/CRO and the SMU is detailed below:

- Liaise and coordinate with the District Administration, on Land Acquisition and R&R activities;
- Be the interface for the PAPs like Titleholder and as well as non-titleholders impacted by the project;
- Engage with local communities and stakeholders to ensure support for the project;
- Information disclosure to the communities and other relevant stakeholders;
- Closely work/coordinate with the NGOs in implementation of RAP;
- Ensure compliance to policy requirements and entitlement framework;
- Day to day management and problem solving of LA and R&R issues;
- Along with the NGO develop and maintain PAP level database including aspects related to losses, compensation, R&R entitlement, release of funds utilization, livelihood restoration etc.;
- Smooth implementation of R&R and ensuring no disruption of project works;
- Ensure disbursement of resettlement and rehabilitation assistance in a transparent manner;
- Monitor physical and financial progress on LA, R&R;
- Monthly progress documentation and reporting to CRO/SEMUR on the physical and financial progress of implementation of LA and RAP;
- Management of any other social impacts linked to the project.

**The flow chart below presents the broad organizational structure at the field level**



## Roles and Responsibility of Resettlement officials at Field/CPM Office

<b>Chief Project Manager</b>	<ul style="list-style-type: none"> <li>• In charge of overall planning and implementation of Land Acquisition, Resettlement &amp; Rehabilitation.</li> <li>• Facilitation and coordination with State and District level department/officials</li> <li>• Engagement of NGOs and responsible for executing the work from NGOs and project supervision and monitoring consultants.</li> <li>• Progress reporting to SEMU and lenders.</li> </ul>
<b>Competent Authority</b>	<ul style="list-style-type: none"> <li>• Land Acquisition Plan finalization and award for compensation of land and structures as per the provisions of the Act/Policy.</li> <li>• Grievance handling and redressal (relating to award, compensation and benefits);</li> <li>• Support the SMU and CPM in smooth implementation of LA and R&amp;R programme.</li> </ul>
<b>Social Management Unit APM</b>	<ul style="list-style-type: none"> <li>• Field level direct interface with PAPs/ competent authority on LA and R&amp;R aspects;</li> <li>• Prepare progress report on physical and financial monitoring of R&amp;R and submit to CPM/SEMU;</li> <li>• Day to day in-charge of LA and R&amp;R implementation;</li> <li>• Directly interact with PAFs and record their views and grievances and transmit the same to the CPM/RR Committees</li> <li>• NGO interface and coordination including direct monitoring of their works/activities.</li> </ul>
<b>NGO</b>	<ul style="list-style-type: none"> <li>• Implementation support to the SMU for implementation of R&amp;R;</li> <li>• Implement communication strategies to address grievances of PAPs;</li> <li>• Liaison with the competent authority/revenue department, SMU and the affected people;</li> <li>• Facilitate and implement the grievance redressal mechanism;</li> <li>• Support the land acquisition and facilitation consultant in implementation and management of LA&amp;R&amp;R;</li> <li>• Develop and implement livelihood restoration programmes for project affected persons;</li> <li>• Monitoring and evaluation of RAP implementation programme;</li> </ul>
<b>Land Acquisition Facilitation Consultant</b>	<ul style="list-style-type: none"> <li>• Support LA acquisition and act as additional hand to the competent authority;</li> <li>• Support survey/asset valuation, R&amp;R planning and shifting of common property resources</li> <li>• Draft responses to the LA and R&amp;R queries/grievances of stakeholders</li> </ul>
<b>Project Management Consultant</b>	<ul style="list-style-type: none"> <li>• Strategize and oversee the execution of LA and R&amp;R programme</li> <li>• Facilitate internal monitoring and supervision of the LA/R&amp;R</li> <li>• Coordinate the LA R&amp;R and the civil work process</li> </ul>
<b>Monitoring and Review Consultant</b>	<ul style="list-style-type: none"> <li>• Review the quality of the LA and R&amp;R implementation and recommend improvements, if any.</li> <li>• Report internally as well externally on LA/R&amp;R implementation and compliance</li> </ul>
<b>Contractor</b>	<ul style="list-style-type: none"> <li>• Coordinate with the SMU on project implementation planning and support required;</li> <li>• Ensure that the project activities comply with policy frameworks for LA and R&amp;R measures;</li> <li>• Collect and channel grievances to the SMU;</li> <li>• On the ground reporting of any concerns/risks to the project linked to LA and R&amp;R.</li> </ul>

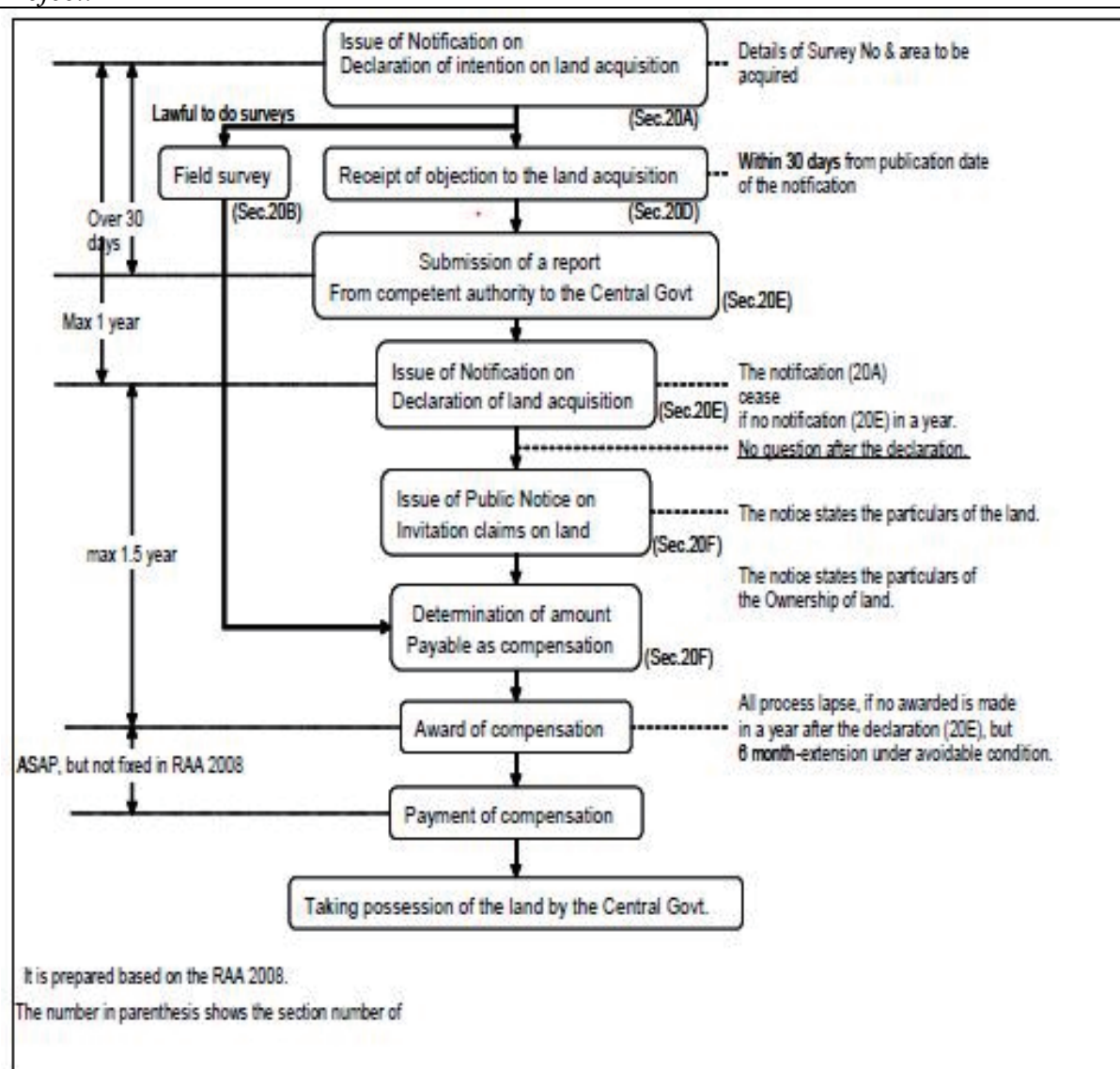
## 7.4 FUNCTIONAL DESCRIPTIONS

The effective implementation of the LA and R&R programme will, as mentioned above, require support and cooperation of different agencies/departments. The section below outlines the roles and responsibilities of different state and district line departments in the process of Land Acquisition and Resettlement & Rehabilitation for the Project.

### 7.4.1 Land Acquisition Process/ Stages

The land acquisition process in the state will essentially undergo the following stages in observation of RAA 2008.

*The flow chart below depicts the steps in the land acquisition process envisaged for the Project.*



Land Acquisition for the Project, as has been discussed in chapter-IV would be done as per the provisions of the Railway Amendment Act (RAA) 2008. Considering the challenges associated with land acquisition and R&R, a number of progressive provisions are envisaged.

For example it is envisaged that there would be a provision of an Independent Evaluator registered with government, to assist to assess the replacement cost of land and assets and provide inputs to the competent authority. These would be aimed at enhancing land rates and facilitating R&R for the project. Similarly, a social management framework outlining the Resettlement & Rehabilitation Policy as per provision of NPRR 2007 would be proposed and implemented. An Entitlement Matrix covering eligibilities and category wise various entitlements to be given to Project Affected Areas (PAPs) based on the relevant provisions of NRRP-2007 is proposed.

## **7.4.2 Roles and Responsibilities & Functional Descriptions**

### **Local State Government (Office of the District Collector & Revenue Department)**

The District Magistrate would be appointed as the Competent Authority (CA) to act as land Acquisition Officer all along the corridor (in each district or as required). He may, at his discretion appoint an officer not below the rank of Assistant District Magistrate (ADM) to act as the Competent Authority. This Competent Authority would be empowered to declare the award along with other benefits as per Entitlement Matrix approved by HSRC. The Competent Authority in addition to discharging his duty for land acquisition as under RAA, shall also be designated as the Administrator for R&R as under NRRP, 2007, and shall be responsible for payment of all applicable R&R assistance as per the Entitlement Matrix. As required under the RAA (per Clause 20F(6), the Commissioners of the affected Revenue Divisions would be appointed as Arbitrators for the smooth implementation of the LA and R&R activities. It is envisaged that functional responsibilities of the state/district level officials (along with support of the SEMU/CPM team) would include preparation of Land Acquisition Plan (LAP), hearing objections, notifying/ declaring the award and distribution of compensation. Specific responsibilities would include (but not be limited to);

- Estimating land acquisition (kilometer/district/village wise) required for the project;
- Identification of land parcels/ segments (critical segments based on type of land (agricultural, built-up, market, eco-sensitive land) proposed for acquisition;
- Assessing number and type of structures being acquired at particular location(km/village) all along the corridor of impact;
- Reviewing land impact minimization measures (technical design, bypasses etc.);
- Approving land plan schedule and affected land owners/PAPs;
- Approving the inventory of losses and finalization of award;
- Coordinating with different departments (agriculture, forest for surveys and assessing losses and finalization of awards);
- Resolving grievances and ensuring smooth implementation of the project programme;
- Coordinating the R&R programme and ensuring linkages with other ongoing governmental programmes in the areas;
- Monitoring the progress of LA and R&R and taking corrective measures as required.

### **Administrator of Livelihood Restoration**

The GM, SEMU and the Chief Project Managers/Chief Resettlement officers would be the overall in-charge of the implementation of the R&R programme. They would also act as

“administrator of livelihoods restoration” and implement the livelihood restoration programme for the affected families.

One of the objectives of the RAP is to restore livelihood conditions of the PAPs at pre project level; if not enhanced. In other words; under the project; the main focus of restoration and enhancement of livelihood will be to ensure that the PAPs are able to "regain their previous living standards". The Entitlement Matrix (EM) has adequate provisions to address the issues relating to loss of economic livelihood of the people due to project. These include:

- Rehabilitation assistance to landless, marginal and small farmers,
- Transitional allowance to PAFs,
- One time financial assistance to rural artisans, traders and self-employed,
- Subsistence allowance to the affected BPL households,
- Rehabilitation assistance to those losing livelihood,
- Training/skill building assistance for income generation through NGOs; and
- Temporary employment in construction (if available for civil work and opted by the PAPs);
- Livelihoods support to vulnerable groups.

Other than provisions in EM, support available for Income Generation Scheme (IGS) includes training and dovetailing on-going government schemes. One of the key challenges of implementation is facilitation support to NGOs and motivation to PAPs in capitalizing these Income Restoration activities. For this purpose, the CPM office along with facilitating NGOs will help PAPs on opting and making feasible income generation activities for rehabilitation. This will require undertaking market feasibility study to choose the most viable and promising income restoration programs for PAFs. In addition to the project-sponsored programs, the facilitating NGO will play a proactive role to mobilize various government schemes and ensure their accessibility and benefits to PAPs, particularly BPL, Women Headed Households (WHHs) and other vulnerable groups by making self-help groups/project beneficiary groups (PBGs). These governmental program aims at creating sustained employment by strengthening rural infrastructure through employment guarantee to rural poor. The NGO will work with the PAPs and line department of the concern Districts to dovetail these programs to benefit PAPs. During this implementation, the NGOs will assist the PAFs in their efforts to prepare and implement income restoration activities with handholding and facilitation support. Livelihood restoration scheme should be designed in consultation with affected persons and they should explicitly approve the programme.

### **Project Monitoring and Supervision Consultant**

Project Supervision, Monitoring, Evaluation will focus on effectiveness of RAP implementation, including the physical progress of land acquisition and R&R activities, the disbursement of compensation, the effectiveness of public consultation and participation activities, and the sustainability of income restoration and development efforts among affected communities. The objective of monitoring is to provide the project authorities with an independent feedback on LA and RAP implementation and to identify problems and successes as early as possible to allow timely adjustment of implementation arrangements.

For these reasons, an independent monitoring and evaluation consultant hereafter referred to as Social and Environment Safeguard Monitoring and Review Consultant (SESMRC) would be appointed. The Social and Environment Safeguard Monitoring and Review Consultant (SESMRC) consultant/agency will quarterly provide independent quality audit of the LA and



RAP implementation and assist in monitoring impacts in order to verify the effectiveness of internal monitoring, and to suggest adjustment in policies, delivery mechanisms and procedures as required. The external monitor will submit quarterly report to determine the quality and effectiveness of RAP implementation. Quality and Impact Monitoring will help gauge the effectiveness of the RAP and its implementation in meeting the needs of the affected population. The effects of RAP implementation will be tracked against the baseline conditions of the population prior to project implementation. Some key objectively verifiable indicators for measuring the impact of land acquisition and physical relocation include: health and welfare of affected population and the effectiveness of impact mitigation measures, including livelihood restoration and development initiatives. Some key impact indicators will include: size of land holding, economic wellbeing including annual income, employment/livelihoods, and indebtedness; educational status of the school going population; living conditions including type and size of housing, fixed and movable assets; problems arising among the affected population (declining crop yields, high incidence of disease, and decline in family income) requiring remedial action. In addition to the above quantitative indicators, impact monitoring will also involve the use of qualitative indicators to assess the satisfaction of PAFs with LA and R&R process and, the adequacy of these initiatives, especially with functioning of the grievance redress mechanism; consultation and people's participation; transparency and accountability in the LA and R&R process; information dissemination and communication with the affected population. The quality monitoring method will involve direct consultation with the PAFs through meetings, focus group discussions, or similar forums established by the project management for participation as part of the consultation framework.

### ***Summary of Project Implementation Institutional Set-up***

As discussed in detail in the section above, the Project Implementing Agency would comprise of:

#### At Headquarter Level

- The office of the Managing Director, HSRC, would have overall responsibility for the implementation of the Project;
- The Director, Projects and Planning who would be responsible for successful implementation of the various project components including RAP and livelihood restoration; and
- The Social and Environment Management Unit (SEMU) headed by the General Manager

#### At Field Level

- The Chief Project Managers (CPM) office who will also be act as the Chief Resettlement Officers (CRO) in-charge of planning and implementation of the LA and R&R programme and supported by Deputy Chief Project Manager and Assistant Project Managers (APMs) as required and necessary.
- The Social Management Unit (SMU) comprising of social safeguard specialists, the APMs, the NGO and the Social and Environment Safeguard Monitoring and Review Consultant.

Both the headquarter and the field team would closely coordinate and implement the LA and R&R for the project.

## **Other Agencies**

### **Resettlement Advisory Committee**

There shall be R&R advisory Committee at the field and headquarter levels to guide the SEMU and the CPM in the land acquisition and resettlement process. The resettlement advisory committee would comprise of qualified experts having demonstrated skill/expertise and experience in handling resettlement and rehabilitation issues. It is envisaged that this advisory committee would be constituted at the head quarter level and would typically comprise of:

- Resettlement & Rehabilitation expert (s);
- Livelihood/income restoration expert(s);
- Communication expert;
- Land acquisition specialist(s); and
- Linkage experts (for coordinating and dovetailing government welfare schemes).

The advisory committee would meet either on a quarterly/ six monthly basis or as required to a) assess the progress on the LA and R&R; b) understand the constraints/challenges that the headquarter/field team are facing in implementing the LA and R&R programme; c) guide the team in terms of approach/processes and methods used; d) assess efficacy of the grievance process and feedback mechanisms; and e) review the work of the Social and Environmental Safeguards Monitoring Review Consultants, NGO, the contractor and the PMU. It is envisaged that the members of this advisory committee would largely have an honorary role. The committee would, apart from reviewing the LA/R&R aspects/progress also visit the sites/field to assess and understand the on ground implementation of the agreed policy/EM for the project.

### **Women Groups in Resettlement Process**

The impacts of Land Acquisition and Resettlement & Rehabilitation, as has been assessed/proven in different research studies done nationally/globally are more pronounced amongst women groups. Typically in the context of the project/Indian scenario land holdings, financial and decision making are largely concentrated amongst the males in the family. This results in compensation and entitlement benefits (like land compensation) not reaching to the women members in the family. The entitlement matrix/framework for the project takes cognizance of this existing disparity/vulnerability and attempts to make the benefit allocation process and outcome more inclusive. Several measures have been proposed and are envisaged to ensure that gender issues are duly and addressed in the implementation process, including strengthening's women's participation in livelihood activities and in implementation for the RAP. These include (and are not limited to):

- Special benefits for women in the entitlement matrix for the project (like vulnerability allowance, customized training/skill building support etc.);
- Issuance of payments/cheque in the name of both husband and wife;
- Consultation requirements with women groups in the planning and implementation of R&R and livelihood restoration measure (this is one of the important KPIs for the NGOs/SMU)
- Ensuring that qualified women personnel are part of the SMU/advisory/SEMU/NGO teams;

- Special provisions in the grievance process/mechanism to collect complaints/concerns of women groups;

These and other provisions are expected to ensure in increased participation of women groups in the LA and R&R process and result in greater/equitable outreach of compensation/benefits and other assistances.

### **Role of NGOs**

The implementation of the Resettlement Action Plan (RAP) envisages compensating and assisting the project-affected persons (PAPs) at the replacement cost as well as to restoring livelihoods of the impacted families in time bound manner. To this effect institutional frameworks have been proposed at headquarter and field level to implement and oversee the LA and R&R programme. In order to facilitate the implementation of RAP, the support/assistance of experienced and qualified NGOs/Civil Society organizations (CSOs) is envisaged/has been proposed. The NGOs will work very closely with the CPM office and the affected community to ensure smooth implementation of the project. The NGOs will be working at the CPM office under the supervision and guidance of SEMU at HQ office. While SEMU will provide only policy and training input to NGOs actual execution will be done at the CPM office in close coordination with the Administrator (Competent Authority) of R&R under the project.

The scope of work and overall roles/responsibilities of the NGOs will include:

- Developing detailed Micro plan/individual entitlement matrix for the affected persons in line with the requirements of the R&R policy/ entitlement framework;
- Identify affected families in their respective villages/area;
- Ensure payment of compensation to PAFs and restoration of livelihoods of the affected family/person.
- Design/develop communication strategies for the project on LA and R&R with an aim to communicate the provisions of the R&R policy/entitlement framework amongst the PAF/community;
- Close work/coordinate the activities of the Competent authority and the administrator for R&R and ensure timely completion/implementation of LA and R&R activities;
- Ensure participation of all groups and communities especially women and vulnerable groups in the R&R process. Work closely with the community/local particularly the project affected community, and vulnerable groups, and to have regular interaction with the people to develop good linkages with the community;
- In coordination with the SEMU/SMU design and implement livelihood restoration programme/strategies for the project;
- Coordinate and liaise with the district administration and other development agencies to dovetail development program for the socio-economic development of affected communities, displaced families and vulnerable groups;
- Collect and channel grievances to the grievance redressal committee/mechanism. Ensure that the grievances are closed and communicate the feedback/suggestion/action taken upon the grievance to the compliant;
- To assist the CPM office in ensuring social responsibilities of the Project, such as, compliance with the labor laws, prohibition of child labour, gender issues, wage parity, employment to local communities etc.;

- Prepare monitoring and progress reports on the implementation of R&R;
- Educate the local communities on safety related aspects during construction and maintenance of HSRC. Impart awareness and training;
- Ensure that the gender issues are duly and addressed in the implementation process, including strengthening's women's participation in livelihood activities and in implementation of the RAP.
- Strengthen transparency and accountability of the LA and RR process by institutionalizing social accountability mechanisms during implementation;
- Seek and implement guidance from the Resettlement Advisory Committee.

#### *Selection Criteria for the NGO*

The selection of the NGO to assist and support the implementation of the RAP would be done by the SMU with the support and guidance from the SEMU. The selection criteria for the NGO would include (but not be limited to)

- Prior and demonstrate experience of developing and implementing resettlement action plans;
- Qualification and relevant experience of the proposed personnel. Typically the team would include:
  - Programme coordinator with more than 15 years of experience in project management and experience in LA and R&R;
  - R&R officer (s): with more than 10 years of experience in designing and implementing the R&R programme;
  - Livelihood Restoration Expert (s) with more than 10 years of experience in designing and implementing livelihood restoration programmes in resettlement projects;
  - Communication Expert (s) with experience in designing community oriented communication strategies/programmes;
  - Field mobilisers/community engagement experts;
  - Training experts;
  - Community outreach workers

It is envisaged that the NGO would be engaged for a time frame of 36 months.

### **7.4.3 Grievance Redress Mechanism**

A two-stage public grievance redress mechanism will be established with two grievance committees operating at the field and HSRC levels, and with an Ombudsman. Safeguard quality monitoring will be carried out by third party consultants (Social and Environmental Safeguards Monitoring Review Consultants).

**Grievance Redress at the Field Level:** There shall be a Resettlement and Rehabilitation Committee convened by the Chief Project Manager, which will comprise the following:

- District Collector of the concerned District, or his nominee;
- Concerned Competent Authority/Administrator ( R&R);
- Concerned Assistant Project Manager-Social;
- Zillah Parishad Chairperson/his or her nominee and
- Representative from civil society/ a reputed local NGO.

**Grievance Redress at Project Level:** There shall be a Resettlement and Rehabilitation Committee convened by the General Manager (SEMU), which will comprise the following:

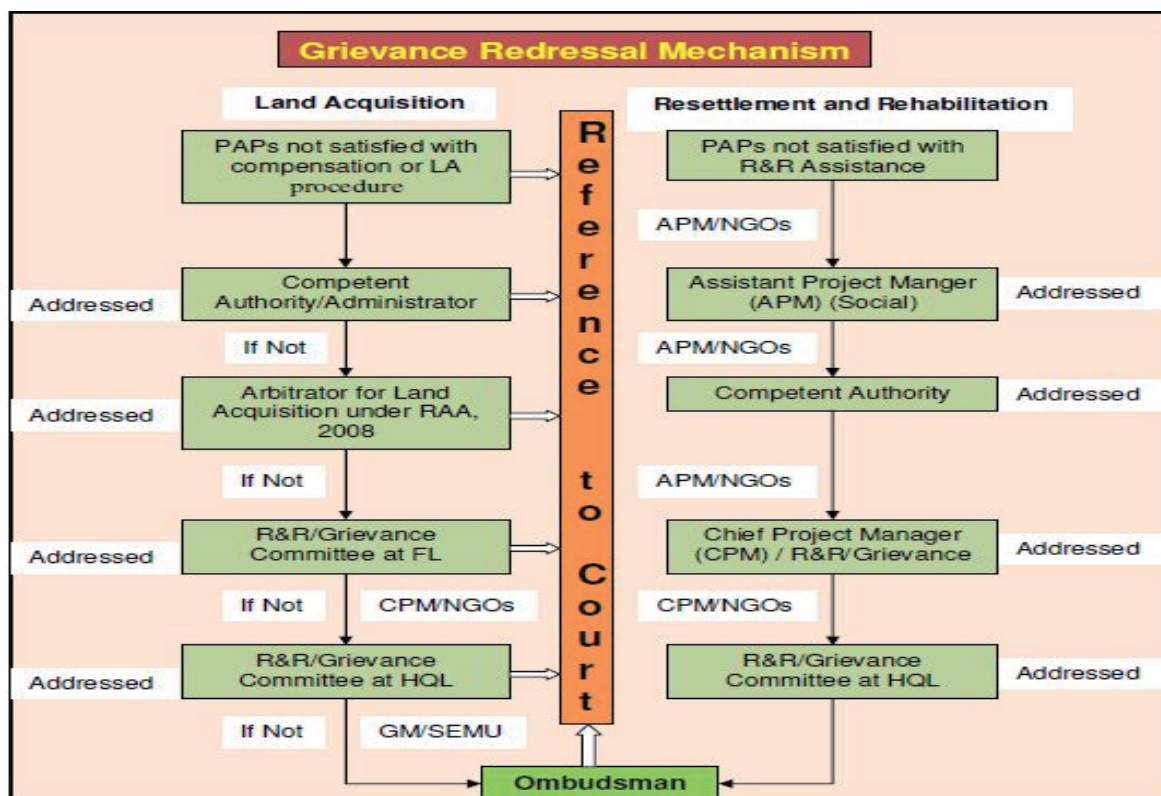
- Director (Project Planning)
- Deputy General Manager-Grievance
- Social Specialist
- Representative of the MOR

**Role of Arbitrator:** The Arbitrator, who in this case will be the Commissioner of the concerned revenue division will be duly appointed vide gazette notification to hear and redress grievances related to compensation payable under the RAA, 2008 to the PAFs.

**Ombudsman** will be appointed by the MOR to hear and resolve grievances not addressed by the R&R Committees established by HSRC to the satisfaction of the concerned project affected person/ family upon receipt of request from him/her. Ombudsman will in place by prior to start of LA and R&R.

### **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 HSRC. Complaint handling system will be established in terms of MOR & CVC guidelines. Complaint registers will be 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 will be 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 HSRC with each case generating an automatic, standard format report. HSRC 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 of the Company. 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.

## 8. RESETTLEMENT AND COMPENSATION COSTS AND BUDGET

### 8.1 INTRODUCTION

Based on the findings from the primary census of project affected households (likely) and the structures and assets impacted (likely), this chapter presents budget provisions to be made to meet compensation, resettlement and other related expenses under the project.

### 8.2 BUDGETING AND FINANCIAL PLAN

The financial plan for the project will essentially include making budget provisions under the following broad heads.

#### A. Compensation

1. Land Costs: Project will require acquisition of land for developing of tracks and associated facilities like stations, depots for maintenance, workshop and car maintenance etc. Hence the project will need to provide compensation for land acquired from legal titleholders, from other government departments. Current understanding drawn from the proposed alignment suggests that a significant proportion of the land required in Vadodara and Ahmedabad city falls parallel to existing railway tracks, and under railway ownership<sup>16</sup>. This is likely to bring down the cost of land remarkably from the figures quoted in the table below.
2. Structure Costs: On account of land acquisition, the project will cause loss of structures (details provided under Chapter 3 of this report) for which compensation will need to be paid to affected stakeholders (both titleholders and non-title holders alike).

B. Resettlement & Rehabilitation (R&R) Cost: Budget provisions under this head will meet direct expenses made on account of various R&R benefits proposed to be provided to affected households and persons (details discussed under Chapter 4).

C. R& R Implementation and M&E Costs: The project proponents will require to engage an external NGO/Consultant for implementation of R&R activities. Similarly, an additional independent agency is proposed to be engaged for M&E purposes. Related costs will be met from budget provisions made under this head. Proposed budget is assumed to be 15 percent of R&R costs

Limitations: Current project compensation and R&R budgeting is based on the census and inventory of loss survey, and the land market survey, whereupon number of affected people and extent of loss was assessed. However, in the absence of land record and ownership data (likely to be available upon formal project approval and 20A notification), the land survey was not conducted. Hence, the number of project affected households is expected to be significantly higher with addition of land losers in the category. This will essentially require additional budget provisions for R&R costs (as it is linked to number of PAHs). No

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<sup>16</sup> In absence of 20A notification and land record data, it is difficult to establish land ownership status of land parcels proposed to be acquired under HSRC at this stage.

presumptive estimation has been done on this account and added to project budget provided below.

The proposed project budget will be as per below:

<b>Table 8.1: Project Budget</b>			
	<b>Item</b>	<b>Amount</b>	<b>Remarks</b>
A.	Compensation		
1.	Land Cost	111,982,610,683	As per actual prevailing market rates. Land Cost is likely to be significantly lower on account of reasons explained under section #8.3 ahead
2.	Structure Cost	1,127,468,697	Calculated as per market replacement cost
B	R&R Benefit Cost	777,320,000	Calculated as per LARR 2013.
C.	R&R Implementation and M&E	116,598,000	Calculated as 15 % of R&R Benefit Cost (item B)
	<b>Total Project Cost</b>	<b>114,003,997,680</b>	

Proposed project budget is approximately 114 billion INR.

### **8.3 ASSESSMENT OF UNIT VALUES FOR COMPENSATION AND R&R BENEFIT COSTS**

#### **8.3.1 Land Cost**

For Land Cost estimation, market survey for prevailing land rates in and around land parcels proposed for acquisition, was carried out through the entire alignment stretch between Mumbai and Ahmedabad. Multiple sources of information were accessed (also for cross validation of quoted land rates) and it included local real estate operators, brokers, local villagers, real estate web portals etc.

Further, land rate information was not collected for alignment sections where track structure type would be tunnel and river bridges.

The following table provides district wise consolidated figure for land area and corresponding land price. A chainage and location specific rate information is provided separately (as excel sheet) for detailed reference.

<b>Table 8.2: Project Land Area and Estimated Cost*</b>						
	<b>Land Area (in Sq. M)</b>			<b>Land Cost (In INR)</b>		
	<b>Station/depot</b>	<b>Main Alignment</b>	<b>Total</b>	<b>Station/Depot</b>	<b>Main Alignment</b>	<b>Grand Total</b>
Mumbai**	33,962	142,424	176,385	-	0	0
Thane	405,703	585,164	990,867	8,733,972,031	5,278,547,800	14,012,519,831
Palghar	99,017	3,277,900	3,376,917	1,015,654,949	14,127,915,810	15,143,570,759



Dadra Nagar Haveli		53,984	53,984		1,264,139,200	1,264,139,200
Valsad	75,803	2,317,046	2,392,849	580,905,973	4,967,417,200	5,548,323,173
Navsari	44,000	1,121,578	1,165,579	947,238,458	3,488,995,000	4,436,233,458
Surat	57,596	1,235,062	1,292,658	2,169,860,402	7,187,129,200	9,356,989,602
Bharuch	75,743	2,065,007	2,140,750	655,049,701	2,543,577,600	3,198,627,301
Vadodara#	96,584	1,706,132	1,802,716	6,183,657,472	14,357,101,600	20,540,759,072
Anand		909,312	909,312	0	1,472,580,600	1,472,580,600
Kheda	43,563	1,374,562	1,418,125	375,121,854	4,066,432,200	4,441,554,054
Ahmedabad#	727,173	464,447	1,191,620	22,096,575,634	10,470,738,000	32,567,313,634
<b>Total</b>	<b>1,659,143</b>	<b>15,252,618</b>	<b>16,911,761</b>	<b>42,758,036,473</b>	<b>69,224,574,210</b>	<b>111,982,610,683</b>

Source: JICA Data & Primary Market Land Rate Survey

\* In absence of land record and ownership data (and related 20A notification under RAA 2007 for land acquisition), figures are not available for number of affected land owners. Hence above data information is limited to quantum of land acquisition and related cost estimation.

Further, it is recommended that, the state (the land acquiring authority) will provide benefits to affected land owners by waiving off/ refund of land registration/stamp duty charges incurred for registration of new land parcels provided to/bought by land loser households.

It may also be noted that no additional solatium is added to land cost, as the cost calculated is based on prevailing market rates and thus believed to be sufficiently compensating for land losses incurred.

\*\*In Mumbai, the proposed alignment is a tunnel type structure, hence not accounted for land cost estimation.

# In Vadodara (main city area) and Ahmedabad (main city area up to Depot in Kail, Sabarmati), the proposed alignment runs parallel to existing Mumbai-Ahmedabad railway line. Much of the land required is likely to be met from surplus land available with Railways. Estimated land costs (alignment and station/depot) for the alignment stretches are INR 10,237,037,872 and INR 29,717,441,434 respectively. With a total of INR 39,954,479,305 the estimated figures constitute a significant 36 percent (approx.) of total estimated land cost.

### 8.3.2 Structure Cost

Loss of structures primarily include two categories namely private structures and common and public properties (including government and railway properties). Related costs for compensation against structures impacted have been estimated based on actual estimate for each of the structures and its typologies.

As presented and discussed in detail in chapter 3 (of this report), a total of 1688 private structures (e.g. residential building units, detached kitchen, bathroom, cowshed, hand pumps, tube well, shops, apartment, godown, boundary wall etc.) and another 1610 common and Public properties are expected to be permanently impacted by the project. The affected structures are of different (refer chapter 3) construction types and will witness varying project impacts.

For cost estimation purposes, the affected structures were classified on multiple and cross cutting parameters like, its geographic location, construction type, utility type etc. Hence, instead one uniform rate applicable across all structures, structure specific unit rate was estimated to arrive at structure cost (replacement cost). The detailed cost estimation

methodology is provided as Annexe 6.1 of this chapter. The total estimated cost figures are as given below

<b>Table 8.3: Replacement Cost of Structures Affected</b>			
<b>Item</b>	<b>No. of Structures</b>	<b>Unit Rate</b>	<b>Cost (in INR)</b>
Private Structure	1,688	Calculated individually for each structure as per structure type, no standard rate	930,111,488
CPR	1,610		197,357,209
<b>Total</b>	<b>3,298</b>		<b>1,127,468,697</b>
Source: Inventory of Loss Survey 2014.			

### 8.3.3 R&R Benefit Costs

R&R benefits are proposed to be provided in addition to compensation (as per 8.3.1 and 8.3.2 above). The costing in brief is presented below

<b>Table 8.4: R&amp;R Benefit Costs</b>					
	<b>Items</b>	<b>Unit Rate</b>	<b>Units</b>	<b>Amount</b>	<b>Details/Remarks*</b>
1	Households Displaced	150,000	23	3,450,000	As per Second Schedule, Serial No.2, #(2), LARR 2013. R&R assistance to illegal occupiers for house construction, titleholders provisioned to get this assistance under #8.3.2 above. All affected are urban dwellers hence appropriate unit rate applied. (refer to Table 3.4)
2	Onetime payment against employment and Annuity	500,000	1,027	513,500,000	For all whose livelihood is affected (including employees) as per LARR 2013. (refer to Table 3.3.5)
3	Subsistence Grant for displaced	36,000	1,027	36,972,000	For all whose livelihood (losing commercial structures) is affected as per LARR 2013. Amount will be much higher with number of land losers added to this data
4	Additional Subsistence grant to SC and ST (in Scheduled Area)	50,000	261	13,050,000	to all SC and ST HHs as per Census Survey (irrespective of LARR requiring ST HHs to be located in Scheduled V Area). (refer to Table 2.8: 202+59)
5	Transportation Cost	50,000	1647	82,350,000	all including those losing residential and commercial structures (owners, tenants etc. except employees) (refer to Table 3.4 and Table 3.5: 1,451+1,027-828=1,652?)
6	Cattle Shed and Petty shop construction	25,000	117	2,925,000	(refer to Table 3.7:24 cattle shed + Table 3.8: 89 shops +Table 3.8: 4 stalls )
7	Grant to artisan/small traders	25,000	57	1,425,000	small shopkeepers/kiosk owners/artisans
8	Resettlement Allowance	50,000	2473	123,650,000	All physically displaced (refer table 3.4 and 3.5 under chapter 3) including employees.

					Amount will be much higher with land losers added to the count in detailed stage. (refer to Table 3.4: 1,451 + Table 3.5: 1,027 + 5 families residing res.= 2,473 )
9	Stamp duty and registration fee	-	-	-	Recommended for exemption by state.
<b>Total Cost</b>				<b>777,322,000</b>	

Source: Drawn from LARR 2013. The ACT currently under debate in Indian parliament is more progressive and accommodative to the needs of affected persons and its provisions ensure that PAHs get additional support (besides compensation, which is calculated on market rates). Hence instead of RAA and NRRP, the costing has been done on the basis of LARR 2013 which will also respond to JICA norms for R&R

#### 8.4 APPROVAL OF THE RESETTLEMENT BUDGET

The detailed RAP will have PAH specific budget for R&R and compensation. It is understood that all such budget provisions before actual disbursement will undergo review by JICA and MoR. And subsequent to approval by both counterparts, such assistance will be extended to affected households.

#### 8.5 MANAGEMENT OF COMPENSATION AND FLOW AWARDS

Management of compensation and flow of awards will be characterized (details in terms of role functions and accountability are discussed under chapter 7 of this report) by the following:

- The money for the compensation shall be kept in joint account in the name of the Competent Authority and Assistant Manager Project /Finance. All the payments of the compensation shall be released from this account.
- Any amount, if likely undisturbed for more than a year from the date of last transaction shall be remitted back;
- Claims of compensation and arbitration award if any, shall be recommended by Competent Authority to the CPMs who shall in turn refer it to the HQ (or the designated office level, e.g. Western Division Head Quarter, Mumbai) for release of payment.
- It will be ensured 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.
- Disbursement of compensation will be done by cheques jointly signed by the account holders.
- The possession of the land will be taken immediately (upon payment of compensation) and hand over done.
- Once the compensation money has been disbursed monthly account of the money released and actually disbursed as compensation would be provided.

- The land rate finalized by the Competent Authority (and in due consideration of the RAP report recommendations) will be approved in house by HSRC.
- Whenever the award by Competent Authority is not found to be reasonable / acceptable, HSRC may while depositing back the amount in the joint account, refer the matter for arbitration.
- NGO/Consultant appointed for R&R implementation along with external M&E agency will be additional support mechanism to bring up and relay complaints/ grievances/ concerns around compensation and R&R support, to Competent Authority and if required to HSRC to CPM/HQ.

## 9. RAP IMPLEMENTATION SCHEDULE

### 9.1 KEY ACTIVITIES

The process of the implementation of the Resettlement Action Plan (RAP) involves a cluster of activities and is predicated heavily on successful completion of other project components, normally carried out by other parallel agencies engaged under the project. This chapter lists down and discusses in brief the RAP implementation activities, followed by activity implementation schedule. RAP implementation typically consists of the following activities;

1. Preparation and Finalization of the list of Affected Persons/families;
2. Training and capacity building of RAP implementation staff, setting up the implementation mechanism
3. Development of the detailed Micro Plan based on the entitlement framework for each of the affected persons;
4. Stakeholder Consultations and Disclosure of the RAP/detailed Entitlement Matrix;
5. Marking of zone of impact/influence- pillar posting and center line markings;
6. Disbursement of compensation to the affected persons/families;
7. Disbursement of R&R assistance and commencement/implementation of Rehabilitation Activities;
8. Monitoring and Evaluation.

In addition to the above, there would be set of other activities that will need its completion, prior to commencement of RAP implementation activities. As such, RAP implementation is predicated heavily on completion of the activities mentioned below and data information generated/collected thereof. These activities (also included in the RAP implementation schedule, presented later in this chapter) may be noted as the following:

1. Preparation of the list of Affected Land Parcels and related ownership (by state administration)
2. Detailed Measurement Survey
3. Detailed RAP with identification and finalization of list of affected Titleholders and Non-Title holders (by local consultant in coordination with JIC/MoR/State)

As mentioned above, the implementation of the RAP is closely linked and dependent upon the identification of affected land parcels (and its ownerships), finalization of the measurement survey including detailed drawing and progress of civil works. Some of these responsibilities such as identification of land parcels will be the responsibility of local district administration. Delays in finalization of these and detailed drawings and land plans will directly impact the timelines and schedule envisaged for the implementation of the RAP. Based on current knowledge and available information it is understood that the overall project would be implemented over a span of 5-7 years. The detailed drawings and technical designs are expected to be finalized by the mid of 2016. The civil works are likely to commence by end of 2017/ early 2018. The civil works contract for each sub-project will only be awarded when compensations and R&R disbursed to entitled persons as per the entitlement matrix and a minimum of 80% of the land is in the possession of HSRC. There may be situations/circumstances which could delay/increase the time requirement for the implementation of the project specifically linked to the RAP. These could include, but not be

limited to local opposition, seasonal factors, social and economic concerns, training of support staff and financial constraints. The implementation of the RAP and the overall project would require very close coordination amongst the various line departments and implementing agencies.

The above proposed 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, RAP Implementation phase and Monitoring and Evaluation period are discussed in the below sections.

### **Project Preparation Phase**

The major activities to be performed in this period include establishment of institutional mechanisms (SEMU/CPM/ SMU etc.) at headquarter and field level; submission, approval and disclosure of the RAP; appointment of Social and Environment Safeguard Monitoring and Review Consultant (SESMRC)/NGOs and establishment of grievance system etc. Training/ capacity building and orientation of the concerned team/staff in charge of LA and R&R would be imparted training and orientation (on social safeguards and various aspects of LA and R&R) to ensure understanding, consistency and uniformity of the implementation process. This training and orientation will be conducted with the help of consultants and experts. Some of the components that would be covered in the training would include (but not be limited to):

1. Orientation and understanding on the Right to Fair Compensation and Transparency in Land Acquisition, Resettlement and Rehabilitation Act, the RAA Act, the National Policy on Resettlement and Rehabilitation, WB guidelines and requirements;
2. Contents of the RAP, the entitlement framework and matrix. Understanding of the policy and procedure adopted under the Project;
3. Institutional arrangements for implementation of LA/RAP. Reporting systems and structures;
4. Understanding of the Grievance Handling process and systems.
5. Brief of implementation Schedule activities step-by-step and timelines;
6. Details of Rehabilitation schemes/ of NGO/ Understanding of the Monitoring and reporting mechanism.

The information campaign & community consultation will be a process initiated from this stage and will go on till the end of the project.

As mentioned earlier, other linked activities that will need to be completed at the commencement of RAP implementation will include;

1. Identification of affected land parcels and its ownership. This will typically identify the plot numbers, make correction and updation of land records, establish ownership etc. and is usually the responsibility of land and revenue department in the district
2. Preparation of detailed RAP that includes census and socio-economic survey of all affected persons, link them to affected land plots and preparation of final list of affected structures, finalization of entitlement matrix etc.
3. Detailed Measurement survey of all affected structures
4. The project proponents may choose to assign the latter of the two activities to RAP implementing agency as well or to a separate agency altogether.

## **Implementation Phase**

After the project preparation phase the next stage is implementation of RAP which would include;

1. Marking of zone of impact/influence- pillar posting and center line markings/consultations with affected persons;
2. Identification/verification of project impacted and beneficiaries based on Cut-off date and notification;
3. Ground truthing and verification of assets/properties of affected persons and estimation of their type. Finalization of Micro Plan;
4. Issuance of identity card to all PAPs;
5. Disbursement of compensation to the affected persons/families;
6. Disbursement of R&R assistance and commencement/implementation of Rehabilitation Activities;
7. Initiation of economic rehabilitation measures and Relocation and rehabilitation of the affected persons;
8. Site preparation for delivering the site to contractors for construction and finally starting civil work;

## **Monitoring and Evaluation Phase**

The internal as well as external monitoring process would ensure that the systems in place to ensure that the compensation, benefits and assistances are provided to the affected persons are provided/delivered. Similarly the stakeholder engagement process would be ongoing at this stage and regular consultations with all stakeholder groups would form a key part of this engagement exercise.

### **9.2 R&R IMPLEMENTATION SCHEDULE**

One of the conditions in the civil works contracts would be to make available land to the contractors free from any encumbrances. To this effect the time frame for implementation of RAP would be synchronized with the proposed project implementation/construction schedule in a way that commencement and progress of civil works is not jeopardized.

A time-bound implementation schedule for the RAP has thus been prepared in accordance with the project construction schedule based on current information and knowledge. The overall schedule of implementation is based on the principle that people affected by the project are paid their due resettlement benefits prior to displacement. The Implementing Agency will assist the affected persons in the process of relocation and resettlement. Individual entitlements on household basis will be processed and delivered prior to start of construction.

A composite implementation schedule for R&R activities including various sub tasks and time line matching with civil work schedule shall be further prepared in the 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.

The preliminary time bound implementation schedule over a period of 30-32 months from January 2016 (with setting up of Implementing Mechanism and GRM mechanism) to July/August 2018 has been provided below. The RAP activities (micro planning, verification of census survey data, assessing losses, institution identification, affected person participation, relocation and income restoration etc.) have been scheduled and summarized with the project implementation. It may also be noted that the RAP implementation agency will be required to establish its grievance redress team much earlier, as much of the grievances that will pertain to land records will crop up as early as in January 2016 during finalization of land plots and associated families affected by land acquisition. However, sometimes sequence may change or delays witnessed due to circumstances beyond the control of the Project. This implementation schedule will be finalized considering possible changes of events during the project implementation period.



## RAP Implementation Schedule

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## 10. MONITORING AND EVALUATION

### 10.1 INTRODUCTION

The Monitoring and Evaluation (M&E) mechanism will provide the basis to assess the overall success and effectiveness of the Land Acquisition (LA) and Resettlement & Rehabilitation (R&R) plan for the Project. HSRC will periodically monitor and evaluate the Land Acquisition (LA) and Resettlement & Rehabilitation (R&R) process in order to ascertain that the procedures proscribed have been followed and that affected persons are at least not worse off than they were without the Project. Effective Monitoring & Evaluation (M&E) will also help HSRC ensure and facilitate appropriate corrective measures during LA and R&R implementation based on the information obtained through routine collection of data and community/stakeholder involvement in the monitoring process.

The M&E mechanism will be based on three components;

1. Monitoring which will include;
  - Internal monitoring; and
  - External Monitoring;
2. Social Impact Evaluation/ Resettlement Completion Audit; and
3. Reporting.

These have been discussed in the sections below.

### 10.2 MONITORING

The Monitoring Programme for the Project will include and be aimed at:

- Regular, on-going monitoring of implementation processes;
- Measurement of success in meeting set objectives and targets;
- Measures to ensure stakeholder participation; and
- Steps to enhance the use of available data for analytical and required corrective actions purposes.

A two-tier monitoring system will be planned and implemented for the project. These two tiers/processes will run simultaneously. The internal monitoring process will run as part of day to day process/ performance monitoring and will be used to ensure that the LA and R&R is meeting the objectives, timelines, targets set by SMU/SEMU and others as outlined in the RAP. The external monitoring would include independent monitoring and evaluation to review and verify progress, highlight delays in meeting targets and recommend corrective measures. These would also provide an objective assessment on a) the project's conformance/compliance with the agreed policy framework for LA and R&R and b) its success/limitations in restoring and where possible improving livelihoods of the affected people/families.

As described in the Institutional mechanism section, internal monitoring within HSRC would be undertaken by the PMC/SMU and the SEMU. The second tier would be an external monitoring by an Independent Agency (Social and Environment Safeguard Monitoring and Review Consultant (SESMRC) consultant/agency). This external/independent monitoring agency

(SESMRC) would conduct quarterly independent monitoring and evaluation to review and verify progress, highlight delays in meeting targets and recommend corrective measures.

### **10.2.1 Internal Monitoring**

The SEMU will be responsible for performance monitoring at the project level and the CPM office will be responsible for performance monitoring at the field level. Progress will be reported by field unit/CPM to corporate office (SEMU Unit) against the time schedule with dated list of targeted actions. This monitoring will involve periodic field visits by SEMU and continuous implementation monitoring by the CPM and his staff including the Deputy CPM, APM-Social and the facilitating NGOs.

The indicators that would be monitored/tracked as a part of the internal monitoring would typically include (but not be limited to);

- Progress/status of assessments/works in case of technical design changes;
- Asset loss compensation payments and replacement;
- Relocation of displaced families with R&R benefits disbursed;
- Provision of facilities to replace damaged/affected CPR;
- Rehabilitation of small/marginal and landless farmers losing land/livelihoods;
- Income restoration and development activities initiated/in progress;
- Payment/delivery of other benefits (shifting allowance, house allocation/shifting, training and livelihood restoration support provisions/measures etc.) to the eligible and entitled persons (or majority of them);
- Progress on settlement of all (or substantial) legal or other claims/disputes linked to land and resettlement;
- Functioning of the grievance redress mechanisms in place;
- Quality and timeliness of delivering entitlement;
- Adequacy and Effectiveness of the Stakeholder Consultation and Participation;
- Disclosure of information and Transparency in the process of LA and RAP implementation.

The internal monitoring programme should develop a common system for monitoring indicators both during and following land acquisition, resettlement and rehabilitation. This system should be able to collect, collate, analyze and provide a summary of the progress made, the key concern areas, reasons and the top priorities for the management and implementation units.

A typical monitoring database should record and would typically include for example an activity (e.g. resettlement tasks) and its target date for completion and status/ progress made against this activity/task as reflected below;

- Progress to date (e.g. 60%);
- Progress in the last month (e.g. 20 households shifted);
- Target for this month;
- Reasons for delay, if any; and
- Action to be taken, including specific responsibilities

Similar progress indicators could be designed for tasks like land acquisition, rehabilitation, income restorations, shifting of CPRs, grievance resolution etc.

### **10.2.2 External Monitoring**

In addition to the Internal Monitoring process, External Monitoring will be undertaken through an external evaluation consultant/agency; Social and Environment Safeguard Monitoring and Review Consultant (SESMRC) appointed by the HSRC. This external monitoring process will be informed by the internal monitoring reports, and also through independent surveys and consultation conducted by the SESMRC.

The SESMRC consultant/agency will undertake quarterly monitoring/audit and provide independent quality audit of the LA and RAP implementation with an aim to assist in monitoring impacts, verify the effectiveness of internal monitoring, and to suggest adjustment in policies, delivery mechanisms and procedures as required. This quarterly report will also comment upon the quality and effectiveness of RAP implementation and its success in meeting the needs of the affected persons. These will be monitored/tracked against the baseline conditions of the population prior to land acquisition and project implementation. SESMRC would also, as a part of its monitoring process, describe any outstanding actions that are required to bring the LA and resettlement activities in compliance with policy and RAP Framework requirements and describe further mitigation measures needed to meet the needs of affected person or families judged and/or perceiving themselves to be worse off as a result of the Project. The components/indicators that would be monitored, tracked and evaluated would typically fall under three broad categories:

1. **Process indicators;** including project inputs, expenditure, staff deployment etc.;
2. **Output indicators;** indicating results in terms of numbers of affected people compensated and resettled, training held, credit disbursed, grievances solved, income restoration achieved etc.
3. **Impact indicators;** related to the longer-term effect of the project on people's lives, such as improved housing, re-establishing livelihoods.

The Monitoring Programme will also have a strong component for monitoring the issue of ineligible families. For example if a person has put forward a claim (of being a genuine squatter) the monitoring process will have to capture the progress on the investigation done and the process followed to verify his/her claims. This process is critical to address the dissatisfaction and discontent amongst the people who feel that their claims and interests were not addressed in the vetting process.

The Monitoring component will also focus on the shifting/relocation of families. This process is intrinsically linked to the progress in survey and physical demarcation of the area. If during the monitoring it is found that the survey and demarcation is lagging behind, it is the project's responsibility to take up the issue with the competent authority and devise appropriate measures to address the same.

The Monitoring process will lay special emphasis on the families that are disadvantaged/vulnerable and cannot cope economically or psychologically with the stress of physical relocation. It will be the responsibility of the project to pay particular attention to the

needs/concerns of this group of people and take appropriate measures to rehabilitate them. The table below provides the examples of various variables/outputs that could be used to assess the status and progress on each of the indicators. Please note that these variables are indicative of these indicators and should be modified appropriately based on requirements/circumstances.

**Table (10.1): Monitoring and Evaluation Indicators**

Indicators	Variables	Examples of Variables - All data should be disaggregated by gender, vulnerable groups as required and for different groups of PAPs
Process Indicators	<b>Inputs</b> <ul style="list-style-type: none"> <li>• Staffing;</li> <li>• Budget and Time Frame;</li> <li>• Basic information on PAP;</li> </ul>	<ul style="list-style-type: none"> <li>• Number of officials and qualified experts available for tasks;</li> <li>• Number of land and Resettlement Officers and assistants located in the field/CPM;</li> <li>• Have all land acquisition and resettlement staff been appointed and mobilized for the field and office work on schedule?</li> <li>• R&amp;C capacity building and training activities been completed on schedule?</li> <li>• Are funds for resettlement available on time?</li> <li>• Have payment arrangements been achieved on time?</li> <li>• Have funds been disbursed according to the agreed compensation plans?</li> <li>• Has all land been acquired and occupied in time for implementation?</li> <li>• Has census survey and inventory of losses been completed/revalidated</li> <li>• Is basic socio-economic profile of PAPs available (location, demographic, gender/ethnicity/religion/housing types/access to services, income and expenditure levels, livelihoods etc.)</li> </ul>
	<b>Stakeholder Consultation and Participation</b> <ul style="list-style-type: none"> <li>• Participation</li> <li>• Staff capacities;</li> <li>• Effectiveness of the Grievance Process;</li> <li>• Adequacy and effectiveness of Public Consultation process;</li> <li>• Effectiveness of the Internal Monitoring Mechanism;</li> <li>• Compliance with Policy and framework requirements;</li> <li>• Transparency and Accountability;</li> </ul>	<ul style="list-style-type: none"> <li>• Was the community preparation/sensitization phase implemented?</li> <li>• Were special measures for vulnerable peoples implemented as necessary?</li> <li>• No. of General meetings (for both men and women);</li> <li>• % of women out of total participants;</li> <li>• Number of meetings exclusively with women;</li> <li>• Number of meetings exclusively with vulnerable groups;</li> <li>• Level of participation in meetings (of women, men &amp; vulnerable groups);</li> <li>• Number of Community Compensation Assessment meetings held;</li> <li>• Grievances by type and resolution;</li> <li>• Number of field visits by SMU/SEMY/NGO team/ staff;</li> <li>• Number of NGOs/CBOs participating in project;</li> <li>• Have resettlement leaflets been prepared and distributed?</li> <li>• How many PAPs know their entitlements?</li> <li>• How many know if they have received the correct entitlement?</li> <li>• Have any PAPs used the grievance redress procedures? What were the outcomes?</li> <li>• Have conflicts been resolved to the satisfaction of stakeholders</li> </ul>

Indicators	Variables	Examples of Variables - All data should be disaggregated by gender, vulnerable groups as required and for different groups of PAPs
	<b>Operational Processes/Procedures</b>	<ul style="list-style-type: none"> <li>• Census and asset verification/quantification procedures in place;</li> <li>• Effectiveness of compensation delivery system;</li> <li>• Efficiencies of the NGO and SMU team in engaging with communities and resolving issues/concerns;</li> <li>• Number of land transfers effected;</li> <li>• Facilitation support in shifting of families and feedback from PAFs</li> <li>• Coordination between CA, NGO and SMU/SEMU and other line agencies;</li> <li>• Internal coordination between SMU/NGO and SEMU;</li> <li>• Time taken for resolution of complaints/grievances;</li> </ul>
	<b>Effectiveness of Resettlement Planning</b>	<ul style="list-style-type: none"> <li>• Were the PAPs and their assets correctly enumerated? Feedback on the process followed?</li> <li>• Were/have any land speculators assisted?</li> <li>• Was/are the time frame and budget sufficient to meet objectives?</li> <li>• Were/are entitlements sufficient?</li> <li>• Were/are vulnerable groups identified and assisted?</li> <li>• How did/are CA and SMU/SEMU dealing with unforeseen problems?</li> </ul>
<b>Output Indicators</b>	<b>Land and Asset Acquisition</b>	<ul style="list-style-type: none"> <li>• Land acquired (by category- cultivated, private land, communal land, CPRs etc.);</li> <li>• Number of agreements on management of CPRs. Design adaptations implemented to preserve CPRs, rituals implemented to transfer movable CPRs;</li> <li>• Structures acquired (by category private buildings, community buildings, community infrastructure etc.);</li> <li>• Trees and crops acquired (by category private trees, government/community owned trees acquired. Crops damage minimized, compensation paid, number of crop owners etc.).</li> </ul>
	<b>Delivery of Entitlements</b>	<ul style="list-style-type: none"> <li>• Have/are PAPs receiving entitlements according to numbers and categories of loss set out in the entitlement matrix/framework?</li> <li>• Have/are PAPs receiving payments on time?</li> <li>• Have/are PAPs who were impacted by temporary land access been compensated?</li> <li>• Have/are all PAPs receiving the agreed transition costs, shifting allowance, income</li> </ul>

Indicators	Variables	Examples of Variables - All data should be disaggregated by gender, vulnerable groups as required and for different groups of PAPs
		<p>support and any other resettlement allowances, according to schedule?</p> <ul style="list-style-type: none"> <li>• Are measures in place to provide land titles/security of tenure or community land agreements to PAPs as agreed?</li> <li>• % of households who have received land titles/ other forms of tenural security or community agreements?</li> <li>• Is restoration proceeding for social infrastructure and services?</li> <li>• Are income and livelihood restoration activities being implemented as set out in the RAP/Livelihoods restoration plan?</li> <li>• Have community compensation agreements been honored and infrastructure constructed;</li> <li>• Were other entitlements distributed on time, (like shifting allowances, transitional loss of income support etc.)?</li> <li>• Have/were there additional costs PAP's had to bear?</li> <li>• How effective is the bank account payment process?</li> </ul>
	<p><b>Restoration of Livelihoods</b></p>	<ul style="list-style-type: none"> <li>• % of PAFs employed (permanent or contractual) to compensate loss of earnings;</li> <li>• Were compensation payments sufficient to replace lost assets?</li> <li>• Was sufficient replacement land available of suitable standard for PAFs to replace their lost land?</li> <li>• Did income restoration allow for re-establishment of enterprises and production?</li> <li>• Have/are livelihood restoration programmes been implemented?</li> <li>• Have/are enterprises affected received sufficient assistance to re-establish themselves?</li> <li>• Have vulnerable groups been provided income-earning opportunities?</li> <li>• Is the implementation of income/livelihood restoration activities effective and sustainable?</li> <li>• Shift in occupations/stability of income sources;</li> <li>• Change in income per household;</li> <li>• Change in skill levels;</li> <li>• Change in housing size/number of rooms;</li> <li>• Change in House quality;</li> <li>• Change in asset ownership (farm equipment, livestock).</li> </ul>



Indicators	Variables	Examples of Variables - All data should be disaggregated by gender, vulnerable groups as required and for different groups of PAPs
	<b>Levels of Satisfaction</b>	<ul style="list-style-type: none"> <li>• How much do PAPs know about resettlement procedures and entitlements?</li> <li>• Do PAPs know their entitlements? Do they know if these have been met?</li> <li>• How do PAPs assess the extent to which their own living standards and livelihoods have been restored?</li> <li>• How much do PAPs know about grievance procedures and conflict resolution procedures?</li> <li>• What are the satisfaction levels with a) entitlements and benefits and b) the process of receiving them</li> </ul>
<b>Impact Indicators</b>	<b>Household Earning Capacity</b>	<ul style="list-style-type: none"> <li>• Change in employment status of economically active members;</li> <li>• Shift in occupations/stability of income sources;</li> <li>• Change in income per household;</li> <li>• Change in skill levels;</li> </ul>
	<b>Settlement and Population</b>	<ul style="list-style-type: none"> <li>• Growth in number and size of settlements along the RoW</li> <li>• Change in land rates;</li> <li>• Growth in market areas;</li> <li>• Better access to towns and markets;</li> </ul>
	<b>Changes to Status of Women</b>	<ul style="list-style-type: none"> <li>• Increased participation of women in financial and decision making;</li> <li>• Access to and use of bank accounts by women groups;</li> <li>• Participation of women in training programmes;</li> <li>• Use of credit facilities;</li> <li>• formal employment</li> <li>• Participation in commercial enterprises</li> </ul>
	<b>Access to Infrastructure and Networks</b>	<ul style="list-style-type: none"> <li>• Change in access to community facilities;</li> <li>• Change in access to health care, education, transport etc.;</li> <li>• Increase/decrease in access to health care centers, markets;</li> <li>• Change in community/household interactions</li> <li>• Increase/decrease in emotional bonding/attachment</li> </ul>

### **10.2.3 Social Impact Evaluation/ Resettlement Completion Audit**

HSRC will undertake an end-term evaluation by an independent third party to assess whether the outcome of the RAP complies with the involuntary resettlement policy. The key objective of this external evaluation, or completion audit, will be to determine whether the efforts made to restore the living standards of the affected population have been properly conceived and executed. The audit will verify how far the physical inputs committed in the RAP have been delivered and the services have been provided. In addition, the audit will evaluate whether the mitigation actions prescribed in the RAP have had the desired effect. The socioeconomic status of the affected population will be measured against the baseline conditions of the population before displacement, established through the census and socioeconomic studies. This evaluation will be undertaken after all RAP inputs—including payment of compensation and R&R assistances have been paid and other supplementary development initiatives have been completed prior to Project closure.

The Resettlement Completion Audit/Social Evaluation Report will have the following specific objectives:

- General assessment of the implementation of the RAP against the objectives and methods set forth in the entitlement framework;
- Verify that all commitments made in the RAP have been met;
- Assessment of compliance of implementation with laws, regulations and applicable guidelines; Assessment of the fairness, adequacy and promptness of the compensation and resettlement procedures as implemented;
- Evaluation of the impact of the compensation and resettlement program on livelihood restoration, measured through incomes and standards of living, with an emphasis on the “no worse-off if not better-off” requirement;
- Identification of potential corrective actions necessary to mitigate the negative impacts of the program, if any, and to enhance its positive impacts.

The Completion Audit will be based on documents and materials generated by internal and external monitoring and field assessment with affected people. The outcome the Resettlement Completion Audit/Social Evaluation Audit report should include the following information/details;

**a) Context/background to RAP and the overall project; To include:**

- An introduction to the Project and the overall context for Land Acquisition and Resettlement covering details of land and impacted communities, magnitude of displacement, key resettlement and livelihood impacts, legal framework, eligibility criteria and entitlement framework, timing of the various components of physical and economic displacement undertaken, resettlement and/or livelihood restoration activities and compensation provided;
- A summary of the different studies/assessment undertaken and their key objectives;
- An update on the current status of LA and R&R (pending/complete/in progress);
- A brief description of the monitoring process to date and key findings/outcomes of the monitoring reports; and

- Summary of major or outstanding issues, grievances and concerns linked to RAP implementation.
- b) A review of the process of development and implementation of the RAP;** The process review would examine and provide a clear and independent opinion on:
- Adequacy and effectiveness of the Stakeholder Consultation and Participation in the planning and implementation process. This would mean/include looking at evidence of (but not limited to);
    - Adequate coverage and inclusion of all stakeholder groups (women, vulnerable etc.);
    - Early and targeted dissemination of information to ensure meaningful consultation;
    - Localized nature of consultations to reflect appropriate timeframes, context and local language;
    - Legitimate stakeholder interests and concerns being factored in the planning and decision making process linked (but not limited) to;
      - Acquisition of land to minimize land take and resettlement related impacts;
      - Decision on rates/compensation/benefits;
      - Location and suitability of resettlement sites;
      - Type/selection of rehabilitation measures, trainings etc.;
    - Continuity of the dialogue and engagement process;
    - Good/consistent attendance in community meetings;
    - Community trust and goodwill;
    - Effectiveness of the monitoring and grievance redressal mechanism and its trustworthiness amongst stakeholders;
  - Disclosure of information and Transparency in the process associated with the implementation of RAP. This would mean include looking at evidence of and feedback on (but not limited to);
    - Ease and accessibility of information pertaining to the project;
    - Meaningfulness of information;
    - Accurate presentation/representation of facts by the project to the stakeholders; and
    - Accountability persons and methods used
- c) Assessment/Evaluation of the Outcome:** The completion audit will based on an objective assessment and verification, be able to determine the success of the RAP implementation. The evaluation of outcomes would be based on quantitative and qualitative evidence of impact of mitigation measures in restoring/bettering quality of lives and standards of living of affected people. The evaluation of outcomes would include (but not be limited to);
- An objective assessment of the success of the Stakeholder Consultation and Engagement process/programme as reflected in (but not limited to);
    - Satisfaction with the compensation and benefits (appropriateness and adequacy) offered to project impacted families;
    - Extent and knowledge of project and related information available with the stakeholders (like rates of compensation, market valuation, presence of grievance system, knowledge of project team, facilities at resettlement site etc.);

- Attendance and participation in community meetings by different groups (including women, vulnerable, indigenous etc.);
  - Adequacy/Satisfaction with the grievance system and decline in reported grievances (over the period);
  - Trust and goodwill of the project team handling land acquisition and R&R implementation.
- An assessment of the change in quality of life of the Project affected families as reflected in (but not limited to) different economic and social indicators/parameters;
    - Increase/decrease in income levels;
    - Employment opportunities and options available;
    - Change in livelihood patterns;
    - Increase/decrease in assets owned and used;
    - Increase/decrease in livestock owned;
    - Increase/decrease in living costs/expenditures;
    - Access to infrastructure and amenities (water, sanitation, electricity, schools, health care etc.);
    - Quality of housing and utility services;
    - Access to Quality of educations;
    - Access to markets;
    - Improved health status/ reduction in episodes of ailments/diseases;
    - Changes in family structure;
- d) Overall Assessment, Conclusion and Recommendations on Way Forward:** This section should, based on the aforesaid assessment;
- Provide an overall assessment of the RAP in terms of its appropriateness and adequacy and gaps;
  - Benchmark the status/achievement against each of the specific RAP commitments ;
  - Conclude on whether the overall goal of the RAP to restore or improve livelihoods and living standards has been achieved and if the monitoring process should end; and
  - Suggest recommendations in order to fully meet the commitments and objectives of the RAP along with timelines, close out budget and institutional (including human resource) support required.

The table below provides a suggestive format/template for benchmarking the RAP commitments based on the above analysis.

**Table (10.2): Suggestive Template for Benchmarking of RAP Commitments**

No.	Commitments	Details of Commitments	Achievement Rating
1	Compensation & benefits	<ul style="list-style-type: none"> <li>○ Market value/Replacement cost paid;</li> <li>○ Assets (including CPRs) replaced;</li> <li>○ Payment to be done prior to manifestation of impact;</li> <li>○ Shifting allowance/other benefits paid.</li> </ul>	<ul style="list-style-type: none"> <li>✓ Fully Met</li> <li>✓ Partially met</li> <li>✓ Unmet</li> </ul>

No.	Commitments	Details of Commitments	Achievement Rating
2	Livelihood/Income Restoration	<ul style="list-style-type: none"> <li>○ Secure alternate livelihood for impacted persons;</li> <li>○ Training/skill Building;</li> <li>○ Loans/Micro-credits;</li> <li>○ Helping group enterprises;</li> </ul>	<ul style="list-style-type: none"> <li>✓ Fully Met</li> <li>✓ Partially met</li> <li>✓ Unmet</li> </ul>
4	Grievance System	<ul style="list-style-type: none"> <li>○ Functional GR system implemented and cell in place;</li> <li>○ Online tracking system for grievances</li> </ul>	<ul style="list-style-type: none"> <li>✓ Fully Met</li> <li>✓ Partially met</li> <li>✓ Unmet</li> </ul>
5	Monitoring & Documentation	<ul style="list-style-type: none"> <li>○ Establish monitoring cell;</li> <li>○ Disclose results on internal as well as external monitoring</li> <li>○ Establish documentation unit.</li> </ul>	<ul style="list-style-type: none"> <li>✓ Fully Met</li> <li>✓ Partially met</li> <li>✓ Unmet</li> </ul>
6	Institutional Support	<ul style="list-style-type: none"> <li>○ Establish Resettlement Implementation Unit to support/facilitate R&amp;R;</li> <li>○ Provide adequate infrastructure and resources to the unit;</li> </ul>	<ul style="list-style-type: none"> <li>✓ Fully Met</li> <li>✓ Partially met</li> <li>✓ Unmet</li> </ul>
7	R&R Budget	<ul style="list-style-type: none"> <li>○ Set aside the R&amp;R budget as estimated in the RAP;</li> <li>○ Provision for additional budget to complete any pending R&amp;R actions</li> </ul>	<ul style="list-style-type: none"> <li>✓ Fully Met</li> <li>✓ Partially met</li> <li>✓ Unmet</li> </ul>

#### 10.2.4 Reporting

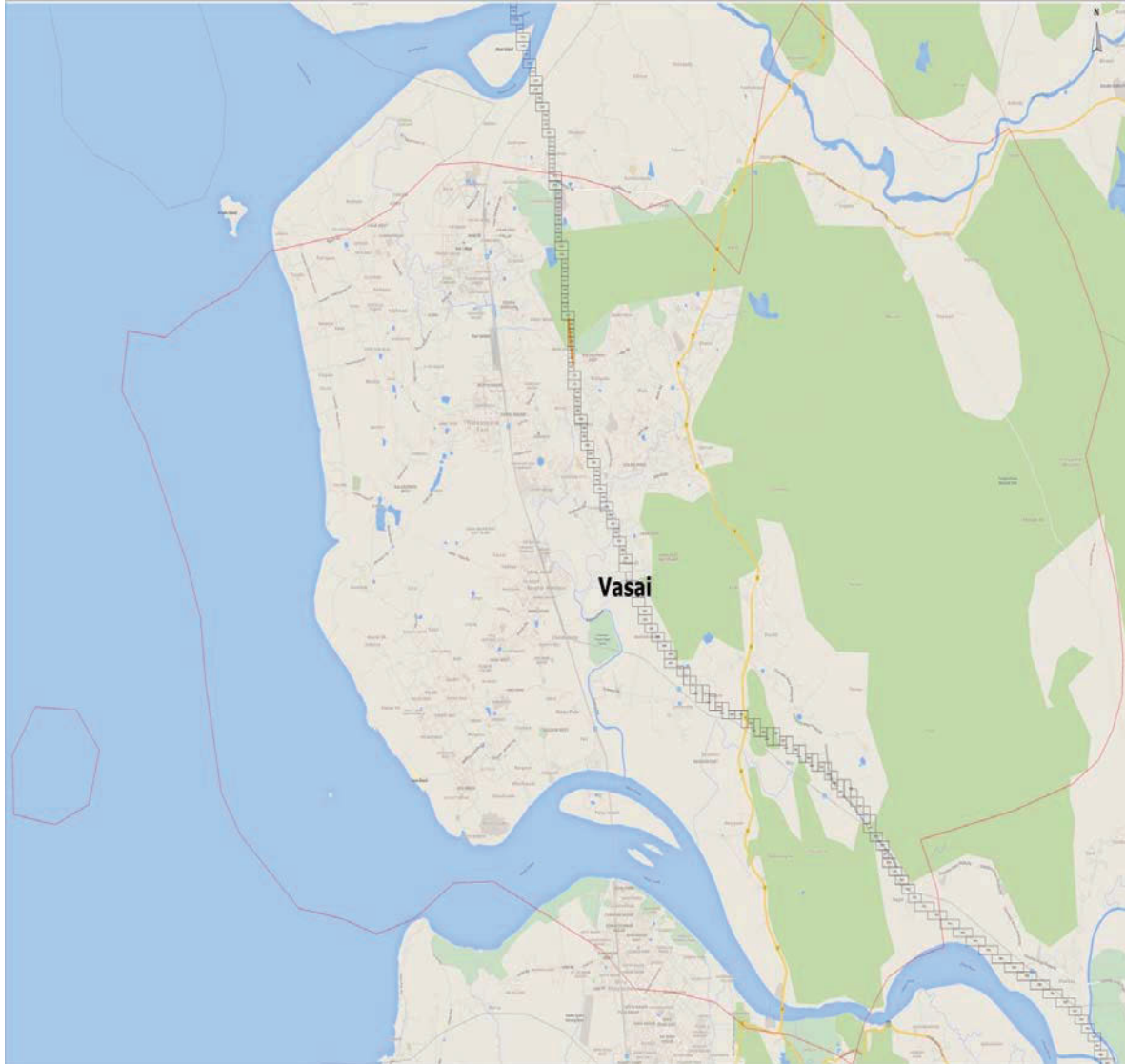
The internal and external monitoring and evaluation reports and its findings will be shared internally (in SMU/SEMU/ Resettlement Advisory unit). The reports of the third party monitoring and resettlement completion audit will be shared with external stakeholders including the lenders. Actions taken on the findings/observation made in the monitoring and external reports/audits including any corrective measures undertaken will also be reported/disclosed with the relevant stakeholders.

## Annex – I

### Survey Map Samples, Tools & Format of Census

## **ANNEXURE (1.1): HSR ALIGNMENT MAPS**


**Figure (A.1): Taluka Level Map (Sample map for Vasai, Palghar) Showing HSR Alignment**



A macro map was developed at Taluka/district level (sample map above for Vasai, Palghar district and a Mumbai suburb) showing alignment trajectory. Each such map was further developed into multiple smaller satellite imageries (depicted as tiles in the map above, as produced in map figure overleaf) along the alignment for reference during field data collection exercise

Source: TARU 2014

**Figure (A.2) : Sample Field Survey Map (Small scale Satellite Images) for Data Collection**



373  
Vill.:Manubar, Tal.:Bharuch, Dist.:Bharuch  
21.7130,72.9440

50 m

**Name of Surveyor:** \_\_\_\_\_







**Date of Survey:** \_\_\_\_\_

No. of Independent Structures: \_\_\_\_\_  
(Pl. mark independent structure serially starting from 1)

Total No. of CPR Structures: \_\_\_\_\_

Type of Fruit Bearing Tree (Mention Name)	Total No. of Trees	
	Total No.	Total Mature Tree (No.)

**Legend**

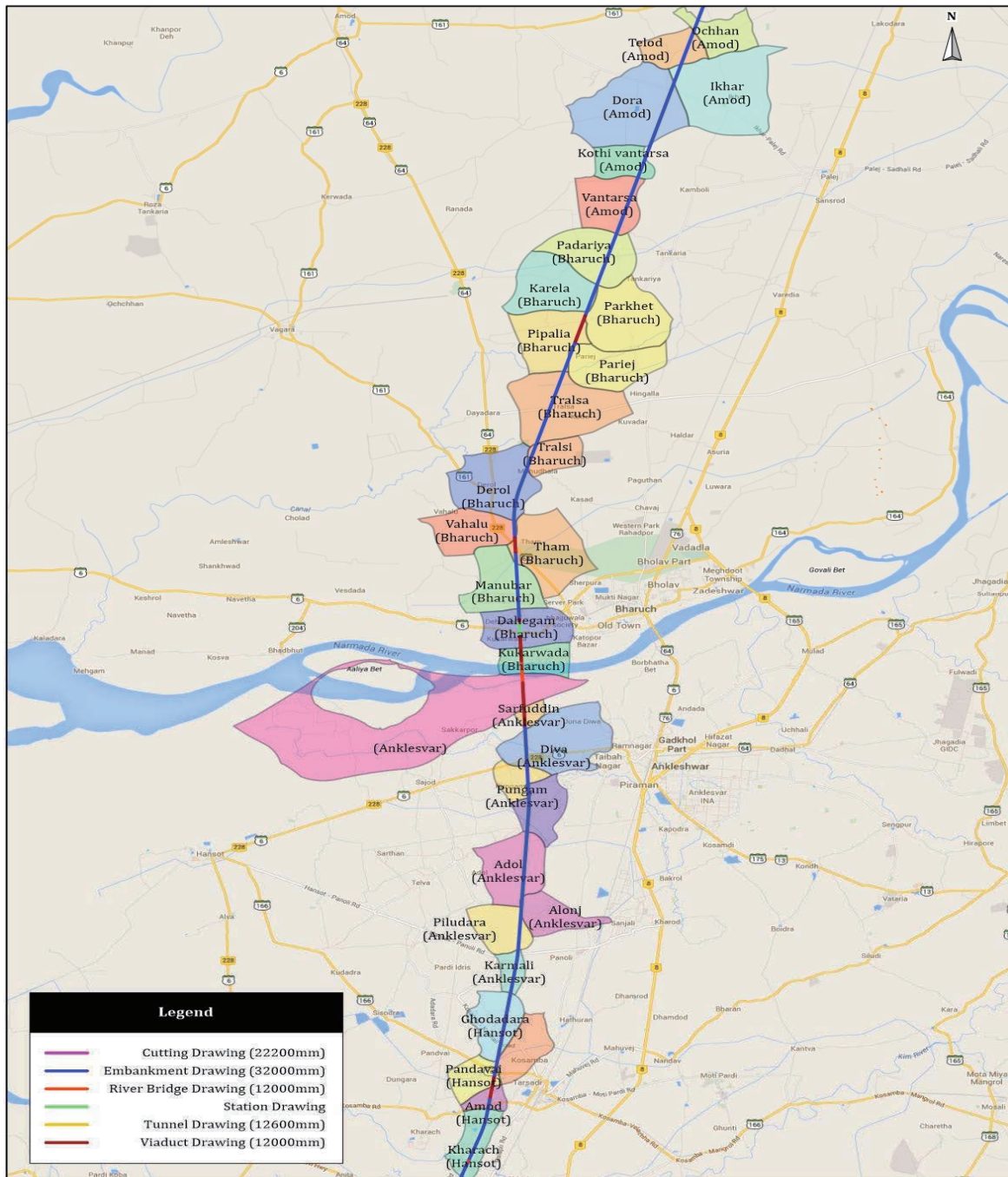
-  Cutting Drawing (22.2 m.)
-  Embankment Drawing (32 m.)
-  River Bridge Drawing (12 m.)
-  Tunnel Drawing (12.6 m.)
-  Viaduct Drawing (12 m.)
-  Track

Entire alignment for HSR were divided into about 2000 small scale contiguous satellite images ( of 100-200 mts; shown as map tiles in previous map figure ) and used by the field surveyors to locate and identify project impacted land parcels and structures and collect required survey data.

Source: TARU 2014



**Figure (A.3): Sample District Map (Bharuch) for Alignment with Village Boundaries**



Entire alignment for a district was overlapped with additional layers village boundaries (in Gujarat) for sharing and disclosure during stakeholder meetings and for macro reference purposes by field data collection teams. Above is sample map developed for Bharuch district showing proposed alignment passing through various villages and urban settlements

*Note: Similar maps developed for other districts of Gujarat (not developed for Maharashtra as digitalized village boundary data not available) are provided as separate file (soft data) with this report*

Source: TARU 2014

## **ANNEXURE (1.2): SURVEY TOOLS**

### **Survey Format for Census of Affected Households**

(To be conducted for all Households directly associated with structures that may be affected by the project)

**Instruction to Surveyors:** Please note that this survey is part of the feasibility study for proposed high speed railway route which is not yet finalized. And hence the message and information to be collected from the surveyed families should be done in that spirit.

#### **1. Survey Format Information Panel**

- A. Census Format No..... (For each map, it will start with 1)  
B. Village/City/Town Name..... C. Taluka/Colony.....  
D. District..... E. Survey Date.....  
F. Surveyor Name..... G. Surveyor Code.....

For below- refer related IOL Format and Survey Map and mention information carefully

H. **Structure Identification No.** (Refer to relevant survey maps and provide identification information from there for potentially affected structures with which this family is directly associated)

Survey Map No.				
Structure No.				

- I. No. of Structures likely to be affected.....

#### **2. Information on Head of Affected Household (AH)**

- 2.1 Name of respondent:.....  
2.2 Is the respondent the household head? [1] Yes (If yes, go to 2.4) [2] No  
If no, what is the relationship to the household head? (use code from Q. No. 5.7 ).....  
2.3 Name of household head:.....  
2.4 Gender of household head: .....[1] Male [2] Female  
2.5 Age of household head: .....  
2.6 Primary Occupation of household head(use code from Q. No. 5.7): .....  
2.7 Education attainment of household head (use code from Q. No 5.7.): .....  
2.8 Religious Affiliation:  
1- Hindu 2- Christian 3- Islam 4- Buddhist 5- Other: (specify)  
2.9 Social Category: 1- General 2- OBC/BC 3- Scheduled Caste 4- Scheduled Tribe:  
2.10 Family's Recognized Economic Status: 1- BPL 2- APL 3- Don't Know/ Not Aware  
2.11 Is the family a Antyodaya card holder? 1. Yes 2. No.  
2.12 Does any in the family hold Annapurna card? 1. Yes 2. No.

#### **3. Ownership status household over the affected assets**

- 3.1 Ownership status over the affected assets (fill in as appropriate)

Note: One family may be associated with multiple structures (**with separate IOL formats filled and attached to this census format**. Refer to all such filled formats for filling information below)

Structure No. (should be same as in IOL format)	Type of Structure (should be same as in IOL format)	Ownership type (should be same as in IOL format)	Occupied with Permission 1. Yes 2. No	Occupied Since (mention in no. of years)

**Type of Structure Code:**  
**[Private Residential]** 1. Residence 2. Only House Fence 3. Detached Kitchen 4. Detached Toilet 5. Detached Bathroom 6. Storage 7. Farm House 8. Cattle Shed 9. Pond 10. Well, 11. Water tank 12. Irrigation Borewells 13. Tubewell for Drinking water 14. Others (specify)  
**[Commercial]** 15. Shop 16. Workshops 17. Stalls 18. Factories 19. Godown 20. Other business establishment (specify, e.g Restaurants, Dhabas etc.) 21. Residential cum Commercial  
**Ownership Type Code** 1. Owner 2. Tenant 3. Encroacher/Squatter/Illegal Occupier

3.2 If the Affected Family is not the owner of the house/building ask information about the owner

3.2.a Name of the owner: .....

3.2.b Address of the owner: No. .... Village: .....

Ward/Taluka: ..... District: .....

3.2.c Occupation of the owner: .....

3.2.d **If renting** the affected structure/stall, how much you pay per month? Rs ..... per month

3.3 If AH is not the owner of the affected land (on which structure exists), ask information about the owner

3.3.a Name of the owner: .....

3.3.b Address of the owner: No. .... Village: .....

Ward: ..... District: .....

3.3.c Occupation of the owner: .....

3.3.d **If renting** the affected land, how much do you pay per month? Rs .....

#### 4. Type of use of the affected land and building/house by the household

4.1 **Use of land:** [1] Residence [2] Commerce [3] Residence-cum-commerce

[4] Agriculture [5] Other .....

4.2 **Use of main building/house:** [1] Residence Only [2] Commerce

[3] Residence-cum-business [4] Government building [5] Other: (specify) .....

4.3 Do you have sufficient land outside of the Corridor of Impact (COI) to re-organize? [1] Yes [2] No

4.4 Do you have sufficient land outside the ROW to shift back for residence? [1] Yes [2] No

4.5 Do you have other lands located elsewhere that are not affected by this project?

## 5. Information about Household members, income, and expenditure

5.1 Number of people living with the household: .....

5.2 What is your household's primary source of income?.....(Use Occupation codes from table 5.7 below)

5.3 Distance to primary source of income from home: [1] at home [2] less than 1 km

[3] between 1 to 2 km [4] between 2 to 4 km [5] more than 4 km

5.4 What is the average monthly income of your household? Rs .....

5.5 What is the average monthly expenditure of your household? Rs .....

5.6 Rank the following household expenses according to priority (1 = Top priority, 2 = Second Priority, 3 = Third priority, 4 = Least priority)

Food:\_\_\_\_\_ Shelter (housing):\_\_\_\_\_ Health:\_\_\_\_\_ Education:\_\_\_\_\_

### 5.7 Profile household members

HH Members	Relation with HH head 1*	Sex 2*	Age	Marital Status 3*	Education 4*	Primary Occupation 5*	Annual Income (Rs)	Workplace 6*	Health Condition 7*
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									

**1\* Relation with the HH head:** [1] head [2] spouse [3] child [4] parents [5] other relatives

**2\* Sex:** [M] male [F] female

**3\* Marital status:** [1] single [2] married [3] divorced [4] Widow/Widower

**4\* Education attainment:** [1] No Education [2] Below Elementary (class VIII) [3] Completed Elementary [4] Below High School (Class X) [5] Completed High School [6] Not completed College [7] Finished College (graduate or higher)

**5\* Occupation:** [1] Agriculture [2] Allied Agriculture [3] Dairy [4] Forestry [5] Household/Cottage Industry [6] Business/Trader/Shop Owner [7] Skilled Profession [8] Unskilled Labor [9] Pvt. Service [10] Govt. Service [11] Retired/Pensioner [12] Unemployed but capable to work [13] Too Young to work/disabled/ Student [14] Other: (specify) .....

**6\* Workplace:** [1] at home [2] less than 1 km [3] 1 - 2 km [4] 2 - 4 km [5] more than 4 km

**7\* Physical Condition:** [1] normal [2] disabled [3] very old/chronically ill

**5.8** Tick if the following vulnerability parameters apply for the households

	<b>Vulnerability Parameters</b>	<b>Tick ‘√’ if true for family</b>
1	Disabled in the family (40% or more, check if medical certificate available)	
2	Orphans in family	
3	Abandoned woman in family	
4	Elderly over 50 years with no immediate family members to support	
5	Widow in the family	
6	Women headed household	
7	Family in abject poverty/ destitute	
8	Any other (mention).....	

**6. Loss of Business and Other Income (for AHs with affected businesses)**

**Note:** Information provided below should be aligned with information provided under Q 3.1 of this format and Q 3.a of the IOL format

**6.1 Business Details**

	<b>a. Type of business (code)</b>	<b>b. Number of years the business has been operating?</b>	<b>c. Whether operated with business license</b> Code: 1-Yes 2-No	<b>d. Average monthly gross income (Rs)</b>
1				
2				
3				
<b>Type of business Codes:</b> 1- Small mobile kiosk/Khokha      2- Market stall/ Retail store      3- Restaurant      4- Roadside Dhaba 5- Hotel/Guest house/Dharmashala      6- Other services shop (e.g., barber, tailor)      7- Office (broker etc.) 8- Workshop Garage/vehicle repair/Tyre repair      9- Pvt. Clinic/ Hospital      10- STD Booth 11- Factory      12- Manufacturing Unit within House      13 Pond (fish farming) 14- Other: .....(specify)				

**6.2** Is the affected business (above) the main source of primary income?      1- Yes      2- No

**6.3.** Is the affected business (above) the only source of HH income?      1- Yes      2- No

**7. Sanitary Facilities**

**7.1** Where does the household get its water mostly for drinking ?      **Code.....**

[1] Hand Pump [2] borewell [3] Piped water from utility company/govt. [4] Private water tanker [5] Govt. Water tanker [6] Bottled Water [7] Open Well/Canal [8] Covered Well [9] Other\_\_\_\_\_ (specify)

**7.2** Where does the household get its water for washing/bathing?      **Code.....**

[1] Hand Pump/borewell [2] Piped water from utility company/govt. [3] Private water tanker [4] Govt. Water tanker [5] Open Well/Canal [6] Covered Well [7] Other\_\_\_\_\_ (specify)

**7.3** What toilet facility does the household use? **Code....**

[1] Own toilet within HH premises [2] Public toilet [3] In the field/open space [4] Near a canal/river/water body [5] Other\_\_\_\_\_ (specify)

**7.4** Where does the household discharge/throw its used water? **Code.....**

1] Soak Pit [2] Covered drainage [3] Open Drainage [4] Just outside house in open [5] Other\_\_\_\_\_ (specify)

**7.5** How does the household get rid of its garbage? **Code.....**

[1] Through the government/community garbage collector [2] Dump at designated garbage place [3] dump and Burn it outside house [4] Throw anywhere [5] Throw in the canal/water body

## 8. Perception on Project

**Note: To be administered as presumptive queries**

8.1	Do you think the project will bring any benefits to the people? 1. Yes;                      2. No;                      3. Don't know	
<b>Ask only to those who say 'yes' in question no. 1 above ('√' on multiple answers)</b>		
8.2.	If yes, what is the likely benefit(s) that you envisage?	
1: Temporary increase in wage employment during construction 2: Permanent increase in business opportunities during construction 3: Temporary increase in industry establishments during construction 4: Permanent increase in wage employment during operation 5: Permanent increase in business opportunities during operation 6: Permanent increase in industry establishments during operation 7: Overall economic development of region and country		
<b>ASK ONLY TO THOSE WHO SAY 'NO' IN QUESTION NO. 1 ABOVE (multiple answers)</b>		
8.3.	If no, what is the likely negative impact(s) that you envisage?	
1: Temporary loss of income source during 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 high speed train operation 15: Permanent vibration disturbance by the high speed train operation 16: Split of community by the railway track 17: Visual obstruction by raised embankment or bridge 18: Others (specify).....	
8.4	Are there any other concern (s) besides above on land acquisition, resettlement and rehabilitation that would be caused by the project? 1. Yes (specify)..... 2. No 3. Don't Know	
8.5	Are there any suggestions to mitigate the expected concern(s)? 1. Yes (specify)..... 2. No 3. Don't Know	
8.6	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	
8.7	In case you are to be displaced by the project, where would you like to resettle? ( 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	
8.8	If any anticipation of difficulty after resettlement , what are they? 1. Find new income source 2. Find new house 3. Find new suitable farmland in the resettlement area 4. Find suitable school for children	

## Survey Format for Inventory of Losses (IOL Survey)

### INVENTORY OF LOSSES (Separate form to be filled for each independent Structure Unit)


#### 1. Structure Location


Designated Right of Way (ROW) = (whole width or width from CL)

#### Left hand side of Right of Way (RoW)

---

(.....)  
from CL

  
Towards Ahmedabad  
Mumbai

  
Towards

---

0 m Centerline

---

#### Right hand side of Right of Way (RoW)

Draw the sketch of the structure indicating its shape and location vis-à-vis centerline and RoW. *For structures falling in locations of proposed new stations and depots, draw the outline boundary afresh and indicate the location of structures within.*

#### 2. Structure Identification Panel

- |   |                         |                  |
|---|-------------------------|------------------|
| a. Survey Date:   | b. Survey Map No.       | c. Structure No. |
| d. Camera/Tab No.                                       | e. Camera/Tab Photo No. |                  |
| f. GPS Location: .....N.....E                           |                         |                  |
| g. Village/City/Town Name                               | h. Gram Panchayat       | i. Taluka/Colony |
| k. District   | l. State                |                  |
| m. No. of Families affected (related to this structure) |                         |                  |
| n. Surveyor Name  | o. surveyor Code        |                  |

Note: Record the Structure no. as mentioned above in the survey map also. Each survey map will have affected structure recorded and numbered 1 onwards.

Each video clip will begin with image of related village map with structure no. clearly captured for easy post survey identification



### 3. Structure Details

Type of Structure	Answer	Codes
a. Type of Structure		<p><b>[Private Residential]</b> 1. Residence 2. Only House Fence 3. Detached Kitchen 4. Detached Toilet 5. Detached Bathroom 6.. Storage 7. Farm House 8. Cattle Shed 9. Pond 10. Well, 11. Water tank 12. Irrigation Borewells 13. Tubewell for Drinking water 14. Others (specify)</p> <p><b>[Commercial]</b> 15. Shop 16. Workshops 17. Stalls 18. Factories 19. Godown 20. Other business establishment (specify, e.g Restaurants, Dhabas etc.)</p> <p><b>21. Residential cum Commercial</b></p>
b. Type of Construction		<p><b>1:</b> Detached Building Unit <b>2:</b> Apartment/Row house duplex <b>3:</b> Shanties connected to each other <b>4:</b> Tents or tentative simple hut</p>
c. No. of Floors	..... No.	
d. Construction Material	<p>Roof... .....</p> <p>Wall.....</p>	<p><b>Roof:</b> 1: G.I. sheets 2: Tiles 3: Natural materials 4: Concrete 5. Plastic sheet/scrap material 5: Others (specify)</p> <p><b>Wall:</b> 1. All Brick/concrete 2. Brick and wood mixed 3. Wood 4. Natural Material 5. Plastic/scrap material 6. Others</p>
e. Total Length/.Area of construction	Length.....m / Area.....sq. m (mention dimension as per visual perception)	
f. Affected Proportion (give in percentage)	.....%	
g. No. of Immediately Affected Families (related to this structure)	<p>a. House Owners.....</p> <p>b. Registered Lease holders.....</p> <p>c. Tenants.....</p> <p>d. Illegal Occupiers/Squatters.....</p> <p>e. No. of employees (if commercial structure).....</p> <p>f. Others.....</p> <p>g. Total families.....</p>	

## Socio-Economic Household Survey Format

(To be conducted for every fifth household covered under Census Survey)

### 1. Survey Format Information Panel *(to be copied from filled in Census Format of the Household)*

- A. Census Format No..... *(For each map, it will start with 1)*
- B. Map No .....
- C. Village/Town/City Name.....D.  
Taluka/Colony.....
- E. District..... F. Survey Date.....
- G. Surveyor Name..... H. Surveyor Code.....
- I. SE Format No.....** *(For each map it will start with 1)*

### 2. Family Identification Panel *(refer and copy from related Census Format)*

- 2.1 Name of respondent:.....
- 2.2 Name of household head:.....
- 2.3 Gender of household head: .....[1] Male [2] Female
- 2.4 Age of household head: .....
- 2.5 Primary Occupation of household head(use code from Q. No. 5.7 of census format):  
.....
- 2.6 Education attainment of household head (use code from Q. No 5.7 of census format.): .....
- 2.7 Religious Affiliation:  
1- Hindu 2- Christian 3- Islam 4- Buddhist 5- Other: (specify)
- 2.8 Social Category: 1- General 2- OBC/BC 3- Scheduled Caste 4- Scheduled Tribe:
- 2.9 Family's Recognized Economic Status: 1- BPL 2- APL 3- Don't Know/ Not Aware
- 2.10 Does the family have Antyodaya card? 1- Yes 2- No
- 2.11 Does anyone in the family have Annapurna card? 1- Yes 2- No

### 3. Movable Assets

1	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)	

<b>2</b>	<b>B. Agricultural implements owned by the family No.</b>	<b>No.</b>
	1. Tractor	
	2. Power Trailer	
	3. Thresher	
	4. Harvester	
	5. Genset Sprayer	
	6. Pump Set	
	7. Electric Pump	
	8. Others (specify)	
<b>3</b>	<b>C. Household items owned by the family</b>	<b>No.</b>
	1. TV	
	2. Fridge	
	3. Mixer	
	4. Electric Cooker	
	5. Geysers	
	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)	
<b>4</b>	<b>D. Other assets owned by the family</b>	<b>No.</b>
	1 Cycle	
	2 Scooter / Motor cycle	
	3 Three wheeler	
	4 Jeep / Car	
	5 Truck	
	6 Bus	
	7 Bullock / Camel Cart	
	8 Others (specify)	

#### 4. Land and Agriculture

<b>01.</b> Total Land owned/leased/ sharecropped:	a. Irrigated..... Bigha	b. Unirrigated..... Bigha
	c. Pasture/Wasteland.....Bigha	d. Any other.....Bigha
<b>02.</b> Total Land Area Owned/Cultivated	Owned _____ in Bigha; Leased in/sharecropped..... Bigha Cultivated _____ in Bigha	
<b>03.</b> Type of crops grown ( <i>mention the crop codes in the order of priority i.e. production volume/value</i> )		

a. Kharif	Codes- i..... ii..... iii..... iv..... v..... vi..... vii..... viii....
b. Rabi	Codes- i..... ii..... iii..... iv..... v..... vi..... vii..... viii....
c. Others	Codes- i..... ii..... iii..... iv..... v..... vi..... vii..... viii....
Codes for crops: 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. Fodder 13. Wheat 14. Barley 15. Gram 16. Onion 17. Oilseed 18. Cereals 19. Massar 20. Barseen 21. Tur 21. Methi 22. Others....	
Total Cash Income from Agriculture ( <i>figures to reflect only the cash value realized through sale/mortgage of produce</i> )	
.....Rs.	

## 5. Household Income

Source of Income	Average Monthly/Annual Income (Rs.)		
	(1) Monthly Regular Income	(2) Annual Seasonal Income	Total Annual 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).....			
<b>Total Income</b>			

## 6. 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			

l. Social Functions			
m. Clothing			
n. Loan repayment			
o. Other (specify)			
<b>Total Expenditure</b>			

#### 7. Access to Government Schemes

Have you availed any benefit under any government scheme? 1. Yes 2. No				
If yes, please give details of the facilities received under the scheme 1.Mahatma Gandhi National Rural Employment Guarantee scheme; 2.Rashtriya KrishiVikas Yojana 3. NRLM/SGSY 4. Shahri Awas Yojana 5. Indira Awas Yojana 6.Others (mention name below in the table)				
Name of the scheme	From when you received the help	Kind of help 1. Loan 2. Training 3. Employment 4. in Kind (e.g. seeds)	If Loan, total amount received	If training, kind of Training
After availing this scheme did your annual income increased 1. Yes 2. No				Code.....
If yes, how much (Rs.):				
If no, specify the reason:				

#### 8. Physical Accessibility

Please indicate the distance to major social infrastructure and whether access to these may be affected by the proposed project	Distance in km	Disturbed during Construction Code 1-Yes 2-No 3-Can't Say	Disturbed during Operation Code 1-Yes 2- No 3- Can't Say
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)			

## 9. Savings and Indebtedness

1	Total Annual Saving (Rs.)			
2.a	Have you (household head) taken any loan in last 1 year? 1: Yes, 2: No, 3: Don't Know			
2.b	If yes, then please tell us reasons the following:			
1. Food      2. Health      3. Education      4. Business      5. Marriage / Death / Mundan 6. Other social functions and festivals      7. Loan repayment 8. Agriculture/ agriculture based allied activity      9. Transport 10. Any other.....				
2.c	Name of the Loan Provider	a. Amount (in Rs)	b. Repaid (in-Rs)	c. Balance (in Rs)
1.	Bank / cooperatives			
2.	Relative/ Friend			
3	Registered Money Lender			
3.	Mahajan			
4.	SHG / Mahila Mandals			
5	Chit Funds			
6.	Others (Specify :    )			

## Survey Format for Common and Government Property

### 1. Structure Location

- |                        |   |
|------------------------|---|
| a. Survey Date:        | b. Survey Map No.                         |
| c. Camera/Tab No.      | d. Camera/Tab Photo No.                   |
| e. Village/Colony Name | f. Gram Panchayat/Ward No.                |
| g. Taluka/City Name    | h. District                      i. State |
| j. Surveyor Name       |   |
| k. surveyor Code       |   |

### 2. Structure Details

	(A)	(B)		(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	
No	Structure No.	GPS Coordinates		Photo No.	Name of Property	Type of property	Type of Ownership	Extent of Impact	No. of Floors	Type of Construction	Type of Materials	
		N	E								Roof	Wall
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												

### Answer Options for the Previous Table

A: Structure No.	Mention the Structure no. as marked in Survey map. Common Property and Govt. Structures should be numbered in the manner starting C1, C2, C3..... for each survey map and not mixed with other independent private structures.
B.GPS Coordinates	Mention the GPS coordinate of the structure as displayed in the tab while surveyor is positioned near the structure location.
C. Structure Photo No.	Mention the photo no. of the structure taken by the tab. Note: <i>Besides photo, a 30 second video clip of the structure will also need to be taken. Ensure that the image of the structure no. and the map no. (Written on a piece of paper and held by hand) is captured in this video clip.</i>

D. Name of the structure	Mention the name of the structure as displayed on the name board or commonly known as among the local community.
E. Type of Property	<p>[Common / Public Structures/Asset]</p> <p>1. Community Centres      2. Roads      3. Bridge      4. Public Transport Facility (e.g. Bus shelters)</p> <p>5. Irrigation &amp; Drainage channels      6. Water &amp; Sewerage Lines      7. Wells/Tube wells/Hand Pumps /Domestic Water</p> <p>8. Livestock Watering Point      9. Bathing &amp; Washing Platform      10. Community Ponds</p> <p>11. Fair Price shops      12. Panchayat buildings      13. Cooperative Societies</p> <p>14. Seed cum fertilizer storage      15. Post Offices      16. Bank</p> <p>17. Electricity line      18. Transmission tower      19. Electricity Pole</p> <p>20. Telephone Line      21. Base Transceiver Station      22. Schools</p> <p>23. Health Centre/hospitals      24. Places of Worship      25. Burial/cremation grounds</p> <p>26. Historical Places      27. Other Government Department Offices      28. Other Government Residential Quarters</p> <p>29. Other Government Department Structures      30. Railway Signal cabin      31. Other Railway Buildings</p> <p>32. Schools      33. ICDS/Anganwadi Centres      34. Private Hospitals</p> <p>35. Mobile Towers      36. Village Common Land      37. Forest Woodland</p> <p>38. Pasture land      39. Fishing Area</p> <p>40. Land for traditional tribal institutions      41. National Park</p> <p>42. Wildlife Sanctuaries      43. Others (specify)</p>
F. Type of Ownership	<p>1. Panchayat      2. Group of Society      3. Association      4. Individual Family      5. Government (specify department).....</p> <p>6. Other (Specify).....</p>
For G. Extent of	<p>1. Fully affected (needs to be relocated)      2. Partially Affected (no relocation)      3. Others (specify).....</p>
For I Type of Construction	<p>1. Permanent,      2. Semi Permanent,      3. Temporary</p>
For J Type of Materials	<p>[Roof]      1. G.I./ Plastic Sheet,      2. Tiles      3. Nipa or Other Natural Materials      4. Concrete</p> <p>5. Others (Specify).....</p> <p>[Wall]      1. All Concrete/Brick and Concrete      2. Tin/ Plastic Sheet or scrap,      3. All Wood,      4. Nipa or other Natural Materials      5. Others (Specify).....</p>

### **Check List For Line Departments**

#### **1. Revenue Department/Land Acquisition Cell/ Office (if existing)**

Parameter	Number	Remarks
Total Population		
ST Population		
Per capita Income		
Density of Population		
No. of Blocks		
No. of PESA blocks		
No. of Villages		
No. of PESA villages		



No. of Villages Electrified		
No. of Villages connected by roads		
Health centres		
Schools		
Total Geographical Area		
Cultivable Land		
Net Sown Area		
Net Irrigated Area		
Forest Areas		

### Other Queries

- Existing Institutional and implementation mechanism vis-a-vis land acquisition and R&R activities (for projects of this nature e.g. DFCC). Any suggestion and recommendations to improve these?
- Special safeguards and policies such as PESA that protect tribal social-cultural and economic interests/base? Requirements and recommendations in cases where infrastructure project such as HSR are involved, what are additional measures needed to be taken to realize project roll out?

## 2. Tribal Welfare Department/Forest Department

Literacy rate (total vs ST)	
Total ST	
Male	
Female	

Land Tenure and Holding Size ( <i>may be available with the revenue or the agriculture department as well</i> )		
Average size of operational holdings		
Class-wise number of operational holdings		
Class Type		
Marginal		
Small		
Semi-medium		
Medium		
Large		
Per capita availability of		

food grains Qtls.		
-------------------	--	--

#### Other Data

1. Types of forest, location, areas etc. Does the proposed track pass through or in vicinity of reserved/protected forest, games sanctuary etc.
2. Documents/ reports that capture tribal lifestyle, living, social and cultural practices, association and dependence on forest etc.

### 3. Agriculture and Veterinary Department

Irrigated Land (Area/percent)	
High	Check the land categories with the department
Medium	
Low	
No. of cultivators	If not available, data may be available from 2011 census
No. of Agricultural labourers	
Cattle population	Cattle census
Buffalo	
Cows	
Bullocks	
Sheep/ Goat	

#### Other data

1. Types of Major crops
2. Agricultural production and productivity data (check if village level data is available, if not then taluka or district level data is to be collected)

### 4. From DRDA/Zila Parishad

List of government welfare and social safety and protection schemes in the District	<i>To collect brochure or booklet informing of such schemes</i>
No. of Beneficiaries covered from the affected villages	

### 5. Brief Profile of Block (Project Affected)

Parameter	Number
Total Area	
Number of Households	
Number of Panchayats	
Total Number of Villages	

Total	Male	Female	Persons

### Other data

1. Per capita income (see if village level data is available), segregated data for STs

### Land Holding Pattern in Blocks

Land Type ( <i>check the land categorization from department</i> )	Affected Blocks
Upland	
Medium Land	
Low Land	
Homestead	
Forest	

## 6. Village Level Data

### Basic Infrastructure

Is it a PESA village or not?	
Does the village have all weather <i>Pucca</i> Road/PMGSY road	
No. of Facilities	
Other Hospitals	
PHCs	
PHC (N)	
MHU	
Ayurvedic Dispensaries	
Homoeopathic Dispensaries	
No. of Sub-Centres	
No. of ICDS/AW Centres	
No. of Government Schools	
No. of Private Schools	
Distance to nearest-sub-centre (village level) PHC (usually at GP level) CHC (usually at Taluka Level) District Hospital (at district level) Primary School Upper Primary School Secondary School College	

## Annex – II

### List of affected Common Property Resources

### **Annexure 2.1: Village Level Count of Project Affected Structures**

<b>Table (A2.1): Village Level Count of Project Affected Structures</b>				
	<b>Village/ Colonies</b>	<b>Taluka</b>	<b>Common Properties (No.)</b>	<b>Private Structures (No.)</b>
<b>Mumbai District</b>				
1	Bandra Kurla Complex	Mumbai	2	1
	<b>Mumbai Total</b>		<b>2</b>	<b>1</b>
<b>Thane District</b>				
2	Anjardive	Bhiwandi	0	1
3	Anjur	Bhiwandi	6	10
4	Bharodi	Bhiwandi	0	4
5	Dapode	Bhiwandi	3	3
6	Kalher	Bhiwandi	0	16
7	Kaman	Bhiwandi	12	6
8	Kapor	Bhiwandi	3	6
9	Kevani	Bhiwandi	1	4
10	Kharbao	Bhiwandi	0	3
11	Mori	Bhiwandi	1	5
		<b>Bhiwandi Total</b>	<b>26</b>	<b>58</b>
12	Agasan	Thane	1	2
13	Betwade	Thane	3	2
14	Desai	Thane	2	2
15	Joti nagar padlegav	Thane	1	1
16	Kalyan pada	Thane	3	7
17	Shirgaon	Thane	4	7
		<b>Thane Total</b>	<b>14</b>	<b>21</b>
	<b>Thane Total</b>		<b>40</b>	<b>79</b>
<b>Palghar District</b>				
18	Ambesari	Dahanu	7	13
19	Asagad	Dahanu	3	2
20	Chari	Dahanu	16	12

21	Hanman nagar	Dahanu	2	6
22	Jamshet	Dahanu	6	7
23	Jit gaon	Dahanu	14	23
24	Santoshi	Dahanu	8	2
25	Vangam	Dahanu	9	12
		<b>Dahanu Total</b>	<b>65</b>	<b>77</b>
26	Ambadi	Palghar	5	2
27	Dhanu	Palghar	15	4
28	Gamara	Palghar	12	13
29	Kapase	Palghar	6	9
30	Kelva	Palghar	6	3
31	Nandore	Palghar	13	11
32	Nava pada	Palghar	0	6
33	Palghar	Palghar	5	0
34	Shirgaon(ct)	Palghar	2	0
35	Silkhe	Palghar	6	3
36	Vakshi	Palghar	3	6
37	Varkhunti	Palghar	6	7
38	Vetrana	Palghar	7	6
39	Vevoor	Palghar	4	10
		<b>Palghar Total</b>	<b>90</b>	<b>80</b>
40	Aam goan	Talasari	0	2
41	Dhaman gaon	Talasari	3	6
42	Karaj gaon	Talasari	4	10
43	Kawade	Talasari	1	5
44	Uplat	Talasari	4	5
45	Zari	Talasari	11	10
		<b>Talasari Total</b>	<b>23</b>	<b>38</b>
46	Chandansar	Vasai	8	23
47	Devi pada	Vasai	4	5
48	Fatharwadi	Vasai	10	15
49	Manvel pada	Vasai	2	8
50	Nalasopara	Vasai	17	93

51	Navagoan	Vasai	5	31
52	Rajvani	Vasai	6	5
53	Tivani	Vasai	7	7
54	Valay pada	Vasai	0	1
		<b>Vasai Total</b>	<b>59</b>	<b>188</b>
	<b>Palghar Total</b>		<b>237</b>	<b>383</b>
<b>Dadra Nagar Haveli</b>				
55	Naroli	Dadra	22	11
	<b>Dadra Nagar Haveli Total</b>		<b>22</b>	<b>11</b>
<b>Valsad District</b>				
56	Ambach	Pardi	3	0
57	Amlī	Pardi	1	0
58	Balda	Pardi	15	6
59	Dashwada	Pardi	5	12
60	Dungra	Pardi	19	17
61	Karvad	Pardi	7	5
62	Khuntej	Pardi	3	1
63	Kocharva	Pardi	2	1
64	Pandor	Pardi	8	1
65	Paria	Pardi	33	67
66	Rata	Pardi	4	8
67	Sukhlav	Pardi	3	2
		<b>Pardi Total</b>	<b>103</b>	<b>120</b>
68	Achchhari	Umbergaon	10	3
69	Boralai	Umbergaon	4	6
70	Tal	Umbergaon	33	28
71	Zaroli	Umbergaon	8	5
		<b>Umbergaon Total</b>	<b>55</b>	<b>42</b>
72	Binwada	Valsad	1	1
73	Chanvai	Valsad	23	10
74	Endergota	Valsad	8	8
75	Ghadoi	Valsad	16	2

76	Gorwada	Valsad	4	4
77	Jujwa	Valsad	9	2
78	Khajurdi	Valsad	5	1
79	Palan	Valsad	5	11
80	Panchlai	Valsad	21	0
81	Pathri	Valsad	6	0
82	Sonwada	Valsad	15	0
83	Vaghaldhara	Valsad	12	4
		<b>Valsad Total</b>	<b>125</b>	<b>43</b>
	<b>Valsad Total</b>		<b>283</b>	<b>205</b>
<b>Navsari District</b>				
84	Ghekti	Chikhli	11	28
		<b>Chikhli Total</b>	<b>11</b>	<b>28</b>
85	Deshad	Gandevi	2	0
86	Dhanori	Gandevi	16	14
87	Kesali	Gandevi	14	8
88	Khergam	Gandevi	4	0
89	Manekpor	Gandevi	23	5
90	Nandarkha	Gandevi	12	8
91	Pati	Gandevi	8	10
92	Pinjra	Gandevi	3	0
93	Undach vaniya fali	Gandevi	7	3
94	Vadsangal	Gandevi	6	6
		<b>Gandevi Total</b>	<b>95</b>	<b>54</b>
95	Amadpor	Navsari	5	0
96	Amri	Navsari	4	0
97	Asana	Navsari	9	4
98	Dabhel	Navsari	4	1
99	Dhaman	Navsari	16	4
100	Dharagiri	Navsari	5	0
101	Kachhol	Navsari	5	1
102	Nasilpor	Navsari	2	3
103	Padgha	Navsari	5	2



104	Sisodra (Ganesh)	Navsari	12	0
105	Wada (Sisodra)	Navsari	4	0
		<b>Navsari Total</b>	<b>71</b>	<b>15</b>
	<b>Navsari Total</b>		<b>177</b>	<b>97</b>
<b>Surat District</b>				
106	Bonand	Chorasi	1	0
107	Kachholi	Chorasi	1	1
108	Mohni	Chorasi	5	5
109	Ravla alias vaktan	Chorasi	17	7
		<b>Chorasi Total</b>	<b>24</b>	<b>13</b>
110	Chhedchha	Kamrej	1	0
111	Kathor	Kamrej	19	17
112	Khadsad	Kamrej	5	1
113	Kholvad	Kamrej	14	9
114	Kosmada	Kamrej	4	2
115	Laskana	Kamrej	4	17
116	Oviyan	Kamrej	2	6
117	Pasodara	Kamrej	4	1
118	Shekhpur	Kamrej	4	1
119	Velanja	Kamrej	4	3
		<b>Kamrej Total</b>	<b>61</b>	<b>57</b>
120	Kumvarda	Mangrol	19	32
		<b>Mangrol Total</b>	<b>19</b>	<b>32</b>
121	Kimamli	Olpad	12	33
122	Kudsad	Olpad	1	4
123	Mulad	Olpad	13	6
		<b>Olpad Total</b>	<b>26</b>	<b>43</b>
124	Antroli	Palsana	9	6
		<b>Palsana Total</b>	<b>9</b>	<b>6</b>
	<b>Surat Total</b>		<b>139</b>	<b>151</b>
<b>Bharuch District</b>				
125	Dora	Amod	2	0
126	Ochhan	Amod	2	1

127	Padariya	Amod	1	0
128	Telod	Amod	18	57
129	Vantarsa	Amod	8	0
		<b>Amod Total</b>	<b>31</b>	<b>58</b>
130	Adol	Anklesvar	2	0
131	Alonj	Anklesvar	1	0
132	Boidara	Anklesvar	2	0
133	Diva	Anklesvar	3	1
134	Karmali	Anklesvar	6	0
135	Piludara	Anklesvar	10	0
136	Pungam	Anklesvar	3	1
137	Ravindra	Anklesvar	0	1
138	Sarfuddin	Anklesvar	3	0
		<b>Anklesvar Total</b>	<b>30</b>	<b>3</b>
139	Dahegam	Bharuch	18	0
140	Derol	Bharuch	3	0
141	Karela	Bharuch	1	0
142	Kukarwada	Bharuch	0	2
143	Manubar	Bharuch	3	1
144	Padariya	Bharuch	7	0
145	Pariej	Bharuch	2	0
146	Tham	Bharuch	9	2
147	Tralsa	Bharuch	11	4
148	Tralsi	Bharuch	6	33
149	Vahalu	Bharuch	1	0
		<b>Bharuch Total</b>	<b>61</b>	<b>42</b>
150	Amod	Hansot	10	6
151	Ghodadara	Hansot	3	0
152	Pandavai	Hansot	3	7
		<b>Hansot Total</b>	<b>16</b>	<b>13</b>
	<b>Bharuch Total</b>		<b>138</b>	<b>116</b>
<b>Vadodara District</b>				
153	Bodaka	Karjan	1	0

154	Handod	Karjan	8	0
155	Khandha	Karjan	3	0
156	Mangrol	Karjan	13	11
		<b>Karjan Total</b>	<b>25</b>	<b>11</b>
157	Chansad	Padra	2	1
158	Kothwada	Padra	2	0
159	Thikariya mubarak	Padra	13	4
160	Virpur	Padra	2	0
		<b>Padra Total</b>	<b>19</b>	<b>5</b>
161	Ajod	Vadodara	2	0
162	Chhani	Vadodara	9	53
163	Dasharath	Vadodara	2	0
164	Gorva	Vadodara	1	0
165	Karodiya	Vadodara	5	0
166	Rayaka	Vadodara	2	2
167	Sankarda	Vadodara	8	8
168	Vadodara	Vadodara	107	71
		<b>Vadodara Total</b>	<b>136</b>	<b>134</b>
	<b>Vadodara Total</b>		<b>180</b>	<b>150</b>
<b>Anand District</b>				
169	Adas	Anand	6	1
170	Anklavdi	Anand	9	7
171	Boriavi	Anand	19	17
172	Chikhodra	Anand	15	19
173	Gamdi	Anand	2	0
174	Mogar	Anand	19	14
175	Rajupura	Anand	3	0
176	Ramnagar	Anand	6	24
177	Ravdapura	Anand	5	3
178	Samarkha	Anand	3	4
179	Vaghasi	Anand	6	1
180	Vasad	Anand	1	0
		<b>Anand Total</b>	<b>94</b>	<b>90</b>

	<b>Anand Total</b>		<b>94</b>	<b>90</b>
<b>Kheda District</b>				
181	Mahij	Kheda	2	1
		<b>Kehda Total</b>	<b>2</b>	<b>1</b>
182	Bavra	Mehmedabad	8	22
183	Chhapra	Mehmedabad	4	12
184	Gothaj	Mehmedabad	11	21
185	Iawa	Mehmedabad	1	1
186	Kanij	Mehmedabad	8	0
187	Katakpara	Mehmedabad	2	9
188	Malataj	Mehmedabad	6	1
189	Nenpur	Mehmedabad	4	1
190	Vadadla	Mehmedabad	3	1
191	Virol	Mehmedabad	10	5
		<b>Mehmedabad Total</b>	<b>57</b>	<b>73</b>
192	Bhumel	Nadiad	26	17
193	Chaklashi	Nadiad	11	11
194	Dabhan	Nadiad	10	6
195	Degam	Nadiad	25	36
196	Dumral	Nadiad	0	2
197	Piplag	Nadiad	14	9
198	Tundel	Nadiad	21	8
199	Uttarsanda	Nadiad	4	6
		<b>Nadiad</b>	<b>111</b>	<b>95</b>
	<b>Kheda Total</b>		<b>170</b>	<b>169</b>
<b>Ahmedabad District</b>				
200	Ahmedabad	Ahmedabad	114	205
201	Kali	Ahmedabad	2	0
202	Ranip	Ahmedabad	11	0
		<b>Ahmedabad Total</b>	<b>127</b>	<b>205</b>
203	Barejadi	Daskroi	2	0
204	Devdi	Daskroi	11	3
205	Istolabad	Daskroi	3	0

206	Ropda	Daskroi	16	15
207	Vinzol	Daskroi	18	9
		<b>Daskroi Total</b>	<b>50</b>	<b>27</b>
	<b>Ahmedabad Total</b>		177	232
<b>GRAND TOTAL</b>			<b>1659</b>	<b>1684</b>

## Annex – III

### List of Vulnerable Household

### **Annexure 3.1: List of vulnerable Household**

<b>Table (A3.2): List of vulnerable Household</b>				
<b>1. List of Women Headed Household</b>				
<b>S.No.</b>	<b>Household Head (<i>anonymity</i>)</b>	<b>Village</b>	<b>Taluka</b>	<b>District</b>
1	<i>A.B.C 001</i>	Ghekti	Chikhli	Navsari
2	<i>A.B.C 002</i>	Dhanori	Gandevi	Navsari
3	<i>A.B.C 003</i>	Dhanori	Gandevi	Navsari
4	<i>A.B.C 004</i>	Ghekti	Chikhli	Navsari
5	<i>A.B.C 005</i>	Kimamli	Olpad	Surat
6	<i>A.B.C 006</i>	Kimamli	Olpad	Surat
7	<i>A.B.C 007</i>	Kumvarda	Mangrol	Surat
8	<i>A.B.C 008</i>	Kathor	Kamrej	Surat
9	<i>A.B.C 009</i>	Kathor	Kamrej	Surat
10	<i>A.B.C 010</i>	Laskana	Kamrej	Surat
11	<i>A.B.C 011</i>	Kathor	Kamrej	Surat
12	<i>A.B.C 012</i>	Kumvarda	Mangrol	Surat
13	<i>A.B.C 013</i>	Tralsi	Bharuch	Bharuch
14	<i>A.B.C 014</i>	Kukarwada	Bharuch	Bharuch
15	<i>A.B.C 015</i>	Telod	Amod	Bharuch
16	<i>A.B.C 016</i>	Tralsi	Bharuch	Bharuch
17	<i>A.B.C 017</i>	Telod	Amod	Bharuch
18	<i>A.B.C 018</i>	Bavra	Mehmedabad	Kheda
19	<i>A.B.C 019</i>	Degam	Nadiad	Kheda
20	<i>A.B.C 020</i>	Degam	Nadiad	Kheda
21	<i>A.B.C 021</i>	Degam	Nadiad	Kheda
22	<i>A.B.C 022</i>	Degam	Nadiad	Kheda
23	<i>A.B.C 023</i>	Ahmedabad	Ahmedabad	Ahmedabad
24	<i>A.B.C 024</i>	Ahmedabad	Ahmedabad	Ahmedabad
25	<i>A.B.C 025</i>	Ahmedabad	Ahmedabad	Ahmedabad
<b>2. List of Scheduled Tribe (ST) Household</b>				
<b>S.No.</b>	<b>Household Head (<i>anonymity</i>)</b>	<b>Village</b>	<b>Taluka</b>	<b>District</b>
1	<i>B.B.C 001</i>	Anjur	Bhiwandi	Thane

2	<i>B.B.C 002</i>	Anjur	Bhiwandi	Thane
3	<i>B.B.C 003</i>	Anjur	Bhiwandi	Thane
4	<i>B.B.C 004</i>	Anjur	Bhiwandi	Thane
5	<i>B.B.C 005</i>	Anjur	Bhiwandi	Thane
6	<i>B.B.C 006</i>	Anjur	Bhiwandi	Thane
7	<i>B.B.C 007</i>	Shirgava	Thane	Thane
8	<i>B.B.C 008</i>	Shirgava	Thane	Thane
9	<i>B.B.C 009</i>	Kalyan Pada	Thane	Thane
10	<i>B.B.C 010</i>	Kalyan Pada	Thane	Thane
11	<i>B.B.C 011</i>	Kalyan Pada	Thane	Thane
12	<i>B.B.C 012</i>	Anjur	Bhiwandi	Thane
13	<i>B.B.C 013</i>	Kalyan Pada	Thane	Thane
14	<i>B.B.C 014</i>	Kalyan Pada	Thane	Thane
15	<i>B.B.C 015</i>	Kalyan Pada	Thane	Thane
16	<i>B.B.C 016</i>	Uplat	Talasri	Palghar
17	<i>B.B.C 017</i>	Aam Gaon	Talasri	Palghar
18	<i>B.B.C 018</i>	Zari	Talasri	Palghar
19	<i>B.B.C 019</i>	Zari	Talasri	Palghar
20	<i>B.B.C 020</i>	Karajgaon	Talasri	Palghar
21	<i>B.B.C 021</i>	Dhamangaon	Talasri	Palghar
22	<i>B.B.C 022</i>	Jitgaon	Dahanu	Palghar
23	<i>B.B.C 023</i>	Jitgaon	Dahanu	Palghar
24	<i>B.B.C 024</i>	Jitgaon	Dahanu	Palghar
25	<i>B.B.C 025</i>	Jitgaon	Dahanu	Palghar
26	<i>B.B.C 026</i>	Jitgaon	Dahanu	Palghar
27	<i>B.B.C 027</i>	Ambesari	Dahanu	Palghar
28	<i>B.B.C 028</i>	Ambesari	Dahanu	Palghar
29	<i>B.B.C 029</i>	Jamset	Dahanu	Palghar
30	<i>B.B.C 030</i>	Santoshi	Dahanu	Palghar
31	<i>B.B.C 031</i>	Jamset	Dahanu	Palghar
32	<i>B.B.C 032</i>	Jamset	Dahanu	Palghar
33	<i>B.B.C 033</i>	Jamset	Dahanu	Palghar
34	<i>B.B.C 034</i>	Chari	Dahanu	Palghar



35	<i>B.B.C 035</i>	Chari	Dahanu	Palghar
36	<i>B.B.C 036</i>	Chari	Dahanu	Palghar
37	<i>B.B.C 037</i>	Vangam	Dahanu	Palghar
38	<i>B.B.C 038</i>	Vakashi	Palghar	Palghar
39	<i>B.B.C 039</i>	Vakashi	Palghar	Palghar
40	<i>B.B.C 040</i>	Kapase	Palghar	Palghar
41	<i>B.B.C 041</i>	Kapase	Palghar	Palghar
42	<i>B.B.C 042</i>	Silkhe	Palghar	Palghar
43	<i>B.B.C 043</i>	Chandansar	Vasai	Palghar
44	<i>B.B.C 044</i>	Chandansar	Vasai	Palghar
45	<i>B.B.C 045</i>	Valaipada	Vasai	Palghar
46	<i>B.B.C 046</i>	Valaipada	Vasai	Palghar
47	<i>B.B.C 047</i>	Nalasopara	Vasai	Palghar
48	<i>B.B.C 048</i>	Tivani	Vasai	Palghar
49	<i>B.B.C 049</i>	Navagaon	Vasai	Palghar
50	<i>B.B.C 050</i>	Uplat	Talasri	Palghar
51	<i>B.B.C 051</i>	Uplat	Talasri	Palghar
52	<i>B.B.C 052</i>	Zari	Talasri	Palghar
53	<i>B.B.C 053</i>	Zari	Talasri	Palghar
54	<i>B.B.C 054</i>	Zari	Talasri	Palghar
55	<i>B.B.C 055</i>	Zari	Talasri	Palghar
56	<i>B.B.C 056</i>	Talasri	Talasri	Palghar
57	<i>B.B.C 057</i>	Kavada	Talasri	Palghar
58	<i>B.B.C 058</i>	Karajgaon	Talasri	Palghar
59	<i>B.B.C 059</i>	Dhamangaon	Talasri	Palghar
60	<i>B.B.C 060</i>	Jitgaon	Dahanu	Palghar
61	<i>B.B.C 061</i>	Jitgaon	Dahanu	Palghar
62	<i>B.B.C 062</i>	Jitgaon	Dahanu	Palghar
63	<i>B.B.C 063</i>	Jitgaon	Dahanu	Palghar
64	<i>B.B.C 064</i>	Jitgaon	Dahanu	Palghar
65	<i>B.B.C 065</i>	Jitgaon	Dahanu	Palghar
66	<i>B.B.C 066</i>	Ambesari	Dahanu	Palghar
67	<i>B.B.C 067</i>	Ambesari	Dahanu	Palghar

68	<i>B.B.C 068</i>	Ambesari	Dahanu	Palghar
69	<i>B.B.C 069</i>	Ambesari	Dahanu	Palghar
70	<i>B.B.C 070</i>	Chari	Dahanu	Palghar
71	<i>B.B.C 071</i>	Chari	Dahanu	Palghar
72	<i>B.B.C 072</i>	Jamset	Dahanu	Palghar
73	<i>B.B.C 073</i>	Jamset	Dahanu	Palghar
74	<i>B.B.C 074</i>	Chari	Dahanu	Palghar
75	<i>B.B.C 075</i>	Chari	Dahanu	Palghar
76	<i>B.B.C 076</i>	Vangam	Dahanu	Palghar
77	<i>B.B.C 077</i>	Vangam	Dahanu	Palghar
78	<i>B.B.C 078</i>	Hanuman Nagar	Dahanu	Palghar
79	<i>B.B.C 079</i>	Hanuman Nagar	Dahanu	Palghar
80	<i>B.B.C 080</i>	Hanuman Nagar	Dahanu	Palghar
81	<i>B.B.C 081</i>	Vakashi	Palghar	Palghar
82	<i>B.B.C 082</i>	Vakashi	Palghar	Palghar
83	<i>B.B.C 083</i>	Silkhe	Palghar	Palghar
84	<i>B.B.C 084</i>	Chandansar	Vasai	Palghar
85	<i>B.B.C 085</i>	Manavpade	Vasai	Palghar
86	<i>B.B.C 086</i>	Nalasopara	Vasai	Palghar
87	<i>B.B.C 087</i>	Nalasopara	Vasai	Palghar
88	<i>B.B.C 088</i>	Panchlai	Valsad	Valsad
89	<i>B.B.C 089</i>	Panchlai	Valsad	Valsad
90	<i>B.B.C 090</i>	Panchlai	Valsad	Valsad
91	<i>B.B.C 091</i>	Panchlai	Valsad	Valsad
92	<i>B.B.C 092</i>	Panchlai	Valsad	Valsad
93	<i>B.B.C 093</i>	Chanvai	Valsad	Valsad
94	<i>B.B.C 094</i>	Balda	Pardi	Valsad
95	<i>B.B.C 095</i>	Paria	Pardi	Valsad
96	<i>B.B.C 096</i>	Paria	Pardi	Valsad
97	<i>B.B.C 097</i>	Paria	Pardi	Valsad
98	<i>B.B.C 098</i>	Paria	Pardi	Valsad
99	<i>B.B.C 099</i>	Paria	Pardi	Valsad
100	<i>B.B.C 100</i>	Paria	Pardi	Valsad

101	<i>B.B.C 101</i>	Paria	Pardi	Valsad
102	<i>B.B.C 102</i>	Paria	Pardi	Valsad
103	<i>B.B.C 103</i>	Paria	Pardi	Valsad
104	<i>B.B.C 104</i>	Paria	Pardi	Valsad
105	<i>B.B.C 105</i>	Paria	Pardi	Valsad
106	<i>B.B.C 106</i>	Paria	Pardi	Valsad
107	<i>B.B.C 107</i>	Paria	Pardi	Valsad
108	<i>B.B.C 108</i>	Rata	Pardi	Valsad
109	<i>B.B.C 109</i>	Rata	Pardi	Valsad
110	<i>B.B.C 100</i>	Achchhari	Umbergaon	Valsad
111	<i>B.B.C 111</i>	Dangra	Pardi	Valsad
112	<i>B.B.C 112</i>	Paria	Pardi	Valsad
113	<i>B.B.C 113</i>	Paria	Pardi	Valsad
114	<i>B.B.C 114</i>	Paria	Pardi	Valsad
115	<i>B.B.C 115</i>	Paria	Pardi	Valsad
116	<i>B.B.C 116</i>	Rata	Pardi	Valsad
117	<i>B.B.C 117</i>	Tal	Umbergaon	Valsad
118	<i>B.B.C 118</i>	Tal	Umbergaon	Valsad
119	<i>B.B.C 119</i>	Tal	Umbergaon	Valsad
120	<i>B.B.C 120</i>	Undach Vaniya Fali	Gandevi	Navsari
121	<i>B.B.C 121</i>	Undach Vaniya Fali	Gandevi	Navsari
122	<i>B.B.C 122</i>	Undach Vaniya Fali	Gandevi	Navsari
123	<i>B.B.C 123</i>	Undach Vaniya Fali	Gandevi	Navsari
124	<i>B.B.C 124</i>	Pati	Gandevi	Navsari
125	<i>B.B.C 125</i>	Oviyan	Kamrej	Surat
126	<i>B.B.C 126</i>	Oviyan	Kamrej	Surat
127	<i>B.B.C 127</i>	Oviyan	Kamrej	Surat
128	<i>B.B.C 128</i>	Oviyan	Kamrej	Surat
129	<i>B.B.C 129</i>	Oviyan	Kamrej	Surat
130	<i>B.B.C 130</i>	Oviyan	Kamrej	Surat
131	<i>B.B.C 131</i>	Oviyan	Kamrej	Surat

132	<i>B.B.C 132</i>	Oviyan	Kamrej	Surat
133	<i>B.B.C 133</i>	Oviyan	Kamrej	Surat
134	<i>B.B.C 134</i>	Oviyan	Kamrej	Surat
135	<i>B.B.C 135</i>	Kathor	Kamrej	Surat
136	<i>B.B.C 136</i>	Tralsi	Bharuch	Bharuch
137	<i>B.B.C 137</i>	Tralsi	Bharuch	Bharuch
138	<i>B.B.C 138</i>	Tralsi	Bharuch	Bharuch
139	<i>B.B.C 139</i>	Tralsi	Bharuch	Bharuch
140	<i>B.B.C 140</i>	Tralsi	Bharuch	Bharuch
141	<i>B.B.C 141</i>	Tralsi	Bharuch	Bharuch
142	<i>B.B.C 142</i>	Amod	Hansot	Bharuch
143	<i>B.B.C 143</i>	Tralsi	Bharuch	Bharuch
144	<i>B.B.C 144</i>	Tralsi	Bharuch	Bharuch
145	<i>B.B.C 145</i>	Chhani	Vadodara	Vadodara
146	<i>B.B.C 146</i>	Chhani	Vadodara	Vadodara
147	<i>B.B.C 147</i>	Chhani	Vadodara	Vadodara
148	<i>B.B.C 148</i>	Vadodara	Vadodara	Vadodara
149	<i>B.B.C 149</i>	Chhani	Vadodara	Vadodara
150	<i>B.B.C 150</i>	Vadodara	Vadodara	Vadodara
151	<i>B.B.C 151</i>	Vadodara	Vadodara	Vadodara
152	<i>B.B.C 152</i>	Ahmedabad	Ahmedabad	Ahmedabad
153	<i>B.B.C 153</i>	Ahmedabad	Ahmedabad	Ahmedabad
154	<i>B.B.C 154</i>	Ahmedabad	Ahmedabad	Ahmedabad
155	<i>B.B.C 155</i>	Ahmedabad	Ahmedabad	Ahmedabad
156	<i>B.B.C 156</i>	Ahmedabad	Ahmedabad	Ahmedabad
157	<i>B.B.C 157</i>	Ahmedabad	Ahmedabad	Ahmedabad
158	<i>B.B.C 158</i>	Ahmedabad	Ahmedabad	Ahmedabad
159	<i>B.B.C 159</i>	Ahmedabad	Ahmedabad	Ahmedabad
160	<i>B.B.C 160</i>	Ahmedabad	Ahmedabad	Ahmedabad
161	<i>B.B.C 161</i>	Ahmedabad	Ahmedabad	Ahmedabad
162	<i>B.B.C 162</i>	Ahmedabad	Ahmedabad	Ahmedabad
163	<i>B.B.C 163</i>	Ahmedabad	Ahmedabad	Ahmedabad
164	<i>B.B.C 164</i>	Ahmedabad	Ahmedabad	Ahmedabad

165	<i>B.B.C 165</i>	Ahmedabad	Ahmedabad	Ahmedabad
166	<i>B.B.C 166</i>	Ahmedabad	Ahmedabad	Ahmedabad
167	<i>B.B.C 167</i>	Ahmedabad	Ahmedabad	Ahmedabad
168	<i>B.B.C 168</i>	Ahmedabad	Ahmedabad	Ahmedabad
169	<i>B.B.C 169</i>	Ahmedabad	Ahmedabad	Ahmedabad
170	<i>B.B.C 170</i>	Ahmedabad	Ahmedabad	Ahmedabad
171	<i>B.B.C 171</i>	Ahmedabad	Ahmedabad	Ahmedabad
172	<i>B.B.C 172</i>	Ahmedabad	Ahmedabad	Ahmedabad
173	<i>B.B.C 173</i>	Ahmedabad	Ahmedabad	Ahmedabad
174	<i>B.B.C 174</i>	Ahmedabad	Ahmedabad	Ahmedabad
175	<i>B.B.C 175</i>	Ahmedabad	Ahmedabad	Ahmedabad
176	<i>B.B.C 176</i>	Ahmedabad	Ahmedabad	Ahmedabad
177	<i>B.B.C 177</i>	Ahmedabad	Ahmedabad	Ahmedabad
178	<i>B.B.C 178</i>	Ahmedabad	Ahmedabad	Ahmedabad
179	<i>B.B.C 179</i>	Ahmedabad	Ahmedabad	Ahmedabad
180	<i>B.B.C 180</i>	Ahmedabad	Ahmedabad	Ahmedabad
181	<i>B.B.C 181</i>	Ahmedabad	Ahmedabad	Ahmedabad
182	<i>B.B.C 182</i>	Vinzol	Daskroi	Ahmedabad
183	<i>B.B.C 183</i>	Ahmedabad	Ahmedabad	Ahmedabad
184	<i>B.B.C 184</i>	Ahmedabad	Ahmedabad	Ahmedabad
185	<i>B.B.C 185</i>	Ahmedabad	Ahmedabad	Ahmedabad
186	<i>B.B.C 186</i>	Ahmedabad	Ahmedabad	Ahmedabad
187	<i>B.B.C 187</i>	Ahmedabad	Ahmedabad	Ahmedabad
188	<i>B.B.C 188</i>	Ahmedabad	Ahmedabad	Ahmedabad
189	<i>B.B.C 189</i>	Ahmedabad	Ahmedabad	Ahmedabad
190	<i>B.B.C 190</i>	Ahmedabad	Ahmedabad	Ahmedabad
191	<i>B.B.C 191</i>	Ahmedabad	Ahmedabad	Ahmedabad
192	<i>B.B.C 192</i>	Ahmedabad	Ahmedabad	Ahmedabad
193	<i>B.B.C 193</i>	Ahmedabad	Ahmedabad	Ahmedabad
194	<i>B.B.C 194</i>	Ahmedabad	Ahmedabad	Ahmedabad
195	<i>B.B.C 195</i>	Ahmedabad	Ahmedabad	Ahmedabad
196	<i>B.B.C 196</i>	Ahmedabad	Ahmedabad	Ahmedabad
197	<i>B.B.C 197</i>	Ahmedabad	Ahmedabad	Ahmedabad

198	<i>B.B.C 198</i>	Ahmedabad	Ahmedabad	Ahmedabad
199	<i>B.B.C 199</i>	Ahmedabad	Ahmedabad	Ahmedabad
200	<i>B.B.C 200</i>	Ahmedabad	Ahmedabad	Ahmedabad
201	<i>B.B.C 201</i>	Ahmedabad	Ahmedabad	Ahmedabad
202	<i>B.B.C 202</i>	Ahmedabad	Ahmedabad	Ahmedabad
<b>3. List of Scheduled Caste (SC) Household</b>				
S.No.	Household Head ( <i>anonymity</i> )	Village	Taluka	District
1	<i>C.B.C 001</i>	Shirgava	Thane	Thane
2	<i>C.B.C 002</i>	Kapase	Palghar	Palghar
3	<i>C.B.C 003</i>	Kapase	Palghar	Palghar
4	<i>C.B.C 004</i>	Nalasopara	Vasai	Palghar
5	<i>C.B.C 005</i>	Nalasopara	Vasai	Palghar
6	<i>C.B.C 006</i>	Vetrana	Palghar	Palghar
7	<i>C.B.C 007</i>	Nalasopara	Vasai	Palghar
8	<i>C.B.C 008</i>	Paria	Pardi	Valsad
9	<i>C.B.C 009</i>	Paria	Pardi	Valsad
10	<i>C.B.C 010</i>	Paria	Pardi	Valsad
11	<i>C.B.C 011</i>	Paria	Pardi	Valsad
12	<i>C.B.C 012</i>	Paria	Pardi	Valsad
13	<i>C.B.C 013</i>	Nasilpor	Navsari	Navsari
14	<i>C.B.C 014</i>	Ghekti	Chikhli	Navsari
15	<i>C.B.C 015</i>	Ghekti	Chikhli	Navsari
16	<i>C.B.C 016</i>	Ghekti	Chikhli	Navsari
17	<i>C.B.C 017</i>	Ghekti	Chikhli	Navsari
18	<i>C.B.C 018</i>	Ghekti	Chikhli	Navsari
19	<i>C.B.C 018</i>	Ghekti	Chikhli	Navsari
20	<i>C.B.C 020</i>	Ghekti	Chikhli	Navsari
21	<i>C.B.C 021</i>	Vadsangal	Gandevi	Navsari
22	<i>C.B.C 022</i>	Vadsangal	Gandevi	Navsari
23	<i>C.B.C 023</i>	Kimamli	Olpad	Surat
24	<i>C.B.C 024</i>	Mulad	Olpad	Surat
25	<i>C.B.C 025</i>	Kimamli	Olpad	Surat

26	<i>C.B.C 026</i>	Kimamli	Olpad	Surat
27	<i>C.B.C 027</i>	Mulad	Olpad	Surat
28	<i>C.B.C 028</i>	Kumvarda	Mangrol	Surat
29	<i>C.B.C 029</i>	Kumvarda	Mangrol	Surat
30	<i>C.B.C 030</i>	Kumvarda	Mangrol	Surat
31	<i>C.B.C 031</i>	Kumvarda	Mangrol	Surat
32	<i>C.B.C 032</i>	Kumvarda	Mangrol	Surat
33	<i>C.B.C 033</i>	Kumvarda	Mangrol	Surat
34	<i>C.B.C 034</i>	Kumvarda	Mangrol	Surat
35	<i>C.B.C 035</i>	Kumvarda	Mangrol	Surat
36	<i>C.B.C 036</i>	Kumvarda	Mangrol	Surat
37	<i>C.B.C 037</i>	Kumvarda	Mangrol	Surat
38	<i>C.B.C 038</i>	Kumvarda	Mangrol	Surat
39	<i>C.B.C 039</i>	Kumvarda	Mangrol	Surat
40	<i>C.B.C 040</i>	Kumvarda	Mangrol	Surat
41	<i>C.B.C 041</i>	Kumvarda	Mangrol	Surat
42	<i>C.B.C 042</i>	Kumvarda	Mangrol	Surat
43	<i>C.B.C 043</i>	Kathor	Kamrej	Surat
44	<i>C.B.C 044</i>	Kumvarda	Mangrol	Surat
45	<i>C.B.C 045</i>	Kumvarda	Mangrol	Surat
46	<i>C.B.C 046</i>	Kumvarda	Mangrol	Surat
47	<i>C.B.C 047</i>	Telod	Amod	Bharuch
48	<i>C.B.C 048</i>	Chhani	Vadodara	Vadodara
49	<i>C.B.C 049</i>	Chhani	Vadodara	Vadodara
50	<i>C.B.C 050</i>	Vadodara	Vadodara	Vadodara
51	<i>C.B.C 051</i>	Vadodara	Vadodara	Vadodara
52	<i>C.B.C 052</i>	Vadodara	Vadodara	Vadodara
53	<i>C.B.C 053</i>	Chhani	Vadodara	Vadodara
54	<i>C.B.C 054</i>	Vadodara	Vadodara	Vadodara
55	<i>C.B.C 055</i>	Ahmedabad	Ahmedabad	Ahmedabad
56	<i>C.B.C 056</i>	Ahmedabad	Ahmedabad	Ahmedabad
57	<i>C.B.C 057</i>	Ahmedabad	Ahmedabad	Ahmedabad
58	<i>C.B.C 058</i>	Ahmedabad	Ahmedabad	Ahmedabad

59	<i>C.B.C 059</i>	Ahmedabad	Ahmedabad	Ahmedabad
<b>4. List of Antyodaya Card Holder Household</b>				
<b>S.No.</b>	<b>Household Head (<i>anonymity</i>)</b>	<b>Village</b>	<b>Taluka</b>	<b>District</b>
1	<i>D.B.C 001</i>	Shirgava	Thane	Thane
2	<i>D.B.C 002</i>	Dhamangaon	Talasri	Palghar
3	<i>D.B.C 003</i>	Jitgaon	Dahanu	Palghar
4	<i>D.B.C 004</i>	Ambesari	Dahanu	Palghar
5	<i>D.B.C 005</i>	Santoshi	Dahanu	Palghar
6	<i>D.B.C 006</i>	Chari	Dahanu	Palghar
7	<i>D.B.C 007</i>	Chari	Dahanu	Palghar
8	<i>D.B.C 008</i>	Chari	Dahanu	Palghar
9	<i>D.B.C 009</i>	Kapase	Palghar	Palghar
10	<i>D.B.C 010</i>	Kapase	Palghar	Palghar
11	<i>D.B.C 011</i>	Kapase	Palghar	Palghar
12	<i>D.B.C 012</i>	Silkhe	Palghar	Palghar
13	<i>D.B.C 013</i>	Navagaon	Vasai	Palghar
14	<i>D.B.C 014</i>	Dhamangaon	Talasri	Palghar
15	<i>D.B.C 015</i>	Ambesari	Dahanu	Palghar
16	<i>D.B.C 016</i>	Ambesari	Dahanu	Palghar
17	<i>D.B.C 017</i>	Ambesari	Dahanu	Palghar
18	<i>D.B.C 018</i>	Jamset	Dahanu	Palghar
19	<i>D.B.C 019</i>	Chari	Dahanu	Palghar
20	<i>D.B.C 020</i>	Chari	Dahanu	Palghar
21	<i>D.B.C 021</i>	Navagaon	Vasai	Palghar
22	<i>D.B.C 022</i>	Gorwada	Valsad	Valsad
23	<i>D.B.C 023</i>	Chanvai	Valsad	Valsad
24	<i>D.B.C 024</i>	Dashwada	Pardi	Valsad
25	<i>D.B.C 025</i>	Dashwada	Pardi	Valsad
26	<i>D.B.C 026</i>	Pati	Gandevi	Navsari
27	<i>D.B.C 027</i>	Pati	Gandevi	Navsari
28	<i>D.B.C 028</i>	Ghekti	Chikhli	Navsari
29	<i>D.B.C 029</i>	Manekpor	Chikhli	Navsari



30	<i>D.B.C 030</i>	Vadsangal	Gandevi	Navsari
31	<i>D.B.C 031</i>	Kumvarda	Mangrol	Surat
32	<i>D.B.C 032</i>	Kathor	Kamrej	Surat
33	<i>D.B.C 033</i>	Telod	Amod	Bharuch
34	<i>D.B.C 034</i>	Tralsi	Bharuch	Bharuch
35	<i>D.B.C 035</i>	Sankarda	Vadodara	Vadodara
36	<i>D.B.C 036</i>	Sankarda	Vadodara	Vadodara
37	<i>D.B.C 037</i>	Sankarda	Vadodara	Vadodara
38	<i>D.B.C 038</i>	Vadodara	Vadodara	Vadodara
39	<i>D.B.C 039</i>	Vadodara	Vadodara	Vadodara
40	<i>D.B.C 040</i>	Vadodara	Vadodara	Vadodara
41	<i>D.B.C 041</i>	Vadodara	Vadodara	Vadodara
42	<i>D.B.C 042</i>	Ramnagar	Anand	Anand
43	<i>D.B.C 043</i>	Ramnagar	Anand	Anand
44	<i>D.B.C 044</i>	Ramnagar	Anand	Anand
45	<i>D.B.C 045</i>	Ramnagar	Anand	Anand
46	<i>D.B.C 046</i>	Ramnagar	Anand	Anand
47	<i>D.B.C 047</i>	Tundel	Nadiad	Kheda
48	<i>D.B.C 048</i>	Tundel	Nadiad	Kheda
49	<i>D.B.C 049</i>	Piplag	Nadiad	Kheda
50	<i>D.B.C 050</i>	Vadadla	Mehmedabad	Kheda
51	<i>D.B.C 051</i>	Ahmedabad	Ahmedabad	Ahmedabad
52	<i>D.B.C 052</i>	Ahmedabad	Ahmedabad	Ahmedabad
53	<i>D.B.C 053</i>	Ahmedabad	Ahmedabad	Ahmedabad
54	<i>D.B.C 054</i>	Ahmedabad	Ahmedabad	Ahmedabad
55	<i>D.B.C 055</i>	Ahmedabad	Ahmedabad	Ahmedabad
56	<i>D.B.C 056</i>	Ahmedabad	Ahmedabad	Ahmedabad
57	<i>D.B.C 057</i>	Devdi	Daskroi	Ahmedabad
58	<i>D.B.C 058</i>	Ahmedabad	Ahmedabad	Ahmedabad

## Annex – IV

### List of Wage Laborers affected in Non-farm Sector

**Annexure 4.1: List of Wage Labourers affected in Non-farm Sector**

<b>Table (A4.1): List of Wage Labourers affected in Non-farm Sector</b>				
<b>S.No.</b>	<b>Household Head (<i>anonymity</i>)</b>	<b>Village</b>	<b>Taluka</b>	<b>District</b>
1	<i>E.B.C 001</i>	Kapor	Bhiwandi	Thane
2	<i>E.B.C 002</i>	Kalher	Bhiwandi	Thane
3	<i>E.B.C 003</i>	Kalher	Bhiwandi	Thane
4	<i>E.B.C 004</i>	Dapode	Bhiwandi	Thane
5	<i>E.B.C 005</i>	Anjur	Bhiwandi	Thane
6	<i>E.B.C 006</i>	Anjur	Bhiwandi	Thane
7	<i>E.B.C 007</i>	Anjur	Bhiwandi	Thane
8	<i>E.B.C 008</i>	Anjur	Bhiwandi	Thane
9	<i>E.B.C 009</i>	Anjur	Bhiwandi	Thane
10	<i>E.B.C 010</i>	Bharodi	Bhiwandi	Thane
11	<i>E.B.C 011</i>	Shirgava	Thane	Thane
12	<i>E.B.C 012</i>	Shirgava	Thane	Thane
13	<i>E.B.C 013</i>	Shirgava	Thane	Thane
14	<i>E.B.C 014</i>	Shirgava	Thane	Thane
15	<i>E.B.C 015</i>	Shirgava	Thane	Thane
16	<i>E.B.C 016</i>	Shirgava	Thane	Thane
17	<i>E.B.C 017</i>	Kalyan Pada	Thane	Thane
18	<i>E.B.C 018</i>	Kalyan Pada	Thane	Thane
19	<i>E.B.C 019</i>	Kalyan Pada	Thane	Thane
20	<i>E.B.C 020</i>	Zari	Talasri	Palghar
21	<i>E.B.C 021</i>	Zari	Talasri	Palghar
22	<i>E.B.C 022</i>	Talasri	Talasri	Palghar
23	<i>E.B.C 023</i>	Jitgaon	Dahanu	Palghar
24	<i>E.B.C 024</i>	Jitgaon	Dahanu	Palghar
25	<i>E.B.C 025</i>	Silkhe	Palghar	Palghar
26	<i>E.B.C 026</i>	Silkhe	Palghar	Palghar
27	<i>E.B.C 027</i>	Ambesari	Dahanu	Palghar
28	<i>E.B.C 028</i>	Chandansar	Vasai	Palghar

29	<i>E.B.C 029</i>	Chandansar	Vasai	Palghar
30	<i>E.B.C 030</i>	Chandansar	Vasai	Palghar
31	<i>E.B.C 031</i>	Chandansar	Vasai	Palghar
32	<i>E.B.C 032</i>	Chandansar	Vasai	Palghar
33	<i>E.B.C 033</i>	Chandansar	Vasai	Palghar
34	<i>E.B.C 034</i>	Chandansar	Vasai	Palghar
35	<i>E.B.C 035</i>	Chandansar	Vasai	Palghar
36	<i>E.B.C 036</i>	Manavpade	Vasai	Palghar
37	<i>E.B.C 037</i>	Nalasopara	Vasai	Palghar
38	<i>E.B.C 038</i>	Nalasopara	Vasai	Palghar
39	<i>E.B.C 039</i>	Valaipada	Vasai	Palghar
40	<i>E.B.C 040</i>	Valaipada	Vasai	Palghar
41	<i>E.B.C 041</i>	Valaipada	Vasai	Palghar
42	<i>E.B.C 042</i>	Nalasopara	Vasai	Palghar
43	<i>E.B.C 043</i>	Nalasopara	Vasai	Palghar
44	<i>E.B.C 044</i>	Nalasopara	Vasai	Palghar
45	<i>E.B.C 045</i>	Nalasopara	Vasai	Palghar
46	<i>E.B.C 046</i>	Nalasopara	Vasai	Palghar
47	<i>E.B.C 047</i>	Nalasopara	Vasai	Palghar
48	<i>E.B.C 048</i>	Nalasopara	Vasai	Palghar
49	<i>E.B.C 049</i>	Nalasopara	Vasai	Palghar
50	<i>E.B.C 050</i>	Nalasopara	Vasai	Palghar
51	<i>E.B.C 051</i>	Nalasopara	Vasai	Palghar
52	<i>E.B.C 052</i>	Nalasopara	Vasai	Palghar
53	<i>E.B.C 053</i>	Nalasopara	Vasai	Palghar
54	<i>E.B.C 054</i>	Nalasopara	Vasai	Palghar
55	<i>E.B.C 055</i>	Nalasopara	Vasai	Palghar
56	<i>E.B.C 056</i>	Nalasopara	Vasai	Palghar
57	<i>E.B.C 057</i>	Nalasopara	Vasai	Palghar
58	<i>E.B.C 058</i>	Nalasopara	Vasai	Palghar
59	<i>E.B.C 059</i>	Nalasopara	Vasai	Palghar
60	<i>E.B.C 060</i>	Nalasopara	Vasai	Palghar

61	<i>E.B.C 061</i>	Nalasopara	Vasai	Palghar
62	<i>E.B.C 062</i>	Nalasopara	Vasai	Palghar
63	<i>E.B.C 063</i>	Nalasopara	Vasai	Palghar
64	<i>E.B.C 064</i>	Nalasopara	Vasai	Palghar
65	<i>E.B.C 065</i>	Nalasopara	Vasai	Palghar
66	<i>E.B.C 066</i>	Nalasopara	Vasai	Palghar
67	<i>E.B.C 067</i>	Nalasopara	Vasai	Palghar
68	<i>E.B.C 068</i>	Nalasopara	Vasai	Palghar
69	<i>E.B.C 069</i>	Nalasopara	Vasai	Palghar
70	<i>E.B.C 070</i>	Nalasopara	Vasai	Palghar
71	<i>E.B.C 071</i>	Nalasopara	Vasai	Palghar
72	<i>E.B.C 072</i>	Nalasopara	Vasai	Palghar
73	<i>E.B.C 073</i>	Nalasopara	Vasai	Palghar
74	<i>E.B.C 074</i>	Nalasopara	Vasai	Palghar
75	<i>E.B.C 075</i>	Nalasopara	Vasai	Palghar
76	<i>E.B.C 076</i>	Nalasopara	Vasai	Palghar
77	<i>E.B.C 077</i>	Nalasopara	Vasai	Palghar
78	<i>E.B.C 078</i>	Nalasopara	Vasai	Palghar
79	<i>E.B.C 079</i>	Nalasopara	Vasai	Palghar
80	<i>E.B.C 080</i>	Nalasopara	Vasai	Palghar
81	<i>E.B.C 081</i>	Nalasopara	Vasai	Palghar
82	<i>E.B.C 082</i>	Nalasopara	Vasai	Palghar
83	<i>E.B.C 083</i>	Fatherwadi	Vasai	Palghar
84	<i>E.B.C 084</i>	Fatherwadi	Vasai	Palghar
85	<i>E.B.C 085</i>	Fatherwadi	Vasai	Palghar
86	<i>E.B.C 086</i>	Fatherwadi	Vasai	Palghar
87	<i>E.B.C 087</i>	Fatherwadi	Vasai	Palghar
88	<i>E.B.C 088</i>	Fatherwadi	Vasai	Palghar
89	<i>E.B.C 089</i>	Navagaon	Vasai	Palghar
90	<i>E.B.C 090</i>	Navagaon	Vasai	Palghar
91	<i>E.B.C 091</i>	Navagaon	Vasai	Palghar
92	<i>E.B.C 092</i>	Navagaon	Vasai	Palghar

93	<i>E.B.C 093</i>	Navagaon	Vasai	Palghar
94	<i>E.B.C 094</i>	Navagaon	Vasai	Palghar
95	<i>E.B.C 095</i>	Navagaon	Vasai	Palghar
96	<i>E.B.C 096</i>	Navagaon	Vasai	Palghar
97	<i>E.B.C 097</i>	Naroli	Dadra Nagar Haveli	Dadra Nagar Haveli
98	<i>E.B.C 098</i>	Panchlai	Valsad	Valsad
99	<i>E.B.C 099</i>	Paria	Pardi	Valsad
100	<i>E.B.C 100</i>	Paria	Pardi	Valsad
101	<i>E.B.C 101</i>	Nasilpor	Navsari	Navsari
102	<i>E.B.C 102</i>	Dhanori	Gandevi	Navsari
103	<i>E.B.C 103</i>	Vadsangal	Gandevi	Navsari
104	<i>E.B.C 104</i>	Pati	Gandevi	Navsari
105	<i>E.B.C 105</i>	Pati	Gandevi	Navsari
106	<i>E.B.C 106</i>	Pati	Gandevi	Navsari
107	<i>E.B.C 107</i>	Ghekti	Chikhli	Navsari
108	<i>E.B.C 108</i>	Ghekti	Chikhli	Navsari
109	<i>E.B.C 109</i>	Ghekti	Chikhli	Navsari
110	<i>E.B.C 110</i>	Ghekti	Chikhli	Navsari
111	<i>E.B.C 111</i>	Ghekti	Chikhli	Navsari
112	<i>E.B.C 112</i>	Dabhel	Navsari	Navsari
113	<i>E.B.C 113</i>	Padgha	Navsari	Navsari
114	<i>E.B.C 114</i>	Dhanori	Gandevi	Navsari
115	<i>E.B.C 115</i>	Dhanori	Gandevi	Navsari
116	<i>E.B.C 116</i>	Ghekti	Chikhli	Navsari
117	<i>E.B.C 117</i>	Kholvad	Kamrej	Surat
118	<i>E.B.C 118</i>	Kumvarda	Mangrol	Surat
119	<i>E.B.C 119</i>	Kumvarda	Mangrol	Surat
120	<i>E.B.C 120</i>	Kumvarda	Mangrol	Surat
121	<i>E.B.C 121</i>	Kumvarda	Mangrol	Surat
122	<i>E.B.C 122</i>	Kumvarda	Mangrol	Surat
123	<i>E.B.C 123</i>	Kumvarda	Mangrol	Surat

124	<i>E.B.C 124</i>	Kumvarda	Mangrol	Surat
125	<i>E.B.C 125</i>	Kumvarda	Mangrol	Surat
126	<i>E.B.C 126</i>	Kumvarda	Mangrol	Surat
127	<i>E.B.C 127</i>	Kathor	Kamrej	Surat
128	<i>E.B.C 128</i>	Kathor	Kamrej	Surat
129	<i>E.B.C 129</i>	Kathor	Kamrej	Surat
130	<i>E.B.C 130</i>	Kathor	Kamrej	Surat
131	<i>E.B.C 131</i>	Kathor	Kamrej	Surat
132	<i>E.B.C 132</i>	Kathor	Kamrej	Surat
133	<i>E.B.C 133</i>	Oviyan	Kamrej	Surat
134	<i>E.B.C 134</i>	Oviyan	Kamrej	Surat
135	<i>E.B.C 135</i>	Telod	Amod	Bharuch
136	<i>E.B.C 136</i>	Telod	Amod	Bharuch
137	<i>E.B.C 137</i>	Telod	Amod	Bharuch
138	<i>E.B.C 138</i>	Telod	Amod	Bharuch
139	<i>E.B.C 139</i>	Telod	Amod	Bharuch
140	<i>E.B.C 140</i>	Telod	Amod	Bharuch
141	<i>E.B.C 141</i>	Telod	Amod	Bharuch
142	<i>E.B.C 142</i>	Telod	Amod	Bharuch
143	<i>E.B.C 143</i>	Telod	Amod	Bharuch
144	<i>E.B.C 144</i>	Telod	Amod	Bharuch
145	<i>E.B.C 145</i>	Telod	Amod	Bharuch
146	<i>E.B.C 146</i>	Telod	Amod	Bharuch
147	<i>E.B.C 147</i>	Tralsi	Bharuch	Bharuch
148	<i>E.B.C 148</i>	Tralsi	Bharuch	Bharuch
149	<i>E.B.C 149</i>	Tralsi	Bharuch	Bharuch
150	<i>E.B.C 150</i>	Tralsi	Bharuch	Bharuch
151	<i>E.B.C 151</i>	Tralsi	Bharuch	Bharuch
152	<i>E.B.C 152</i>	Tralsi	Bharuch	Bharuch
153	<i>E.B.C 153</i>	Tralsi	Bharuch	Bharuch
154	<i>E.B.C 154</i>	Amod	Hansot	Bharuch
155	<i>E.B.C 155</i>	Amod	Hansot	Bharuch

156	<i>E.B.C 156</i>	Amod	Hansot	Bharuch
157	<i>E.B.C 157</i>	Vadodara	Vadodara	Vadodara
158	<i>E.B.C 158</i>	Vadodara	Vadodara	Vadodara
159	<i>E.B.C 159</i>	Vadodara	Vadodara	Vadodara
160	<i>E.B.C 160</i>	Vadodara	Vadodara	Vadodara
161	<i>E.B.C 161</i>	Vadodara	Vadodara	Vadodara
162	<i>E.B.C 162</i>	Vadodara	Vadodara	Vadodara
163	<i>E.B.C 163</i>	Vadodara	Vadodara	Vadodara
164	<i>E.B.C 164</i>	Vadodara	Vadodara	Vadodara
165	<i>E.B.C 165</i>	Vadodara	Vadodara	Vadodara
166	<i>E.B.C 166</i>	Thikariya Mubarak	Padra	Vadodara
167	<i>E.B.C 167</i>	Thikariya Mubarak	Padra	Vadodara
168	<i>E.B.C 168</i>	Boriavi	Anand	Anand
169	<i>E.B.C 169</i>	Boriavi	Anand	Anand
170	<i>E.B.C 170</i>	Chikodara	Anand	Anand
171	<i>E.B.C 171</i>	Chikodara	Anand	Anand
172	<i>E.B.C 172</i>	Ramnagar	Anand	Anand
173	<i>E.B.C 173</i>	Ramnagar	Anand	Anand
174	<i>E.B.C 174</i>	Chhapra	Mehmedabad	Kheda
175	<i>E.B.C 175</i>	Bavra	Mehmedabad	Kheda
176	<i>E.B.C 176</i>	Degam	Nadiad	Kheda
177	<i>E.B.C 177</i>	Degam	Nadiad	Kheda
178	<i>E.B.C 178</i>	Degam	Nadiad	Kheda
179	<i>E.B.C 179</i>	Degam	Nadiad	Kheda
180	<i>E.B.C 180</i>	Degam	Nadiad	Kheda
181	<i>E.B.C 181</i>	Degam	Nadiad	Kheda
182	<i>E.B.C 182</i>	Degam	Nadiad	Kheda
183	<i>E.B.C 183</i>	Degam	Nadiad	Kheda
184	<i>E.B.C 184</i>	Tundel	Nadiad	Kheda
185	<i>E.B.C 185</i>	Tundel	Nadiad	Kheda
186	<i>E.B.C 186</i>	Tundel	Nadiad	Kheda



187	<i>E.B.C 187</i>	Piplag	Nadiad	Kheda
188	<i>E.B.C 188</i>	Piplag	Nadiad	Kheda
189	<i>E.B.C 189</i>	Uttarsanda	Nadiad	Kheda
190	<i>E.B.C 190</i>	Bhumel	Nadiad	Kheda
191	<i>E.B.C 191</i>	Bhumel	Nadiad	Kheda
192	<i>E.B.C 192</i>	Ahmedabad	Ahmedabad	Ahmedabad
193	<i>E.B.C 193</i>	Ahmedabad	Ahmedabad	Ahmedabad
194	<i>E.B.C 194</i>	Ahmedabad	Ahmedabad	Ahmedabad
195	<i>E.B.C 195</i>	Ahmedabad	Ahmedabad	Ahmedabad
196	<i>E.B.C 196</i>	Ahmedabad	Ahmedabad	Ahmedabad
197	<i>E.B.C 197</i>	Ahmedabad	Ahmedabad	Ahmedabad
198	<i>E.B.C 198</i>	Ahmedabad	Ahmedabad	Ahmedabad
199	<i>E.B.C 199</i>	Ahmedabad	Ahmedabad	Ahmedabad
200	<i>E.B.C 200</i>	Ahmedabad	Ahmedabad	Ahmedabad
201	<i>E.B.C 201</i>	Ahmedabad	Ahmedabad	Ahmedabad
202	<i>E.B.C 202</i>	Ahmedabad	Ahmedabad	Ahmedabad
203	<i>E.B.C 203</i>	Ahmedabad	Ahmedabad	Ahmedabad
204	<i>E.B.C 204</i>	Ahmedabad	Ahmedabad	Ahmedabad
205	<i>E.B.C 205</i>	Ahmedabad	Ahmedabad	Ahmedabad
206	<i>E.B.C 206</i>	Ahmedabad	Ahmedabad	Ahmedabad
207	<i>E.B.C 207</i>	Ahmedabad	Ahmedabad	Ahmedabad
208	<i>E.B.C 208</i>	Ahmedabad	Ahmedabad	Ahmedabad
209	<i>E.B.C 209</i>	Ahmedabad	Ahmedabad	Ahmedabad
210	<i>E.B.C 210</i>	Ahmedabad	Ahmedabad	Ahmedabad
211	<i>E.B.C 211</i>	Ahmedabad	Ahmedabad	Ahmedabad
212	<i>E.B.C 212</i>	Ahmedabad	Ahmedabad	Ahmedabad
213	<i>E.B.C 213</i>	Ahmedabad	Ahmedabad	Ahmedabad
214	<i>E.B.C 214</i>	Ahmedabad	Ahmedabad	Ahmedabad
215	<i>E.B.C 215</i>	Ahmedabad	Ahmedabad	Ahmedabad
216	<i>E.B.C 216</i>	Ahmedabad	Ahmedabad	Ahmedabad
217	<i>E.B.C 217</i>	Ahmedabad	Ahmedabad	Ahmedabad
218	<i>E.B.C 218</i>	Ahmedabad	Ahmedabad	Ahmedabad

219	<i>E.B.C 219</i>	Ahmedabad	Ahmedabad	Ahmedabad
220	<i>E.B.C 220</i>	Ahmedabad	Ahmedabad	Ahmedabad
221	<i>E.B.C 221</i>	Ahmedabad	Ahmedabad	Ahmedabad
222	<i>E.B.C 222</i>	Ahmedabad	Ahmedabad	Ahmedabad
223	<i>E.B.C 223</i>	Ahmedabad	Ahmedabad	Ahmedabad
224	<i>E.B.C 224</i>	Ahmedabad	Ahmedabad	Ahmedabad
225	<i>E.B.C 225</i>	Ahmedabad	Ahmedabad	Ahmedabad
226	<i>E.B.C 226</i>	Ahmedabad	Ahmedabad	Ahmedabad
227	<i>E.B.C 227</i>	Ahmedabad	Ahmedabad	Ahmedabad
228	<i>E.B.C 228</i>	Ahmedabad	Ahmedabad	Ahmedabad
229	<i>E.B.C 229</i>	Ahmedabad	Ahmedabad	Ahmedabad
230	<i>E.B.C 230</i>	Ropda	Daskroi	Ahmedabad
231	<i>E.B.C 231</i>	Ropda	Daskroi	Ahmedabad

## Annex – V

### Minutes of Stakeholder Meeting

# Annexure (5.1): Sample Still Images of Stakeholder Consultations

	
SHM, Vadodara	SHM, Ahmedabad
	
SHM, Thane	SHM, Kheda
	
SHM, Palghar	SHM, Valsad
	
SHM News Coverage, Gujarat Mitra, Surat (5/12/14)	SHM News Coverage, Divya Bhaskar, Surat (5/12/14)

## Annexure (5.2): List of Officials Met

Table A-5.1 : List of Officials Met at 1 <sup>st</sup> Round		
S. No.	Designation	District
1	Deputy Collector and Sub Divisional Magistrate	Navsari
2	Mamlatdar, Navsari City	Navsari
3	District Agriculture Officer	Navsari
4	Dy. Conservator of Forest	Navsari
5	Additional Collector (Land Reforms)	Surat
6	Dy. Conservator of Forest	Surat
7	District Agriculture Officer	Surat
8	District Statistical Officer	Surat
9	Collector & District Magistrate	Valsad
10	Resident Additional Collector & Additional District Magistrate	Valsad
11	Dy. Conservator of Forest	Valsad
12	District Agriculture Officer	Valsad
13	District Tribal Welfare Officer	Valsad
14	Collector & District Magistrate	Palghar
15	Resident Deputy Collector (Land Reforms)	Palghar
16	Dy. Conservator of Forest	Dahanu, Palghar
17	District Agriculture Officer	Palghar
18	District Tribal Welfare Officer	Dahanu, Palghar
19	Collector	Palghar
20	S.D.O	Palghar
21	Tehsildar	Thane
22	Nayab Tehsildar	Thane
23	R.A.C.	Thane
24	A.D.M.	Vadodara
25	Deputy Mamlatdar and Special Land Acquisition Officer	Vadodara
26	Disst. Agri. Officer	Vadodara
27	Resident Additional Collector (R.A.C.)	Bharuch
28	Disst. Agri. Officer	Nadiad
29	R.A.C.	Nadiad
30	Nayab Tehsildar	Nadiad
31	District Agriculture Officer	Anand
32	R.A.C.	Anand

<b>Table A-5.2 : List of Officials Met at 2<sup>nd</sup> Round</b>		
<b>S. No.</b>	<b>Designation</b>	<b>District</b>
1	District Collector	Ahmedabad
2	Additional District Magistrate	Anand
3	Additional District Magistrate	Vadodara
4	SDM, Thane	Thane
5	Assistant Collector, Thane	Thane

*\*Above mentions the officials who were either present in SHM event or were personally met (as they were available at the time of visit) in their offices while giving formal invitation for SHM participation. Invitation was nonetheless sent to all relevant offices as was during the first round of SHM.*

### **Annexure (5.3): District Level Stakeholder Consultation/Meeting**

<b>S. No.</b>	<b>Name of the District</b>	<b>SHM Held on (Venue)</b>
1	Ahmedabad	18 December 2014 (Hotel Vice President, Ahmedabad)
2	Kheda	17 December 2014 (Woodlands Restaurant, Nadiad)
3	Anand	16 December 2014 (Hotel Rama Residency, Anand)
4	Vadodara	12 December 2014 (Restaurant Rajputana, Vadodara)
5	Bharuch	15 December 2014 (Hotel Plaza Annex, Bharuch)
6	Surat	5 December 2014 (Hotel Sarita, Surat)
7	Navsari	4 December 2014 (Rotary Club, Navsari)
8	Valsad	6 December 2014 (Salty Beach Resort, Tithal, Valsad)
9	Dadra and Nagar Haveli	6 December 2014 (Salty Beach Resort, Tithal, Valsad)
10	Palghar	8 December 2014 (Hotel Sai Residency, Palghar)
11	Thane/Mumbai	10 December 2014 (Hotel Lerida, Thane)

S. No.	Name of the District	SHM Held on (Venue)
1	Ahmedabad	20 April 2015 (Hotel Vice President, Ahmedabad)
2	Kheda	21 April 2015 (Tulips Woodland Restaurant, Nadiad)
3	Anand	22 April 2015 (Hotel Rama Residency, Anand)
4	Vadodara	23 April 2015 (Restaurant Rajputana, Vadodara)
5	Bharuch	24 April 2015 (Hotel Sethna Plaza Annex, Bharuch)
6	Surat	25 April 2015 (Hotel Sarita, Surat)
7	Navsari	27 April 2015 (Rotary Club, Navsari)
8	Valsad	Proposed Meeting was canceled in these districts because of security reasons
9	Dadra and Nagar Haveli	
10	Palghar	28 April 2015 (Hotel Sai Residency, Palghar)
11	Thane/Mumbai	29 April 2015 (Hotel Lerida, Thane)

#### Annexure (5.4): Summary of SHM Discussions/Consultations

SUMMARY OF DISCUSSIONS OF DISTRICT LEVEL CONSULTATIONS at 1 <sup>st</sup> ROUND		
S.No	Districts	Key Outcomes/Concerns/Suggestions from Meeting
1	Navsari	<p><i>On Alignment and Structure</i></p> <ul style="list-style-type: none"> <li>Alignment should consider avoidance of impact to religious structures, open/dug wells, to the extent possible; Participants also identified a school in Manekpur village, having historical importance and requested for route alignment in a manner that avoids damage to it.</li> </ul> <p><i>On Impact</i></p> <ul style="list-style-type: none"> <li>Most of the participants belong to farming communities and hence acquisition of their farm land will impact their livelihoods. Government should therefore consider land against land for compensation</li> </ul> <p><i>On LA and R&amp;R Policy, Process and Measures</i></p> <ul style="list-style-type: none"> <li>Compensation for land acquisition should be done at more than the market rate.</li> <li>Disbursement of compensation should be done within a reasonable time;</li> <li>Sufficient advance notice should be served to affected families to enable them to shift affected structures.</li> <li>People have already lost their land under various government projects in the past. Further, they have not received adequate compensation for their</li> </ul>

		<p>losses hence requested for minimizing land acquisition.</p> <p><i>Others</i></p> <ul style="list-style-type: none"> <li>• The ADM present in the meeting summed it up saying that people would not object to land acquisition, if proper and adequate compensation is provided to them. The participants, most of them agreed to the statement made!</li> </ul>
2	Surat	<p><i>On Impact</i></p> <ul style="list-style-type: none"> <li>• Safety should be the first priority during construction and operation of the project.</li> </ul> <p><i>On Alignment and Structure</i></p> <ul style="list-style-type: none"> <li>• Width of land for HSR Track should be reduced to minimize land acquisition.</li> <li>• Flyovers / under passes should be constructed near important crossing especially near school and temples.</li> </ul> <p><i>On LA and R&amp;R Policy, Process and Measures</i></p> <ul style="list-style-type: none"> <li>• Compensation for affected land and structures should be provided more than the prevailing market rates. Market rates should not be decided as per the circle rate/stamp duty register (<i>Jantri rate</i>) and fresh market value assessment should be done by the government before acquiring land.</li> <li>• In addition to the compensation for loss of land and assets, MoR/GoI should give priority to affected households for jobs in government departments in accordance with the qualification of the candidate.</li> <li>• All shop keepers should be rehabilitated by constructing market complex in nearby area. Compensation should be given for loss of land and structures.</li> <li>• Most of the business persons of village Chhedcha and Antroli were of the view that they would prefer to relocate their shops at Surat for which adequate support shall be provided by the project.</li> <li>• Disbursement of money should be done before the commencement of civil works; advance notice period should be served to the PAF.</li> </ul>
3	Valsad and Dadra and Nagar Haveli	<p><i>On Alignment and Structure</i></p> <ul style="list-style-type: none"> <li>• Participants suggested that alignment should be redesigned or should be underground to avoid dismantling of any structures or acquisition of land so as to minimize impact on their livelihoods.</li> <li>• Existing vacant land at Valsad District should be used for station instead of commercial and residential land of local people.</li> </ul> <p><i>On Impact</i></p>



		<ul style="list-style-type: none"> <li>Majority of the villagers are dependent on agriculture for their livelihood and hence loss of agriculture land will have adverse impacts on their livelihood.</li> </ul> <p><i>On LA and R&amp;R Policy, Process and Measures</i></p> <ul style="list-style-type: none"> <li>Affected persons should be duly consulted before finalization of options for rehabilitation and resettlement.</li> </ul> <p><i>Others</i></p> <ul style="list-style-type: none"> <li>Participants also strongly recommended for organizing meetings at village level rather than at the district level for ensuring larger participation. Some of the stakeholders resisted the proceeding in the consultation and remarked all affected people should be invited for consultation about the project and allowed to make meaningful choices or preferences. <i>It was though explained to them such an exercise will be conducted once the project gets finalized.</i></li> <li>Participants also asked for presence of MoR representative in such consultations in future</li> </ul>
4	Palghar	<p><i>On Alignment and Structure</i></p> <ul style="list-style-type: none"> <li>Participants opposed the proposed route alignment as it will result in considerable damage to residential structures (particularly in Vasai taluka in Mumbai suburbs) and homestead land and requested re-consideration of the same.</li> <li>Existing vacant land should be used for infrastructure creation rather than acquiring additional commercial and residential land.</li> </ul> <p><i>On Impact</i></p> <ul style="list-style-type: none"> <li>Project area (specifically in Talasari and Dahanu taluka) is mainly inhabited by tribal population. Most of the participants (from tribal community) vehemently shared their opposition to the project saying that they solely depend on farming for livelihoods and hence any acquisition of their farm land will impact their livelihoods. Alternatively they should be provided land against land.</li> </ul> <p><i>On LA and R&amp;R Policy, Process and Measures</i></p> <ul style="list-style-type: none"> <li>Participants requested for similar consultations to be held at village level, allowing all affected persons to participate in the meeting.</li> <li>One of the PTGs named <i>F.B.C 001</i> are living in the area, so their needs and livelihood security need to be protected.</li> <li>People expressed the view that most of the area of Palghar district is coming under PESA rule wherein panchayat's written permission is required to take up any kind of work.</li> <li>Participants believe that there are separate rights for indigenous people</li> </ul>

		<p>which protects them from projects that may have adverse impact and such a eventuality the projects cannot come up.</p> <p><i>Others</i></p> <ul style="list-style-type: none"> <li>• They fear that many other industrial and infrastructure projects are coming up in future in this district and most of the people from this area will be relocated which is not a sustainable way of development. The participants also shared that people have already given them land for ongoing Expressway (Road) in the district.</li> <li>• One of the participants also expressed his displeasure, recalling a past instance where 4000-6000 acre of land was acquired in Dabtari village for dairy project, resulting in massive displacement. Later the project failed and the land instead of being returned to farmers, was sold for some other project at a higher price.</li> </ul>
5	Thane/ Mumbai	<p><i>On Alignment and Structure and Impact</i></p> <ul style="list-style-type: none"> <li>• <i>F.B.C 002</i> (Territory Manager, BPCL)- BPCL has started a company owned petrol pump at BKC which caters to around 2600 vehicles with 8000 lt. petrol/diesel per day. Hence any relocation of the petrol pump will also affect the local population. Company representative also shared that many of their petrol pumps have been closed due to litigation and finding a suitable place in such places is extremely difficult.</li> <li>• Indian Corporation, a private company has warehouse structures in 754 acre and 117 acre plots in Bhiwandi and requested for minor realignment of the track to spare the infrastructure. The affected parties are willing to allow viaducts to pass over vacant land parcel owned by them however, a minor realignment will spare damage to the physical infrastructure</li> <li>• In Vasai common ground for large residential areas is being affected by the prospective alignment and hence realignment is requested.</li> <li>• In Kaman proposed track alignment is cutting the infrastructure of Siddhi Press diagonally which will result in loss of structure and livelihoods. Shall be compensated appropriately at market rate.</li> <li>• In Shilphata, Datta Mandir, a 200 year old temple is being affected by the proposed alignment. Also a lot of residential structure will be affected if the proposed alignment is finalized. Participants have suggested an alternative line to avoid this loss- The proposed route can be via Nilgegaon and Daighar which will minimize the impact and thus save government's money on compensation</li> </ul> <p><i>Others</i></p> <ul style="list-style-type: none"> <li>• Sufficient land has already been acquired for the proposed express highway between Mumabai – Ahmedabad. Participants requested if the proposed high speed railway line can use this already acquired land.</li> </ul>
6	Vadodara	<i>On Alignment and Structure</i>

		<ul style="list-style-type: none"> <li>Proposed track alignment should be parallel and along the Dedicated Freight Corridor.</li> <li>Inverted “S” shape alignment near Chhani (on northern outskirts of Vadodara) is very sharp, which may not be technically feasible.</li> <li>Major physical structures (Rajpath Club hotel, Lalita Tower, etc.) around the Baroda railway station may be damaged if the proposed alignment is approved. Alternate option of underground track and station (tunnel structures) should be considered within the city should be considered.</li> </ul> <p><i>On Impact</i></p> <ul style="list-style-type: none"> <li>There are many villages such as Sihor, Ikhriya, Berpur, Mezat, Khusipur and Kotwada which will face water inundation problem if the line is constructed as it would interfere with existing drainage pattern. Appropriate measures should be taken avoid such problems.</li> </ul> <p><i>On LA and R&amp;R Policy, Process and Measures</i></p> <ul style="list-style-type: none"> <li>Replacement cost should be given to PAFs including costs for both land and infrastructure. Acquisition benefits should also be given prior to land acquisition.</li> <li>Large part of Ambika Vijaya Society near Chani, where 48 families are residing, will be affected. These families are living in row house tenement. Most of them have business within 2 km of radius of their place of living. Hence any involuntary relocation should provide them resettlement site around their business locations only. Similar issue was raised by residents of Shilalekh society.</li> <li>All the acquisition should be done under the supervision of court.</li> </ul>
7	Bharuch	<p><i>On Alignment and Structure</i></p> <ul style="list-style-type: none"> <li>The proposed track alignment should be along the DFC line or the national highway as sufficient land has already been acquired for creation of these infrastructures, much of which remain unused.</li> </ul> <p><i>On Impact</i></p> <ul style="list-style-type: none"> <li>Talkeswar Mahadev Temple in Telod village will be affected by the project. The temple is highly revered and place of high importance to the locals, as evident from the fact that village of its location too derives its name from the temple. Hence, the participants suggested that alignment would require to be changed, in absence of which the project will face vehement opposition from villagers and the matter would become sensitive. The villagers will also object to shifting of the temple as they consider the temple deity origin to be of natural creation and not manmade.</li> <li>There is no land (of converted land use for residential purpose) available for constructing houses apart from their farmland and existing residential houses, the families would find it difficult to get new residential plot and</li> </ul>

		<p>construct their houses</p> <ul style="list-style-type: none"> <li>• People will also face difficulty in getting electricity connection for their farm bore wells which may be affected by the proposed project.</li> </ul> <p><i>On LA and R&amp;R Policy, Process and Measures</i></p> <ul style="list-style-type: none"> <li>• Monetary compensation has to be provided at market value to people whose properties/assets are being affected by the proposed track.</li> <li>• Many of the affected are living in joint families while the ownership is with one person. Hence compensation should consider these complexities also and provide benefits to individual family units.</li> </ul>
8	Anand	<p><i>On Alignment and Structure</i></p> <ul style="list-style-type: none"> <li>• Participants recognized the benefits and significance of the project. They however, suggested the alignment to be shifted along the express highway for expansion of which sufficient land has already been acquired.</li> <li>• Three over bridges will be required in Boriavi only as the proposed track is passing through 3 state highways- Chandra Nagar – Chaklasi, Samarkha – Sakti Nagar, Jivapara – Samarkha</li> </ul> <p><i>On LA and R&amp;R Policy, Process and Measures</i></p> <ul style="list-style-type: none"> <li>• There are several commercial establishments (shops, marriage plots, etc.) that draw and depend on location advantage. These affected people should be compensated with equally sized land parcels and the cost of construction/ land development (at market value) and within 2 km of their existing structure.</li> <li>• People whose 60 percent or more land is likely to be acquired would prefer the entire land parcel to be acquired by the government.</li> <li>• Participants also wanted to know about the fate of wells (irrigation resource) if the line passes between the well and agriculture land, making the irrigation source redundant.</li> </ul>
9	Kheda	<p><i>On Alignment and Structure and Impact</i></p> <ul style="list-style-type: none"> <li>• Participants suggested that the track should be shifted and taken along the express highway which has surplus land (acquired) by its side.</li> <li>• In Malataj (Also Sandra, Sanket, Nenpur) village, the proposed track is passing between houses of the village and their farms. This will make it difficult for people to approach their farms. Hence foot Over Bridges should be provided at appropriate places.</li> <li>• The proposed track is crossing a number of important connecting roads such as Nenpur-Malataj, Memdabad-Kheda, Bavra-Kakatpura-Memdabad, Kheda-Mahuda, etc. As per the alignment as shown on the google earth imagery, the proposed track is an embankment type structure. The participants, therefore suggested for bridges over these</li> </ul>

		<p>road crossings.</p> <ul style="list-style-type: none"> <li>• In Bavra village, the school and the dairy cooperative society will fall on the other side of the proposed track. These two places are frequently visited by the villagers and children and hence the proposed track will create lot of inconvenience. Further, there is no government land available in the village where the school can be relocated. Hence acceptable solutions and consideration must be made by government while executing this project.</li> <li>• In Degam village too, government school is being affected by the line and there are no alternative government land for its relocation.</li> <li>• Fencing of the line is suggested by the villagers to avoid accidents as this is high speed railway line and the response time (during crossing of the track) will be less.</li> </ul> <p><i>On LA and R&amp;R Policy, Process and Measures</i></p> <ul style="list-style-type: none"> <li>• Villagers of Bavra said that they should be given land and construction cost (as per market rate) should be given as compensation to the people whose house will be affected.</li> </ul>
10	Ahmedabad	<p><i>On Alignment and Structure</i></p> <ul style="list-style-type: none"> <li>• The track alignment should be such designed that it minimizes impact on residential and commercial structures.</li> </ul> <p><i>On Impact</i></p> <ul style="list-style-type: none"> <li>• Participants from Shahibaug area opined that both house (slum) and livelihoods will be affected.</li> <li>• People from Asarva Bridge/Fatwa Masjid said the affected people are mostly muslims with poor economic status</li> </ul> <p><i>On LA and R&amp;R Policy and Process and Measures</i></p> <p>Shahibaugh area:</p> <ul style="list-style-type: none"> <li>• People in this area are mostly earning their livelihoods within a radius of 2 km therefore any relocation plan shall consider this fact so that their livelihoods are protected.</li> <li>• These people have been paying taxes for the places where they have been living, however they are not the owner of these houses rather their status in the receipt are shown as secondary occupant.</li> <li>• All the affected families from same locality shall be shifted to same place which is near to their present location.</li> <li>• They shall be given house against house not money and or land as relocation benefit.</li> </ul>

		<p>Asarva Bridge/Fatwa Masjid area</p> <ul style="list-style-type: none"> <li>Families residing in houses that may be affected by the proposed line will be interested in cash compensation (at market rate) only as they fear that in case of relocation they may not be relocated in adjacent locality/preferred location.</li> <li>There are a few people who have purchased houses recently but they do not have legal documents for ownership. Compensation and R&amp;R benefits should factor in these complexities as well</li> <li>Most of the affected are slum dwellers whose livelihood activities/operations are based out in nearby areas only. Hence any relocation and resettlement should be done in areas in vicinity of their current residence only.</li> </ul>
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SUMMARY OF DISCUSSIONS OF DISTRICT LEVEL CONSULTATIONS at 2 <sup>nd</sup> ROUND		
Sl No	Districts	Key Outcomes/Concerns/Suggestions from Meeting
1	Ahmedabad	<p><i>On Alignment and Structure</i></p> <ul style="list-style-type: none"> <li>People wanted to know by when the track alignment will be finalized.</li> </ul> <p><i>On Impact</i></p> <ul style="list-style-type: none"> <li>Participants from Shahibaug area perceive that both their residences (slum) and livelihoods will be affected.</li> <li>People from Asarva Bridge/Fatwa Masjid reiterated the affected people are mostly Muslims with poor economic status</li> </ul> <p><i>On LA and R&amp;R Policy and Process and Measures</i></p> <ul style="list-style-type: none"> <li>Participants appreciated the proposed entitlement matrix and R&amp;R mechanism (as proposed in the RAP) and said that this would address all of their concerns.</li> <li>Some of the attendees opined that each PAF should be given the opportunity to exercise option which he/she prefers such as cash compensation or cash plus land or constructed house</li> <li>People from Shahibaug area (Maku Bhai's chal) and Asarva Bridge/Fatwa Masjid area once again (as they did in the 1<sup>st</sup> SHM) reminded that they should be relocated within a radius of 2 km as their livelihood activities and education of children are based out of the area where they are currently residing.</li> </ul> <p>They further added that if PAHs are to be shifted/ relocated in groups to distant place they should be provided with transportation facility for easy access to their existing work places located in the vicinity of project affected areas.</p>

		<ul style="list-style-type: none"> <li>• People stressed that there are multiple families residing in one single residential unit and should be compensated considering family as the unit. Consultants assured them of similar recommendation being made in the entitlement matrix proposed.</li> <li>• Other suggestions included that most of the affected families are slum dwellers whose livelihood activities/operations and education of their children are based out in nearby areas. Hence any relocation and resettlement should be done in areas in vicinity of their current residence only. It was conveyed to the participants such views are reflected in the RAP document as well.</li> </ul>
2	Kheda	<p><i>On Alignment and Structure and Impact</i></p> <ul style="list-style-type: none"> <li>• All concerns raised during the first round of meeting were reiterated by the participants.</li> <li>• Major concern and dilemma expressed was regarding the timeline of the project as to when the track will be finalized and work will start- Some of the households have plans of up-gradation, new construction, repairing, etc. of their houses. However they are clueless on whether to start the work or wait and if wait till when?</li> <li>• Participants wanted project to provide approach road to reach agriculture land if access is severed by the proposed railway line.</li> <li>• People are concerned that their residential structure may be affected by the vibration caused by the train running at such high speed (they are more concerned as even the trains that run on the existing Mumbai Ahmedabad line are learnt to be causing vibration).</li> <li>• Participants repeated their demand that the track should be shifted and taken along the express highway which has surplus land (acquired) by its side.</li> </ul> <p><i>On LA and R&amp;R Policy, Process and Measures</i></p> <ul style="list-style-type: none"> <li>• A query was raised that if the line passes through the middle of a land or house what will happen to the remaining land or house which is not useful for the owner. It was clarified that in such cases recommendation has been made to compensate for the entire property (if it is unviable or rendered orphan).</li> <li>• One of the participants raised the concern that he has bought a parcel of agriculture land for which registration has been done but ownership has not yet transferred to him. The ownership transfer is entangled in existing state policies that disallows (in his perception) state outsiders (which he is) to purchase agricultural land in the state. He is thus worried that if the said land parcel is to be acquired, who will be compensated by the state.</li> <li>• Participants from villages also felt that many among them do not have any formal estimate of the built structure and are thus not sure if the proposed compensation amount will be adequate and matching to the replacement cost or not. It was clarified that the recommendation has been made for replacement cost to be the basis of compensation.</li> <li>• Participants suggested that families whose businesses are affected by the project should be given permanent job if there is educated person in</li> </ul>

		<p>those families.</p> <ul style="list-style-type: none"> <li>Participants also expressed concern about the adequacy of compensation amount and timing of payment.</li> </ul>
3	Anand	<p><i>On Alignment and Structure</i></p> <ul style="list-style-type: none"> <li>Participants reiterated their suggestion of shifting the alignment and taking it along the express highway for expansion of which sufficient land has already been acquired.</li> <li>People are a little worried regarding when the alignment will be finalized and also sharing information to all the affected families.</li> </ul> <p><i>On LA and R&amp;R Policy, Process and Measures</i></p> <ul style="list-style-type: none"> <li>Participants suggested that farmers should be given detailed information such as whose land will be acquired, how much, line alignment, etc. before taking suggestions from them regarding LA and R&amp;R. It was shared that such detailed information can be made available only when the alignment is finalized and the project approved.</li> <li>Few of the attendees want each impacted family to be given a permanent government job in lieu of losses suffered.</li> <li>Suitable land should be given to farmers if their cultivable land is acquired.</li> <li>Land ownership records may not be updated and hence actual ownership status should be properly assessed first and compensation should be given accordingly.</li> <li>Participants also shared prevailing worry among the people regarding the fate of their planned investments - when line will be finalized, if they invest now and line is finalized then will they be compensated for the new investment, etc.</li> <li>Participants also expressed the view that the consultations should be organized at the village level so that all the affected families should be able to express their views.</li> </ul>
4	Vadodara	<p><i>On Alignment and Structure</i></p> <ul style="list-style-type: none"> <li>Participants asked whether the line is finalized or not as some of them are planning various kinds of investment such as coloring of house, extension of existing structure, etc. which they fear will not be appropriately compensated if the line is finalized.</li> <li>The proceedings also brought out prevailing confusion among the people whether this survey is for high speed train or bullet train which was clarified during discussions.</li> </ul> <p><i>On Impact</i></p> <ul style="list-style-type: none"> <li>Participants feel that the assessed impact (as reflected in the RAP document) is less than actual impact likely to be caused by the proposed alignment. It was clarified that survey was carried out meticulously however the observation made may be partially true as few residential units in and around Vadodara station did not permit the survey team to enter their premises and hence affected household related numbers may have remained underestimated.</li> </ul>



		<p><i>On LA and R&amp;R Policy, Process and Measures</i></p> <ul style="list-style-type: none"> <li>• Participants fear that they will not have any opportunity to voice their concern as the new land Acquisition Act has no scope for public consultation.</li> <li>• Some of the participants felt that they should get appropriate compensation (2 times of market rate in urban areas and 4 times of market rate in rural areas) and if done, they will have no problem in parting with their land/assets.</li> </ul>
5	Bharuch	<p><i>On Alignment and Structure</i></p> <ul style="list-style-type: none"> <li>• Participants proposed track alignment should be along the DFC line or the national highway as sufficient land has already been acquired for creation of these infrastructures, much of which remain unused.</li> <li>• Participants were eager to know whether the alignment is final or not and if not by when would it be finalized.</li> </ul> <p><i>On Impact</i></p> <ul style="list-style-type: none"> <li>• Participants reiterated their earlier stated position that the current alignment will affect controversial assets such as temples which will be difficult to be relocate.</li> <li>• Participants, during telephonic conversation, felt that such consultations should be conducted at the village level to secure a better participation and views of all affected people. It was conveyed to them such micro level events would be organized once the project is finalized and approved by the government.</li> <li>• Participants raised a concern that train running at such high speed will cause disturbance due to vibration for the people living in vicinity to the proposed tracks.</li> </ul> <p><i>On LA and R&amp;R Policy, Process and Measures</i></p> <ul style="list-style-type: none"> <li>• Participants appreciated the proposed entitlement matrix by saying that it reflects their demands and responds to various loss aspects.</li> <li>• Some of the participants (who are farmers) said that land should be provided against land acquired as they do not have any other skill for earning their livelihoods.</li> <li>• Many of the affected are living in joint families while the ownership is with one person. Hence compensation should consider these complexities also and provide benefits to individual family units.</li> <li>• Participants also repeated their earlier demand that monetary compensation should be provided at market value against losses incurred.</li> </ul>
6	Surat	<p>Participation in the meeting was very low as most of the affected people who were called to inform about the meeting were busy in their daily activities and further they felt that participation in such meetings would be useful only when the alignment and the project is finalized.</p> <p><i>On Impact</i></p> <ul style="list-style-type: none"> <li>• Some of the participants raised the concern that if they are relocated from their place of residence then their business will also be affected.</li> </ul>

		<p><i>On Alignment and Structure</i></p> <ul style="list-style-type: none"> <li>• Few participants also have the notion that the project has been shelved given there is no provision for this project in the railway budget. It was told to them that such knowledge is unfounded and not true.</li> <li>• Some of the participants reiterated their demand of having adequate provisions of flyovers / under passes constructed near important crossing especially near school and temples.</li> </ul> <p><i>On LA and R&amp;R Policy, Process and Measures</i></p> <ul style="list-style-type: none"> <li>• Some of the participants have been allotted residential land by the government for house construction, they wanted to know whether they will be given alternative land or not.</li> <li>• Participants felt that in case of relocation they should be given an opportunity to identify land suitable to them.</li> </ul>
7	Navsari	<p><i>On Alignment and Structure</i></p> <ul style="list-style-type: none"> <li>• Participants were very eager to know when the line will be finalized.</li> <li>• Demand was also raised regarding detailed and advance sharing of alignment with affected households. It was explained to the participants such sharing (at this stage) has already been done to the affected households during census survey and this will be done again once the alignment is finalized. Further, two rounds of SHMs have also been conducted with same objective. They were also informed that upon finalization of the alignment and project approval, the government will make public disclosure (through local newspapers) of plot wise information of land parcels to be acquired.</li> <li>• Participants also made queries about the width of alignment for which land will be acquired. It was explained to them and further added that this alignment and the width is not finalized and will be made known to them once it is done.</li> </ul> <p><i>On Impact</i></p> <ul style="list-style-type: none"> <li>• Participants were concerned regarding how the impact on temples will be avoided/ addressed by the project proponents?</li> <li>• People have suggested the possibility of taking the line under or above ground in order to minimize the impact.</li> </ul> <p><i>On LA and R&amp;R Policy, Process and Measures</i></p> <ul style="list-style-type: none"> <li>• Farmers among the participants expressed their preference for land against land as the basis of compensation.</li> <li>• Participants also raised concerns regarding compensation rate as to whether this will be on market rate and who will decide the market rate and how. The participants were briefed about the recommendations of the RAP and the entitlement matrix in this context.</li> <li>• Few people in this district are in the process of developing residential and/or market colonies. The participants in this context raised their concerns arising out of time line of the project specifically its finalization/approval. The uncertainty around this is making them unable</li> </ul>

		to take decision on continuing continue with their projects as this may have high financial implications.
8	Palghar	<p><i>On Alignment and Structure</i></p> <ul style="list-style-type: none"> <li>• Participants once again opposed the proposed route alignment as it will result in considerable damage to residential structures (particularly in Vasai taluka in Mumbai suburbs) and homestead land as well as farm land and requested re-consideration of the same.</li> <li>• They do not see any benefit from this project to them and do not want to part way with their farm land as they have invested a lot on their farm land which is their only source of income.</li> <li>• They do not want to this line to pass between the existing railway line and NH8 (set apart by 20 km distance). One of the participants questioned the need to align the line within this stretch, and wanted the proposed line to be aligned somewhere else. Alternatively the suggestion was made for the line to be laid along the sea or along the forest.</li> </ul> <p><i>On Impact</i></p> <ul style="list-style-type: none"> <li>• Large area of agriculture land that has been developed by the local tribal population will be acquired- was a major impact related concern raised by participants</li> </ul> <p><i>On LA and R&amp;R Policy, Process and Measures</i></p> <ul style="list-style-type: none"> <li>• They fear that financial compensation given to them will not be of any use as they tend to misuse it.</li> <li>• Participants felt that they such consultations at village level will be of more useful.</li> </ul> <p><i>Others</i></p> <ul style="list-style-type: none"> <li>• They fear that many other industrial and infrastructure projects are coming up in future in this district and most of the people from this area will be relocated which is not a sustainable way of development. The participants also shared that people have already given them land for ongoing Expressway (Road) in the district.</li> <li>• Participants said that the report shall clearly mention that the project will impact indigenous people in Palghar district as they feel that external agencies should restrict themselves from funding such projects.</li> <li>• People felt that in any infrastructure projects smaller farmers, etc. are often relocated while people with large land holding or influential households are never relocated which is not fair.</li> </ul>
9	Thane/ Mumbai	<p><i>On Alignment and Structure and Impact</i></p> <ul style="list-style-type: none"> <li>• In Shilphata, Datta Mandir, a 200 year old temple is being affected by the proposed alignment. Also a lot of residential structure will be affected if the proposed alignment is finalized.</li> <li>• Participants have suggested an alternative line to avoid the above loss- The proposed route can be via Niljegaon and Daighar which will minimize the impact and thus save government's money on compensation</li> <li>• Further suggestion was for the proposed alignment to pass in between</li> </ul>

		<p>Bhopar and Betwade villages that has large patch of open land belonging to Premier Car Company, MMRDA corridor has already been sanctioned near to this patch of land.</p> <ul style="list-style-type: none"> <li>Between Dongripada and Kaman Railway station a marginal shift of around 100 ft towards left of line (Mumbai-Ahmedabad) will save around 200 structures both commercial (60) and residential (40) falling along 2 – 3km stretch. While acknowledging the suggestion made, it was clarified that all such alignments are finalized keeping the macro impact aspects in view and that any such suggested changes can/will be done only if it is technically feasible and also in the view that changes brought in do not result in larger impacts some where else.</li> </ul> <p><i>On LA and R&amp;R Policy, Process and Measures</i></p> <ul style="list-style-type: none"> <li>People raised their concern regarding who will be compensated in case the land is being cultivated by someone who is not the legal owner of the patch of land.</li> <li>Participants expressed satisfaction with the entitlement matrix disclosed during the meeting specifically on the provision made on replacement cost as the basis of compensation.</li> </ul> <p><i>Others</i></p> <ul style="list-style-type: none"> <li>ADM and sub collector representing the district administration shared their knowledge of projects where affected/displaced stakeholders have been given the option of share-holding in the company managing project operation and such options may be explored in this project as well.</li> <li>Quota and preference should be given to the PAFs in the business/commercial opportunities (such as shops/outlets serving passengers) arising out of this infrastructure development project.</li> </ul>
<b>Source:</b> SHM- Disclosure consultations, April 2015		

## Annex – VI

### Methodology Note for Structure Costing

## **Annexure 6.1: Methodology Note for Cost Estimation of Impacted Structures**

The cost estimation exercise for the impacted structures was based on physical onsite visit to sites, video and still images captured. Based on the above evidences<sup>17</sup>, the cost assessment was done first by classifying each of the structures/assets in to appropriate categories (discussed below) and assigning an estimated rate and area/extent of impact to the structure (based on google map synced alignment (proposed) of the HSR corridor. The methodology details are explained below:

### **Classification of Structure/Assets:**

Cost estimation of potentially affected structures and assets under the HSRC project adopted an approach of multi-layered categorization, based on various parameters. As per the approach followed, the following variables were considered before determining structure specific costs:

1. State Specific Location: The structures/ assets (both private and common/public properties) were firstly categorized as per its state specific location; recognizing this to be a key variable determining costs for components such as labour, construction material such as sand etc. Two states in this respect were:
  - a. Gujarat
  - b. Maharashtra
2. Subsequently, for each state, the structures/assets were classified as per its demographic location (with its bearing on cost estimation). These were:
  - a. Urban
  - b. Suburban
  - c. Rural

It was nonetheless recognized that such classifications may not be applicable for certain asset type such as electric poles etc.

### ***In case of Private Structures, and subsequent to classifications above,***

3. Another classification parameter was related to functionality/usage of the asset/structure and were:
  - a. Residential
  - b. Commercial
  - c. Semipublic.
  - d. Other/misc. Structure
4. Each of the categories was further sub-categorized on the basis of its construction typology. For e.g. in case of residential urban structures the following sub classifications were made:
  - a. Residential
    - i. Bungalow ground + first floor
    - ii. Individual House -multi storey
    - iii. Apartments upto 6 th floor
    - iv. Residential single storey + barsati

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<sup>17</sup> Cost Estimation is primarily on the basis of evidence gathered about the super structure, and does not factor in the actual interior development details of the structure (because of PAFs objection in the absence of formal MoR/state notification regarding the HSRC). However, a standard approximation has been made for arriving at overall structure/ asset cost estimation.

***In Case of Common/Public Properties, the classification made were on the aspects of its functionality***

5. The broad categories were
  - a. Civil constructions such as government offices, banks etc.
  - b. Semi Public buildings such as schools
  - c. Structures of Religious faith such as temples
  - d. Electric Poles
  - e. Transmission towers
  - f. Boundary walls of civil constructions
  - g. Railway Structures such as cabin huts, poles etc.
6. And cutting across all categories and sub-categories, all structures/assets were valued against construction quality (as against CPWD/ other applicable standard recommendations) parameters, as mentioned below. Any structure that apparently met the construction quality parameters were classified as under 'Grade: Good'.
  - a. Grade: Inferior
  - b. Grade: low
  - c. Grade: medium
  - d. Grade: Good
  - e. Grade: Very Good

**Assessment of Construction/Replacement Rate**

C.P.W.D's latest (2014) schedule of rates have been considered/ referred to as a standard for 'good grade' construction of physical structures. In other words, a specific structure construction type was considered as of 'good' quality grade if it as per the evidences adhered to prescribed specifications, and thus assigned the corresponding schedule of rates, leading to over all structure cost. The construction per square feet (or any other calculation unit) rate for each structure was thus arrived by comparing its construction quality vis-a-vis standard specifications (considered as good quality grade type) for that typology. Any observed deviation from the standard specifications was reflected in re-adjusted (increase/decrease) in the cost estimation unit rate. The details for select sample types may be seen in the cost estimation matrix provided ahead.

Using the plinth area rates for good grade structure for each construction typology as the base, the costs were further decreased or increased depending upon factors like grade, region and their location state wise.

Sample illustration of cost estimation exercise for select typology is discussed as following:

**A. Urban Residential Structure**

The **good grade** construction rate for a specific residential property type e.g. flat slab, single floor in urban area as per CPWD schedule of rates would be Rs. 1200 per sqft.

In case of **medium grade**, where an individual has compromised on brick quality, electrification, skill/workmanship, rcc and steel reinforcement, finishes outside and inside, a variable reduction up to a maximum reduced rate of 75 % of the good grade rate was made.

For further lower construction type (**Low grade**), reduced rate considered was between 75 % to 60 % of the good grade construction rates. For **Inferior grade** constructions, the rates assigned were typically below 60 % of the good grade rate.

In case of **very good grade** structure types , an increase by 7 % minimum has been considered against observed improvements in finishes, fixtures and ornamentation and an added 2 to 3 % of the standard rate for enhancement of the superstructure.

Based on, unit rates assigned, the structures may be categorized in to respective grade typology within a specific structure category.

## B. Suburban Residential Structure

The **good grade** construction rate for a specific residential property type e.g. flat slab, single floor in urban area as per CPWD schedule of rates would be Rs. 1200 per sqft.

In case, the same category of property is located in suburban areas

Following components will be influenced

- Labour: 10% less, usually cheaper unless it's highly skilled job specification
- Material: 20% less, use of cheaper material quality, less cost of materials such as sand etc.

Underlying assumptions are that the labour is locally available at cheaper rate, the material people procure is far inferior due to non-availability as well as to cut down the cost, and the workmanship if compared to cpwd specs would be inferior as the masons are less trained or skill in the suburban context.

Taking above factors in to account, the good grade rate was reduced by 20% in order to arrive at the proportional difference in the rate factor.


Hence the cost for good grade residential property (of the typology mentioned above) becomes = 1200- 20 % of 1200 = 960rs/sqft. This serves as the base for rate estimation exercise as described above (#A) for various construction quality grades.

## C. Rural Residential Structure

However rural context follows a different built typology and hence the costs have been arrived at by using the following method of weight age components.

<b>Table A8.2 – Sample of Grade cum Typology Costing Analysis</b>						
<b>Perticulars</b>	<b>Good Quality</b>		<b>Low</b>		<b>Poor</b>	
	<b>Cost</b>	<b>% Weightage</b>	<b>Cost</b>	<b>% Weightage</b>	<b>Cost</b>	<b>% Weightage</b>
Foundation work (Civil)	160	13	50	10	35	9
Roof slab	120	9	NA	NA	NA	NA
Superstructure work (Civil)	450	36	250	55	180	50
Flooring	130	10	45	9	35	9
Plaster of Paris	20	1	10	2	8	2
Painting	15	1	5	1	5	2



Doors and Windows	130	10	45	9	35	9
Grill and Railing	45	2	25	5	20	5
Electrical Work	50	3	25	5	15	4
Plumbing & Sanitary Work	55	4	25	5	20	5
Lift	50	4	NA	NA	NA	NA
Roof Treatment	10	0.81	2	0.4	NA	NA
Miscellaneous Works	15	1	3	0.6	3	0.82
						
Sq Ft. Rate (in INR)	1250		485		350	

The same methodology was followed to arrive at costing for other typologies like shops, warehouse, temples etc.

In cases where of plinth area rates were not available from CPWD schedule of rates/ or not applicable, e.g. High Tension Line foundation, Well etc., the same were calculated using the specs for good grade construction.

#### Sample calculation for a HT Line (Pile foundation) to estimate its relocation cost










Pile Foundation rate from CPWD (Annexure 1)	
1000 mm dia pile =	8719.50 per mt
Excavation ( 2.7.1 Ordinary rock for reff) =	244.6 /mt
Labour ( 0130 Mistry for reff from CPWD) =	435 / mt
so 1500 mm dia pile =	14100 per mt
For 3.7 mt depth pile =	3.7*14100
Total Cost Per Pile =	<b>Rs 52,165 per pile</b>
Four Foundation cost =	Rs 52,165 *4
	Rs 2,08,660
lump sum amount of shifting 20% of overall structure cost* =	Rs 2,00,000
Total shifting cost =	<b>Rs 408660</b>
* for re-fixing of accessories , labour charges for shifting , contingencies like damages in case of any	

For cost estimation of structures such as HT Power Transmission Line, borewell , well CPWD specifications are customised considering local conditions like soil type, ground water level but follow the specs while construction for tenders and hence rates considered for good grade category .

### Cost Estimation Rate Matrix for Sample Structure/Asset Types

*(Figures provided represent per square feet (or other Unit) rate for construction of structures falling under varying construction quality grades. Rates provided below are for Maharashtra, Relevant rates are lower (by 20-25% approx.) for comparable structure and construction quality grades in Gujarat)*

	Urban- Residential				Urban- Commercial		
	Bungalow	Individual House -multi storeyed	apartment	Residential single storyed + barsati	Shop	Complex + residential	Petrol pump
Private Civil Construction							
Grade Inferior	1040	975	780	975	910	845	1430
Grade low	1235	1105	910	1235	1105	975	1560
Grade medium	1300	1170	1105	1430	1300	1170	1690
Grade Good	1755	1430	1300	1625	1495	1430	1820
Grade Very Good	1885	1495	1690	1950	1690	1625	1950

Urban-Commercial		Urban- Semi Public		Urban- Others		Sub Urban- Residential			
	Ware house	School	Hotel	Under Construction Building	Temporary Structure	Individual House	Bungalow	Row House	Apartmen ts
Private Civil Constructi on									
Grade Inferior	1560	845	845	1040	585	650	780	520	715

<b>Grade low</b>	1625	1105	1040	1105	715	<b>845</b>	845	585	910
<b>Grade medium</b>	1690	1170	1300	1170	845	<b>1105</b>	975	650	1105
<b>Grade Good</b>	1950	1690	1560	1235	975	<b>1300</b>	1170	715	1300
<b>Grade V. Good</b>	2210	1950	2080	1300	1170	<b>1625</b>	1430	845	1625

	Sub Urban- Commercial				Sub Urban- Semi Public			Sub Urban- Others	
	Shop	Complex	Other	Ware houses (industries)	School	Colony	Toilet	Under Construction Building	Others
Private Civil Construction									
Grade Inferior	715	715	650	780	780	585	585	910	390
Grade low	845	845	845	910	975	650	715	975	455
Grade medium	975	1040	975	1040	1170	780	780	1040	487.5
Grade Good	1170	1235	1040	1170	1430	910	845	1105	552.5
Grade V. Good	1495	1430	1105	1443	1690	975	910	1170	585

	Rural- Residential				Rural- Commercial			Semi Public and Others		
	Hut	Mud house	Pucca House	Temporary shelter	Shop	apartment	Ware houses/ Industry	School	Other	Under construction buildings

Private Civil Construction										
Grade Inferior	325	260	585	195	325	585	715	234	130	
Grade low	455	325	650	260	390	650	780	260	162.5	
Grade medium	520	390	715	390	455	715	845	299	195	
Grade Good	585	455	845	455	520	780	910	325	227.5	
Grade V. Good	650	585	975	520	585	845	975	390	260	






	Single Floor, Non RCC Roof Structure						Ware House Long Span Structure		Ware House Long Span
Civil Construction									
Grade Inferior	582.4	728	582.4	582.4	582.4	728	624	624	665.6
Grade low	728	910	728	728	728	910	780	780	832
Grade medium	873.6	1092	873.6	873.6	873.6	1092	975	975	1040
Grade Good	1049.1	1310.4	1049.1	1049.1	1049.1	1310.4	1170	1170	1248
Grade Very Good	1258.4	1573	1049.1	1258.4	1258.4	1573	1404	1404	1497.6













## Common and Public Properties






	Cremation/ Funeral Structure	Cremation/ Funeral Structure	Single Floor Small Structure	Flat Slab Structure, 2 Floors	Flat Slab Structure, 1 Floor	Brick Masonary Load Bearing Long Span Structures	Public Toilet
<b>Civil Construction</b>							
<b>Grade Inferior</b>	520	279.5	728	665.6	665.6	1021.8	520
<b>Grade low</b>	650	390	910	832	832	1248	650
<b>Grade medium</b>	780	455	1092	1040	1040	1560	780
<b>Grade Good</b>	936	520	1310.4	1248	1248	1872	936
<b>Grade Very Good</b>	1123.2	585	1573	1497.6	1497.6	2246.4	1123.2



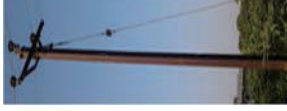







	Schools			Retaining cum Boundary Wall	Boundary Wall (Brick Masonry)
<b>Civil Construction</b>					
<b>Grade Inferior</b>	665.6	665.6	531.7	325	130
<b>Grade low</b>	832	832	665.6	390	195
<b>Grade medium</b>	1040	1040	832	455	260
<b>Grade Good</b>	1300	1300	1040	520	325
<b>Grade Very Good</b>	1560	1820	1248	650	455

	Temple				
	Temple (2 Floor)				
Civil Construction					
Grade Inferior	780	845	650	845	585
Grade low	845	975	585	910	650
Grade medium	910	1105	780	975	715
Grade Good	1040	1235	845	1040	780
Grade Very Good	1170	1365	910	1105	845







	Bore Well				
	Hand Pump				
Water Utilities					
Grade Inferior					
Grade low	43933.5				
Grade medium		43933.5			
Grade Good			3168.1	2928.9	2930.2
Grade Very Good					2928.9
	Rates in Rs Per Sq Meter				





Bore Well					
Water Utilities					
	3168.1	2928.9	2928.9	3677.7	2970.5
Rates in Rs Per Sq Meter					





Water Utilities					
	24484.2(INR Per Cu. mt)	7095.4 (INR Per Cu. mt)	777.4 (INR per sq mt)	777.4 (INR per sq mt)	777.4 (INR per sq mt)

	Electrical Pole PCC 3 Conductor	Electrical Pole PCC 1 Conductor	Electrical Pole PCC 2 Conductor	Electrical Pole MS 2 Conductor	Electrical Pole PCC 6 Conductor
Electricity Related Structures (Shifting Cost)					
	Grade Inferior				
	Grade low				
	Grade medium				
	Grade Good	3120	975	5850	11700
Grade Very Good					
	Electrical Transformer MS	Electrical Transformer PCC	Electrical Transformer junction	Electrical Junction Point	Street Lights
Relocation Cost					
	Grade Inferior				
	Grade low				
	Grade medium				
	Grade Good	16380	12480	13650	4680
Grade Very Good					



	Street Lights	Street Lights	Street lights	Elect. Wire	Street Light Four - Cross (heavy )	Electrical Box
Shifting cost						
Grade Inferior						
Grade low						
Grade medium						
Grade Good	5850	5850	585000	6240	4680	23400
Grade Very Good						

	High Tension Tower 1	High Tension Tower 2	High Tension Tower 3	High Tension Tower 4
High Tension Line (Dismantling and Relocating Cost)				
Grade Inferior				
Grade low				
Grade medium				
Grade Good	936000	1560000	1040000	1300000
Grade Very Good				

	High Tension Tower 5	Network Tower	Electrical Line Junction	Electrical Tower Ms
High Tension Line (dismantling and relocating cost)				
Grade Inferior				
Grade low				
Grade medium				
Grade Good	780000	253500	3640000	531258
Grade Very Good				

## Annex – VII

### TOR for Implementing Agency for RAP Implementation

## **TOR for RAP implementing Agency**

Government of the Republic of India

The Indian Ministry of Railway (MOR)

Rail Vikas Nigam Limited (RVNL)/High Speed Railway Corporation (HSRC)

Mumbai-Ahmedabad High Speed Railway (HSR) Corridor Project

TERMS OF REFERENCE FOR RAP IMPLEMENTING AGENCY (IA)

- **INTRODUCTION**

The Government of India with the financial loan from Japan International Cooperation Agency (JICA) has undertaken a project named Mumbai-Ahmedabad High Speed Railway (HSR) Corridor Project in order to improve the volume of travelling people and goods being transported in the country. The HSR will be constructed approximately 500 km long stretch between Mumbai and Ahmedabad.

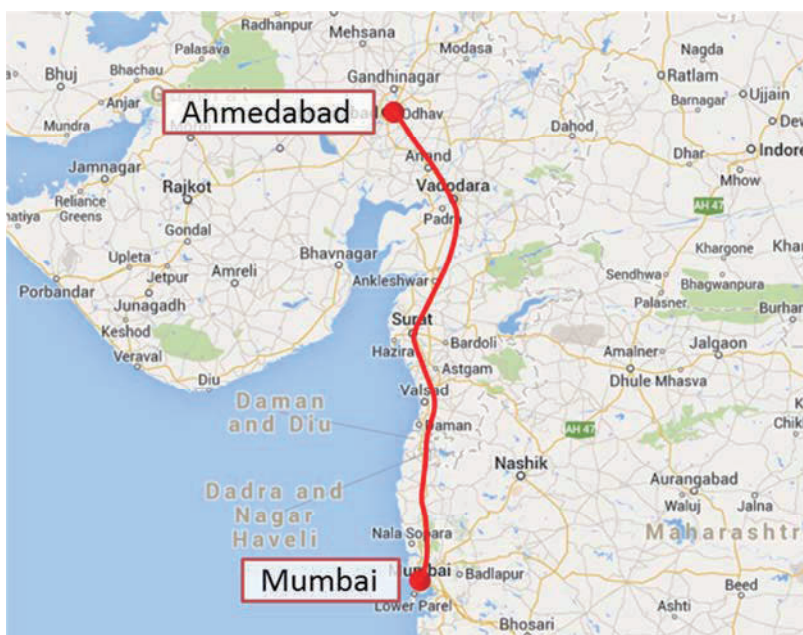
The Indian Ministry of Railway (MOR) has prepared Resettlement Action Plan (RAP) that will govern adverse social impacts due to the project. The RAP is consistent with the JICA Guidelines for Environmental and Social Considerations which is equivalent with World Bank's OP 4.12 Annex A. A RAP Implementing Agency (IA) i.e. NGO or local Social Consulting Firm will be engaged by the MOR for an implementation of the said RAP.

This RAP for the project complies with the Resettlement Framework (RF) is prepared based on relevant national law (Government of India (GOB) Railway Amendment Act 2008, National Rehabilitation and Resettlement Policy 2007)<sup>18</sup> and with the policy of the JICA Guidelines for Environmental and Social Considerations and World Bank OP 4.12. An RAP Implementing Agency (IA) i.e. NGO or Social Consulting Firm will be engaged by the RVNL/HSRC for implementation of the RAP.

The location map of planned HSR is shown in Figure-1.

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<sup>18</sup> HSRC project may be brought under the purview of LARR 2013 Act, which is currently being debated in the Indian Parliament for proposed amendments in the Act. One such amendment pertains to inclusion of Railway Projects within the fold of LARR 2013 applicability.



**Figure-1: Location of the Project**

### Context:

A RAP based on census survey of the affected structures (based on the understanding of the current alignment) has been developed. The details of impacted land and displacement have been provided below.

### Displacement and other impacts

Sl. No.	Loss type	No/Total
1	Total quantity of land (Hectare) affected	1,691.2
2	Total number of households affected	2,761
2a.	Total No. of Physically Displaced Families	1,451
3	Total number of vulnerable PAH affected	281
4	Total number of private structures affected	1,688
4a.	Total No. of Residential Structures	1,467
4b.	Total No. of Commercial Structures	221
5	Total number of fruit tree affected	26,980
6	Total number of timber tree affected	53,457
7	Total number of common property resources affected	1,610

Note: The details of affected land losers are not available in the current RAP and will be available during the detailed design stage. Similarly the details of impacted structures/families produced above are based on the current understanding of the ROW. A list of the affected households with demographic and socioeconomic information will be provided to the implementing agency (IA) by RVNL/HSCR.

- **SCOPE OF WORK- GENERAL**

The general scope of work shall include two tasks (these have been elaborated in the detailed scope of work):

**Task I: Updation of the Census Survey of the Affected People;**

**Task II: Assist the project implementing agency in the implementation of the RAP:**

**SCOPE OF WORK- SPECIFIC TASKS**

**Task I: Updation of the Census Survey of the Affected People;**

A RAP based on census survey of the affected structures (based on the understanding of the current alignment) has been developed. The RAP in its current form does not include the details of the affected land losers and other dependent categories (like sharecroppers, agricultural labourers). The scope of work for Task one would specifically include the following:

- Verification of the existing census survey of all physically displaced/impacted structures/households based on the final alignment. This final alignment (ROW) will be defined/detailed in the detailed engineering design;
- Census survey of all land losers based on the final alignment and the ROW and details of impacts on land of each of the affected land losers;
- Updating inventory of losses for all impacted households falling in the ROW;
- Census survey of all other impacted groups (like the land losers, tenants, agricultural workers etc.);and
- Making a detailed micro plan listing down all entitlement and benefits as per the entitlement framework (as described in the RAP).

**Task II: Assist the project implementing agency in the implementation of the RAP:**

The implementing NGO/Social consultant would as a part of Task II be involved in and work with the the project implementing agency in the implementation of the RAP.

Key delivery components under this task include: (i) consultation and stakeholder participation; (ii) dissemination of relevant information; (iii) assisting executing agency (RVNL/HSCR) in payment of compensation and other resettlement grants (iv) assisting affected persons (PAPs) in the process of resettlement.

The key activities that would be undertaken as a part of task II would include:

**Information Campaign:** The consultant will design, plan and implement an information campaign in the affected areas to facilitate the implementation of RAP. The campaign would include measures such as distribution of information booklets, leaflets, notices and other materials among the PAPs, carrying out community meetings, public announcements and any other measures necessary to provide information to all PAPs in the project area. The consultant will assist the PAPs during pre and post relocation period. The IA staff will also assist PAPs, where necessary, in preparing grievance redress cases for consideration by the grievance redress committee (GRC). Assistance to RVNL/HSCR in payment of resettlement benefits to PAPs. The selected Implementing agency will be responsible to assist RVNL/HSCR in processing entitlements for the PAPs and making payment of resettlement benefits to them. The IA will compile and process data and develop & operate a menu driven computerized Management Information System (MIS) for preparation of entitled persons (EPs) file and entitlement card for EPs.**dentification of EPs/PAPs:** Based on the verification and census survey prepare final list of affected households, commercial business enterprises and community establishment now staying within the ROW from the list.

**Assistance to PAPs during relocation:** The IA will assist the PAPs during pre and post relocation period in close coordination with Resettlement Advisory Committee (RAC) and RVNL/HSCR. The IA will inform the affected households, especially the vulnerable ones, about the “compensation in cash and/or kind” option stipulated in the RAP and ensure fulfillment of the choices made by them. It will also provide Counseling and helping the households, whose previous incomes have been seriously affected, to find alternative source of income.

**Assistance to RVNL/HSCR in Payment of Resettlement Benefits to PAPs:** The selected Agency will assist RVNL/HSCR in processing entitlements for the PAPs and making payment of resettlement benefits to them. The Agency will compile and process data and develop & operate a menu driven computerized Management Information System (MIS). The IA will prepare Entitled Person (EP) files with type and quantity wise losses and Entitlement Card (EC) mentioning amount of compensation/benefits for each of the EPs and prepare Indent mentioning category wise amount of compensation /benefits. The indent would be approved by the Project Director before making payment. The IA will prepare payment debit voucher on behalf of RVNL/HSRC and assist RVNL/HSRC in preparing Measurement Book. The debit voucher will be signed jointly by IA and EA representative and the cheque will be signed by IA and be issued

in public place in presence of local government institution (LGI)/district administration representatives. The RVNL/HSCR will place fund with Implementing Agency for making payment and the IA will submit vouchers with other documents on regular basis to the Project Director after making payment.

**Notice for Encumbrance Free:** the IA will deliver written notice to individual affected persons at completion of payment of all compensation/entitlement from RVNL/HSCR. The RVNL/HSCR will keep records of issuance date of notice for making ROW encumbrance free signed by both RVNL/HSCR and EPs.

**Taking-over and handing-over sites:** The IA will assist RVNL/HSRC take-over acquired land from DC office and then hand-over to contractors. Contractors will move into sites the day following expiration of the encumbrance free notice.

**Implementation of the Grievances redress procedure:** The selected IA will play vital role in the grievance redress process. The most important preconditions for doing this with maximum effectiveness are that the IA operatives will build personal rapport and confidence with the PAPs and will be fully aware of all socioeconomic problems/issues arising from the project. Among other things, the IA will:

- (i) Ensure that the PAPs are fully aware of the grievance redress procedure and the process of bringing their complaints to the GRC.
- (ii) Assist the PAPs in any usual manner (e.g., preparing applications, accompanying them to the hearing and explaining the grievance to the GRC and the like) to bring the complaints to the committee.
- (iii) Impartially investigate the veracity of the complaints and try to settle them amicably, fairly and transparently before they go to the redress committee or the courts of law.
- (iv) For more focused work in this area, the IA will prepare a list of problem cases in implementation of RAP. In doing so, the IA will pay special attention to the problems and needs of the vulnerable PAPs and recommend to the RVNL/HSCR with probable mitigation measures.
- (v) And to ensure easy access to PAPs, the IA will appoint, and let this be in the knowledge of the PAPs, a dedicated staff to deal with grievance redress issues at project locations (at district level at least).

### **Information management**

The selected IA will collect computerized Census and SES data related to the pre-acquisition condition of the affected households and the nature and magnitude of all



categories of losses as well as the compensation thereof determined by RVNL/HSCR. All essential information will have to be generated by using one or more menu-driven MIS. Among other things, the IA will:

- (i) Collect cash compensation under law (CCL) from the DC office and prepare statement for assessing additional payment on the basis of quantity of affected properties and RAP Property Valuation Advisory Team (PVAT) rate.
- (ii) Collect and computerize all information related to different types of payments and additional supports provided to the EPs and update the EPs file and ECs.
- (iii) Prepare ‘entitlement card’ for the individual EPs as per their types of losses and the amount of compensation due for each type of loss from legal title and the amount of additional compensation/resettlement benefits if any, to be paid by through IA.
- (iv) Record and maintain details of the issues/disputes causing delay in the disbursement/receipt of compensation and the persons involved in them, including the cases brought to the courts of law, if there is any.
- (v) Document information on the cases, with reasons, brought to and resolved by the GRC, with decisions going in favor of or against the complainants.
- (vi) Collect and maintain relocation information on the homestead losers by categories of EP households such as legal owners, squatters, tenants and others.

### **Prepare and Submit Progress reports**

The RAP requires that all PAPs are paid the stipulated compensations/entitlements before they are evicted from the properties and/or construction work begins. The selected IA will provide RVNL/HSRC weekly report on the progress in RAP implementation, including any issue that might be hindering progress, separately for each bridge. The report will be brief consisting of both quantitative and qualitative information on:

- (i) The IA in its report should reflect the status of total number of EPs identified by DC for compensation and progress of payment in a particular period and resettlement benefits paid against DC’s payment and other benefits as per RAP policy by zones and EP categories.
- (ii) Number of focus groups formed and meeting held with the affected persons with issues discussed.

(iii) Number of vulnerable affected households male headed and female headed have received cheques and be deployed in project civil works according to their eligibility.

(iv) Number of cases received by the GRC indicating the types of grievance made in favor of or against the complainants.

(v) Any other issues that are relevant to implementing the policies stipulated in the RAP.

- **RAP IMPLEMENTATION SCHEDULE AND TASKS**

The implementation of the RAP is proposed to be completed within the timeframe mentioned below:

1. Task I: May 2016 to November 2016 (Census IOL data updation) and December 2016 to March 2017 (Micro Plan Preparation)
2. Task II: December 2016 to July 2018 (Disclosure, RAP Implementation GR Activities)

The Project Director, in consultation with the Resettlement Specialist (NRS) will provide time schedule as per the requirement of the resettlement program and supervise IA's performance.

- **STAFF REQUIREMENTS**

The IA is free to determine the number of members to be working in the team. A bar chart shall indicate the proposed timing of their input. The team members shall meet the following criteria:

(i) The Team Leader (Resettlement Specialist) is the spokesperson for the Implementing Agency. He/she shall hold Masters in Social Science or any other relevant field and have at least 10 years of relevant experience in implementation of RAP, report writing etc. He shall have conducted at least 5 trainings/ workshops in Resettlement Issues, and must be fluent in English. S/He must also have relevant experience of not less than 10 years related to Task I of the Scope of Work.

(ii) The Deputy Team Leader (Resettlement Expert) will assist Team Leader in RAP Implementation process. He/she shall hold Masters in Social Science or any other relevant field and have at least 10 years of relevant experience in preparation/implementation of RAP. He/she shall have conducted at least 5 trainings/ workshops in Resettlement Issues, and must be fluent in English.

(iii) MIS specialist shall hold a degree in Statistics, Mathematics or Computer Science having more than 10 years of relevant experience in Resettlement tools (EP/EC), data collection, management and analysis and be fluent in English.

(iv) Gender and livelihood development specialist will have at least masters in any discipline with 7 years experience in the relevant field.

(v) Area Manager shall hold Masters in Social Science and have at least 5 years of relevant experience in implementation of RAP. He shall have conducted at least 3 trainings/ workshops in Resettlement Issues, and must be fluent in English.

(vi) Enumerators shall be graduates with at least two years relevant experience

#### G. Implementing Agency selection criteria:

The IA should have registration with concerned Authorities and experience in preparation and/or implementation of RAP. The IA will be selected through quality and cost based selection method.

#### H. Implementation arrangements

The Implementing Agency has to keep office near the concerned locality (more than one in each zone) during the time of implementation of the RAP in order to ease contact with the PAPs, the cost of which will be specified in the budget.

The IA will make its own transport arrangements, which will be reflected in the budget.

## Annex – VIII

### TOR for External Monitoring Consultant

## Terms of Reference for External Monitoring Agency (EMA)

### A. Project Background

The Government of India with the financial loan from Japan International Cooperation Agency (JICA) has undertaken a project named Mumbai-Ahmedabad High Speed Railway (HSR) Corridor Project in order to improve the volume of travelling people and goods being transported in the country. The HSR will be constructed approximately 500 km long stretch between Mumbai and Ahmedabad.

The Indian Ministry of Railway (MOR) has prepared Resettlement Action Plan (RAP) that will govern adverse social impacts due to the project. The RAP is consistent with the JICA Guidelines for Environmental and Social Considerations which is equivalent with World Bank's OP 4.12 Annex A. A RAP Implementing Agency (IA) i.e. NGO or local Social Consulting Firm will be engaged by the MOR for an implementation of the said RAP.

The location map of planned HSB is shown in Figure-1.

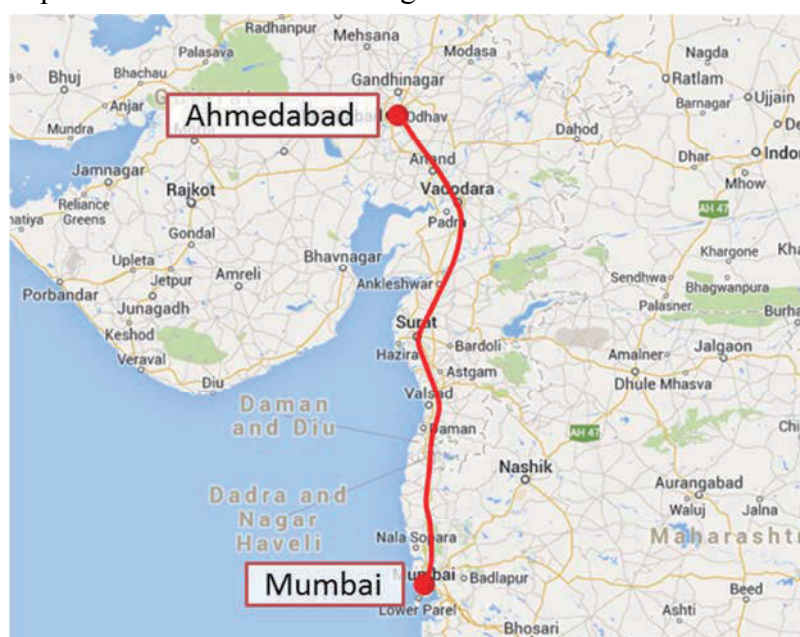


Figure-1: Location of the Project

### B. Key Objective of External Monitoring

**Monitoring** involves the collection and analysis of data on resettlement activities with the applying accruing information. Monitoring allows project participants to keep track of resettlement activities, to determine whether resettlement objectives are being

achieved, and to make whatever changes are necessary to improve resettlement performance.

**Evaluation** is an assessment of resettlement performance and results in light of stated the objectives. Evaluation for purposes of the RAP is proposed to include a participatory component allowing the project participants to comment on their experience of the project. To be successful, monitoring and evaluation begins with clear resettlement design followed by identification and elaboration of appropriate criteria and indicators.

### **Indicators and Means for Verification**

Indicators form the key elements of any monitoring and evaluation system. Indicators also make possible the comparison of inputs with the completion of outputs and achievement of objectives and goals, thus providing the basis for performance evaluation. Four categories of indicators have been formulated to facilitate monitoring of Progress, Outputs, Effects, Impacts and Compliance in implementing the resettlement.

### **Effect Monitoring**

This will be used to measure the extent to which the immediate objectives have been achieved and give an idea of the results emanating from implementing the RAP e.g., percentage of project affected persons (PAPs) now accessing better housing or improved livelihoods on account of being successfully resettled.

### **Impact Monitoring**

This is the process through which, assessment of the overall achievement of the resettlement goal will be made. Specifically, this is the system that will generate data to gauge success towards implementation of this RAP in terms of impact of the resettlement on the PAPs. The basis for impact monitoring is the baseline social-economic survey data against which the wellbeing of PAPs will be compared.

### **Resettlement Completion Audit**

A resettlement completion audit has been proposed to assess the success of the resettlement programme. This completion audit would using the baseline indicators/parameters compare the success of the resettlement programme in bettering lives and livelihoods of affected people. The audit would be taken one/two year after the

completion of the resettlement programme. The project would engage an external and qualified third party to undertake this audit.

The independent External Monitoring Agency (EMA) will review implementation process as per set policies in the RAP and assess the achievement of resettlement objectives, the changes in living standards and livelihoods, restoration of the economic and social base of the affected people, the effectiveness, impact and sustainability of entitlements, the need for further mitigation measures if any, and to learn strategic lessons for future policy formulation and planning.

### **Scope of Work**

The scope of work of the Independent EMA will include the following tasks:

- (1) To review and verify the progress in land acquisition/resettlement implementation of the Project and whether they have been followed as provided in the RAP.
- (2) Provide a summary of whether involuntary resettlement was implemented (a) in accordance with the RAP, and (b) in accordance with the stated policy.
- (3) Verify expenditure & adequacy of budget for resettlement activities.
- (4) Describe any outstanding actions that are required to bring the resettlement activities in line with RAP. Describe further mitigation measures needed to meet the needs of any affected person or families judged and/or perceiving themselves to be worse off as a result of the Project. Provide a timetable and define budget requirements for these supplementary mitigation measures.
- (5) Describe any lessons learned that might be useful in developing the new national resettlement policy and legal/institutional framework for involuntary resettlement.
- (6) To Identify, quantify, and qualify the types of conflicts and grievances reported and resolved and assess whether the consultation and participation procedures followed in accordance with the RAP.
- (7) To identify the strengths and weaknesses of the land acquisition/resettlement objectives and approaches, implementation strategies.
- (8) Identification of the categories of impacts and evaluation of the quality and timeliness of delivering entitlements (compensation and rehabilitation measures) for each category and how the entitlements were used and their impact and adequacy to meet the specified objectives of the plans. The quality and timeliness of delivering entitlements, and the sufficiency of entitlements as per approved policy.

- (9) To review the quality and suitability of the relocation sites from the perspective of the both affected and host communities.
- (10) Review results of internal monitoring and verify claims through sampling check at the field level to assess whether land acquisition/resettlement objectives have been generally met. Involve the affected people and community groups in assessing the impact of land acquisition for monitoring and evaluation purposes.
- (11) To monitor and assess the adequacy and effectiveness of the consultative process with affected PAPs, particularly those vulnerable, including the adequacy and effectiveness of grievance procedures and legal redress available to the affected parties, and dissemination of information about these.
- (12) To provide an assessment of pending grievances and suggest redressal mechanisms including any financial liability that they may have for the company/project

### **C. Methodology and Approach**

The general approach to be used is to monitor activities and evaluate impacts ensuring participation of all stakeholders especially women and vulnerable groups. Monitoring tools should include both quantitative and qualitative methods. The external monitor should reach out to cover:

- (1) Sample PAPs (upto 25%) who had property, assets, incomes and activities severely affected by Project works and had to relocate either to resettlement sites or who chose to self-relocate, or whose source of income was severely affected.
- (2) Sample persons (upto 5%) who had property, assets, incomes and activities marginally affected by project works and did not have to relocate;
- (3) Sample (upto 5%) of those affected by off-site project activities by contractors and sub-contractors including employment, use of land for contractor's camps, pollution, public health etc.;

### **D. Other Stakeholders and their Responsibility**

#### **1. Rail Vikas Nigam Limited (RVNL)/High Speed Railway Corporation (HSRC)**

RVNL/HSRC will establish, for the Project, a Project Implementation Unit (PIU) headed by a Project Director (PD), at the project office that will be responsible for the overall execution of the Project. The PIU will consist of two units namely Engineering Service Unit (ESU) and Resettlement Unit (RU) for total implementation of the project. The PD will work on deputation from RHD at the level of Superintend Engineer or Additional Chief Engineer. The project will be overseeing by the PD, RVNL/HSRC.



One implementation committee will be formed to provide overall guidelines and cooperation for project implementation and keep liaison with various stakeholders including Donor, different government organizations and other relevant agencies.

- (1) Acquire, hold, manage and dispose of land and other property to private sector developers, to carry out the planning, engineering, design, construction, marketing, sales and other operations under the regulations of master plan
- (2) Execute works in connection with the utilization of infrastructure such as supply and discharge of water, electricity, transportation and other services and amenities and generally to do anything necessary or expedient for purposes of such development and for purposes incidental thereto, provided that save as provided in this Act, nothing contained in this Act shall be construed as authorizing the disregard by the Authority of any law for the time being in force.
- (3) Lead, monitor and evaluate the implementation of the project.

## **2. Implementing Agency (IA):**

RVNL/HSRC will engage an experienced Implementing Agency (IA) for implementation of the RAP in the field level in coordination with the DC, RHD and consultants. The IA will be engaged to assist the supervision consultant for updating of RAP during detailed design phase and will be continuing for implementation of the RAP. The tasks of the IA are to:

- (1) Verify results of internal monitoring;
- (2) Assess whether resettlement objectives have been met; specifically, whether
- (3) Livelihoods and living standards have been restored or enhanced;
- (4) Assess resettlement efficiency, effectiveness, impact and sustainability, drawing
- (5) Lessons as a guide to future resettlement policy making and planning; and
- (6) Ascertain whether the resettlement entitlements were appropriate to meeting the objectives, and whether the objectives were suited to AP conditions.
- (7) Undertake any other assessment relevant to the resettlement process.

## **E. Team Composition of the Independent External Monitoring Agency**

**Table-1 Team composition and qualifications**

<b>Position/expertise</b>	<b>Qualification and experience</b>
1.Team Leader/ Resettlement Specialist	Degree in social science with 10 years working background in planning, implementation and monitoring of involuntary resettlement for infrastructure projects. Experience in institutional capacity analysis and

	implementation arrangement for preparation and implementation of resettlement plans, and knowledge in latest social safeguard policies of the international development financing institutions in India.
2. Deputy Team Leader/ Livelihood Restoration Specialist	Degree in social science with 5 years working experience in social impact assessment including census and socio-economic surveys, restoration of livelihood in compliance with social safeguard policies of the international development financing institutions and national legislations. Experience of preparing/monitoring livelihood restoration program for externally financed projects is essential.
3. Gender Specialist	Degree in social science with 5 years working experience in social impact assessment including census and socio-economic surveys, gender in compliance with social safeguard policies of the international development financing institutions and national legislations. Experience of preparing/monitoring a gender program is essential.
4. Human Relation Specialist	Degree in social science with 5 years working experience in social impact assessment including census and socio-economic surveys, stakeholder meeting in compliance with social safeguard policies of the international development financing institutions and national legislations.
5. Data Analyst	Graduate with working experience and knowledge of software, preferably relational, those are most commonly used in India; demonstrated ability to design and implement automated management information system (MIS) for monitoring progress, comparing targets with achieved progress and the procedural steps

## **F. Time Frame and Reporting**

External monitoring of the RAP will be undertaken alongside that of other project components. EMA will take place as follows:

### **Post Project Monitoring:**

In order to determine final impacts due to the resettlement activity, evaluation of impact assessment will be undertaken twice a year for three years after conclusion of resettlement to evaluate whether the intended objectives are realised. For this, suitable baseline indicators related to income, assets, land ownership, expenditure pattern of key activities, housing conditions, access to basic amenities, demographic characteristics, indebtedness, etc. will be applied.

The monitoring reports should be submitted to RVNL/HSRC. An evaluation report at the end of the project should be submitted to the RVNL/HSRC and concerned parties with critical analysis of the achievement of the program and performance of RVNL/HSRC and IA.

The external monitors will provide monitoring and evaluation report covering the following aspects:

- Whether the resettlement activities have been completed as planned and budgeted;
- The extent to which the specific objectives and the expected outcomes/results have been achieved and the factors affecting their achievement or non-achievement;
- The extent to which the overall objective of the resettlement plan, pre project or improved social and economic status, livelihood status, have been achieved and the reasons for achievement / non achievement;
- Major areas of improvement and key risk factors;
- Major lessons learnt; and
- Recommendations.

Formats for collection and presentation of monitoring data will be designed in consultation with RVNL/HSRC, consultant's resettlement specialist.

#### **G. Personnel Organisation and Man Months of EMC**

<b>Position</b>	<b>No of Persons</b>	<b>Months</b>	<b>Overall Duration of Services (years)</b>
Team leader/Resettlement Specialist	1	18	3
Deputy TL/ LR specialist	1	18	3
Gender Specialist	1	18	3
Human Resource. Communication Specialist	1	18	3
Data Specialist	1	24	3

#### **H. Qualification of the Independent External Monitoring Agency**

The I-EMA will have at least 5 years of experience in resettlement policy analysis and implementation of resettlement plans. Further, work experience and familiarity with all aspects of resettlement operations would be desirable. NGOs, Consulting Firms or

University Departments (consultant organization) having requisite capacity and experience as follows can qualify for services of and external monitor for the project.

NGOs, Consulting firms duly registered with GOI agencies or a department of any recognized university is eligible.

The applicant should have prior experience in social surveys in land based infrastructure projects and preparation of resettlement plans (RP, RAP/RAP, LARAP) as per guidelines on involuntary resettlement of any of the JICA, ADB, World Bank and DAC-OECD.

The applicant should have extensive experience in implementation and monitoring of resettlement plans, including the preparation of implementation tools.

The applicant should be able to produce evidences of monitoring using tools such as computerized MIS with set criteria for measuring achievement.

The applicant should have adequate manpower with capacity and expertise in the field of planning, implementation and monitoring of involuntary resettlement projects as per donor's guidelines.

The applicant should not have involved in resettlement planning, as they have a vested interest in reporting smooth implementation. The profile of consultant agency, along with full signed CVs of the team to be engaged, must be submitted along with the proposal.

## **I. Budget and Logistics**

Consultants should quote for respective time inputs and other deliverables within the framework of a Quality Cost based selection criteria.

**Table-2 Criteria for Independent External Monitoring Agency**

<b>Criteria for monitoring</b>	<b>Indicators for monitoring</b>
Basic Information on AP Households	Location
	Composition and structure, ages, educational and skill levels and gender of household head
	Ethnic group
	Access to health, education, utilities and other social services
	Housing type
	Land and other resource owning and using patterns
	Occupations and employment patterns , income sources and levels
	Agricultural production data (for rural households)
	Participation in neighbourhood or community groups and access to cultural sites and events
	Value of all assets forming entitlements and resettlement entitlements
Livelihood Restoration Programme	Were house compensation payments made free of depreciation, fees or transfer costs to the PAPs?
	Have perceptions of “community” been restored?
	Have PAPs achieved replacement of key social and cultural elements?
	Were compensation payments free of deductions for depreciation, fees or transfer costs to the PAPs?
	Were compensation payments sufficient to replace lost assets?
	Did income substitution allow for re-establishment of enterprises and production?
	Have enterprises affected received sufficient assistance to re-establish themselves?
	Have vulnerable groups been provided income earning opportunities? Are these effective and sustainable?
	Do jobs provided restore pre-project income levels and living standards?
Levels of Satisfaction	How much do PAPs know about resettlement procedures and entitlements? Do PAPs know their entitlements?
	Do they know if these have been met?
	How do PAPs assess the extent to which their own living standards and livelihoods have been restored?
	How much do PAPs know about grievance procedures and conflict resolution procedures?
Effectiveness of Resettlement Planning	Were the PAPs and their assets correctly enumerated?
	Was the time frame and budget sufficient to meet objectives?
	How did resettlement implementers deal with unforeseen problems?
	Were there unintended environmental impacts?
Other Impacts	Were there unintended impacts on employment or incomes?

## Annex – IX

### RAP Implementation Monitoring Format

## Annex 9.1: Implementation Monitoring Indicators

The external monitoring agency would carry out the monitoring typically using the below listed indicators. Please note that these are indicative and the consultant/agency would need to review and revise it based on their own understanding and expertise

Indicators	Variables	Examples of Variables - All data should be disaggregated by gender, vulnerable groups as required and for different groups of PAPs
Process Indicators	<b>Inputs</b> <ul style="list-style-type: none"> <li>Staffing;</li> <li>Budget and Time Frame;</li> <li>Basic information on PAP;</li> </ul>	<ul style="list-style-type: none"> <li>Number of officials and qualified experts available for tasks;</li> <li>Number of land and Resettlement Officers and assistants located in the field/CPM;</li> <li>Have all land acquisition and resettlement staff been appointed and mobilized for the field and office work on schedule?</li> <li>R&amp;C capacity building and training activities been completed on schedule?</li> <li>Are funds for resettlement available on time?</li> <li>Have payment arrangements been achieved on time?</li> <li>Have funds been disbursed according to the agreed compensation plans?</li> <li>Has all land been acquired and occupied in time for implementation?</li> <li>Has census survey and inventory of losses been completed/revalidated</li> <li>Is basic socio-economic profile of PAPs available (location, demographic, gender/ethnicity/religion/housing types/access to services, income and expenditure levels, livelihoods etc)</li> </ul>
	<b>Stakeholder Consultation and Participation</b> <ul style="list-style-type: none"> <li>Participation</li> <li>Staff capacities;</li> <li>Effectiveness of the Grievance Process;</li> <li>Adequacy and effectiveness of Public Consultation process;</li> <li>Effectiveness of the Internal Monitoring Mechanism;</li> <li>Compliance with Policy and framework requirements;</li> <li>Transparency and Accountability;</li> </ul>	<ul style="list-style-type: none"> <li>Was the community preparation/sensitization phase implemented?</li> <li>Were special measures for vulnerable peoples implemented as necessary?</li> <li>No. of General meetings (for both men and women);</li> <li>% of women out of total participants;</li> <li>Number of meetings exclusively with women;</li> <li>Number of meetings exclusively with vulnerable groups;</li> <li>Level of participation in meetings (of women, men &amp; vulnerable groups);</li> <li>Number of Community Compensation Assessment meetings held;</li> <li>Grievances by type and resolution;</li> <li>Number of field visits by SMU/SEMY/NGO team/ staff;</li> <li>Number of NGOs/CBOs participating in project;</li> <li>Have resettlement leaflets been prepared and distributed?</li> <li>How many PAPs know their entitlements?</li> <li>How many know if they have received the correct entitlement?</li> <li>Have any PAPs used the grievance redress procedures? What were the outcomes?</li> </ul>

Indicators	Variables	Examples of Variables - All data should be disaggregated by gender, vulnerable groups as required and for different groups of PAPs
		<ul style="list-style-type: none"> <li>Have conflicts been resolved to the satisfaction of stakeholders</li> </ul>
	<b>Operational Processes/Procedures</b>	<ul style="list-style-type: none"> <li>Census and asset verification/quantification procedures in place;</li> <li>Effectiveness of compensation delivery system;</li> <li>Efficiencies of the NGO and SMU team in engaging with communities and resolving issues/concerns;</li> <li>Number of land transfers effected;</li> <li>Facilitation support in shifting of families and feedback from PAFs</li> <li>Coordination between CA, NGO and SMU/SEMU and other line agencies;</li> <li>Internal coordination between SMU/NGO and SEMU;</li> <li>Time taken for resolution of complaints/grievances;</li> </ul>
	<b>Effectiveness of Resettlement Planning</b>	<ul style="list-style-type: none"> <li>Were the PAPs and their assets correctly enumerated? Feedback on the process followed?</li> <li>Were/have any land speculators assisted?</li> <li>Was/are the time frame and budget sufficient to meet objectives?</li> <li>Were/are entitlements sufficient?</li> <li>Were/are vulnerable groups identified and assisted?</li> <li>How did/are CA and SMU/SEMU dealing with unforeseen problems?</li> </ul>
<b>Output Indicators</b>	<b>Land and Asset Acquisition</b>	<ul style="list-style-type: none"> <li>Land acquired (by category- cultivated, private land, communal land, CPRs etc);</li> <li>Number of agreements on management of CPRs. Design adaptations implemented to preserve CPRs, rituals implemented to transfer movable CPRs;</li> <li>Structures acquired (by category private buildings, community buildings, community infrastructure etc.);</li> <li>Trees and crops acquired (by category private trees, government/community owned trees acquired. Crops damage minimized, compensation paid, number of crop owners etc).</li> </ul>
	<b>Delivery of Entitlements</b>	<ul style="list-style-type: none"> <li>Have/are PAPs receiving entitlements according to numbers and categories of loss set out in the entitlement matrix/framework?</li> <li>Have/are PAPs receiving payments on time?</li> <li>Have/are PAPs who were impacted by temporary land access been compensated?</li> <li>Have/are all PAPs receiving the agreed transition costs, shifting allowance, income support and any other resettlement allowances, according to schedule?</li> <li>Are measures in place to provide land titles/security of tenure or community land agreements to PAPs as agreed?</li> <li>% of households who have received land titles/ other forms of tenural security or community agreements?</li> <li>Is restoration proceeding for social infrastructure and services?</li> <li>Are income and livelihood restoration activities being implemented as set out in the RAP/Livelihoods restoration</li> </ul>



Indicators	Variables	Examples of Variables - All data should be disaggregated by gender, vulnerable groups as required and for different groups of PAPs
		<ul style="list-style-type: none"> <li>plan?</li> <li>Have community compensation agreements been honored and infrastructure constructed;</li> <li>Were other entitlements distributed on time, (like shifting allowances, transitional loss of income support etc)?</li> <li>Have/were there additional costs PAP's had to bear?</li> <li>How effective is the bank account payment process?</li> </ul>
	<b>Restoration of Livelihoods</b>	<ul style="list-style-type: none"> <li>% of PAFs employed (permanent or contractual) to compensate loss of earnings;</li> <li>Were compensation payments sufficient to replace lost assets?</li> <li>Was sufficient replacement land available of suitable standard for PAFs to replace their lost land?</li> <li>Did income restoration allow for re-establishment of enterprises and production?</li> <li>Have/are livelihood restoration programmes been implemented?</li> <li>Have/are enterprises affected received sufficient assistance to re-establish themselves?</li> <li>Have vulnerable groups been provided income-earning opportunities?</li> <li>Is the implementation of income/livelihood restoration activities effective and sustainable?</li> <li>Shift in occupations/stability of income sources;</li> <li>Change in income per household;</li> <li>Change in skill levels;</li> <li>Change in housing size/number of rooms;</li> <li>Change in House quality;</li> <li>Change in asset ownership (farm equipment, livestock).</li> </ul>
	<b>Levels of Satisfaction</b>	<ul style="list-style-type: none"> <li>How much do PAPs know about resettlement procedures and entitlements?</li> <li>Do PAPs know their entitlements? Do they know if these have been met?</li> <li>How do PAPs assess the extent to which their own living standards and livelihoods have been restored?</li> <li>How much do PAPs know about grievance procedures and conflict resolution procedures?</li> <li>What are the satisfaction levels with a) entitlements and benefits and b) the process of receiving them</li> </ul>
<b>Impact Indicators</b>	<b>Household Earning Capacity</b>	<ul style="list-style-type: none"> <li>Change in employment status of economically active members;</li> <li>Shift in occupations/stability of income sources;</li> <li>Change in income per household;</li> <li>Change in skill levels;</li> </ul>
	<b>Settlement and Population</b>	<ul style="list-style-type: none"> <li>Growth in number and size of settlements along the RoW</li> <li>Change in land rates;</li> <li>Growth in market areas;</li> <li>Better access to towns and markets;</li> </ul>
	<b>Changes to Status of Women</b>	<ul style="list-style-type: none"> <li>Increased participation of women in financial and decision making;</li> <li>Access to and use of bank accounts by women groups;</li> <li>Participation of women in training programmes;</li> </ul>

Indicators	Variables	Examples of Variables - All data should be disaggregated by gender, vulnerable groups as required and for different groups of PAPs
		<ul style="list-style-type: none"> <li>• Use of credit facilities;</li> <li>• formal employment</li> <li>• Participation in commercial enterprises</li> </ul>
	<b>Access to Infrastructure and Networks</b>	<ul style="list-style-type: none"> <li>• Change in access to community facilities;</li> <li>• Change in access to health care, education, transport etc;</li> <li>• Increase/decrease in access to health care centers, markets;</li> <li>• Change in community/household interactions</li> <li>• Increase/decrease in emotional bonding/attachment</li> </ul>

## Appendix6 Preparation of Indigenous People Plan

Report of IPP (Indigenous People Plan) is attached from next page.

**Ministry of Railways (MoR)**

Government of India

**Joint Feasibility Study**

for

**Mumbai – Ahmedabad High Speed Railway Corridor**

**HSR: INDIGENOUS PEOPLE PLAN**

April 2015

**Prepared by**



**TARU Leading Edge Pvt. Ltd.**

New Delhi

**On behalf of**



The Consortium of

Japan International Consultant for Transportation

Oriental Consultants Global

Nippon Koei

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Abbreviations	Formal Name
ALT	Alternative
APM	Assistant Project Managers
CCF	Chief Conservator of Forest
CPM	Chief Project Manager
CPR	Common Property Resource
CRO	Chief Resettlement Officers
CSW	Cross Section Width
EMP	Environmental Management Plan
EPA	Environment Protected Act
ESZ	Ecological Sensitive Zones
FY	Fiscal Year
HSR	High Speed Railways
HST	High-Speed Train
HTL	High Tide Line
IA	Implementing Agency
IUCN	International Union for the Conservation of Nature
JICA	Japan International Corporation Agency
LTL	Low Tide Line
MAHSRC	Mumbai-Ahmedabad High Speed Railway Corridor
MOEF	Ministry of Environment and Forests
MoEFCC	Ministry of Environment, Forest and Climate Change
MOR	Ministry of Railways
MOS	Minister of State
MOU	Memorandum of Understanding
NMA	National Monument Authority
NOC	Non-objection Certificate

Abbreviations	Formal Name
NOF	Non forest land
PAFs	Project Affected Families
PAH	Project Affected Households
PAPs	project affected persons
PF	Protected Forest
PHCs	Primary Health Centres
PIU	Project Implementation Unit
R & R	Resettlement & Rehabilitation
RAA	Railways (Amendment) Act
RAP	Resettlement Action Plan
RF	Reserve Forest
RVNL	Rail Vikas Nigam Limited
SC	Scheduled Caste
SEMU	Social & Environmental Management Unit
SMU	Social Management Units
SPCBs	State Pollution Control Boards
ST	Scheduled Tribe
SWLB	State Wildlife Board



## Chapter 1. Introduction

### 1.1.1 Introduction

Taru Leading Edge Pvt Limited (hereafter referred to as Taru) has been appointed by Japan International Consultants for Transportation Co. Ltd., Oriental Consultants Co., Ltd. and Nippon Koei Co., Ltd (hereafter referred to as Client) to prepare an Indigenous People Plan (IPP) for the affected tribal area/people in the Mumbai–Ahmedabad High Speed Railway Corridor (hereinafter called HSR).

The IPP is prepared in compliance with the Government’s National Policy, JICA Environmental & Social Consideration Guidelines and World Bank’s Policies on Indigenous People (OP): 4.10. The IPP provides a plan within which the resettlement, livelihood and other impacts linked/associated of the indigenous people with the project will be addressed.

### 1.1.2 Description on the Project

India has undergone rapid economic growth in recent years, and along with this growth has come a sharp rise in the volume of people and goods being transported in the country. As for passenger transport, the Indian Ministry of Railway (MOR) prepared the “Indian Railways Vision 2020” in December 2009, and pre-feasibility studies are now being done in sequential order on seven routes that are candidates for the construction of high-speed-railways.

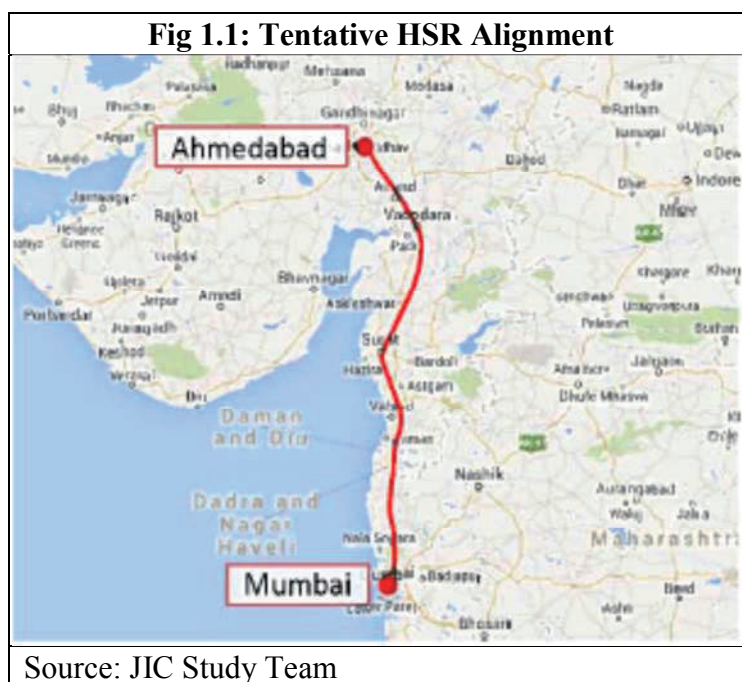
A report issued by an expert committee on modernization of India’s national railways that was established by MOR designates the line between Mumbai and Ahmedabad (approximately 500 km long) as the first high-speed railway section to be planned and constructed (hereafter referred to as the “Project”). A pre-feasibility study for this line was done by RITES of India, Systra of France and others in FY 2009. Japan (Ministry of Land, Infrastructure, Transport and Tourism: MLIT) conducted a study on project feasibility for the line in FY 2012.

Against this backdrop, India and Japan issued a joint statement on May 29, 2013, that included a decision to conduct a joint study on the construction of HSR between Mumbai and Ahmedabad. The proposed High Speed Railway corridor between Ahmedabad and Mumbai (the Project) aimed at improving connectivity between the two business centres and make it more easily connected. In response, JICA and MOR of India signed a Memorandum of Understanding (MOU) for joint feasibility study on October 7, 2013. Included in the feasibility studies, are the assessment and mitigation of the social and resettlement impacts linked to the development of the proposed HSR and land acquisition therein.

The High Speed Railway Line (HSRL) will connect Mumbai, the capital city of the State of Maharashtra and the second most populous metropolitan area in India with Ahmedabad which is a metropolis in the State of Gujarat. The approximately 500 km long line will consist of High-speed Railway vision running along the Arabian Sea coast side and connecting with Surat and Vadodara en-route which are the second and third largest city in the State of Gujarat.

The alignment (i.e. Alternative 1, the most preferred option- discussed in section below and the relevant alignment for this RAP report) of the HSRL will pass through 3 districts (Mumbai, Thane and Palghar) in Maharashtra and 8 districts (Valsad, Navsari, Surat, Bharuch, Vadodara, Anand, Kheda and Ahmedabad) in Gujarat. The proposed alignment also

passes through a small area section falling in the UT of Dadra. Schematic map of alignment along with details have been provided below.



The Indigenous Peoples Planning (IPP) provides guidance in formulating Indigenous Peoples Plans (IPPs) and to ensure that if indigenous<sup>1</sup> populations are affected by the HSPR, they: i) are adequately and fully consulted, ii) receive benefits and compensation equal to that of the mainstream population, (iii) are provided with special assistance as per laws and policies because of their vulnerabilities vis-à-vis the mainstream population, and (iv) receive adequate protection against project adverse impacts on their culture identities. The proposed IPP is prepared in consultation with the tribal families/peoples of District Palghar (Maharashtra) and Valsad (Gujarat). The villages located within the project influence districts have Schedule Tribe population varying in a range of 70 percent to 80 percent of the total population. In order to have a more focused indigenous plan, these issues have been grouped into (i) issues that are directly related to the project development for which measures will have to be taken up under the project to address them and (ii) issues which are outside the scope of the project but institutional collaboration could help the tribal in their development.

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<sup>1</sup> OP 4.10 uses the term Indigenous Peoples to refer to a distinct, vulnerable, social and cultural group possessing the following characteristics in varying degrees: (i) self-identification as members of a distinct indigenous cultural group and recognition of this identity by others; (ii) collective attachment to geographically distinct habitats or ancestral territories in the project area and to the natural resources in these habitats and territories; (iii) customary cultural, social, economic, social or political institutions that are separate from those of the dominant society and culture; and (iv) an indigenous language, often different from the official language of the country or region. Other terms used in different countries to refer to these groups include “indigenous ethnic minorities,” “aboriginals,” “hill tribes,” “minority nationalities,” “scheduled tribes,” and “tribal groups” (OP 4.10, para 4).

With a view to assess the life patterns of the affected indigenous population and to prepare IPP in consistent with community and region specific background, pertinent baseline information is collected, compiled and analyzed. The baseline information on socio-economic characteristics including occupational pattern, usual activity status, income– expenditure pattern, access to natural resources, health status, literacy level, age structure, gender, marital status, etc. has been collected in order to facilitate the planning process. The baseline data is collected through pre-tested structured schedules. The most important component of IPP has been to assess the type and magnitude of impacts, both positive and negative on the tribal communities. The IPP recognizes the distinct circumstances that expose Indigenous Peoples to different types of risks and impacts from the HSPR project. As social groups with identities that are often distinct from dominant groups in their national societies, Indigenous Peoples are frequently among the most marginalized and vulnerable segments of the population. As a result, their economic, social, and legal status often limit their capacity to defend their rights to lands, territories, and other productive resources, and restricts their ability to participate in and benefit from development. At the same time, the policy, together with the Involuntary Resettlement policy, recognizes that Indigenous Peoples play a vital role in sustainable development and emphasizes that the need for conservation should be combined with the need to benefit Indigenous Peoples in order to ensure long-term sustainable management of critical ecosystems.

The implementation of HSPR entails a number of activities that will have a bearing on the existing socio-economic sector of the rail corridor and its inhabitants. Among these activities are structure acquisition and rail construction related activities. In the RAP context implementation of the HSPR will have both positive and negative impacts. Among positive impacts include the following:

- Provision of secondary employment opportunities for the local population, and substantial increases in income-generating activities. This will lead to diversification of some household economies. For example a number of people will be employed during the construction phase across the villages. Local people will also have the opportunity to establish small scale food service to cater for the needs of the construction workers.
- The additional work force on the construction activities will boost albeit in the short-term local community economy within the corridor.
- The increased income generation activities will provide especially for women additional income which in the existing cultural context implies improved household socio-economic statuses.

The project is anticipated to have some negative impacts which however can be mitigated. These include:

- Loss of property with negative impacts on the livelihoods of the people.
- Vulnerable groups will be affected more.
- Inability to find equally productive land.
- Inability to find equally prime business area.

These are the major areas of potential impacts to be considered for this study.

### 1.1.3 Layout of the Report

The Indigenous People's Plan report has been presented in 7 chapters. The **Chapter-1** deals with the Project background and layout of the report. The objective and scope of work, approach and methodology for the study has been presented in **Chapter-2**. Legislative and

Regulatory plan for indigenous people is presented in **Chapter-3**. Brief account on Socio-Economic and Cultural Status of Indigenous Groups and Communities in the project areas is presented in **Chapter-4**. **Chapter-5** has highlighted on the project impact on indigenous Communities and tribal groups. **Chapter-6** describes the entitlements and Assistance plan of the indigenous people. It also describes the identification of development activities and project proponent's commitment on IPDP. **Chapter-7** highlights the implementation strategy, grievance redress mechanism, implementation Action Plan, institutional arrangements and monitoring and evaluation for IPs. Finally, **Chapter -8** Budget cost and Estimates

## Chapter 2. Approach and Methodology

### 2.1.1 Background

This Indigenous Peoples Planning (IPP) has been prepared to ensure that the World Bank's Indigenous Peoples policy is applied to the HSPR project. The objectives of the policy are to avoid adverse impacts on Indigenous Peoples and to provide them with culturally appropriate benefits. A parallel Process describes requirements to address social impacts from restrictions of access to natural resources as per the Involuntary Resettlement Policy (OP 4.12). The Indigenous Peoples policy recognizes the distinct circumstances that expose Indigenous Peoples to different types of risks and impacts from development projects. As social groups with identities that are often distinct from dominant groups in their national societies, Indigenous Peoples are frequently among the most marginalized and vulnerable segments of the population. As a result, their economic, social, and legal status often limit their capacity to defend their rights to lands, territories, and other productive resources, and restricts their ability to participate in and benefit from development. At the same time, the policy, together with the Involuntary Resettlement policy, recognizes that Indigenous Peoples play a vital role in sustainable development and emphasizes that the need for conservation should be combined with the need to benefit Indigenous Peoples in order to ensure long-term sustainable management of critical ecosystems.

### 2.1.2 Objective and Scope of Work

This report provides a description of the Indigenous Peoples Plan for the tribal Communities present in the state of Gujarat and Maharashtra, for the HSPR project which has the potential to positive and negatively affects the community. The IPP in which the study is considered, the impacts associated with the project on the indigenous peoples are carried out within local and international standards to ensure avoidance, minimization and where possible enhancement of positive impacts to promote the interests of the community as consultations determined. The objectives of the IPP are to ensure that if tribal populations are affected by the project are adequately and fully consulted, receive benefits and compensation equal to that of the mainstream population, are provided with special assistance as per laws and policies because of their vulnerabilities vis-à-vis the mainstream population, and to receive adequate protection against project adverse impacts on their culture identities. In this regard, Article 366(25) refers to Scheduled Tribes (STs) as those communities who are scheduled in accordance with Article 342 of the Constitution. According to Article 342 of the Constitution, STs are the tribes or tribal communities or part of or groups within these tribes and tribal communities which have been declared as such by the President through a public notification. Identification of tribes is a State subject. Thus, classification of a tribe would depend on the status of that tribe in the respective State. The National Rehabilitation and Resettlement Policy (NRRP), 2007 for the displaced persons include STs. The Ministry of Rural Development (Department of Land Resources) is the nodal Ministry for preparing the project affected persons (resettlement and rehabilitation) package including tribes. Government of India implements provisions contained in Panchayats (Extension to Scheduled Areas) Act, 1996. According to this Act, Gram Sabha has adequate power to regulate the MFPs (Minor Forest Produce) in tribal areas and Scheduled Areas. The Ministry of Tribal Affairs, Government of India has drafted a National Policy on Scheduled Tribes to bring these tribes into the mainstream society through a multi-pronged approach for their all-round development without disturbing their distinct culture. The Policy states that displacement of tribal people should be kept to a minimum and undertaken only after possibilities of non-

displacement and least displacement have been exhausted. When displacement becomes inevitable, each scheduled tribe family having land in the earlier settlement shall be given land against land. To handle the problem of shifting cultivation, land tenure system is proposed giving tribals the right to land ownership so that they invest their energy and resources in checking soil erosion and fertility. The Policy seeks to tackle tribal land alienation by stipulating that:

- IPs has access to village land records.
- Land records are displayed at the Panchayat.
- Oral evidence is considered in the absence of records in the disposal of tribals' land disputes.
- States prohibit transfer of lands from tribal to non-tribal.
- IPs and their representatives are associated with land surveys

In most of the districts in the project areas, the tribal pockets are largely situated in the eastern part of the district boundaries. However in the districts of Palghar (newly carved out district from Thane) and select blocks of Valsad bordering Maharashtra the alignment passes through tribal dominated areas.

The IPP is based on the overall local and national development strategies. The principle objectives are:

- A description, on a scale appropriate to the project, of the legal and institutional plan applicable to Indigenous Peoples;
- Baseline information on the demographic, social, cultural and political characteristics of the affected indigenous communities, and the land and territories which they traditionally owned, or customarily used or occupied and the natural resources in which they depend;
- Description of key project stakeholders and the elaboration of a culturally appropriate process for consultation and participation during implementation;
- Assessment, based on free, prior, and informed consultation with the affected Indigenous Peoples' communities, of the potential adverse and positive effects of the project. Critical to the determination of potential adverse impacts is an analysis of the relative vulnerability of, and risks to, the affected indigenous communities given their distinct circumstances, close ties to land, and dependence on natural resources, as well as their lack of opportunities relative to other social groups in the communities, regions, or national societies they live in;
- Identification and evaluation based on free, prior, and informed consultation with the affected Indigenous Peoples' communities, of measures to ensure that the Indigenous Peoples receive culturally appropriate benefits under the project and measures necessary to avoid adverse effects, or if such measures are not feasible, identification of measures to minimize, mitigate, or compensate for such effects.

### 2.1.3 Approach and Methodology

The approach adopted for IPP has been in alignment with the scope of work. The tools designed therefore followed the Japan International Cooperation Agency (JICA) guidelines and may broadly be divided into three parts as;

#### 1. Data Collection



## 2. Data Analysis

### 3. Presentation of results

Our approach to the study will be systematic, participative, analytical and rational. Systematic, in the sequencing of action plan and steps; participative, to ensure an understanding of the perceptions of all stakeholders and factoring them in the IPP so as to ensure tribal communities to fully participate in line with their social and cultural needs; analytical, in the processing of information; and rational in deriving relevant, workable and pragmatic results that will form the basis to develop Indigenous Peoples Planning. Holistic approach vis-à-vis the development of plan was adopted to assess the potential socio-economic and cultural factors that help or hinder their accessing various components and activities of the project. Four pillars as described in the draft social assessment guidelines by the World Bank is identification of key social development and participation issues; evaluation of institutional and social organizational issues; definition of a participation plan; and establishment of social-based indicators for monitoring and evaluation were the guiding principles.

The methodology for IPP was undertaken in accordance with relevant social policies and procedures of Government of India and also the World Bank's Operational Policy for Indigenous Peoples Development Plan and Indigenous Peoples Planning based on Rapid Social Assessment in the study area.

#### 2.1.4 Desk Review of Secondary Data:

Secondary data already available by means of feasibility studies conducted by RITES India, Systra of France and others in 2009, Study report (August 2014) by HSR Advisory Board on Social and Environmental Considerations, existing guidelines of world bank and JICA, reference to existing RAPs of similar JICA and WB supported projects, reports and other unpublished document were referred to and reflect in data collection design and the tools used. Secondary data was also referred from:

- Panchayats (Extension to Scheduled Areas) Act, 1996
- National Rehabilitation and Resettlement Policy (NRRP), 2007
- United Nations Declaration on the Rights of Indigenous Peoples
- World Bank Guidelines for Involuntary Resettlement
- The Scheduled tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act 2006, which is popularly known as Forest Rights Act (FRA)
- The Scheduled Castes and Scheduled Tribes (Prevention of Atrocities) Act, 1989
- Land Acquisition, Rehabilitation and Resettlement Act (LARR) 2013
- Annual Reports of selected districts for coverage of sample villages.

#### Development of Interview Schedules:

- The Interview Schedules were a mix of open and close-ended schedules in the form of a check-list for interviews and group discussions. The ethnographic profile of IPs in the sample villages were also included in this checklist. The check-list for interviews/focus group discussions at the village level is given at Annexure-I.
- The survey instruments were finalised under intimation to the client.
- An orientation programme was held for field investigators recruited for the study. The investigators were oriented on the interview schedules, data collection formats, and sample size as well as in techniques of establishing rapport, trust and conducive environment for collection of field data.

### 2.1.5 Field Survey for Primary and Secondary Data Collection:

The secondary data was augmented with primary data collected from primary sources (key stakeholders) as part of Rapid Social Assessment (RSA) that involved group meetings/focus group discussions at identified villages for sample coverage. This interaction was based on a check-list to facilitate Participatory Appraisal (PA) techniques. Where feasible, the consultants also conducted interviews with key informants in the project areas. The consultants collected relevant secondary data during the field visits from district level functionaries associated with the Tribal Department. The HSPR-IPP study covered two districts Palghar and Valsad. In order to cover the ethnographic profile of the Indigenous people in these tribal districts, Focus group Discussions (FGDs) were carried out in two villages in the district of Valsad and eight villages in Palghar District. Rapid Social Assessment (RSA) involving Focus Group Discussions with community, vulnerable sections, viz., women, opinion leaders, and representatives of Panchayati Raj Institutions, Tribal institutions/organizations/councils, and private health care service providers. The primary data collected was used according to the specific objectives of the participatory assessment.

#### **Focus Group Discussions with Tribal Leaders in Gujarat and Maharashtra**







The whole process was pre-planned and tools carefully selected. Group meetings/focus group discussions were set in advance, at convenient times (not when people are likely to be at work or busy with daily activities) and places (not in venues where some individuals may be

uncomfortable). The facilitators/investigators were sensitized to be aware and respectful of local protocol; build a rapport and explain clearly, but briefly, the objectives of HSPR.

The Rapid Social Assessment included the following elements, as needed:

- A review of the legal and institutional plan applicable to Indigenous Peoples;
- Gathering of baseline information on the demographic, social, cultural, and political characteristics of the affected Indigenous Peoples, communities and the natural resources on which they depend;
- Taking the review and baseline information into account, the identification of key project stakeholders and the elaboration of a culturally appropriate process for consulting with the Indigenous Peoples at each stage of project preparation and implementation;
- An assessment, based on free, prior, and informed consultation, with the affected Indigenous Peoples. communities, of the potential adverse and positive effects of the project. Critical to the determination of potential adverse impacts is an analysis of the relative vulnerability of, and risks to, the affected Indigenous Peoples. Communities given their distinct circumstances and close ties to natural resources, as well as their lack of access to opportunities relative to other social groups in the communities, regions, or national societies in which they live;
- The identification and evaluation, based on free, prior, and informed consultation with the affected Indigenous Peoples. communities, of measures necessary to avoid adverse effects, or if such measures are not feasible, the identification of measures to minimize, mitigate, or compensate for such effects, and to ensure that the Indigenous Peoples receive culturally appropriate benefits under the project.

A summary of the IPP is presented below:

- Summary of results of the free, prior, and informed consultation with the affected Indigenous Peoples. communities that was carried out
- Plan for ensuring free, prior, and informed consultation with the affected Indigenous Peoples. communities during project implementation.
- When potential adverse effects on Indigenous Peoples are identified, an appropriate action plan of measures to avoid minimizes, mitigate, or compensate for these adverse effects.

#### **2.1.6 Data Analysis and Presentation of Results**

Qualitative data analyzing methods have been used for presenting findings on Socio-Economic Status of IPs. These include analysis of secondary data and others available from state departments and JIC Study team and analysis (statistical and others) of primary data collected through various tools mentioned in the section above. Findings upon data analysis are presented under subsequent sections of this chapter which provides information on identification of the IPs and organized on various socio-economic parameters.

## Chapter 3. Legislative and Regulatory Plan for Indigenous People

### 3.1.1 Importance of Addressing IP Issues

Nearly three-quarters of the world's indigenous peoples live in Asia and the Pacific where their rights are increasingly being threatened by development programs that often encroaches on areas they traditionally own, occupy, use, or view as ancestral domain.

Therefore, all international and national development agencies have promulgated policies to protect the interest of indigenous peoples as per international conventions, treaties and laws of client states. Indigenous peoples' safeguards aim to ensure that the design and implementation of projects foster full respect for indigenous peoples' identity, dignity, human rights, livelihood systems, and cultural uniqueness as defined by the indigenous peoples themselves so that they receive culturally appropriate social and economic benefits, are not harmed by the projects, and can participate actively in projects that affect them.

The proposed HSR project requires substantial amount of land which will be mainly required for route alignment of rail tracks, station buildings, platforms, entry/exit structures, traffic integration, car shed, power sub-stations, ventilation shafts, administrative buildings, property development and temporary construction depots and work sites etc. Land being a scarce commodity, more so for the poor and marginalised indigenous community like tribals and being the major livelihood support system for them, the project is likely to displace indigenous peoples from their home and/or impact livelihood and cultural base.

Therefore a clear policy and legal plan which will protect the interest of the indigenous peoples who are likely to be affected by the project is presented. This chapter outlines the policy and regulatory to address the issues of land acquisition, compensation and resettlement and rehabilitation assistances for project affected indigenous peoples, who constitute a significant section of Project Affected Persons (PAPs). Therefore the process of land acquisition, rehabilitation and resettlement will strictly adhere to the existing policy and legal plan while aligning with the Japan International Cooperation Agency (JICA) Guidelines for Environmental and Social Considerations, April 2010 and World Bank OP.4.12 guidelines (Revised in April 2013).

### 3.1.2 JICA's Commitment

Japan's Official Development Assistance (ODA) charters states that while formulating and implementing assistance policies steps would be taken care to ensure fairness by giving consideration to the conditions of the socially vulnerable such as tribal community in the present context and to the gap between rich and poor. The policy reaffirms that the democratic decision-making must be followed for environmental and social considerations. The process must ensure stakeholder participation, information transparency, accountability, and efficiency, in addition to respect for human rights, in order to conduct an appropriate decision-making process. JICA ensures that the project proponents should disclose and share the likely environmental and social impacts with the local stakeholders. The proposed HSR project being classified as Category A and, therefore, is likely to have significant adverse impacts on environment and society. The information should be further shared in the form of documents in an official or widely used language and in a form understandable by local people. The social impact includes migration of population and involuntary resettlement, local economy such as employment and livelihoods, utilization of land and local resources, social institutions such as social capital and local decision-making institutions, existing social infrastructures and services, vulnerable social groups such as poor and indigenous peoples,



equality of benefits and losses and equality in the development process, gender, children's rights, cultural heritage, and local conflicts of interests.

While addressing the environmental and social impact JICA will follow the principles of internationally established human rights standards such as the International Convention on Human Rights, and gives special attention to the human rights of vulnerable social groups including women, indigenous peoples, persons with disabilities, and minorities when implementing cooperation projects. JICA will ensure that projects do not deviate significantly from the World Bank's Safeguard Policies, and refers them as a benchmark to the standards of international financial organisations; to internationally recognised standards, or international standards, treaties and declarations and to good practices in developed nations including Japan.

Accordingly an intensive exercise will be undertaken to prepare a detailed Indigenous Peoples Plan by adopting the transparent methods of stakeholders' participation. The Resettlement Action Plan (RAP) will meticulously comply with the laws, ordinances, and standards related to environment and social considerations established by the Central Government of India as well as state governments of Gujarat and Maharashtra that have jurisdiction over project sites. In the process conservation of natural resources and cultural heritage of indigenous peoples will be given utmost importance.

HSR project is most likely to cause involuntary displacement and resettlement. However, efforts will be made to avoid involuntary resettlement and loss of means of livelihood by exploring all viable alternatives. When, after such an examination, avoidance is proved unfeasible, effective measures will be taken to minimize impact and to compensate for losses which must be agreed upon with the people who will be affected and in conformity with the existing law.

No laxity will be there in the appropriate participation by affected people and their communities must be promoted in the planning, implementation, and monitoring of resettlement action plans and measures to prevent the loss of their means of livelihood. In addition, appropriate and accessible grievance mechanisms shall be established for the affected people and their communities.

The project is likely to have adverse impact on the indigenous peoples ( mostly Scheduled Tribes). Under such circumstances all of their rights in relation to land and resources shall be respected in accordance with the spirit of relevant international declarations and treaties, including the United Nations Declaration on the Rights of Indigenous peoples and existing legal provisions.

Policy on Indigenous Peoples Planning is drawn from UN Declaration on Rights of Indigenous Peoples. Thus, it would be appropriate to briefly describe the Declaration.

### **3.1.3 United Nations Declaration on the Rights of Indigenous Peoples**

The charter of the United Nations, the International Covenant on Economic, Social and Cultural Rights and the International Covenant on Civil and Political Rights, the Vienna Declaration and Programme of Action, precisely affirm that the fundamental importance of the right to self-determination of all peoples, by virtue of which they freely determine their political status and freely pursue their economic, social and cultural development is upheld.

It affirms that indigenous people are equal to all other people; therefore their rights should be respected in the spirit that all people contribute to the diversity and richness of civilisations and cultures, which constitute the common heritage of humankind.

It further affirms that all doctrines, policies and practices based on or advocating superiority of peoples or individuals on the basis of national origin or racial, religious, ethnic or cultural differences are racist, scientifically false, legally invalid, morally condemnable and socially unjust. Therefore, indigenous people should have complete freedom in exercising their rights and should be free from discrimination of any kind. Their inherent rights should be respected and promoted so as to take care of their political, economic and social structures; spiritual traditions; and rights over land, territories and resources. An enabling environment should be created where indigenous peoples can organise themselves for political, economic, social and cultural enhancement in order to bring to an end all forms of discrimination and oppression wherever they occur. The indigenous peoples should have freedom and control over developments affecting them in accordance with their aspirations and needs.

Article 10 reaffirms that indigenous people shall not be forcibly removed from their lands or territories. Whatever be the reason, no relocation shall take place without the free, prior and informed consent of the indigenous peoples concerned and after agreement on just and fair compensation and, wherever possible with the option of return when the land and territories acquired is not utilised for the purpose it was taken. Children, women and people with disability being more vulnerable in any community, it prescribes that states need to take measures in conjunction with indigenous peoples to ensure that these groups enjoy the full protection and guarantees against all forms of violence and discrimination.

Indigenous peoples have the right to determine and develop priorities and strategies for exercising their right to development. In particular, indigenous peoples have the right to be actively involved in developing and determining health, housing and other economic and social programmes affecting them and, as far as possible, to administer such programmes through their own institutions. RAP will incorporate this component diligently.

States or its authorised representative shall consult and cooperate in good faith with the indigenous peoples concerned through their own representative institutions in order to obtain their free and informed consent prior to the approval of any project affecting their lands or territories and other resources, particularly in connection with the development, utilization or exploitation of mineral, water or other resources. Further, the project activities shall take appropriate measures to mitigate adverse environmental, economic, social, cultural or spiritual impact.

JICA follows World Bank Guidelines ( OP-BP4.12) as the benchmark in respect of involuntary resettlement in respect of a project implementation. Hence a brief discussion of the guidelines is given below.

#### **3.1.4 World Bank Guidelines for Involuntary Resettlement**

The key objective of the World Bank's safeguard Policy 4.12 is to "ensure that displaced persons are assisted in their efforts to improve their livelihoods and standards of living or at least to restore them, in real terms, to pre-displacement levels or to levels prevailing prior to the beginning of project implementation, whichever is higher". The important clauses of the World Bank Policy in preparation of resettlement plan and policy plan includes the following:

1. Ensure that the displaced persons are informed about their options and rights pertaining to resettlement;
2. Consulted on, offered choices among, and provided with technically and economically feasible resettlement alternatives;
3. Prompt and effective compensation at full replacement cost for losses of assets;
4. Provide assistance and allowances;
5. Provide equivalent productive assets for the loss of residential house, agricultural land etc.;
6. Provide support for the transition period (between displacement and livelihood restoration);
7. Provide land related development assistance (credit facilities, training and job opportunities);
8. Preference should be given to land based resettlement strategies for displaced persons whose livelihoods are land-based;
9. Cash compensation level should be sufficient to replace the lost land and assets at full replacement cost in local markets;
10. Depreciation and salvage value not be deducted from the compensation value.
11. Eligibility of Benefits should include the PAPs who have formal legal rights to land (including customary and traditional land rights recognised under law), the PAPs who do not have formal legal rights to land at the time of census but have a claim to such land or assets and the PAPs who have no recognisable legal right to the land they are occupying;
12. Particular attention will be paid to the needs of vulnerable groups among those displaced, especially those below the poverty line, landless, elderly, women and children, ethnic minorities etc.;
13. The displaced persons and their communities will be provided timely and relevant information, consulted on resettlement options, and offered opportunities to participate in planning, implementing, and monitoring resettlement. Appropriate and accessible grievance mechanisms will be established for these groups;
14. A Grievance Redress Mechanism will be made functional to resolve all complaints and grievances of PAPs.
15. In addition to the above core measures, the policy also emphasizes the need for a detailed resettlement policy inclusive of all the above points; a project specific resettlement plan, an institutional plan for implementation, well developed monitoring and evaluation mechanisms, a time schedule for implementation, and a detailed financial plan.

### **3.1.5 State/Region specific Legislation/Policy Applicable for States**

JICA encourage to comply with the legislations and policies of the client state at central, federal and local government level and meticulously comply the provisions to ensure that interest of indigenous peoples are protected with zero or barest minimum adverse impact caused due to the project. The HSR corridor passes through the districts of Valsad in Gujarat and Palghar in Maharashtra where majority of indigenous people belong to Scheduled Tribes(STs). Thus specific Constitutional provisions, policies and laws relating protection of tribal people shall be complied.

### **3.1.6 Affirmative Provisions in the Constitution of India**

Recognizing the special needs of the STs, the Constitution of India has made certain special safeguards to protect the interest of these indigenous communities from all possible exploitation and injustice. Article 16(4) empowers the State to make special provisions for this community and other backward section of society. Article 46 enjoins upon the State to promote with special care the educational and economic interests of the weaker sections of the people and, in particular, the STs and promises to protect them from social injustice and all forms of exploitation. There are other provisions like Article 275(1), 330, 332, 335, 340, and 342 which make affirmative provisions to ensure social empowerment, economic empowerment, political empowerment and social justice.

The Fifth Schedule is the constitutional provision with reference to the administration and development of the Scheduled Areas and Scheduled Tribes in India. The Schedule has been framed to protect of the rights of the indigenous peoples on their land, forest and water as their natural rights. This provides for the administration and control of Scheduled Areas and Scheduled Tribes (areas and tribes needing special protection due to disadvantageous conditions).

The tribal community which is expected to be affected due to the proposed HSR project in Valsad and Palghar, live in the Fifth Schedule area and therefore the local governance is guided by a different law known as Provisions of Panchayat Extension to Scheduled Areas (PESA), which the RAP must adhere to.

### **3.1.7 Panchayats Extension to Scheduled Areas (PESA) Act 1996**

Provisions of the Panchayats Extension to the Scheduled Areas Act (PESA), 1996, came into being for extending the benefits of the 73rd Constitutional Amendment to the Schedule V Areas of the country. This Act accords statutory status to the Gram Sabhas in Schedule V areas with wide-ranging powers and authority to protect economic, political and cultural interest of indigenous peoples. The Act has recognized the prevailing traditional practices and customary laws besides providing the management and control of all the natural resources—land, water and forest in the hands of people living in the Schedule Areas. The Act empowers people in the tribal areas through self-governance. As per PESA, the Gram Sabha will be involved in approval of development plans and programs, all decisions related to land acquisition as well as rehabilitation of affected persons. Important Provisions of the PESA 1996 are

- Gram Sabha shall safeguard and preserve the traditions and customs of the people, their cultural identity, community resources and the customary mode of dispute resolution
- Gram Sabha shall be responsible for approval of plans, programs and projects for social and economic development
- Gram Sabha shall be responsible for the identification or selection of persons as beneficiaries under the development programs
- Consultation with Panchayat prior to land acquisition and Rehabilitation & Resettlement activities in the scheduled areas and no land can be acquired without consent of Gram Sabha ( as per recent Supreme Court judgement on proposed Niyamgiri Bauxite mines as per Forest Rights Act)

- Endows ownership of minor forest produces (MFPs) to Panchayats
- Gram Sabha has power to prevent alienation of land in Scheduled areas and to take appropriate action to restore any unlawfully alienated land of STs

In case the HSR project passes through Forest Areas inhabited with tribal or traditional forest dwelling community, there exists law a to protect their traditional livelihood rights and community rights over forest resources and commons, which the RAP must adhere to.

### **3.1.8 The Scheduled tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act 2006, which is popularly known as Forest Rights Act (FRA)**

The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act 2006, recognises and vests the forest rights and occupation in forest land to Scheduled Tribes and other traditional forest dwellers who have been residing in such forests for generations but whose rights are not recorded.

This Act is for members or community of the Scheduled Tribes who primarily reside in forests or forest lands for their livelihood, including Scheduled Tribe pastoralist communities or the members or community of the Scheduled Tribes who have been residing in the forest for 75 years.

The Government of India (GoI) recognizes and vests forest rights with forest dwelling STs,, where they are declared as STs, and other traditional forest dwellers. The Act provides a detailed list of rights to ST and forest dwellers. These rights can be broadly divided into the following:

- Title rights (i.e. ownership)- Refers to land that is being cultivated by Tribals or forest dwellers as on December 13, 2005, subject to a maximum of 4 hectares; ownership is only for land that is actually being cultivated by the concerned family as on that date, meaning that no new lands are granted;
- User rights- Refers to minor forest produce (also including ownership), to grazing areas, ponds for fishing, to pastoralist routes, etc.
- Relief and development rights- Refers to rehabilitation in case of illegal eviction or forced displacement and to basic amenities, subject to restrictions for forest protection;
- Forest management rights- Refers to protect forests and wildlife;
- Rights to indigenous knowledge- Refers to biodiversity and community right to intellectual property and traditional knowledge related to biodiversity and cultural diversity; and
- Traditional rights- Refers to any other traditional rights enjoyed by forest dwellers except right of hunting or trapping or extracting any part of any wild animal.

Recognition, Restoration and Vesting of Forest Rights include: (i) In critical wildlife habitats, forest rights may be modified or people resettled provided they meet the provisions as detailed in the Act; (ii) The recognition and vesting of forest rights under this Act applies to forest ST/forest dwellers occupying land before 13th December 2005; (iii) The right under this Act is heritable, but also alienable or transferable, and shall be registered jointly in the name of both the spouses or single head as the case may be; (iv) Other than provided, no



forest dweller shall be evicted or removed from forest land under his occupation till the recognition and verification procedure is complete; (v) The forest rights recognized under the occupation of an individual or family or community on the date of commencement of this Act shall be restricted to the area under actual occupation and shall not exceed 4 hectares; (vi) Forest right will be conferred free of all encumbrances, including procedural clearance under the Forest (Conservation ) Act, except for those specified under this Act; and (vii) Under this Act the forest dweller has the right to land provided he can establish that that he was displaced from his dwelling and cultivation without land compensation due to State development interventions and where land has not been used for the said purpose within five years of acquisition.

**Authority and Procedure for Vesting of Forest Rights:** The Gram Sabhas (GS) will be the authority for determining the nature and extent of individual or community forest rights. The GS will receive claims, verify and consolidate them, and prepare a map delineating the area. The resolution will be forwarded then to the sub-divisional-level committee. Any person aggrieved by the resolution of the Gram Sabha may prefer a petition to the Sub Divisional Level Committee constituted under this Act. The State Government will constitute a Sub-Divisional Level Committee (SDLC) to examine the resolution passed by the GSs and forward it to the District Level Committee. The State Government will also constitute a District Level Committee (DLC) to consider and approve the record of forest rights prepared by the Sub divisional level committees. The decision of the DLC will be final. The State government will also constitute a State Level Monitoring Committee (SLMC) to monitor the process of recognition and vesting of rights to the nodal agency. The SDLC, DLC and the SLMC will consist of officers from Revenue, Tribal and Forest departments; 3 members of whom from Panchayati Raj institutions, two of whom shall be ST members and one shall be a woman member.

It is a matter of fact that in an inequitable and unequal society the privileged have a tendency to violate the rights of underprivileged. To protect the under privileged from violence and atrocities there is policy and legal plan. The RAP shall also comply with the existing law protecting the indigenous peoples such as Scheduled Castes and Scheduled Tribes from all forms of atrocities.

### **3.1.9 The Scheduled Castes and Scheduled Tribes (Prevention of Atrocities) Act, 1989**

The communities like Scheduled Castes(SCs) and Scheduled Tribes (STs) are socio-economically excluded community and therefore more vulnerable to exploitation and atrocities caused by dominant community. To prevent various forms of atrocities this law was enacted by the Parliament in 1989. This is a stringent Act and the offences under this Act are cognisable and non-bailable. In the process of possible resettlement– voluntary or involuntary due to HSR project utmost care will be taken that any action or practice does not contravene any provisions in the Act. Some of the atrocities specified in the Act are forcing a SC/ST person to drink or eat any inedible or obnoxious substances, dumping excreta, waste water, carcasses or any other obnoxious substances in his/her premises or neighborhood; forcibly removing clothes; parading naked or with painted face; wrongfully occupying or cultivating any land owned by or allotted to SC/ST; compelling or enticing him to do begging, bonded labour, forcing or intimidating to take certain decision; instituting false, malicious, vexatious suit or criminal/legal proceeding against SC/ST person; intentionally insulting or intimidating with intent to humiliate in any place within public view; using derogatory language against SC/ST person; outraging the modesty of or committing rape on SC/ST woman; corrupting or fouling any sources of water used by members of SC/ST; and denying SC/ST people his right of passage and causing him to leave his house, village or other place of residence.

### **3.1.10 National Rehabilitation and Resettlement Policy (2007)**

The National Rehabilitation and Resettlement Policy is the first comprehensive policy on the basis of which the states and public sector companies have devised their Rehabilitation and Resettlement (R&R) policies. The objectives of the National Rehabilitation and Resettlement Policy are: to minimise displacement and to promote, 'as far as possible, non-displacing or least-displacing alternatives; to ensure adequate rehabilitation package and expeditious' implementation of the rehabilitation process with the active participation of the affected families; to ensure that special care is taken for protecting the rights of the weaker sections of society, especially members of the Scheduled Castes and Scheduled Tribes, and to create obligations on the State for their treatment with concern and sensitivity; to provide a better standard of living, making concerted efforts for providing sustainable income to the affected families; to integrate rehabilitation concerns into the development planning and implementation process; and where displacement is on account of land acquisition, to facilitate harmonious relationship between the requiring body and affected families through mutual cooperation.

More precisely, the Policy stipulates :

- Avoid or minimize land acquisition and involuntary resettlement impacts by exploring all viable alternative designs;
- Where displacement is unavoidable, prepare time-bound RAP 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 including non-title holders for lost assets at replacement value;
- 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; and
- Establishment of institutional arrangements such as grievance redress mechanism through community based organisation, Gram Sabha, NGOs and PRIs .

The national R & R policy necessitated to reform the century old law relating to land acquisition and bring a new legislation in India called Land Acquisition, Rehab, and Resettlement Act (LARR) 2013.

### **3.1.11 Land Acquisition, Rehab, and Resettlement Act (LARR) 2013**

LAAR Act makes it legally binding for consultation with institutions of local self-government and Gram Sabhas established under the Constitution, a humane, participative, informed and transparent process for land acquisition for industrialisation, development of essential infrastructural facilities and urbanisation. It must ensure least disturbance to the owners of the land and other affected families and provide just and fair compensation to the affected families whose land will be acquired or are going to be affected by such acquisition and make adequate provisions for such affected persons for their rehabilitation and resettlement. It must also ensure that the cumulative outcome of compulsory acquisition should be that affected persons become partners in development leading to an improvement in their post-acquisition social and economic status and for matters connected therewith or incidental thereto.

Though LARR Act came into effect from 1<sup>st</sup> January, 2014 it was not extended to certain areas till 1<sup>st</sup> January, 2015 where government would acquire land for larger national interest like land to be acquired under Metro Railways Act, Railways Act, Electricity Act etc. With cut-off date being expired the LARR Act-2013 established an extremely complex and difficult land acquisition process. To ease the process especially while acquiring land in the larger national interest government has made amendment through an ordinance in 2014.<sup>2</sup> The said amendment (through ordinance) is under intense debate in the Indian Parliament, and thus its applicability on railway projects will become clearer in times to come.

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<sup>2</sup> The Right to fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement (Amendment) Ordinance, 2014. No. 9 of 2014

<b>LARR Act 2013</b>	<b>Land Ordinance 2014*</b>
<ul style="list-style-type: none"> <li>• <b>Mandatory</b> 70% consent for PPP projects.</li> <li>• <b>Mandatory</b> 80% consent for private projects.</li> <li>• <b>Mandatory</b> Social impact assessment (SIA) for every projects.</li> </ul>	<p>Those “<b>mandatory</b>” things are no longer required for <b>5 types of projects</b>:</p> <ol style="list-style-type: none"> <li>1. National security and Defense Production</li> <li>2. Rural infrastructure, Rural electrification</li> <li>3. Infrastructure and Social infrastructure</li> <li>4. Industrial corridors</li> <li>5. Housing for Poor</li> </ol>
SIA mandatory for every type of project.	<p>SIA not needed for</p> <ol style="list-style-type: none"> <li>1. Those five categories listed above</li> <li>2. PPP projects, IF Government owns the land.</li> </ol>
<p><b>Exempted Acts :</b></p> <p>There were 13 Acts including</p> <p>Railway Amendment Act (RAA)2008</p>	<p>The provisions of this Act relating to the determination of compensation in accordance with the First Schedule, rehabilitation and resettlement in accordance with the Second Schedule and infrastructure amenities in accordance with the Third Schedule shall apply to those 13 Acts ( as specified in Fourth Schedule) relating to land acquisition with effect from 1<sup>st</sup> January, 2015.</p>
<p><b>Compensation:</b></p> <ol style="list-style-type: none"> <li>1. 2-4 times the market rate in rural area.</li> <li>2. 2 times in urban area.</li> </ol>	Remains the same.
Stringent provisions for relief and rehabilitation (R&R).	Remains the same
Private “ <b>companies</b> ” can acquire land for public purpose.	Private “ <b>entities</b> ” can acquire. Meaning private companies, NGOs, trusts, foundations, charity bodies, proprietors etc. too can acquire land for “public purpose”.
If any mischief played on Government’s part then head of the department will be responsible.	<ol style="list-style-type: none"> <li>1. Head of the department can’t be prosecuted without prior sanction of government (under CrPC Section 197).</li> <li>2. This “immunity” is given to ensure bureaucrats don’t sit on the files, fearing media-trials and judicial activism.</li> </ol>
*Clear articulation on bill is awaited as Parliament debate on merit/demit of LARR and ordinance bill were ongoing during draft preparation of report (28/03/2015)	

The RAP must adhere to the important provisions relating to indigenous peoples. They are :

1. As far as possible, no acquisition of land shall be made in the Scheduled Areas. The acquisition shall be done only as a demonstrable last resort.
2. In case of acquisition or alienation of any land in the Scheduled Areas, the prior consent of the concerned Gram Sabha or the Panchayats shall be obtained , including acquisition in case of urgency, before issue of a notification under this Act, or any other Central Act or a State Act for the time being in force.
3. Consultation with Gram Sabha in Scheduled Areas shall be in accordance with the provisions of Panchayats (Extension to the Scheduled Areas)Act, 1996.
4. In case of a project involving land acquisition on behalf of a Requiring Body ( in this case the Indian Railways) which involves involuntary displacement of Scheduled Castes and Scheduled Tribes families, a Development Plan must be prepared laying down the details of procedure for settling land rights due.
5. The said Development Plan must also contain a programme for development of alternate fuel, fodder and non-timber forest produce resources on non-forest lands within a period of five years, sufficient to meet the requirements of indigenous peoples ( both STs and SCs).
6. In case of land being acquired from the members of SCs and STs, at least one third of the compensation amount due shall be paid to the affected families initially as the first instalment and the rest shall be paid after taking over of the possession of the land.
7. The affected families of the Scheduled Tribes shall be resettled preferably in the same Scheduled Areas in a compact block so that they can retain their ethnic, linguistic and cultural identity.
8. The resettlement areas predominantly inhabited by the Scheduled Castes and the Scheduled Tribes shall get land, to such extent as may be decided by the appropriate Government free of cost for community social gatherings.
9. Any alienation of tribal lands or lands belonging to members of SCs in disregard of the laws and regulations for the time being in force shall be treated as null and void, and in case of acquisition of such lands, the rehabilitation and resettlement benefits shall be made available to the original tribal land owners or land owners belonging to the SCs.
10. Where the affected families belonging to the Scheduled Castes and the Scheduled Tribes are relocated outside the district, then, they shall be paid an additional twenty five percent rehabilitation and resettlement benefits to which they are entitled along with a onetime entitlement of fifty thousand rupees.
11. Whenever the affected families belonging to Scheduled Tribes who are residing in the Scheduled Areas of fifth or sixth Scheduled Areas are relocated outside those areas, then all statutory safeguards, entitlements and benefits enjoyed by them under this Act shall be extended to the area to which they are resettled regardless of whether the resettlement area is a Scheduled Area or not.
12. Where the community rights have been settled under the provisions of the Scheduled Tribes and Other Traditional Forest Dwellers(Recognition of Forest Rights) Act, 2006, the same shall be quantified in monetary amount and be paid to the individual concerned who has been displaced due to acquisition of land in proportion with his/her share in such community rights.
13. The compensation package for land owners, tenants shall be decided as per the guidelines given in the First Schedule.

14. The elements of rehabilitation and resettlement entitlements for all the affected families ( both land owners and the families whose livelihoods is primarily dependent on land acquired) in addition to those provided in the First Schedule shall be decided as per the guidelines given in the Second Schedule.
15. For settlement of populations, the necessary infrastructural facilities and basic amenities are to be provided at the cost of the Requisitioning Authority to ensure that the resettled population in the new location can secure themselves a reasonable standard of community life and can attempt to minimise the trauma involved in displacement. All these have to follow the guidelines given in the Third Schedule.

## Chapter 4. Brief on Socio-economic and Cultural Status of Indigenous Groups and Communities in Project Area

### 4.1.1 The Local Context of Relevance to IPP

The Indigenous Peoples Planning (IPP) provides guidance in formulating Indigenous Peoples Plans (IPPs) and to ensure that if indigenous<sup>3</sup> populations are affected by the HSPR, they: i) are adequately and fully consulted, ii) receive benefits and compensation equal to that of the mainstream population, (iii) are provided with special assistance as per laws and policies because of their vulnerabilities vis-à-vis the mainstream population, and (iv) receive adequate protection against project adverse impacts on their culture identities. The prepared IPP is prepared in consultation with the tribal families/peoples of District Palghar (Maharashtra) and Valsad (Gujarat). The villages located within the project influence districts have Schedule Tribe population varying in a range of 70 percent to 80 percent of the total population.

In order to have a more focused indigenous plan, these issues have been grouped into (i) issues that are directly related to the project development for which measures will have to be taken up under the project to address them and (ii) issues which are outside the scope of the project but institutional collaboration could help the tribal in their development. With a view to assess the life patterns of the affected indigenous population and to prepare IPP in consistent with community and region specific background, pertinent baseline information is collected, compiled and analyzed. The baseline information on socio-economic characteristics including occupational pattern, usual activity status, income– expenditure pattern, access to natural resources, health status, literacy level, age structure, gender, marital status, etc. has been collected in order to facilitate the planning process. The baseline data is collected through pre-tested structured schedules. The most important component of IPP has been to assess the type and magnitude of impacts, both positive and negative on the tribal communities. The IPP recognizes the distinct circumstances that expose Indigenous Peoples to different types of risks and impacts from the HSPR project. As social groups with identities that are often distinct from dominant groups in their national societies, Indigenous Peoples are frequently among the most marginalized and vulnerable segments of the population. As a result, their economic, social, and legal status often limit their capacity to defend their rights to lands, territories, and other productive resources, and restricts their ability to participate in and benefit from development. At the same time, the policy, together with the Involuntary Resettlement policy, recognizes that Indigenous Peoples play a vital role in sustainable development and emphasizes that the need for conservation should be combined with the need to benefit Indigenous Peoples in order to ensure long-term sustainable management of critical ecosystems.

Many of the ecological areas where HSPR corridor is planned overlap with lands or territories traditionally owned, customarily used, or occupied by Indigenous Peoples. The convergence of critical areas for conservation with millions of people who are highly dependent on healthy ecosystems for their survival is also most evident. In this way HSPR

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<sup>3</sup> OP 4.10 uses the term Indigenous Peoples to refer to a distinct, vulnerable, social and cultural group possessing the following characteristics in varying degrees: (i) self-identification as members of a distinct indigenous cultural group and recognition of this identity by others; (ii) collective attachment to geographically distinct habitats or ancestral territories in the project area and to the natural resources in these habitats and territories; (iii) customary cultural, social, economic, social or political institutions that are separate from those of the dominant society and culture; and (iv) an indigenous language, often different from the official language of the country or region. Other terms used in different countries to refer to these groups include “indigenous ethnic minorities,” “aboriginals,” “hill tribes,” “minority nationalities,” “scheduled tribes,” and “tribal groups” (OP 4.10, para 4).

projects can provide valuable long-term opportunities for sustainable development for Indigenous Peoples and other local communities. However, a number of particular risks are important for the HSPR Project:

- **Customary and Indigenous Peoples' rights:** This project would require identifying and recognizing these rights to ensure that activities are not adversely affecting such rights. This is particularly the case for projects that support the development of management plans and other forms of land and natural resource use planning. Projects that support policy development may also affect Indigenous Peoples' rights.
- **Loss of culture and social cohesion:** Given Indigenous Peoples' distinct cultures and identities and their frequent marginalization from the surrounding society, interventions may run the risk of imposing changes to or disruption of their culture and social organization, whether inadvertently or not. While indigenous communities may welcome and seek change, they can be vulnerable when such change is imposed from external forces and when such change is rushed. Moreover, since many indigenous communities' culture and social organization are intertwined with their land and natural resource use practices, changes to these practices may result in unintended and unexpected changes in culture and social organization which may lead to social disruption and conflicts within and between communities and other stakeholders. This is relevant for all types of projects, but particularly for projects that aim to change livelihood and natural resource use practices and create new institutional structures at the local level.
- **Dependency on external support:** Interventions supporting alternative livelihoods and new institutional structures may lead to indigenous communities' dependency on continued support. Indigenous Peoples, for instance, may experience difficulties engaging with the market economy through alternative livelihood activities that they may be unable to sustain, at least on an equitable basis, while foregoing traditional practices. They may also become dependent on new livelihoods that are not sustainable environmentally as well as socially, perhaps because they were developed without due consideration of their social and cultural context. New institutional structures may displace existing structures with both positive and negative impacts typically depending on the level of participation in and control over the process.
- **Inequitable participation:** The costs (e.g. in time and resources) of participating in project activities such as protected area management activities, monitoring and enforcement, even in cases of co-management, may outweigh the benefits to local communities. Participation design may not include appropriate capacity building (when needed) or take into consideration local decision-making structures and processes with the risk of leading to alienation of local communities or even conflicts with and/or between local communities. Participation design may not include appropriate representation of Indigenous Peoples in decision-making bodies.

#### 4.1.2 **Ethnographic Screening for Identification of Indigenous Groups and Communities In Project Area**

Primary data collected from 8 tribal villages in Valsad District of Gujarat and 2 tribal villages from Palghar District of Maharashtra in the project areas exhibit the following characteristics in varying degrees to define indigenous people such as (i) maintenance of cultural and social identities separate from dominant societies and cultures; (ii) self-identification and identification by others as being part of a distinct cultural group; (iii) linguistic identity different from that of dominant society; (iv) social, cultural, economic, and political traditions and institutions distinct from dominant culture; (v) economic systems oriented more towards



traditional production systems rather than mainstream; and (vi) unique ties and attachments to traditional habitats and ancestral territories. Likewise, the President of India under Article 342 of the Constitution uses the following characteristics to define indigenous peoples [Scheduled Tribes (ST)], (i) tribes' primitive traits; (ii) distinctive culture; (iii) shyness with the public at large; (iv) geographical isolation; and (v) social and economic backwardness before notifying them as a Scheduled Tribe. Essentially, indigenous people have a social and cultural identity distinct from the 'mainstream' society that makes them vulnerable to being overlooked or marginalized in the development processes. In the context of the project areas, STs who have no modern means of subsistence, with distinctive culture and are characterized by socio-economic backwardness could be identified as Indigenous Peoples.

Taking a generic definition of indigenous people in the affected corridor the tribal communities can be referred to as a distinct social and cultural group possessing the following characteristics in varying degrees:

- Self-identification as members of a distinct indigenous cultural group and the recognition as a distinct cultural group goes beyond national, regional and international borders.
- Collective attachment to geographically distinct habitats or ancestral territories among being where the project area is located.
- Customary cultural, economic, social, or political institutions that are separate from those of the mainstream society or culture; or
- A distinct language or dialect, often different from the official language or languages of the country or region in which they reside.

Indigenous peoples are social groups with identities, are often among the most marginalized and vulnerable segments of the population. In many cases, their economic, social, and legal status limits their capacity to defend their rights to, and interests in, lands and natural and cultural resources, and may restrict their ability to participate in and benefit from the HSPR Project. The significance of impacts of HSPR project on Indigenous Peoples is determined by assessing (i) the magnitude of impact in terms of (a) customary rights of use and access to land and natural resources; (b) socioeconomic status; (c) cultural and communal integrity; (d) health, education, livelihood, and social security status; and (e) the recognition of indigenous knowledge; and (ii) the level of vulnerability of the affected Indigenous Peoples community. The level of detail and comprehensiveness of the IPP are commensurate with the significance of potential impacts on Indigenous Peoples.

The ethnographic screening for identification of Indigenous People in the project's area of influence was carried out by conducting a rapid ethnography among the families impacted by the project at Palghar and Valsad District.

**Table 4.1      Ethnographic Screening for Indigenous Peoples identification**

<b>Criteria</b>	<b>Feedback from Ethnography</b>	<b>Rapid Remarks</b>
	They identify them as Warli. The term Warli has been derived from the word Waral which means up-landers. They have four endogamous and more than forty exogamous social divisions.	They live in a mixed settlement and share the habitat with other caste Hindus such as Kayasthas, Bania etc. Centuries of living together as resulted in considerable acculturation of Warli population in the project area. However, their social identity as Warlis is still maintained through strict rule of endogamy and political assertion using their ethnic identity.
<b>Self-Identification</b>	Koknas are also known as Kokni or Kukni or Kukna, they once inhabited the Konkan, the western coastal strip of Maharashtra.	The community is divided into exogamous clans. They usually follow monogamy though polygyny is allowed in their community. They are allowed to marry cross cousins. Vermillion and anklets are the symbol of a married woman. A large number of kokna men who are unable to pay the hefty bride price remain unmarried. The family is usually nuclear.
	There are many beliefs about the origin of the term "Dhodia". One is that they came from a place called Dhulia. However, these are all just folklore that have yet to be supported by scientific or historic data. The Naikda, another tribal community, claims common descent with the Dhodia.	This started a tradition of migration to the Talat in the fruit orchards (wadi) of the Parsees and the other non-tribal people there. As more and more tribal people searched for such opportunities, the distance of migration grew and some would go as far

Criteria	Feedback from Rapid Ethnography	Remarks
<b>Collective Attachment to Ancestral Territories</b>	<p>The Warlis found their prominence in the state of Gujarat and Maharashtra during the reign of a Rajput prince in 13<sup>th</sup> Century and was ruled by his successors for about seven hundred years until the accession of states to independent India. The kingdom enjoyed more or less peaceful existence with very rare occasions of war or other belligerence.</p>	<p>Tribal population has a strong territorial attachment and has a sense of marginalization by other communities.</p>
	<p>Koknas vary widely in their degrees of cohesiveness. This difference in cohesiveness may be associated with differential leadership patterns and inter-tribal interaction. The koknas are reputed to be extremely hardworking, good agriculturists and equally responsive to the development stimuli of education and agricultural innovations.</p>	<p>Though the various tribal groups live peacefully with each other social interaction is somewhat restricted. To illustrate, intertribal marriages are strictly prohibited with severe punishment.</p>
	<p>Dhodias found prominence under the Rajput feudal king, who gained supremacy of martial power the indigenous tribe exercised increasingly less control over their own lives. They had little say in the state and also they received little benefit from the formation of the state. The kings returned paternalistic benevolence to the tribesmen for their docile subjugation as subjects to the feudal kings.</p>	<p>During the British rule a conscious policy of isolation was adopted for purposes of administration. This led to two way deterioration in the condition of the tribal.</p>

**Criteria****Feedback from Rapid Remarks  
Ethnography**

There is a council of Warli elders, which settles the disputes within the community. In case the dispute remains unresolved, the police patil, again a Warli settles the dispute. The cases of inter community disputes are settled by the Sarpanch of the statutory Panchayat. The traditional council at the hamlet level is headed by *kabhari* and at the village level by *Patil*.

The villages in the surrounding have approximately 40% of Warli population. The Panchayati Raj (local governance) has established modern democratic governance structure (3 tier Panchayat system as per Indian Constitution) in this area. The reservation in the Pachayati Raj has ensured that members of the IPs are represented and also occupy post of Sarpanch and other leadership roles. The present Sarpanch in all the Gram Panchayats is are tribals.

The functioning of the local governance bodies though has impinged on the sphere of authority of the traditional institutions of Warlis, however, they play a significant role in their social life and these leaders have significant influence on issues related to their collective identity as Warlis.

**Customary Cultural,  
economic, social or  
political Institutions**

The Kokna profess the traditional form of religion. The community deities are Himaidev and Kansaridev. Their houses are usually adorned with the idols of gods and goddesses. They have a traditional patil community council headed by a regional kokna council for the redressal of grievances.

Of late, the inter-community linkages are increasing. They have responded positively to formal education. Intercommunity marriages are strictly prohibited among them but they share water resources, crematoria and public places with other communities.

Dhodias are divided into divisions based on their occupational pursuits and relationships with the landlords. They are further divided into clans. They are generally monogamous but some examples of polygyny exist.

They accept food and water from other neighboring communities like the kokna, warli, etc. Some of them have benefited from the rural development projects. The family welfare programme is effective among them.

Criteria	Feedback from Rapid Ethnography	Remarks
A distinct language or dialect	They speak the Warli language which is also an Indo-Aryan language with the <i>devanagri</i> script.	Warlis has a rich folk literature in marriage songs and narrations of their history and cultural traditions. It is one of those several tribal dialects which are facing extinction.
	The language of the Kokna tribal community is originated from the Indo-Aryan family. Moreover, the Kokna people also speak in Gujarati language and for writing they use Devanagari script.	They speak basically in Marathi and have specific folk songs for birth and marriage rituals.
	Dhodia is a tribal Bhil language, which is still spoken in some parts of Gujarat, Daman and Diu, Dadra and Nagar Haveli and Rajasthan. They use Gujarati at home and use the Gujarati script.	Dhodias has a rich folk literature in marriage songs and narrations of their history and cultural traditions. It is one of those several tribal dialects which are facing extinction.

#### 4.1.3 Location of IP Groups Affected Families

The HSR project seeks to connect the capital cities of the two Indian states that contribute nearly a third of country GDP. The entire alignment from Mumbai to Ahmedabad is dotted with industrially developed pockets of manufacturing and other economic activities. There are several urban agglomerations such as Surat and Vadodara besides the metropolis of Mumbai/Thane and Ahmedabad that will be benefiting from high speed passenger train connectivity. The alignment largely runs parallel to existing railway track and the National Highway 8 connecting Mumbai and Ahmedabad.

Some of the districts such as Navsari, Valsad, Surat, Bharuch, Vadodara and Thane are shown to have high to significantly high tribal population. However, it may be noted that the alignment largely passes along existing railway and road highways and hence tribal population in affected land corridor may not be significant. In most of the districts, the tribal pockets are largely situated in the eastern part of the district boundaries. However in the districts of Palghar (newly carved out district from Thane) and select blocks of Valsad bordering Maharashtra the alignment passes through tribal dominated areas. According to the Census of India 2011, 8.61 percent of the Indian population is classified as ST. In comparison to the national figure, Gujarat has 14.75 percent and Maharashtra has 14.75 percent of its populations classified as ST. The STs in Gujarat comprised 8.9 million of the total State population of 60.43 million, whereas in Maharashtra 10.5 million of the total 112.37 state population. The major tribes in the state of Gujarat are:

- Varli
- Bhil

- Dhodia
- Vasava
- Dhanka
- Rathawa
- Padvī
- Halpati
- Nayaka

and some of the major tribes in the state of Maharashtra are:

- Koknas
- Korku
- Thakar
- Koli
- Malhar Koli
- Gabit
- Mangela

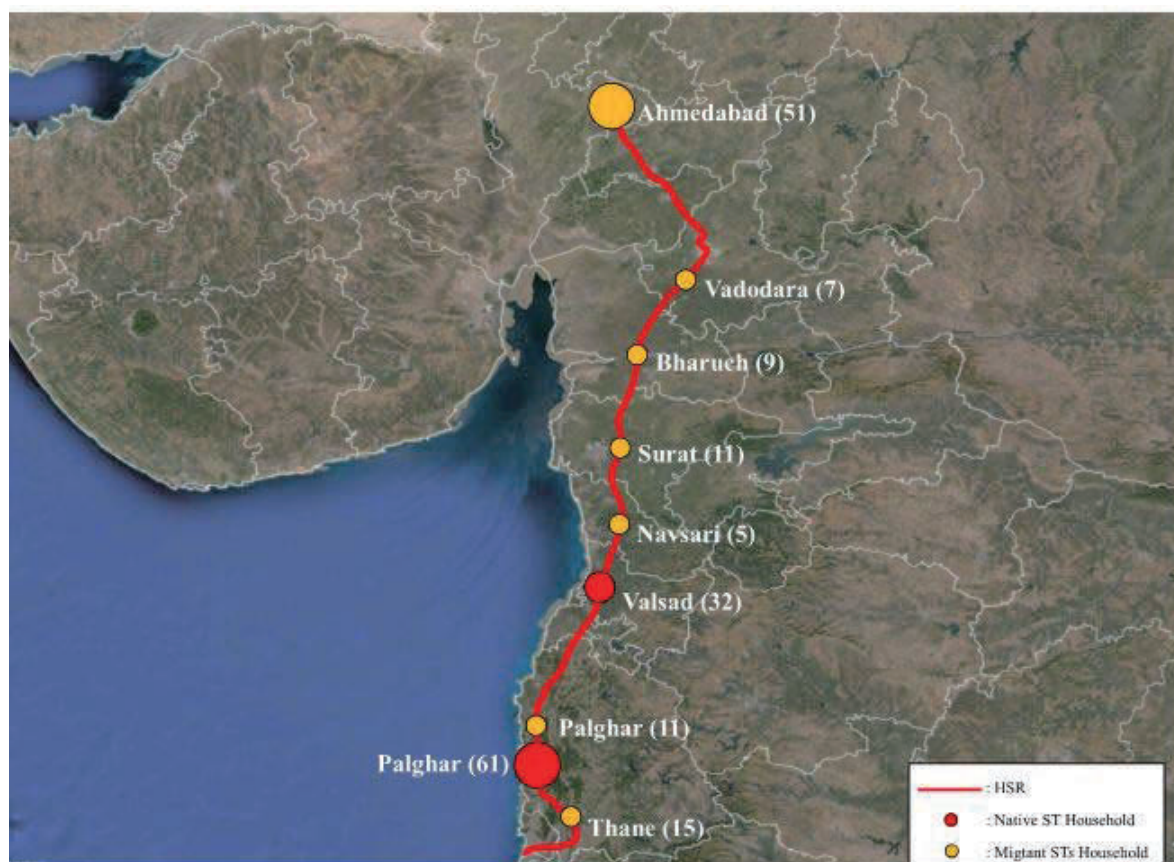
The table below provides a demographic snapshot of the indigenous people being affected in the project affected villages of Valsad and Palghar districts in the state of Gujarat and Maharashtra. The summary of ST population in comparison to total population in sample of affected villages (covered for IPP preparation) is described in Table-4.1. Subsequently table 4.2 presents the proportion of project affected ST Households along the RoW in the covered during census survey carried out in project affected villages.

<b>Table 4.1: ST Population In Sample Villages covered for IPP (as per census of India)</b>							
<b>Villages</b>	<b>Taluka</b>	<b>No. of HHs</b>	<b>Total Population</b>	<b>Total ST Population</b>	<b>Male ST Population</b>	<b>Female ST Population</b>	<b>% of ST Population to Total Population</b>
<b>GUJARAT</b>							
<b>Achchhari</b>	Umbergaon	404	2047	1499	779	720	73.2%
<b>Zaroli</b>	Umbergaon	1093	5469	4755	2378	2377	86.9%
<b>MAHARASHTRA</b>							
<b>Chari</b>	Dahanu	125	464	462	229	233	99.5%
<b>Jamshet</b>	Dahanu	294	1775	1743	886	857	98.2%
<b>Kapase</b>	Palghar	412	1689	1105	534	571	65.4%
<b>Varkhunti</b>	Palghar	159	792	539	279	260	68.1%
<b>Karajgaon</b>	Talasri	338	1849	1834	901	933	99.2%
<b>Zari</b>	Talasri	806	4602	4541	2183	2358	98.7%
<b>Mori</b>	Vasai	263	1158	810	394	416	69.9%
<b>Shilottar</b>	Vasai	73	333	286	129	157	85.9%
<b>Source: Census of India-2011</b>							

<b>Table 4.2: ST Population In Project Affected Villages</b>					
<b>Villages</b>	<b>Taluka</b>	<b>Total No. of Households</b>	<b>Total No. of ST Households</b>	<b>Total Population</b>	<b>Total ST Population</b>
<b>Palghar</b>					
Ambesari	Dahanu	8	6	50	36
Chari	Dahanu	8	7	47	41
Vangam	Dahanu	3	3	19	19
Hanuman Nagar	Dahanu	4	3	31	25
Jamset	Dahanu	6	6	31	31
Jitgaon	Dahanu	12	11	69	66
Santoshi	Dahanu	2	1	8	4
Kapase	Palghar	6	2	22	8
Silkhe	Palghar	2	2	13	13
Vakashi	Palghar	4	4	19	19
Dhamangaon	Talasari	2	2	15	15
Aam Gaon	Talasari	1	1	5	5
Karajgaon	Talasari	2	2	13	13
Kavada	Talasari	1	1	6	6
Talasri	Talasari	1	1	6	6
Uplat	Talasari	3	3	17	17
Zari	Talasari	6	6	42	42
<b>Valsad</b>					
Balda	Pardi	2	1	8	2
Dangra	Pardi	7	1	21	7
Paria	Pardi	48	17	215	48
Rata	Pardi	8	3	39	8
Achchhari	Umbergaon	1	1	3	1
Tal	Umbergaon	3	3	26	3
Chanvai	Valsad	6	1	32	6
Panchlai	Valsad	6	5	32	6
<b>Grand Total</b>		152	93	789	514
<b>Percentage</b>		100%	61%	100%	65%
<b>Source:</b> Census Survey Data by TARU, Sep-Dec 2014					

The distribution of native ST households and migrant ST households in accordance with the result of census survey are illustrated in Figure 4.1 as below.

**Figure 4.1: Distribution of Native ST Households and Migrant ST Households**



**Source:** Census Survey Data by TARU

#### 4.1.4 Social Structure and Settlement Patterns

The IPP study covered two districts Palghar and Valsad. In order to cover the ethnographic profile of the Indigenous people in these tribal districts, Focus group Discussions (FGDs) were carried out in two villages in the district of Valsad and eight villages in Palghar District. Both the districts have similar topography. Deeply furrowed streams and river zigzagging through the low hills are a common sight. The hills and slopes are covered with forest, once dense but a good deal depleted now due to indiscriminate felling. The region is shaped like a plateau has quite a few high hills with lofty peaks. The villages in Valsad District are the home to Dhodias and the Warlis – two schedule tribes inhabiting majority of the Umbergaon Taluka whereas the villages in Palghar District are the home to Koknas and the Thakar. All the taluka studied has close to 80%-90% tribal population. The non-tribal population is concentrated found in this region were very less. The Palghar and Valsad district is predominantly tribal. To an outsider especially during the first few days they all seem to fit into a large and somewhat vague tribal ethnic group. There are however distinguishing physical features and dress patterns (especially of the womenfolk). The tribes vary widely in their degrees of cohesiveness. This difference in cohesiveness may be associated with differential leadership patterns and inter-tribal interaction. The koknas are reputed to be extremely hardworking, good agriculturists and equally responsive to the development stimuli of education and agricultural innovations. The warlis are more subsistence oriented



and not so developed in agriculture. Though the various tribal groups live peacefully with each other social interaction is somewhat restricted. To illustrate, intertribal marriages are strictly prohibited with severe. The tribal folks living in the flat plains live in more closely clustered houses that can be loosely called a village whereas those in the hilly region reside in smaller and more widely scattered hamlets. The villages in the hilly region are large but the number of dwellings ranges from 50-200 separated by tracts of cultivable land wherever flat land is available amidst slopes and forest lands. They construct houses scattered to minimize the damage possible due to floods and epidemics and do not construct houses facing each other to avoid the evil spirit in the opposite house, if any. Traditionally the tribal houses are built on slopes or on uplands near tanks, rivulets and creeks to minimize the damaging effect of the heavy rainfall and to ease in availability of water during summer months of extreme scarcity. The tribal dwellings are simple and made of wooden poles (usually teak/sal is used), leaf thatching, and bamboos. The walls of the huts are very interesting and made of sheets knitted out of bamboo skins placed in between teak/ sal pillars. This sheet is further covered with mixture of cow dung mud and water to fortify the walls and also keep it warm during the winters and provide strength and increased firmness. These huts need regular maintenance twice a year, before and after the monsoons. Constructing houses is a community activity among the folks; houses are built with the help of close relatives and clan members in exchange of food and drink. The huts are divided in four to five compartments – one outer one for cattle and animals, one for cooking, one for storing grains and one or two for retiring or entertaining guests. Any huts with a different architecture are meant for special other purposes like meeting places etc.

#### 4.1.5 Cultural Identities and Practices of the IPs

The culture of any community is closely associated and assimilated with its history since time immemorial. The Warli, Dhodias and Koknas are the predominant tribal groups in the Project areas and have very rich indigenous cultural practices which are given below:

**WARLI:** Warlis have four endogamous and more than forty exogamous social divisions. Mates are generally acquired through negotiation or by rendering service. They practice polygyny occasionally. The first marriage is called *lagan* and the second and subsequent marriages are called *Nowli*. Necklaces and toe-rings are the symbols of married women. Residence after marriage is patrilocal. Bride price is paid both in cash and kind. Divorces also take place and post-divorce the father becomes the custodian of the children. Remarriage is permitted but only to non- virgins. Age at marriage is 12-16 for girls and 17-20 for boys. The families are vertically extended through male lineage. The women take part in economic activity. Childhood rituals and 30 days of birth pollution are practiced by them. The dead are cremated but infants are buried. There is a council of Warli elders, which settles the disputes within the community. In case the dispute remains unresolved, the police patil, again a Warli settles the dispute. The cases of inter community disputes are settled by the Sarpanch of the statutory Panchayat. The traditional council at the hamlet level is headed by *kabhari* and at the village level by *Patil*. Their village deities are Gamdevi and Vaghdeo. The major festival is *Shun*. The community has a medicine man called the *Bhagat*. Alike the Koknas more than 99% of the Warlis are followers of Hinduism. Most of the Warli households display graphics on the walls drawn with rice powder. They also make mats from date leaves. Both men and women are painters. They make pictographs to celebrate festivals. They paint in white with touches of brilliant *gerua* (saffron) red on the walls of their homes which are earthy brown in colour. They are fond of music and dance and have traditional folk songs and folk tales. They practice basket making.

**DHODIAS:** Dhodia hamlets are relatively small and usually homogenous with 10-25 households. Even in multi tribal village, Dhodia families live as a cluster at one end of the village (separately). The houses are typical for their construction. Generally, the houses are thatched with straw, and the walls and floor are daubed with mud. A few houses are roofed with tiles, which were provided by the Government. However, these tiles are just laid above the already thatched roof. Cattle sheds are constructed either besides or behind the house. Except the household utensils, wooden cots and agricultural tools, many of the Dhodia families possessed modern furniture. Dhodias fetch drinking water from nearby streams, and a few hamlets have the facility of dug wells. The modern transportation and communication facilities are not in reach of the Dhodias due to their inhabitation in the interior. The accessibility to health services and education are very meagre. Dhodias are distinct and can be easily identified by their physical appearance as well as by their dressing pattern. Men wear a loin cloth, however a few men are observed to wear shirts, older men tie their head hair as a knot at the back of the head while younger men are not following this tradition. Women wear sari in a traditional pattern as the other tribal women of the area do. Dhodias are non-vegetarians. The consumption of pork and beef are not forbidden, which has assigned lower status in the tribal hierarchy. Rice form the staple diet. The morning diet consists of gruel made up of millets. The lunch consists of rice along with either dhal (made up of pulses) or a vegetable /non-vegetarian curry. Several wild tubers and seasonal fruits supplement their diet. Consumption of oil and spices are low. Both men and women consume locally made alcohol known as *toddy*. While men consume mostly on weekly market days, women have reported to consume only on festive occasions. Dhodias are physically hard working people as they are engaged in agriculture and hired as wage labourers. They celebrate all the festivals that other Hindus do. Diwali, Holi are some examples. The majority of Dhodia believe in and are devoted to "Kanasari" or "Kanseri" (Goddess of food). They celebrate the "Kanseri" festival annually at harvest. The "Kanseri" Goddess is otherwise known as Goddess "Annapurna" by most Hindus. The Dhodia also celebrate "Divaso". Vagh baras is also celebrated in a unique fashion in some Dhodia villages where men colour themselves in stripes representing the Vagh (tiger) and others as plain white or other colours denoting cattle.

**KOKNAS:** The costume of Kokna tribes makes them distinguishable from other tribal communities of India. The women of this community wear saree and 'fadki'. They follow a different pattern for their costumes. They cut the sarees into two halves and the upper half they wear is called 'fadki' and the lower part of the body is covered by the saree. Sometimes they also use blouse or lehenga along with the 'fadki'. The Kokna males use pagri in important occasions, religious functions and festivals. The staple food of the Kokna tribe is rice, jawar, naglin and vari. They also eat wheat, masoor dal or red gram, tur, urad dal or black gram, Bengal gram. Most of the Kokani people have preference for vegetables, tubers, roots, fruits and they grow some of these vegetables in their fields. The Kokna tribes are generally non vegetarian but eating buffalo meat and beef is prohibited in their community while goat meat and pork are eaten with delight. Alcohol which is made of jiggery and mahua is regularly taken by the people of this tribal community. Kokna endogamous tribal community is known as jati and exogamy is practiced by some of the clans known as kur. The Kokna tribes ear their livelihood by agriculture, some work as wage labourers and some are engaged in government services. The society of the Kokna tribal community is governed by the Panchayat. No society can flourish without the exuberance of their cultural fetes. The Kokna tribal community also cannot be an exception. What is really splendid is that these Kokna tribes are celebrating all the major festivals of the Indian Territory, only after adding their own fervency and ritualistic elements. For example almost all the Kokna tribes fete the Diwali festival in the name of Barash. Akhatrij is also widely feted by these Kokna tribes

with the Kokna tribes as the major participants. Apart from these, Bhawada is celebrated; at the completion of harvesting season, these Kokna tribes worship goddess Kali and before harvesting, worship of Gram Devi has been celebrated with festivity and jubilation. The Koknas are worshippers of Hindu religion. They have some tribal deities and village gods and goddesses along with corn deity Kansari and gods like Khandoba, Bhairao, Bao-deo, Nag, Waghoba, Hirva, Cheda, Asara, Supali, Bir etc. Another reason for which the Kokna tribes have gained recognition is their artistic zeal and acumen that they have developed. It has best been exemplified in all the exquisite woodcarvings that these Kokna tribes have made. The Kokna tribes shape up masks for the famous dances prevalent in their society.. These Kokna tribes made these masks from soft wood. Various facial expressions, eyebrows, moustaches, cheeks, nose etc. are all nicely highlighted in these woodcarvings. Even the Kokan artists can make some ordinary wooden tobacco containers to be really beautiful. The art of making these containers ever are very unique. They are either shaped out of wood or prepared simply by combining pieces of wood together. Besides using wood, these Kokna tribes also make these tobacco containers from tough-skinned fruits or seeds. After that, these Kokna tribes apply a thick coat of Lead over the container and then carve wonderful beautiful designs on it. At times, these Kokna tribes made these containers to take the shapes of animals like peacock, peahen etc. These Kokna tribes are very much religious minded who worship various animals like crocodile, tiger etc.

The IPs studied is generally patrilineal except in few cases when married daughters are found to live with their parents. This eventuates when either the head of the family has no sons, or the parents do not like to separate from the daughters for emotional reasons. In the first case the son in law cultivates the in- laws lands and tends to all their needs and after their death he inherits their property by adopting their clan membership and giving up his parental clan membership. In the second case the daughter gets an equal share of the parental property. Each tribe is divided into endogamous divisions and each endogamous division contains a number of exogamous groupings called *kul* or clan. Houses belonging to members of the same clan are clustered together in a village. These tribal clans have some important social characteristics: (i) no member is permitted to marry a member of the same clan. (ii) Nearly all economically valuable land and traditional wealth are passed through patrilineal ties from one generation to the other (iii) each clan has a totem and myth concerning their origin though the tribes are not totemic ( the totems are not worshipped or shown any special regard). The compact local clan group is important but loses its relevance if it is separated by a long distance of 20-30 miles in between. Most decisions are taken by the senior male members after carefully raising issues, discussions, arguments and the final decision is reached by consensus.

### **Duration of ST Population living in the Project Area**

Table 4.3 shows the time duration of the ST Population (as census survey data) living in the project area. Only 2 PAHs out of 93 PAHs have been living in the project area since last one year. 34 PAHs have been living in the project areas for a period between 10 to 50 years. 22 PAHs has been living in the project area for more than 50 years.

<b>Table 4.3: Duration of ST Population Living in the Project Area</b>							
<b>District/ Villages</b>	<b>Last 1 Year</b>	<b>1-3</b>	<b>4-10</b>	<b>11-30</b>	<b>31-50</b>	<b>More than 50 Years</b>	<b>Grand Total</b>

<b>PALGHAR</b>							
Ambesari	1		4	1			6
Chari			1	5	1		7
Hanuman Nagar					3		3
Jamset		2	2	2			6
Jitgaon		2	6	3			11
Santoshi		1					1
Vangam		1		2			3
Kapase						2	2
Silkhe				1	1		2
Vakashi		1	2			1	4
Aam Gaon			1				1
Dhamangaon			1			1	2
Karajgaon				1	1		2
Kavada			1				1
Talasri				1			1
Uplat			3				3
Zari	1		2	1	1	1	6
<b>VALSAD</b>							
Balda			1				1
Dangra					1		1
Paria		3	1	3	3	7	17
Rata						3	3
Achchhari						1	1
Tal						3	3
Chanvai				1			1
Panchlai				1	1	3	5
<b>Grand Total</b>	<b>2</b>	<b>10</b>	<b>25</b>	<b>22</b>	<b>12</b>	<b>22</b>	<b>93</b>
<b>Percent</b>	<b>2.2</b>	<b>10.8</b>	<b>26.9</b>	<b>23.7</b>	<b>12.9</b>	<b>23.7</b>	<b>100.0</b>
<b>Source:</b> Census Survey Data, Sep-Dec 2014							

### **Tribal Households with Structures in the Project Areas**

Out of the 93 Project Affected Households (PAHs), a majority of PAHs i.e. 90.3% has 1 structure falling in the HSR alignment. About 8 PAHs (8.6%) have 2 structures and only 1 PAHs (1.7%) of PAHs have got 3 structures in the designated corridor of HSPR survey.

<b>Table 4.4: Tribal Households with Structures in the Project Areas</b>				
<b>District/Villages</b>	<b>With 1 Structure</b>	<b>With 2 Structures</b>	<b>With 3 Structures</b>	<b>No. of</b>

				PAHs
<b>PALGHAR</b>				
Ambesari	6			6
Chari	6	1		7
Hanuman Nagar	2	1		3
Jamset	6			6
Jitgaon	6	4	1	11
Santoshi	1			1
Vangam	3			3
Kapase	2			2
Silkhe	2			2
Vakashi	4			4
Aam Gaon	1			1
Dhamangaon	2			2
Karajgaon	2			2
Kavada	1			1
Talasri	1			1
Uplat	3			3
Zari	6			6
<b>VALSAD</b>				
Balda		1		1
Dangra	1			1
Paria	17			17
Rata	3			3
Achchhari	1			1
Tal	3			3
Chanvai	1			1
Panchlai	4	1		5
<b>Grand Total</b>	<b>84</b>	<b>8</b>	<b>1</b>	<b>93</b>
<b>Percent</b>	<b>90.3</b>	<b>8.6</b>	<b>1.1</b>	<b>100.0</b>
<b>Source:</b> Census Survey Data, Sep-Dec 2014				

A total of 103 structures, from 25 IPP- villages, are identified to be potentially affected by the HSR project. These include residential structures (87) such as residential building block (leading to displacement), and other independent structures such as boundary wall, detached bathroom, hand pump, cowshed etc. and commercial structures such as shops, workshops, godowns, warehouse etc. Village wise distribution of affected structures is presented in Table 4.5.

**Table 4.5. : Private Structure details of Project Affected Villages**

<b>District/ Villages</b>	<b>Residence</b>	<b>Detached Toilet</b>	<b>Storage</b>	<b>Cattle Shed</b>	<b>Well</b>	<b>Shop</b>	<b>Factories</b>	<b>Grand Total</b>
<b>PALGHAR</b>								
Ambesari	6							6
Chari	8							8
Hanuma Nagar	3	1						4
Jamset	6							6
Jitgaon	10		1	2	1	3		17
Santoshi	1							1
Vangam	3							3
Kapase	2							2
Silkhe	2							2
Vakashi	4							4
Aam Gaon	1							1
Dhamangaon	2							2
Karajgaon	2							2
Kavada	1							1
Talasri	1							1
Uplat	3							3
Zari	6							6
<b>VALSAD</b>								
Balda	1					1		2
Dangra	1							1
Paria	12					5		17
Rata	3							3
Achchhari	1							1
Tal	3							3
Chanvai	1							1
Panchlai	4				1		1	6
<b>Grand Total</b>	<b>87</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>2</b>	<b>9</b>	<b>1</b>	<b>103</b>
<b>Percent</b>	<b>84.5</b>	<b>1.0</b>	<b>1.0</b>	<b>1.9</b>	<b>1.9</b>	<b>8.7</b>	<b>1.0</b>	<b>100.0</b>
<b>Source:</b> IOL Survey Data, Sep-Dec 2014								

Village wise distribution of identified CPR structures is mentioned in Table. Out of the 243 affected structures 46.0% affected structures are village approach road, 41% electricity distribution poles followed by 8.2% electricity distribution lines/wires. Other CPR structures

constitute of village common land, high transmission tower, panchayat building, community ponds, schools etc. In the context of road, it is understood that the impact will be of temporary nature, as the technical design is likely to have provisions of culverts and viaducts ensuring smooth passage way during operational phase. The impact may be only during the construction phase.

<b>Table 4.6. : CPR/ Government Structure details of Project Affected Villages</b>															
	<b>Roads</b>	<b>Wells/Tube wells/Hand Pumps</b>	<b>Community Ponds</b>	<b>Panchayat buildings</b>	<b>Bank</b>	<b>Electricity line</b>	<b>Transmission tower</b>	<b>Electricity Pole</b>	<b>Places of Worship</b>	<b>Government Buildings</b>	<b>Schools</b>	<b>Village Common</b>	<b>Others</b>	<b>Electrical Transformer</b>	<b>Grand Total</b>
<b>Palghar</b>															
Ambesari	3					2						2			7
Chari	5	1	1			1	1	2				3			14
Hanman nagar	1							1							2
Jamshet	3					1		2							6
Jit gaon	4					2		6				1			13
Santoshi	1	1				2		3		1					8
Vangam	5					1		2			1				9
Kapase	3					1		2							6
Silkhe	2	1						3							6
Vakshi	2							1							3
Dhaman gaon	2						1								3
Karaj gaon	2							1				1			4
Kawade	1														1
Uplat	3							1							4
Zari	8					1				1					10
<b>Valsad</b>															
Balda	3		1					8	1	1				1	15
Dungra	3		2					9	1		1		2	1	19
Paria	9					2		17		1					29
Rata	1			1		1		1							4
Achchhari	5							4						1	10
TAL	9					4		12	1		1			1	28
Chanvai	5				1	1		12		1				2	22
Panchlai	4					1		13		1				1	20
<b>Grand Total</b>	<b>84</b>	<b>3</b>	<b>4</b>	<b>1</b>	<b>1</b>	<b>20</b>	<b>2</b>	<b>100</b>	<b>3</b>	<b>6</b>	<b>3</b>	<b>7</b>	<b>2</b>	<b>7</b>	<b>243</b>

Percent	34.6	1.2	1.6	0.4	0.4	8.2	0.8	41.2	1.2	2.5	1.2	2.9	0.8	2.9	100
Source: CPR Survey Data, Sep-Dec 2014															

#### 4.1.6 Occupational and Income Pattern of the IPs

The IPs of Palghar and Valsad districts generally continue to be subsistence farmers by tradition, necessity and choice. In the earlier days they obtained most of their foodstuffs from their land and supplemented this by fishing, livestock rearing, collecting tree and forest products, and hunting. To these subsistence activities a major economic activity – wage employment was added. Obtaining food is by far the most important time and energy consuming activity of most tribals. It takes up more than half the working hours of an average adult. On average women spend more hours at it daily than the men who spend about five-six hours daily on the task depending on the seasonality and availability of wage employment. The agriculture season starts with the first monsoon showers in June. The slack season starts after the harvest in October / November and barring occasional breaks in between continues till June. It is during this slack period that tribals usually seek alternative sources of income – as labourers in forest cooperatives, road construction, and other developmental activities such as grass cutting. Two important things need to be stressed to present the level of poverty in this region: (A) a large number of tribal families do not possess sufficient cultivable land to provide a minimum living all the year round and (B) opportunities for wage employment are extremely limited. Hunting used to be another economic activity but is reducing with the pressure on land increasing. Even earlier the booty derived from the activity was small only. The spoils are equally distributed among the hunting group and cooked and consumed in the respective homes. Food generally means nagli, rice-corn and tur, all kharif crops. Rice cultivation was introduced among the tribals long back. Very few tribal families are self-sufficient in their requirement of the basic staple food; over and above this they have acquired the need for clothes salts, other dried fish and food articles, material goods and alcoholic drinks. Traditionally perhaps their need for staple food items was met by the non-monetary reciprocal exchange system between clan members and tribal groups. This is almost completely replaced by the monetary exchange system. The major crops grown in this area are paddy, Nagli (finger millet), kharsani (Niger), and varai (panicum millaecum). Paddy is grown in typical flat tracts in between forests and hillocks where water may be allowed to stand for paddy cultivation. The complete absence of any kind of socially meaningful leisure-time activity has led to toddy drinking and occasional feasts and ceremonies. It should be noted here that there are some important and relevant activities e.g. hut building, “mahuva (*madhuca indica*)” collection, sowing, harvesting etc. where the tribal people help each other among its clan members and relatives.

#### Primary Occupation of ST Population in Project Areas

Occupation-wise distribution of affected tribal population in the project area of Palghar and Valsad is presented in Table 4.7. 63 (67.7%) are dependent upon Agriculture, whereas 8(8.4%) are skilled professionals, 5(5.4%) Unskilled Labour, 2 each are engaged in Business/Trade, private Sector and retired from Govt. Services.



<b>Table 4.7: Primary Occupation of ST Population in Project Areas</b>											
<b>District/ Villages</b>	<b>Agriculture</b>	<b>Forestry</b>	<b>Household/ Cottage Industry</b>	<b>Business/ Trade</b>	<b>Skilled Profession</b>	<b>Unskilled Labour</b>	<b>Pvt. Service</b>	<b>Retired/ Pensioner</b>	<b>Unemployed but capable to work</b>	<b>Others</b>	<b>Grand Total</b>
<b>PALGHAR</b>											
Ambesari	6										6
Chari	5			1	1						7
Hanuma Nagar	3										3
Jamset	1				2	3					6
Jitgaon	8			2						1	11
Santoshi						1					1
Vangam	3										3
Kapase	2										2
Silkhe	2										2
Vakashi	4										4
Aam Gaon	1										1
Dhamangaon	1		1								2
Karajgaon	2										2
Kavada	1										1
Talasri	1										1
Uplat	3										3
Zari	6										6
<b>VALSAD</b>											
Balda								1			1
Dangra	1										1
Paria	4	1		3	5	1			2	1	17
Rata	2			1							3
Achchhari							1				1
Tal	3										3
Chanvai							1				1
Panchlai	4							1			5
<b>Grand Total</b>	63	1	1	7	8	5	2	2	2	2	93
<b>Percent</b>	67.7	1.1	1.1	7.5	8.6	5.4	2.2	2.2	2.2	2.2	100.0

## Economic Status of ST Population in the Project Area

The following table highlights the state recognized economic status of the ST Population in the district of Palghar and Valsad. 60 (64.5%) PAHs in the project areas are below the Poverty line whereas 23 (24.7%) PAHs are above the poverty line. Rest of the families 10 (10.8%) couldn't give a clear answer regarding their economic status.

<b>Table 4.8: Economic Status of ST Population in the Project Area</b>				
<b>District/Villages</b>	<b>BPL</b>	<b>APL</b>	<b>Don't know</b>	<b>Grand Total</b>
<b>PALGHAR</b>				
Ambesari	2	1	3	6
Chari		2	5	7
Hanuma Nagar	3			3
Jamset	4	2		6
Jitgaon	6	4	1	11
Santoshi	1			1
Vangam	1	2		3
Kapase	1		1	2
Silkhe	2			2
Vakashi	4			4
Aam Gaon	1			1
Dhamangaon	2			2
Karajgaon	2			2
Kavada		1		1
Talasri	1			1
Uplat	3			3
Zari	6			6
<b>VALSAD</b>				
Balda		1		1
Dangra	1			1
Paria	10	7		17
Rata	2	1		3
Achchhari	1			1
Tal	2	1		3
Chanvai	1			1
Panchlai	4	1		5
<b>Grand Total</b>	<b>60</b>	<b>23</b>	<b>10</b>	<b>93</b>
<b>Percent</b>	<b>64.5</b>	<b>24.7</b>	<b>10.8</b>	<b>100.0</b>
<b>Source:</b> Census Survey Data, Sep-Dec 2014				

#### **4.1.7 Land Tenure System and Landholding Pattern of IPs**

The IPs has their own system of land holding based on customary and traditional practices. They have occupied the land from the powers of unseen forces as they believed. They claimed absolute authority over their land. Tribal considered that the land they possessed and occupied are out of their merit. Interference to their land is therefore, opposed with tooth and nail. They are the first settler of the land. Every tribal village was independent republic without outside interference. Tribal claimed absolute ownership over their land. Indigenous people have been living in most inaccessible and interior areas in the state of Gujarat and Maharashtra and utilize land, water and forest for their basic survival. The nature of command over their resources depends upon their traditional customary rights, which is sometimes not recognized by the Central and State Government. Households remain the most important kind of indigenous social grouping, socially and economically; people sleeping together under the same roof also spend most of their working hours together and pool most of their energies and goods for common consumption. The households are predominantly nuclear though the bonding between older and younger generation are strong. Living together with married sons and daughters creates many problems under the same roof and also the land holding is generally not enough to support the extended family members. As the land is scattered the younger generation goes to live near the inherited land away from the parent dwelling in his newly constructed dwelling. In practice a married son lives with his parents for a year or two till he establishes his own separate household.

## Chapter 5. Project Impact on Indigenous Communities and Groups

### 5.1.1 Background

India has the second largest concentration of tribal population in the World. Social assessment is required to uncover the social causes and consequences which in turn necessitates to explore the various social groups in the society and to understand the social environment of these identified groups which are socially vulnerable or excluded and or vulnerable to the HSPR Project due to such socio- economic and cultural factors. Apart from that, it is pertinent to know about the institutions providing services to these groups and the policy environment around these groups. As a methodology, social assessment refers to a broad range of processes and procedures for incorporating social dimensions into the development project such as HSPR. The social assessment influences project design and the overall implementation of the project in as much as the focus is on people as beneficiaries, and especially the vulnerable groups that may be adversely affected by the project. The social assessment aims to determine the social costs of the project and the degree to which the benefits of a project will be distributed in an equitable manner. Social assessments are necessary to help ensure the project will accomplish its development goals and avoiding or mitigating negative effects on vulnerable groups, and protecting these groups. As part of this assignment, an assessment has been undertaken to see whether or not any land acquisition and/or government land under different tenure system such as forest, village common land will be required for the project and whether or not it will affect the sources of income, livelihood, common and cultural properties on which tribal communities depend. The potential adverse impacts of the programme however are discussed under Section 6.2 – Analysis of Impact on IPs.

### 5.1.2 Analysis of Impact on IPs

Indigenous land rights are the rights of indigenous peoples to land, either individually or collectively. Land and resource-related rights are of fundamental importance to indigenous peoples for a range of reasons, including: the religious significance of the land, self-determination, identity, and economic factors. Land is a major economic asset. The majority of indigenous peoples living in forest areas depend on the natural resources of their lands to fulfil their subsistence needs. Hunting, fishing, gathering of forest products, and small garden plots still form the basis of their household economy. The security and permanence of their control and use of the natural resource base is actually more important to most indigenous groups than direct ownership of the land itself. The demand for ownership, in fact, derives from the need to ensure their access to these resources, so it is of particular importance to examine how the different national-level legal regimes handle this aspect of indigenous ownership. Land is also an important instrument of inheritance and it is a symbol of social status. The land is essential for people's spiritual development. Losing their land means a loss of contact with the earth and a loss of identity. Land is not only an asset with economic and financial value, but also a very important part of tribal people's lives, worldviews and belief systems. The IPP seeks to ensure that indigenous people and tribal communities are informed, consulted, and mobilized to participate in the project preparation. The IPP is intended to guide the selection and preparation of project to ensure better distribution of project benefits and promote development of IPs in the project area. In cases where significant impacts on IPs are identified, this IPP has been prepared in accordance with the World Bank guideline. The IPP is based on the overall local and national development strategies. The principle objectives are to:

- Ensure IPs affected by the project will receive culturally appropriate social and economic benefits from the project.
- Ensure IPs participate in the entire process for the preparation, implementation and monitoring of project activities and
- Do not suffer adverse impacts as a result of the project.

Based on interaction and consultations with the IP communities, it was very evident that the collective relationship that the Indigenous Peoples have with their lands, territories and resources is both multi-faceted and profound. It indeed has dimensions which are material, social, cultural, economic, political and spiritual in nature. This relationship is intergenerational and critical to the identity, economic sustainability and survival of these Indigenous Peoples as distinct cultural communities with their own world view and spirituality. Without access to their lands, territories and resources, the physical and cultural survival of Indigenous Peoples can be threatened.

### **IPs Perception about Project:**

Primary survey (Census Survey) also sought to capture perception among the IPs in the District of Palghar and Valsad about the project and likely impacts. On query about whether the affected families viewed the project to accrue positive benefits to them, nearly seventy percent of them responded (refer table 5.1 below) in negative.

<b>Table 5.1: IPs Perception about Project</b>			
<b>District/Villages</b>	<b>Yes</b>	<b>No</b>	<b>Grand Total</b>
<b>PALGHAR</b>			
Ambesari	3	3	6
Chari	7		7
Hanuma Nagar	1	2	3
Jamset	2	4	6
Jitgaon	4	7	11
Santoshi	1		1
Vangam	2	1	3
Kapase		2	2
Silkhe		2	2
Vakashi	1	3	4
Aam Gaon		1	1
Dhamangaon		2	2
Karajgaon	1	1	2
Kavada		1	1
Talasri		1	1
Uplat	1	2	3
Zari	2	4	6
<b>VALSAD</b>			

Balda		1	1
Dangra		1	1
Paria	3	14	17
Rata		3	3
Achchhari		1	1
Tal		3	3
Chanvai		1	1
Panchlai		5	5
<b>Grand Total</b>	<b>28</b>	<b>65</b>	<b>93</b>
<b>Percent</b>	<b>30.1</b>	<b>69.9</b>	<b>100.0</b>
<b>Source:</b> Census Survey Data, Sep-Dec 2014			

Further query on reasons for having such negative opinion on project benefits (to them), all of the respondents cited loss of physical assets (residential structures in particular) as the primary reasons. Amongst other reasons (refer table 5.2 below), 'loss of income' was cited by 20 percent of the tribal families. Similarly, 32 percent of the tribal families felt that the HSR will create significant sound and vibration disturbance to them during its operational phase. Few other reasons cited were loss of farm land (13.8 percent), split of community (12.8 percent), difficulty in commutation (13 percent) and loss of working/market place (7.7 percent).

<b>Table 5.2: Perceived Negative Impacts among ST Families</b>							
<b>District/ Villages</b>	<b>PAHs</b>	<b>Loss of Income Source</b>	<b>Loss of all or large part of the farmland</b>	<b>Too far to commute working place</b>	<b>Loss of working place such as market</b>	<b>Air quality/ noise/ vibration disturbance</b>	<b>Split of commu nity by the track</b>
<b>PALGHAR</b>							
Ambesari	3			1		1	1
Chari							
Hanuma Nagar	2	1				1	
Jamset	4	1		1		1	1
Jitgaon	7	1		2	1	1	2
Santoshi							
Vangam	1						1
Kapase	2	2					
Silkhe	2		2				
Vakashi	3					2	1
Aam Gaon	1					1	
Dhamangaon	2	1				1	

Karajgaon	1	1					
Kavada	1					1	
Talasri	1					1	
Uplat	2					1	1
Zari	4	2			2		
<b>VALSAD</b>							
Balda	1					1	
Dangra	1		1				
Paria	14	1	4	3	2	4	
Rata	3	1	1	1			
Achchhari	1					1	
Tal	3	2		1			
Chanvai	1		1				
Panchlai	5					4	1
<b>Grand Total</b>	<b>65</b>	<b>13</b>	<b>9</b>	<b>9</b>	<b>5</b>	<b>21</b>	<b>8</b>
<b>Percent</b>	<b>100.0</b>	<b>20.0</b>	<b>13.8</b>	<b>13.8</b>	<b>7.7</b>	<b>32.3</b>	<b>12.3</b>
<b>Source:</b> Census Survey Data, Sep-Dec 2014							

The implementation process of the HSPR project will have to identify and recognize these rights to ensure that activities do not adversely affect such rights. Given Indigenous Peoples' distinct cultures and identities and their frequent marginalization from the surrounding society, the project interventions may run the risk of imposing changes to or disruption of their culture and social organization, whether inadvertently or not. While these indigenous communities may welcome and seek change, they can be vulnerable when such change is imposed from external forces and when such change is rushed. Moreover, since many indigenous communities' culture and social organization are intertwined with their land and natural resource use practices, changes to these practices may result in unintended and unexpected changes in culture and social organization which may lead to social disruption and conflicts within and between communities and other stakeholders. This is relevant for this assignment as it aims to change livelihood and natural resource use practices and those that create new institutional structures at the local level.

The HSPR project is likely to have two categories of impacts on IPs:

#### **Permanent impacts:**

Permanent effects will result into an infinite loss of use of property, vegetation, or land by the affected person. Such effects are anticipated to affect IPs and vulnerable groups whose land is found suitable for these infrastructures and this can translate into either loss of land or crop cover or both. The main activity for land use among the IPs is subsistence farming dominated by cultivation of crops, and forestry activities. Resettlement can also lead to the loss of access to communal resources:

- Loss of land for grazing.
- Loss of access to water supply

- Loss of medicinal plants; and
- Loss of trees for fuel.

### Temporary impacts:

Temporary impacts will result into an interruption in the current use of property or land by the affected communities or individuals as a result of the project activities. This is likely to occur during rehabilitation of existing infrastructure especially pastureland, water points etc. This is likely to affect IPs and Vulnerable Groups that currently use water points and pasturelands meant and will therefore have to find temporary pastureland.

Table 5.3 Provides below are some of the potential negative impacts with proposed mitigation measures.

<b>Table 5.3: Potential Negative Impacts and its Mitigation</b>		
<b>Sl. No.</b>	<b>Possible Impacts</b>	<b>Mitigation Measures</b>
1	Change of land use	Community Participation
2	Loss of resources	Plan land use change and compensation
3	Public Health	Awareness and education programme
4	Noise, dust, soil erosion, construction waste	Sensitize community members on health and safety issues; careful site management during construction
5	Loss of livelihood	Consider alternative sites
6	Culture	Increased community engagement.

### 5.1.3 Loss of Community Land

This section highlights the impact on the loss of the community land by assessment of requirement of community land of IPs for the project and to see whether it would involve land acquisition and transfer of land, including common land, on which tribal communities depend for social, economic and cultural needs. As part of the IPP, it has been undertaken to see whether or not any land acquisition and/or government land under different tenure system such as forest, village common land will be required for the project and whether or not it will affect the sources of income, livelihood, common and cultural properties on which tribal communities depend. The assessment indicates that this is likely to happen. Based on the detailed discussions with the Sarpanch of the Gram Panchayat, tribal communities, tribal leaders, elderly persons, women representatives from local SHGs, Panchayat leaders, following observations are being made in respect the importance of the community land for the tribal and the impact of its loss due to the HSPR Project in the Mumbai-Ahmedabad Corridor. In villages like Zaroli and Karajgaon, the tribal have long standing customary rights depending mostly on traditional beliefs, customs and religious practices. Land and resource-related rights are of fundamental importance to these indigenous peoples for a range of reasons, including: the religious significance of the land, self-determination, identity, and economic factors. Land is also an important instrument of inheritance and it is a symbol of social status. Due to the erosion of community land rights, there has been a decline in the availability of common lands in Gujarat, but the impact of this loss is difficult to gauge. First, the lands were available for cultivation whenever a new household settled in a village or a family wanted to expand cultivation, but the right to settle on such land has been severely limited, although “encroachments” still occur. Second, much of the land classified as community land contains scrub or trees which have some subsistence or economic value and



to which local people traditionally had free access. The traditional tenure system and the existing practices of IPs have been given in Table no 5.4.

<b>Table 5.4: Customary Land Tenure of IPs</b>						
<b>Name of the Tribe</b>	<b>Types of Land and Traditional System of Ownership</b>		<b>Existing System of Ownership</b>		<b>Pattern of Inheritance on Privately Owned Land</b>	<b>Remarks</b>
	<b>Individual</b>	<b>Community</b>	<b>Individual</b>	<b>Community</b>		
<b>Warli</b>	Homestead Land Paddy land	Sacred sites like ritual places, funeral and cremation sites	Homestead land Paddy land	Sacred sites like ritual places, funeral and cremation sites	Patrilineal ownership. Only son can inherit the property of the father. In case of heirless family ownership transferred to the nearest paternal kin or to the adopted male-child	Sale, mortgage, loan, gift, etc. at the time of need are allowed within the community and decided by the village elders.
<b>Dhodia</b>	Kitchen garden and homestead lands	Grazing land, land of the village shrine and land near the stream.	Kitchen garden and homestead lands	Grazing land, land of the village shrine, ritual places and funeral sites and land near the stream.	Patrilineal inheritance	Paddy lands were rarely available.
<b>Kokna</b>	Koknas living in plain land areas individually owned lands basically paddy lands.	Sacred grove in each village consisting of Sal, Neem trees. Common land used to grow thatching grass and firewood.	Permanent paddy Plots, Kitchen garden and homestead land	Village forest reserved to provide timber and materials to the villagers Sacred places and socio-culturally important places	Patrilineal inheritance	Except forest land RoW is given to all category of lands to the owner by the government.
<b>Source:</b> Primary data in Consultation with the IPs						

#### 5.1.4 Loss of Private Land

Primary survey at this stage did not cover land usage and identify land losers. Hence detail of land loss and the land loser information could not be collected. However, an estimate of overall land loss due to project construction has been done and presented in table 5.5 overleaf. It may be noted that in Palghar, the track passes through both the suburban outer growth areas in vasai taluka of the district and thereafter in to tribal dominated blocks of Palghar, Dahanu and Talasri.

Based on the detailed discussions with the IPs in the proposed project corridor, the following are some of the possible impacts shared by IPs towards loss of private lands. As Gujarat and Maharashtra being farm dominated states with agriculture as the main occupation, loss of land, removes the main foundation on which people's productive systems, commercial activities and livelihood are based. Unless this foundation is reconstructed elsewhere or replaced by steady income-generating employment, landlessness sets in and the affected families are impoverished. In most of the cases/projects, land for land, norm could not be followed. But cash compensation is inadequate to make up for the loss of land. This impact could have serious implication in the current project and therefore needs special consideration by the project implementing agencies. Some IPs also carry an opinion that loss of Private land would lead to decline of Joint Family system in the villages and when people were displaced from their habitat, they lose their means of livelihood. Creation of new jobs or alternative sources of income for them becomes very difficult since the ousters do not possess any skill to learn new methods of earning their livelihood. In villages like Varkhunti and Kapase, IPs are of the opinion that loss of private land may lead to no access to health care facilities, the psychological trauma caused thereby and the food insecurity together often leads to serious diseases. Some of the IPs also said that for the tribals, particularly, the landless, loss of private land will displace them from the original place of residence and will lead to loss of common property (forest lands, water bodies, grazing land, etc.) and will be a major deterrent in their income and livelihood levels. Such lost resources are rarely compensated by the Government in the relocation sites. There are also frequent conflicts between the host population and new settlers over the use of forest land and other government land. As a result, the resettled IPs will not get fuel wood and other minor forest produce, which they used to collect from the forests in their old habitat.

Table 5.5: Land Area to be Acquired for Alignment Track Structure Construction								
State	District	Tunnel Area (m <sup>2</sup> )	Embankment Area (m <sup>2</sup> )	Cut Area (m <sup>2</sup> )	Viaduct Area (m <sup>2</sup> )	River Bridge Area (m <sup>2</sup> )	Grand total (m <sup>2</sup> )	Remarks
Maharashtra	Palghar	104540.2	1817604.2	965438.1	361147.2	29170.1	3277899.8	In Vasai taluka, a Mumbai suburb, it passes along dense populated area with high number of physical structures, and Vasai onwards, it moves along hilly tracts, forest areas, and patches of farmlands and inhabited by tribal population
Gujarat	Valsad	756.9	2016800.2	18613.4	29658.2	251217.3	2317046.0	Alignment enters the district in a tribal dominated areas (up to Vapi). In and Vapi, the area is peri urban settlement and subsequently patches of human settlement area interspersed with agricultural land. Up to Valsad, there are few settlements of tribal population in patches. Near Vapi, 2-2.5 KM stretch falls under Dadra and Nagar Haveli (referred in row above)

### 5.1.5 Loss of Structures

The tables below provide information on loss of structures (table 5.6 and 5.7) both private and common & government properties where the identified losers are from tribal groups in the districts of Palghar and Valsad.

<b>Table No. 5.6: Private Structure details of Project Affected Villages</b>								
<b>Dist./Villages</b>	<b>Residence</b>	<b>Detached Toilet</b>	<b>Storage</b>	<b>Cattle Shed</b>	<b>Well</b>	<b>Shop</b>	<b>Factories</b>	<b>Grand Total</b>
<b>PALGHAR</b>								
Ambesari	6							6
Chari	8							8
Hanuma Nagar	3	1						4
Jamset	6							6
Jitgaon	10		1	2	1	3		17
Santoshi	1							1
Vangam	3							3
Kapase	2							2
Silkhe	2							2
Vakashi	4							4
Aam Gaon	1							1
Dhamangaon	2							2
Karajgaon	2							2
Kavada	1							1
Talasri	1							1
Uplat	3							3
Zari	6							6
<b>VALSAD</b>								
Balda	1					1		2
Dangra	1							1
Paria	12					5		17
Rata	3							3
Achchhari	1							1
Tal	3							3
Chanvai	1							1
Panchlai	4				1		1	6
<b>Grand Total</b>	<b>87</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>2</b>	<b>9</b>	<b>1</b>	<b>103</b>
<b>Percent</b>	<b>84.5</b>	<b>1.0</b>	<b>1.0</b>	<b>1.9</b>	<b>1.9</b>	<b>8.7</b>	<b>1.0</b>	<b>100.0</b>

Source: IOL Survey Data, Sep-Dec 2014

Table No. 5.7: CPR/ Government Structure details of Project Affected Villages															
	Roads	Wells/Tube wells /Hand Pumps	Community Ponds	Panchayat buildings	Bank	Electricity line	Transmission tower	Electricity Pole	Places of Worship	Government Buildings	Schools	Village Common Land	Others	Electrical Transformer	Grand Total
Palghar															
Ambesari	3					2						2			7
Chari	5	1	1			1	1	2				3			14
Hanman nagar	1							1							2
Jamshet	3					1		2							6
Jit gaon	4					2		6				1			13
Santoshi	1	1				2		3		1					8
Vangam	5					1		2			1				9
Kapase	3					1		2							6
Silkhe	2	1						3							6
Vakshi	2							1							3
Dhaman gaon	2						1								3
Karaj gaon	2							1				1			4
Kawade	1														1
Uplat	3							1							4
Zari	8					1				1					10
Valsad															
Balda	3		1					8	1	1				1	15
Dungra	3		2					9	1		1		2	1	19
Paria	9					2		17		1					29
Rata	1			1		1		1							4
Achchhari	5							4						1	10
Tal	9					4		12	1		1			1	28
Chanvai	5				1	1		12		1				2	22
Panchlai	4					1		13		1				1	20
Grand Total	84	3	4	1	1	20	2	100	3	6	3	7	2	7	243
Percent	34.6	1.2	1.6	0.4	0.4	8.2	0.8	41.2	1.2	2.5	1.2	2.9	0.8	2.9	100
Source: CPR Survey Data, Sep-Dec 2014															

## 5.1.6 Loss of Livelihood and Income

### Livestock

The ownership patterns of livestock among the tribals in the project areas are presented in Table 5.6. The Livestock owned by tribals generally include cows, buffalos, sheep, oxen, goats etc. As evident from the table below, livestock ownership is not high among the PAHs. Maximum reporting among PAHs is related to pig (15 families in total, 14 PAHs from Paria village alone).

Table 5.6: Livestock Holding of PAHs												
District/ Villages	PAHs	Cow	Ox	Buffalo	Sheep	Goat	Camel	Donkey	Horse	Pig	Chicken	Duck
<b>PALGHAR</b>												
Chari	8	2	1		1	2				2	1	
Jamset	6	1		1		1				2		1
Jitgaon	12	2	2	1	2	2		1		2	2	1
<b>VALSAD</b>												
Achchhari	1		1		1						1	
Dangra	7	3	2	1	2	3		1		3	2	1
Paria	28	4	1	2	2	3	2	1		4	3	2
Rata	8	1	1	1	1	1		1		2	1	2
<b>Total</b>	<b>70</b>	<b>13</b>	<b>8</b>	<b>6</b>	<b>9</b>	<b>12</b>	<b>2</b>	<b>4</b>		<b>15</b>	<b>10</b>	<b>7</b>
<b>Percent</b>		<b>18%</b>	<b>11%</b>	<b>8%</b>	<b>13%</b>	<b>17%</b>	<b>3%</b>	<b>5.7%</b>	<b>-</b>	<b>21%</b>	<b>14%</b>	<b>10%</b>
<b>Source:</b> Census Survey Data, Sep-Dec 2014												
<b>Note:</b> Additional detailed information was collected on household assets among PAHs through socio-economic survey												

The traditional livelihood system of the IPs in the proposed Mumbai-Ahmedabad HSPR corridor has been based on agriculture and allied activities. Many of the tribal families in Palghar district are engaged in collection of edible forest produce. In social terms, the traditional livelihood system is based upon customary, usufructuary rights of tribal communities over land and forests. It is also an extensive system of production. The nature of resources supported customary rights and prevented the intensification of production, in the interest of conserving and sustaining the long-term productivity of livelihood resources. The sustainability of tribal people's livelihoods is thus firmly rooted in a system of 'property' rights over land and forests. As a consequence, the livelihood system's 'carrying capacity' is relatively low and it typically supports sparse populations relative to the size of the 'territory'. Because of the uncertainty of agricultural yields, IPs in some villages is largely dependent on minor forest products (MFPs) as a source of food security, as well as for household medicines. The impact of the loss of the loss of livelihood and income due to the proposed project are many as suggested by the tribal people interacted. The following are some of the critical areas of concern which the people have identified:

### 5.1.7 Joblessness:

Loss of wage employment occurs will be a key issue for the tribals, and those losing jobs will be landless laborers, enterprise or service workers, artisans and small businessmen. Resulting unemployment or underemployment among resettlers lingers long after physical relocation.

**Non-availability of wage work:** Avenues of wage work may be affected and forcing many to migrate to places outside the district and even the State.

**Decline in the Role of Women and relationship in the Family:** Women play a vital role in the tribal family, community and society. But after displacement, the IPs fear that their income may either dwindled or has may come to a halt altogether. They have to be totally dependent on their husbands or sons for household expenditure. This might make their role and status very limited.

### 5.1.8 Lack of Basic Amenities:

Most of the development projects failed to provide basic amenities to the displaced people, which is a critical area of concern.

Some of the tribal families in Palghar district are apprehensive about the proposed projects and believe that loss of land appears to be the main threats as it will lead not only to economic problems but also to the loosening of economic ties. The decrease in the level of economic security which affect will be a consequence for several factors, the most important of which include the following: loss of access to previously used resources on which they depend (water, agricultural land, common resources such as pastures, forests, common agricultural land, rivers), inappropriately small compensation which does not take account of the non-material losses associated with the displacement, deterioration of economic and environmental conditions in the new place of residence and the economic consequences of disarticulation of larger communities and loss of existing community, neighbourhood or family ties. Some IPs believes that temporary financial compensations seem inadequate in relation to the long-term social, environmental, and economic costs.

## Chapter 6. Entitlements and Assistance Plan

### 6.1.1 Entitlement and Rehabilitation Action Plan for IPs

The objective of this Entitlement and Rehabilitation Plan is to ensure that a realistic rehabilitation process is undertaken and compensation is awarded to the project affected persons/families in conformity with the JICA Policy on ‘Social and Environmental Considerations’ for Involuntary Resettlements, W.B O.P 4.12 and the existing laws and policies relating to protection of interests of indigenous peoples of the client state. The acquired assets of the indigenous peoples may include any or all of the following:

- Land ( homestead, agricultural , community land )
- Livestock
- Standing crops/trees
- Access to common property resources (CPRs) and facilities
- Additional benefits for vulnerable persons/groups such as landless families, people with disability, women /old and infirmed headed families, people living with terminal illness etc.

The plan provides mitigation measures against losses for titleholders ( people with legal title and people with usufruct rights) and non-titleholders ( including tenants and leaseholders). It aims to :

- Minimise displacement, and identify the non-displacing alternatives
- Plan the resettlement and rehabilitation of project affected persons/families including their socio-cultural needs and needs of vulnerable persons/groups
- Assist affected persons in maintaining /restoring their former living standard, stabilising their livelihood system, income capacity and production levels
- Facilitate harmonious relations between the implementing authority ( i.e., asset acquiring body) and project affected indigenous peoples (PAIPs) through mutual cooperation and regular iteration
- Ensures that PAIPs are meaningfully consulted and provided opportunities to participate in the planning and implementation stages of settlement programme in order to suitably accommodate their needs and make the plan more participatory in nature and broad based in its scope
- 

### 6.1.2 The Principles that will be Followed in the Plan

The plan is designed to assure that the PAIPs ( persons, families, groups, institutions and communities) are not worse off on account of the project impact than they were before. The indigenous peoples are inherently unequal with rest of the society, therefore need special attention for their rehabilitation and resettlement in conformity with benchmark of JICA and as prescribed by policies and laws of the state.

1. Negative impacts on persons affected by the project will either be avoided to the extent possible, or minimized.
2. Where the negative impacts are unavoidable, the PAIPs irrespective of their legal title will be assisted in retaining their standard of living. Vulnerable Groups to be identified and assisted accordingly to improve their standard of living.



3. All information related to resettlement preparation and implementation must be disclosed to all concerned, and people's participation to be ensured in planning and implementing the project.
4. The PAIPs to receive compensation for lost assets at replacement cost and the compensation to be available prior to the taking over of assets as per the specific provisions of LARR Act.
5. A broad entitlement plan of different categories of PAIPs to be assessed and PAIPs will be surveyed/enumerated as of the cut-off date. Provisions in the budget for those who were not present at the time of enumeration. However, anyone moving into the project area after the cut-off date will not be entitled to assistance.
6. An appropriate grievance redress mechanism to be established as per the law to ensure speedy resolution of disputes.
7. All consultations with PAIPs must be documented, and continue consultations during the implementation of resettlement and rehabilitation (R&R) works.
8. Any disruption of socially and culturally sensitive areas to be avoided, and if impacted they shall be conserved following the laws of the land ( such as PESA).
9. Consultations with potential affected persons will be held among the local population regarding finalization of the proposed route of the track and other associated infrastructure as part of the public hearing process during environmental impact study.
10. Delivery of R&R entitlements and compensation for lost assets will be based on the Entitlement Plan in conformity with the LARR Act.
11. A Resettlement Action Plan (RAP) along with a Development Plan will be prepared in close consultation with the affected families to ensure their acceptability as well as timely delivery of entitlements and assistance.
12. No physical works will commence on any portion of land before compensation and assistance to the affected population have been provided in accordance with the law and policy plan.
13. As far as possible, project plans to conduct its construction activity will commence after the harvests to avoid damage to crops. In case damage to standing crops is unavoidable, the project will provide adequate compensation.

### **6.1.3 Identification of Indigenous Peoples and Vulnerable Groups**

Though indigenous peoples are mostly the Scheduled as per the Constitution of India there are chances that some are left out. Thus their identification is necessary for drawing an appropriate resettlement action plan while taking the best interest of their social, economic, political and cultural institutions and ethos.

The indigenous peoples can be identified based on their :

- Distinct collective identity,
- Own language, religion, traditions, and culture,
- Own traditional and relatively egalitarian social structure (as contrasted with the more rigid and hierarchical caste system),
- Traditional homeland and geographical area, and
- Written and/or oral history that traces their line of descent back to the occupants of territories before they were integrated into the mainstream society within the current frontiers

Similarly a relatively excluded vulnerable social groups such as landless families, people with disability, women headed families, people living with HIV/AIDS etc. also should be mapped for making an appropriate resettlement action plan for them.

#### **6.1.4 Principles of Livelihood Restoration**

- Resettlement and compensation of affected households / businesses shall be carried out in accordance with the applicable legal plan such as LARR Act and JICA Guidelines for Environmental and Social Considerations. In the case of inconsistency between them, the higher standards will be adopted.
- Both, loss of land (physical displacement) and loss of livelihoods (economic loss, i.e. “economic displacement”) shall be taken into account and mitigated within the livelihood restoration plan.
- Short-term impacts related to temporary occupation of land for construction purposes may also entail compensations or other assistance to affected persons.
- Entitlements of all categories of affected peoples (including any host communities receiving resettled communities) will be established.
- Robust methods will be used to value affected assets or resources, or the access thereto, and livelihood impacts, involving independent qualified parties.
- Affected properties shall be compensated in cash. Livelihood restoration and resettlement assistance will also be provided.
- Livelihoods and standards of living of affected persons shall be improved or at least restored to the level prior to project related displacement, in as short period as possible.
- All owners, occupants and users of affected structures and land at the time of a publicly disclosed cut-off date (defined by the completion date of the census and assets inventory of project affected persons), whether with or without fully recognized ownership rights, are eligible for compensation, livelihood restoration and / or assistance.
- Procedures will also be adopted to compensate persons with recognisable rights to land and property where owners remain unknown at the cut-off date.
- Compensation shall be provided prior to any relocation or access to land.
- All transactions to acquire land rights, as well as compensation measures and relocation activities will be documented.
- Affected persons and communities (including vulnerable groups and individuals) will be consulted to facilitate their early and informed participation in decision-making processes related to resettlement and ensure that acquisition and compensation activities are implemented with appropriate disclosure of information and consultation.
- A specific grievance redress mechanism will be established for the project.
- Procedures will be established to monitor and evaluate implementation of the livelihood restoration work and corrective actions will be taken as necessary.

### 6.1.5 Livelihood Restoration Process

The acquisition of land will be undertaken in accordance with LARR Act. This section describes the planned process of livelihood restoration implementation for indigenous peoples, which in summary involves the following steps:

**a) Identification of Project Impacts and Affected Population:** based on:

- **Detailed mapping** of the area of land acquisition on which affected land parcels are identified, class of land, owners and land use is demarcated, including private and communal land use, location of businesses and assets and location of natural resources used by communities etc.
- **Census of affected assets and persons** is to establish a list of people with formal and informal land rights, and to identify those who will experience displacement and therefore be eligible for compensation and/or assistance. Initial census work to identify persons with formal land title / ownership will be completed first. This will be supplemented with further census and survey work to identify people with informal rights to land.
- **Socio-economic survey work** will be undertaken to assess income sources and income levels of affected individuals, to calculate income and livelihood impacts arising from the project's land acquisition and to establish fair compensation rates and livelihood restoration support. This will also help to identify vulnerable individuals and groups who need to be effectively consulted with and appropriately included within compensation and livelihood assistance.
- **Preparation of an inventory of affected assets.** Data from the previous mapping and census work will be used to produce an inventory of affected assets – in line with Macedonian legislation, which requires expropriation reports and lists of the land parcels and assets subject to expropriation. This will provide the basis for on-going monitoring and evaluation of LRF implementation.
- **Public information and meetings** is to provide information on the project, land acquisition, the livelihood restoration process, peoples' legal rights, the process for establishing entitlements, compensation and livelihood restoration measures. Affected persons will be provided with opportunities to discuss the approach to compensation and livelihood restoration.

**b) Entitlements matrix and compensation plan:** using information from the above steps, an entitlements matrix for household- and community-level compensation will be established; and compensation and livelihood restoration will be designed in line with LARR Act, especially following the provisions for indigenous peoples.

- The entitlements matrix will show categories of impacted assets and persons and how compensation for land expropriation will be provided. Its development will be informed by further public consultation.
  - The Project will establish a cut-off date for eligibility according to LARR Act. Information regarding the cut-off date will be well documented and disseminated throughout the Project area.
- c) **Valuation of land and compensation:** Valuation of land, structures, buildings, crops on the land and interrupted economic activities will be undertaken, and compensation offers will be made by the appropriate authority . -
- d) **Payment of compensation:** Payments will be made prior to land acquisition as prescribed Entitlement Matrix in the Main RAP document
- e) **Livelihood restoration assistance:** Where land acquisition results in economic displacement, livelihood restoration measures will be provided to restore income and standards of living of displaced persons to pre-project levels (both for persons with formal and informal land title).

In addition, the overall livelihood restoration process will involve:

- On-going Public Consultation and Participation
- Operation of a Grievance Mechanism ; and
- Monitoring and Evaluation of LRF implementation.

#### 6.1.6 Entitlement Matrix

An Entitlement Matrix will be prepared which describes the entitlement policies for each category of impact. It will include all categories of impacted land owners and users (formal and informal, private owners, tenants, customary land users etc.) will be included in the entitlement matrix and eligible for appropriate compensation and/or livelihood restoration support.

In addition to the compensation for expropriated land, the owner of expropriated land will also be entitled to:

- compensation for the crops, seeds, forests on the land and the fruits, if they were not incorporated in the market value of the land;
- compensation for assets or facilities (e.g. wells, irrigation systems, fencing and supporting walls and alike) if they are not included in the market value of the land;
- compensation for expropriation of land will take into consideration interruption to economic activities associated with land acquisition; and
- reimbursement or advance payment for moving expenses.

Users of land owned by the state to which there is no expropriation right will be entitled to compensation for investments made on the land.

The owner of property which is expropriated is not entitled to compensation for investments made following the date of submission of the proposal for expropriation.

An indicative Entitlements Matrix is shown in following. This will be refined in the light of the detailed socio-economic survey, consultations, and discussions with affected persons and stakeholders who will be given opportunities to negotiate and agree with the entitlements and compensation plan.

### Indicative Entitlement Matrix

Category of Project Affected Persons(PAP)	Type of Property	Type of Project affected right or property or loss	Entitlement	Process of settlement
Owner	Land	Loss of agricultural land and associated property	Registration of land parcels according to land legislation of the particular state, prior to expropriation, free of costs.	Transfer of property right through agreement during expropriation process.
Category of persons who do not have formal legal rights to land at the time of land survey			Cash compensation for affected land at cost prescribed by Entitlement matrix of the RAP (which is prevailing market rate as replacement cost); and/ or  Cash compensation for assets on the land, e.g. agricultural buildings or fixed assets/equipment such as irrigation systems. Cash compensation will be at least equal to replacement costs of assets and will not include depreciation.	
Tenant			Registration of land parcels according to land registration legislation of the state, prior to expropriation, free of costs; or  Cash compensation for loss of assets resulting from expropriation; economic losses are covered below.  Cash compensation to tenant farmers as per entitlement matrix.	Transfer of property right through agreement during expropriation process.
Owner	Commercial property	Loss of land, business assets and/or rent or income	Compensation for loss of land, assets and income/livelihood impacts as a result of expropriation, including compensation for the costs of the transfer and reinstallation of any plant, machinery or other equipment (e.g. irrigation equipment)	Compensation for loss of land, business / rent / income as per entitlement matrix in RAP document
Owner / Tenant / User Category of persons who		Loss of annual crops	The right to harvest crops or Cash compensation for annual crops at replacement value	Cash compensation for the possible crops if the annual crops

have no formal land title or recognisable legal rights or claims to the land they use	Standing crops or other assets			could not be harvested within the period of notice
		Loss of perennials and non-fruit trees	The right to harvest the yield or Cash compensation for perennial trees, plants at replacement value based on type, age and productive value of affected trees	Cash compensation
		Loss of other assets or investments associated with the land.	Cash compensation for loss of assets associated with the land, e.g. agricultural buildings or fixed assets / equipment such as irrigation systems. Compensation will be at least equal to replacement costs of assets and depreciation will not be taken into account.	

The sections ahead detail out various provisions as made under the entitlement matrix above.

#### 6.1.7 Compensation for Land Owners as per the LARR Act

Sl. No.	Component of compensation package in respect of land acquired under the Act	Manner of determination of value
1	Market value of land	To be determined as described in the Section 26 of the Act
2	Factor by which the market value is to be multiplied in case of rural areas	1.00(one) to 2.00(two) based on the distance of project from urban area, as may be notified by appropriate government ( here the state government of Gujarat and Maharashtra)
3	Factor by which the market value is to be multiplied in case of urban areas	1.00(one)
4	Value of asset attached to land or building	To be determined as per the provision of Section 29
5	Solatum	Equivalent to one hundred percent of the market value of land mentioned against serial number 1 multiplied by the factor specified against serial number 2 for rural areas or serial number 3 for urban areas plus value of assets attached land or building against serial number 4
6	Final award in rural areas	Market value of land mentioned against serial number 1 multiplied by the factor specified against serial number 2 plus value of the assets attached to land or building mentioned against serial number 4 plus solatium mentioned in serial number 5
7	Final award in urban areas	Market value of land mentioned against serial number1 multiplied by the factor specified against serial number 3 plus value of assets attached to land or building mentioned against serial number 4

		plus solatium mentioned against serial number 5
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#### 6.1.8 Rehabilitation and Resettlement Entitlements

The proposed R&R entitlements are drawn largely from the LARR 2013 provisions, which is more progressive in terms of providing benefits to PAHs, and broadly aligns with the JICA guidelines as well. However, it may be noted that the Act with its recent amendment is under discussion in the Indian parliament, and its applicability on Railway project will become clearer only thereafter. However, adhering to JICA guidelines, the LARR recommendation are still be referred to for the below mentioned R&R benefits and recommended under IPP.

Sl. No.	Elements of Rehabilitation and Resettlement Entitlement	Entitlement/Provision
1	Provision of housing units in case of displacement	<p>(a) If a house is lost in rural areas, a constructed house shall be provided as per the Indira Awas Yojana specifications. If a house is lost in urban areas, a constructed house shall be provided which will not be less than 50 sq. mts in plinth area</p> <p>(b) The same benefits shall also be extended to any affected family which is without homestead land and which has been residing in the area continuously for a period of not less than three years preceding the date of notification</p> <p>(c) If the family opts to take one time financial assistance in lieu of house, it can be provided</p>
2	Land for land	Irrespective of nature of project the land losers belonging to STs will be provided land equivalent to land acquired or two and a one-half acres, whichever is lower
3	Offer for developed land	In case the land is acquired for urbanisation purposes, twenty percent of the developed land will be reserved and offered to the landowning project affected families, in proportion to the area of their land acquired and at a price equal to the cost of acquisition and cost of development
4	Choice of annuity or employment	<p>Options :</p> <p>(a) Where jobs are created through project, after providing suitable training and skill development in the required field, make provision for employment for at least one per affected family in the project or arrange for a job in such other project as may be required; or</p>

		<p>(b) One time payment of five lakh rupees per affected family; or</p> <p>(c) Annuity policies that shall not pay not less than two thousand rupees per month per family per twenty years , with appropriate indexation to the consumer price index for agricultural labourers</p>
5	Subsistence grant for displaced families for a period of one year	<p>(a) Each affected family which is displaced from the land acquired shall be given a monthly subsistence allowance equivalent to three thousand rupees per month for a period of one year from the date of award</p> <p>(b) In addition to this amount , the STs displaced from Scheduled Areas shall receive an amount equivalent to fifty thousand rupees</p> <p>(c) In case of displacement from the Scheduled Areas, as far as possible, the affected families shall be relocated in a similar ecological zone, so as to preserve the economic opportunities, language, culture and community life of tribal communities</p>
6	Transportation cost for displaced families	Each affected family which is displaced shall get a one time financial assistance of fifty thousand rupees as transportation cost for shifting of family, building materials, belongings and livestock
7	Cattle shed/petty shop cost	Each affected family having cattle/livestock or having petty shop shall get one –time financial assistance of such amount subject to a minimum of twentyfive thousand rupees for construction of cattle shed or petty shop as the case may be
8	One-time assistance to artisans, small traders and some others	Each affected family of an artisan, small trader or self employed person or an affected family which owned non-agricultural land or commercial, industrial or institutional structure in the affected area, and which has been involuntarily displaced from the affected area due to land acquisition, shall get one-time financial assistance subject to minimum of twentyfive thousand rupees
9	One-time resettlement allowance	Each affected family shall be given a resettlement allowance of fifty thousand rupees
10	Stamp duty and registration fee	<p>(a) The stamp duty and other fees payable for registration of the land or house allotted to the affected families shall be borne by the Requiring Body</p> <p>(b) The land for house allotted to the affected families shall be free from all</p>



		encumbrances (c) The land or house allotted may be in the joint names of wife and husband of the affected family
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#### 6.1.9 Provisions of Infrastructural Amenities at Relocation Sites

IPP recommends developing of basic infrastructural amenities that need to be provided to relocation sites, should the need for such relocation arises. It must however be the utmost attempt of the project to avoid such relocation of tribal communities and be the last of all options. A list of such amenities is provided below.

Sl. No.	Component of infrastructure amenities provided/proposed to be provided by the acquirer of land*
1	Roads within the resettled villages and an all-weather road link to the nearest pucca road, passages and easement rights for all resettled families be adequately arranged
2	Proper drainage as well as sanitation plans executed before physical resettlement
3	One or more assured sources of safe drinking water for each family as per the norms prescribed by Government of India
4	Provision of drinking water for cattle
5	Grazing land as per proportion acceptable in the state
6	A reasonable number of Fair Price Shops
7	Panchayat Ghars(house), as appropriate
8	Village level post offices, as appropriate, with facilities for opening saving accounts
9	Appropriate seed-cum-fertilizer storage facility if needed
10	Effort must be made to provide basic irrigation facilities to the agricultural land allocated to the resettled families
11	All new villages established for resettlement of displaced persons with suitable transport facility which must include public transport facilities through local bus services with the nearby growth centres/urban localities
12	Burial or cremation ground, depending on the caste-communities at the site and their practices
13	Facilities for sanitation, including individual toilet points
14	Individual single electric connections ( or connection through non-conventional source of energy like solar energy), for each household and for public lighting
15	Anganwadi's shall be set up for providing child and mother supplementary nutritional services
16	School as per the provisions of the Right of Children to Free and Compulsory Education Act, 2009
17	Sub-health centre within two kilometers range
18	Primary Health Centres as prescribed by the Government of India
19	Playground for children

20	One community centre for every hundred families
21	Places of worship and chowpal/tree platform for every fifty families for community assembly, of numbers dimensions consonant with the affected area
22	Separate land must be earmarked for traditional tribal institutions
23	The forest dwellers families must be provided, where possible, with their forest rights on non-timber forest produce and common property resources, if available close to new place of settlement and, in case any such family can continue their access or entry to such forest or common property in the area close to the place of eviction, they must continue to enjoy their rights to the aforesaid sources of livelihood.
24	Appropriate security arrangements must be provided for the settlement, if needed
25	Veterinary service center as per norms

\*The details of each 25 facilities mentioned above should be shared by the acquirer of land with the project affected persons

#### 6.1.10 Identification of Development Activities for IPs

Indigenous people suffer multiple deprivations historically from economic and social fronts due to the prevailing political economic structure. Certain practices in long colonisation and then political freedom have deprived indigenous people of their land, their culture and their human rights. The loss of self determination denied them the right over their own responsibility to manage their own affairs. Despite several affirmative constitutional measures, protective legislative and policy provisions, instilling a sense of self determination and confidence has not been adequate. Therefore, this section of population has remained relatively backward in terms of per capita income, education, health and other development indicators while comparing with other sections of population surrounding them. Thus, for any displacement from their land, livelihood and culture requires serious and long term efforts to fill the gap in such a way, they get an enabling environment not only to restore their livelihoods but improve them taking the benefits out of emerging opportunities. Thus, any development plan must address to their historical and existing disadvantages such as :

**Social and individual disadvantages:** When they lack basic nutrition, health care, adequate formal education and skill, and social capital it becomes inherently difficult for them to grab the opportunity in a competitive environment. Thus need a carefully guarded and guided support system for their resettlement and development.

**Geographic disadvantages :** Indigenous people and non-dominant minorities often face isolation from the dominant communities because of their inter and intragenerational inequity on the basis of race and ethnicity.

**Cultural disadvantages :** Indigenous people usually experience language problems and cultural differences when they interact with dominant community. They also face discrimination on the basis of their race and ethnicity.

**Economic disadvantages :** They suffer from low productive system, lack of technological advancement, higher level unemployment and lack of access to financial services and entrepreneurial activities.

**Political and structural disadvantages:** Due to political minority, the leadership is not as assertive as expected. Lack of political and social network restricts opportunities and weak implementation of protective legislations and policies.

Taking the broad plan of disadvantaged situation of the indigenous people, who are likely to be affected by the project, a meticulous plan for their development in education, health, entrepreneurship will be drawn so that they get a more than equal benefits while comparing with rest of the population.

### 6.1.11 Education

There are a number of schemes fully funded by the Central Government for the educational development of tribal children. There are some schemes where resources are pooled from the Centre as well as the States. The major issues relation to bottlenecks in education remains in the awareness of parents, enrolment, especially girl children's enrolment, learning with the help of mother tongue at elementary stage, transition to mainstream language system in primary, secondary levels of education, imparting special language coaching at secondary level, residential schools both for boys and girls, dedicated residential facility for boys and girls in mainstream school near tribal habitat, timely supply of books, stationaries, and dresses, vocational education befitting to the need and interest of tribal children at secondary and higher secondary level etc.

After mapping the existing conditions and identifying the gaps in each of the area, an educational development plan shall be prepared to supplement the existing services being provided by the government and non-government agencies so that the tribal children get maximum benefits from the educational services. In this regard a committee both at District and Taluka level steering committees shall be constituted taking the representatives of government officials, local PRI members, women SHG (or their Federation) members, Civil Society organisations, professionals who have substantial experience in primary and secondary education to make the assessment and prepare a comprehensive education development plan for the resettled indigenous peoples. The supplementary gap filling support should at least be provided from the project till five years from the time of physical rehabilitation process is over. The bottomline of emphasis shall remain to ensure universal access to elementary education, minimising the drop out to near zero at secondary level of education, and enhancing proficiency in subjects like language, math, science and understanding of their indigenous knowledge on them.

Vocational education is an important area and an empowering tool for tribal youth to take maximum benefits from the emerging economies in secondary and tertiary sectors. In primary sectors too rapid improvement and innovations are taking place in means of production, processing and marketing thereby opening huge opportunities in agriculture, horticulture, fisheries and livestock development. The project shall make efforts to strengthen the existing vocational institutions/centres and/or establish some model centres where secondary level and above tribal students will have an option to branch out as per their aptitude and interest. More details on skill development is mentioned in the following section. Selected NGO would be responsible to impart services of Education to the IPs

### 6.1.12 Health

It is a mandate that the existing health services in the wake of displacement shall be restored in the new location. The project shall ensure that a much better health services are provided in the relocated places. The project shall contribute in infrastructure development, equipments, and laboratory development. The referral Railway Hospitals can be linked electronically so that people can avail specialised consulting services through tele-medicine system. The village health committee (as per the National Rural health Mission-NRHM) shall be strengthened.

Besides, traditional health care system of tribals based on scientific base can be revived so that investment on health care could be substantially reduced. Non-Communicative diseases (NCDs- mostly life style related health disorders) are increasingly playing havoc in deteriorating the general health status everywhere and tribals can not remain insulated from it. Thus special awareness programme on NCDs shall be undertaken through village health committee and counselling services can be provided at health sub centre and Primary Health Centre level. Special efforts can be made to make cent percent coverage of immunization programme and institutional delivery with additional resource provisions from HSR project.

Public health, which plays the most critical role in determining general health status of an area, shall be given utmost importance in a mission mode so that people adopt hygienic practices in respect of drinking water and sanitation. In addition to this better health awareness on nutritious food, good mother and child health practices etc shall be given due importance in the gamut of health care services. More tribal women and men need to be engaged in paramedical services so that they can better transform the knowledge and good practices amongst people.

### 6.1.13 Skill and Livelihood Promotion

The basic education (at least up to secondary level) which can prepare the tribal youth to take up skill training and employment in the expanding sectors and sub sectors of the economy is seriously jeopardised because of their high dropout rate at the secondary level. Thus the present education system and the facilities provided to the tribal population needs urgent and critical assessment as suggested in the earlier section. Except in urban areas and smaller towns at taluka level hardly any vocational skill development facility is available for them. Even facilities available in the towns are not up to the mark in terms of their quality and relevance.

Every individual has some life and livelihood skill which one learns through informal learning through the process of socialisation, but harnessing, honing and upgrading the skill as per the changing requirement can happen only when systematic efforts are put. The skills are normally classified as informal or formal. Informal skills are generally acquired through inter-generational learning and/or systems of informal apprenticeships. The lack of formal education in such cases does not stop workers from acquiring skills. Informal skills are distributed across a wider cross-section of the population than formal skills, and they are more widespread nearer the base of the socioeconomic pyramid. Whereas, formal skills are those which are developed in a structured and standardized manner and, more importantly, the training outcomes are measured/assessed according to some objective parameters. Thus,

defining skills and their characteristics needs an explanation before moving further on the skill development for the tribal youth.

### **Types of skills by their characteristics**

<b>Sl. No</b>	<b>Type of skills</b>	<b>Characteristics</b>
1	Basic skills, culture, welfare	1. Basic life-skills, such as in nutrition, child-care, health- care, cultural skills, literacy, numeracy etc.
2	Production skills	2. Skills in producing something useful (a product or a service) and directly making money out of what one produces 3. Skills in adding value to produces (marketing chains...)
3	Organizational skills (including marketing and business/entrepreneurial skill)	4. Skills in communicating within the established environment and with new communicational partners, skills in using communicational equipment to access and distribute information, and skills to use that information for own benefit 5. Skill in influencing the traders and consumer about the goods and services 6. Skills in organizing informal cooperation within and among livelihood coalitions
4	Financial skills, Managerial skills	7. Skills in making financial transactions, decisions, even over large distances 8. Skills in financial management of private investments 9. Skills in managing formalized cooperative efforts (from small to large collaborations) 10. Skills in the financial management of shared investments
5	Communal skills	11. Skills in communal decision making to organize and manage the public interest at the local level, particularly the management of common property resources (natural resource management, forests, grazing, water resources, transport facilities etc.) 12. "Political" skills of negotiating common interests among various stakeholders, making governance more accountable, and forming and mandating the common institutions to take care of those common interests ( this includes policy advocacy)

Ref :UeliScheuermeier, Agridea (2006): 12 theses for working on Skill Development in Rural Areas [SDRA], Swiss Agency for Development and Cooperation, Employment and Income Division, Working Paper, June.

In majority of existing skill development/vocational education programmes more emphasis is given on the hard skill which constitutes mostly the production skill and in some programmes a bit of financial skill is imparted. Thus, the existing skill development programmes in true sense are inadequate. The gap shall be filled in by the project. Besides, the project shall work more on convergence so that the reach out of the existing programmes are expanded till the panchayat level.

In all existing vocational training or skill development programmes undertaken by central and state government organisations there is reservation for the disadvantaged social groups like SCs and STs depending on the proportion of their population. Some programmes like Special Coaching and Guidance Centres for SC and ST youth started by Director General of Employment and Training (DGE & T) of Ministry of Labour & Employment (MoL&E) at some urban locations in India cater to a very insignificant section of urban based tribal youth.

Ministry of Tribal affairs through Tribal Sub Plan (TSP) supports Vocational Training Centres in the tribal areas and financial support is also provided to NGOs for undertaking skill development programmes for tribals. The efficiency, effectiveness and sustainability of these programmes shall be assessed before making a strategic intervention by the project. The Tribal Cooperative Marketing Development Federation of India(TRIFED), a commercial entity established by the Ministry of Tribal Affairs in 1987, is trying to promote livelihood of tribals by creating marketing platforms for backward and forward linkages of NTFP produces, tribal crafts, and handlooms at national and international levels. Reach out of TRIFED to larger tribal population and getting tribal youth attracted to NTFP, crafts and handlooms based products has been a major challenge. The project can rope in TRIFED to make an intervention in the resettled location. With the present education system, there is a tendency to drift away from the traditional livelihood activities, which the tribal youth are largely subjected to like other social groups. Same is the case with farm based activities being promoted by Krishi Vigyan Kendras (KVKs). Establishing proper market linkage and promoting entrepreneurship amongst the tribal youth has been a major challenge to all farm based activities. A tribal youth is hardly aware about the value and appreciation their farm and non-farm products get in world of market. Thus, there are systemic flaws, which can be rectified by strategic intervention with well-designed programmes and their efficient delivery. There are also skill development programmes being undertaken by other Ministries and Department of the Central and State governments, which shall be roped in.

Some corporate houses have started skill development to tribal youth as CSR activity as well as tribal youth being recruited for their manufacturing units located in the tribal areas. They can be roped in. There are many national/state/local NGOs and international NGOs which are also supporting various skill development programmes for the tribal youth. The intervention shall focus on the following aspects:

- Expanding and innovating the existing vocational and skill development programmes suit to the needs and aspiration of tribal youth
- Systematically working to remove the obstacles for tribal youth to take advantage of various dedicated as well as mainstream schemes/programmes of the government

- Studying the effectiveness of the existing development programmes and supporting the delivery institutions to bring changes required to make them more relevant to the resource base as well to the market demand
- Identifying the potential livelihood options for tribal youth and mapping the skill requirement for harnessing
- Helping modify the curriculum of skill development/vocational training programmes so as to make them appropriate to the educational background as well as sensitive to cultural ethos of different tribal communities
- Providing infrastructure and resources are required to make the skill development programme more efficient and effective
- Helping to improve the institutional governance and quality assurance system to be in place to make the initiative dynamic
- Some of the best practices in skill/entrepreneurship development programmes in the country can be suitably modified and replicated here.

## Conclusion

Three basic approaches<sup>4</sup> to livelihood promotion shall be adopted for the PAIPs.

**Opportunity based approach :** This will primarily seek to improve the economic returns of the indigenous people by helping them leverage existing forms of capital (natural, social, human etc.) and enhancing them through productivity enhancement and market linkages

**Ensuring access to entitlements:** It seeks improve the social and political situation by creating awareness and providing handholding support to have access and control of

- Social, economic and political entitlements and
- Different resources of land, water, forest, and livestock

This is because net economic gains made by a family pursuing economic activities in a ‘low entitlement environment’ are insufficient and unsustainable and the livelihood activity itself is highly prone risk of being lost.

**Approached for the highly disadvantaged:** Where the methods are specialised and customised to the needs of the target group- the primitive tribal groups and other vulnerable groups as mentioned earlier.

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<sup>4</sup> Mahajan , et al (2014): Resource Book for Livelihood Promotion, ILRT, Hyderabad

## Chapter 7. Implementation Strategy

The United Nations (UN) Declaration on the Rights of Indigenous Peoples calls on states to obtain free, prior and informed consent of Indigenous people through their representative institutions before adopting legislative or administrative measures that would affect them; it provides an international plan of best practice for engagement.

Therefore, certain principles should be followed while engaging in consultation with indigenous peoples:

- An appreciation of their cultural competency, history, diversity and contemporary social dynamics valuing their skill and knowledge of community organisations
- Clarity on the purpose and relevance scale for engagement with the communities may call for multi layered processes keeping their wellbeing as top of the agenda
- The premise of consultation should be based on long term relationships of trust, respect and honesty with transparent flow of communication and information
- Making the governance process effective both within the government and local government (as prescribed by PESA & FRA) and building their capacity, if required ,
- Appropriate time frame for consultation and then subsequent action plan should also be shared with the community
- The consultation should engage indigenous community based institutions, deliberate and negotiate on social, economic, cultural and political issues that affect them
- The engagement should be based on Indigenous aspiration and priorities with government playing the role of facilitator/enabler within the plan of Indigenous self determination
- Power inequalities should be recognised, and sincere attempts are made to share power through contracts or agreement with the Railway Department, District Administration, Local Government ( Panchayati Raj & Gram Sabha) and the Community having boundaries of accountability. The conflict resolution mechanism should be in place to resolve any bilateral or multilateral issues
- A clarity should be there on the desired outcomes with reasonable indicators and steps to achieving them
- A joint monitoring and evaluation mechanism should be in place to meet the rights and needs of each party
- There is no model or standardised way of engaging with the indigenous people. A high level of sensitivity, and sensibility is required while undertaking such task

For affecting implementation of resettlement action plan it's imperative to have functional, accountable and responsible institutional arrangement from project inception, planning, and operational and implementation phase of the project. Ensuing section highlights activities in each step with envisage roles and responsibilities of institution within organizational hierarchy. Layouts of institutional structure in presented in later section on institutional arrangement.



### 7.1.1 Stakeholders Consultations

Stakeholder consultations are to be viewed as iterative process. Concerted efforts are required while engaging with indigenous group. To ensure implementation of Indigenous People Plan(IPP) a special Social Mobilizing Unit (SMU-IPP) at Palgarh and Valsad is proposed. A Social Mobilizing Unit (SMU-IPP) at district headed by Assistant Project Manager reporting to Chief Project Manger (CPM), shall comprise revenue officer (deputed from land Revenue Department), Land Acquisition Facilitation Consultant (LAFC) officer and additional member from Social Welfare Department.

Capacity building of the team will need to be carried out to augment the understanding and skills of the staff/officers handling the LA and R&R aspects specifically for IPs. It is suggested that such training and capacity building exercises are taken early on in the process to ensure that the LA and R&R is done as per the requirements

The SMU-IPP will engage the services of experienced and qualified NGOs to support and facilitate the LA and R&R processes. This NGO will also act as an interface between the SMU and the affected community/people and provide field level field-level implementation support to the CPM/CRO/SMU and the team.

In approaching to project preparation and implementation, attentiveness to ethnic, geographic, age, social and gender inclusivity will continue to be critical. it is proposed to have Working Group(WG) committee represented by members from Tribal Groups, two representatives from NGOs and SMU each would be part of Working Group. Working Group. The Working Group aimed to share timely information to PAFs and SMU during project implementation. Working Group would review the progress the designing and implementation of indigenous plan.

Keeping in mind the significance of consultation and participation of the people likely to be affected or displaced due to the proposed project, the stakeholders' engagements in consultation process are be guided by following process:

1. Identify key stakeholders
2. Ensure that the project proponents' information is relevant, timely and language understood and accessible to the stakeholders
3. Disseminating information in advance and through the appropriate channels before consultation starts
4. Concurrently incorporating the results of consultation in the design of the project
5. Having a system of providing feedback to stakeholders on how their comments will be taken into account
6. Documenting the consultation process with highlighting main issues and concerns raised and responses given. Audio and video documentation of the process should also be made.
7. Participants will be informed about how they can access the record of consultations and the next steps in the process
8. Wherever stakeholders suggestions are not accommodated, it should also be recorded with reasons thereof

## **Project stakeholders:**

The proposed High Speed Rail project has multiple stakeholders including the MoR, Govt. of India to Project Affected Families and Project Affected Persons. Relevant to stakeholder consultations, the following constitute the key stakeholders:

- Project Affected Persons/families
- NGOs/ traditional tribal groups that are active and operational in the project affected area and may have opinion about the project and its impact on community
- Media: print and visual media that covers and reports in the project affected area and
- District Level Officials from revenue department, agriculture department, forest department, tribal development department, etc.

Primary stakeholders are the likely project affected indigenous peoples which includes STs, SCs and other communities who have been living in the area for generations. Through ethnographic profiling it's been establish that majority of the IPs are the tribal population ranging between 80-90 %. Amongst the tribal community there are four sub groups who have their own distinct identity in terms of culture and livelihood patterns. They are Warlis and Dhodias in Valsad district of Gujarat and Koknas and Thakar in Palghar district of Maharashtra.

Media is another important stakeholder, which has tremendous power to influence the public opinion and therefore the decision making processes. Engagement with media is a must.

The district level officials for this project are from various line departments that exercise its official jurisdiction over matters such as land and property, livelihoods, natural resources such as forest etc. and that which will be impacted by project implementation. Departments of land and revenue, agriculture, forest, tribal welfare are relevant departments in this instance. Consultations with these departments are also significant as it would provide critical inputs on aspects of availability of land, land acquisition and R&R processes and policies that can be integrated to develop an appropriate RAP.

The area being under the local governance of PESA Act, the traditional tribal community institutions becomes the most important groups to be engaged in consultation process. Besides, the legal requirements as per the LARR Act should also be followed in consultation and consent taking process.

For obvious and practical reasons, not all stakeholders can participate directly in the consultation process. Therefore, the representatives of each community should be selected by the community itself to engage in the consultation process. Within each community no particular group should get marginalised. Thus women, youth, children and other vulnerable groups should also get adequate opportunity to engage in consultation process and can take collective decision.

### **7.1.2 Gender**

Recognizing that women often perform different types of labour and have different social responsibilities, their priorities and concerns are likely to be different from those of men. The

importance of consulting with both women and men to understand these priorities is widely acknowledged, but challenges associated with doing so should be carefully considered.

Simply ensuring that information reaches women comes with many challenges. For example, where men are the primary consumers of mass media information, women rely significantly on their husbands and men for information, and men may not pass on all information if they don't consider it to be relevant. Moreover, women's ability to actively participate – due to limited available time, family responsibilities, male-dominated social structures, cultural norms, and education and experience levels – is likely to be different from men's. Taking the above factors into account the women involvement need to carefully integrated in planning phase of the project

### 7.1.3 Grievance Redress Mechanism

Regardless of its scale, involuntary resettlement inevitably gives rise to grievances among the affected population over issues ranging from rates of compensation and eligibility criteria to the location of resettlement sites and the quality of services at those sites. **Timely redress of such grievances is vital to the satisfactory implementation of resettlement and to completion of the project on schedule.** The project should ensure that procedures are in place to allow affected people to lodge a complaint or a claim (including claims that derive from customary law and usage) without cost and with the assurance of a timely and satisfactory resolution of that complaint or claim. In addition, the project may have to make special accommodations for women and members of vulnerable groups to ensure that they have equal access to grievance redress procedures. Such accommodation should include employment of women or members of vulnerable groups to facilitate the grievance redress process or to ensure that groups representing the interests of women and other vulnerable groups take part in the process.

The project or appropriate authority on its behalf should establish a grievance redress mechanism consistent with the laid down legal and policy plan as early as possible in the project development phase. This will allow the project to receive and address specific concerns about compensation and relocation raised by displaced persons or members of host communities in a timely fashion, including a recourse mechanism designed to resolve disputes in an impartial manner. The following aspects should be taken care while putting the system in place:

- Institutional mechanism should be in place
- Grievance redress mechanism should take indigenous people into confidence
- Point person with the responsibility of coordinating grievances ( receive and sort) should be appointed with representatives of the, project, local authority and community and implementing partner
- Grievances should be tracked and monitored
- Receipt should be acknowledged and resolution should be provided within established time period (but not longer that it is established by the legal and policy plan)
- Multiple channels (at least two) for receiving feedback/grievances should be established (mail, fax, e-mail, website, telephone, in person) taking into account local practices and availability of the channels to the indigenous peoples. If required interface with the community at regular intervals should also be organised.

#### 7.1.4 Implementation Action Plan

The process of the implementation of the Indigenous People Plan (IPP) involves various activities and is predicated heavily on successful completion of other project components, normally carried out by other parallel agencies engaged under the project. This section lists down and discusses in brief the RAP implementation activities, IPP implementation consists of the following activities;

1. Preparation and finalization of the list of Affected Persons/families;
2. Training and capacity building of IPP implementation staff, setting up the implementation mechanism
3. Development of the detailed Micro Plan based on the entitlement plan for each of the affected persons;
4. Stakeholder Consultations and Disclosure of the IPP/detailed Entitlement Matrix;
5. Disbursement of compensation to the affected persons/families;
6. Disbursement of R&R assistance and commencement/implementation of Rehabilitation Activities;
7. Monitoring and Evaluation.

In addition to the above, there would be set of other activities that will need its completion, prior to commencement of IPP implementation activities. As such, IPP implementation is predicated heavily on completion of the activities mentioned below and data information generated/collected thereof. These activities (also included in the RAP implementation schedule, presented later in this chapter) may be noted as the following:

1. Preparation of the list of Affected Land Parcels and related ownership (by state administration)
2. Detailed Measurement Survey
3. Detailed IPP with identification and finalization of list of affected Titleholders and Non-Titleholders (by local consultant in coordination with JIC/MoR/State)

Some of these responsibilities such as identification of land parcels will be the responsibility of local district administration. Delays in finalization of these and detailed drawings and land plans will directly impact the timelines and schedule envisaged for the implementation of the RAP. The implementation of the RAP and the overall project would require very close coordination amongst the various line departments and implementing agencies.

The above proposed activities are divided in to 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, IPP Implementation phase and Monitoring and Evaluation period are discussed in the below sections.

#### **Project Preparation Phase**

The major activities to be performed in this period include establishment of institutional mechanisms (SEMU/CPM/ SMU etc.) at headquarter and field level; submission, approval and disclosure of the RAP; appointment of Social and Environment Safeguard Monitoring and Review Consultant (SESMRC)/NGOs and establishment of grievance system etc. Training/ capacity building and orientation of the concerned team/staff in charge of LA and R&R would be imparted training and orientation (on social safeguards and various aspects of

LA and R&R) to ensure understanding, consistency and uniformity of the implementation process. This training and orientation will be conducted with the help of consultants and experts. Some of the components that would be covered in the training would include (but not be limited to):

1. Orientation and understanding on the Right to Fair Compensation and Transparency in Land Acquisition, Resettlement and Rehabilitation Act, the RAA Act, the National Policy on Resettlement and Rehabilitation, PESA act, forest right act and WB guidelines and requirements;
2. Contents of the IPP, the entitlement plan and matrix. Understanding of the policy and procedure adopted under the Project;
3. Institutional arrangements for implementation of LA/RAP. Reporting systems and structures;
4. Understanding of the Grievance Handling process and systems.
5. Brief of implementation Schedule activities step-by-step and timelines;
6. Details of Rehabilitation schemes/ of NGO/ Understanding of the Monitoring and reporting mechanism.

The information campaign & community consultation will be a process initiated from this stage and will go on till the end of the project.

As mentioned earlier, other linked activities that will need to be completed at the commencement of RAP implementation will include;

1. Identification of affected land parcels and its ownership. This will typically identify the plot numbers, make correction and updating of land records, establish ownership etc. and is usually the responsibility of land and revenue department in the district
2. Preparation of detailed RAP that includes census and socio-economic survey of all affected persons, link them to affected land plots and preparation of final list of affected structures, finalization of entitlement matrix etc.
3. Detailed Measurement survey of all affected structures
4. The project proponents may choose to assign the latter of the two activities to RAP implementing agency as well or to a separate agency altogether.

### **Implementation Phase**

After the project preparation phase the next stage is implementation of RAP which would include;

1. Marking of zone of impact/influence- pillar posting and center line markings/consultations with affected persons;
2. Identification/verification of project impacted and beneficiaries based on Cut-off date and notification;
3. Ground truthing and verification of assets/properties of affected persons and estimation of their type. Finalization of Micro Plan;
4. Issuance of identity card to all PAPs;
5. Disbursement of compensation to the affected persons/families;
6. Disbursement of R&R assistance and commencement/implementation of Rehabilitation Activities;

7. Initiation of economic rehabilitation measures and Relocation and rehabilitation of the affected persons;  
Site preparation for delivering the site to contractors for construction and finally starting civil work;

*The IPP implementation schedule will follow and align with the overall implementation schedule prepared for the project and presented under chapter 9 of the RAP report document.*

#### **7.1.5 Institutional Arrangements:**

This section presents role and responsibilities and appropriate position that need to be introduced to safeguard interest of IPs. Elaborate institutional arrangement for the implementation of Resettlement Action Plan (RAP) has been detailed out in chapter 7 of RAP document. However to integrate interest of indigenous group, additional responsibilities are to be entrusted to the functionaries or additional officials are to be deployed to proposed institutional hierarchy.

It is envisaged that a Social & Environmental Management Unit (SEMU) would be constituted at the company level (head quarter) to oversee and implement the environment and social safeguard measures. This SEMU, headed by a senior level personnel (General Manager or above) would be tasked with managing Land Acquisition and Rehabilitation and Resettlement process for the project headed by Managing Director, will have overall responsibility for policy guidance, coordination and planning, internal monitoring and overall reporting of the Project. SEMU would facilitate land acquisition and compensation, relocation and resettlement, and the distribution of assistance for the PAPs. The main responsibility of SEMU would be monitoring and implementing all resettlement and rehabilitation activities, including land acquisition. In addition to the above the SEMU would also be entrusted to monitor the IPP. Additional General Manager (AGM R&R) and Social safeguard specialist positions proposed in SEMU shall take additional responsibility for the IPP component at SEMU.

At the field level the Chief Project Manager's (CPM) office is proposed to coordinate the safeguard management and plan and execute the land acquisition and resettlement activities. The Chief Project Managers (CPM) will act as the Chief Resettlement Officers (CRO) in-charge of planning and implementation of the LA and R&R programme. The field office in Palghar and Valsad would have additional post of Assistant Project Managers (APM -IPP) preferably deputed from State social welfare department under SMUs that comprise of other subject specialists functioning as APMSs. The APM-IPP will take guidance and directions from SEMU in policy matters related to Land Acquisition and Resettlement and Rehabilitation specific to indigenous group and in implementation of government programme.

The SMU-IPP will engage the services of experienced and qualified NGOs to support and facilitate the IPP processes. Similarly Working Group (WG) represented by members from Tribal Groups, two representatives from NGOs and SMU each would be part of Working Group. The Working Group aimed to share timely information to PAFs and SMU-IPP during project implementation. Working Group would review the progress the designing and implementation of indigenous plan.

This NGO in Palghat and Valsad in addition to its envisage role interface between the SMU and the affected community/people is expected to facilitate Government development

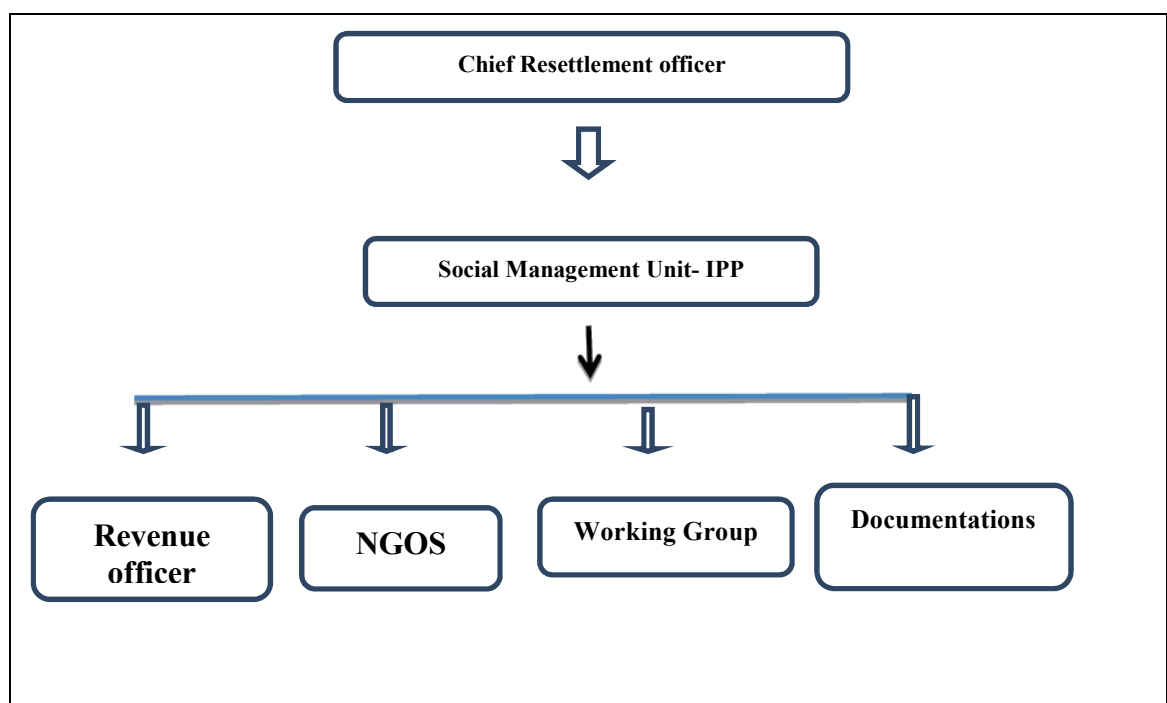
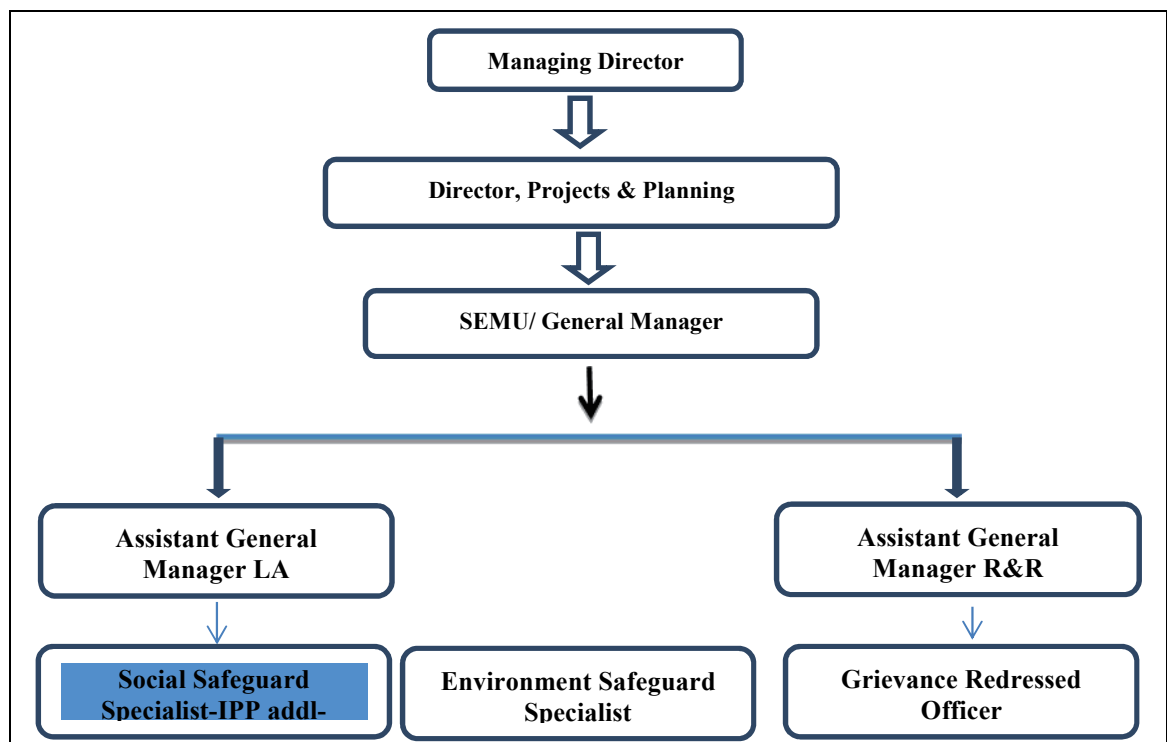
programmes and support public services provision such as education and primary health services during the planning and implementation of the project

The expected role and responsibility of the CPM/CRO and the SMU-IPP is detailed below:

- Liaise and coordinate with the District Administration, forest department and tribal welfare department on Land Acquisition and R&R activities specifically in context of IPs
- Engage with local communities and stakeholders to ensure support for the project;
- Information disclosure to IPs and other relevant stakeholders;
- Closely work/coordinate with WG, NGOs in implementation of IPP
- Ensure compliance to policy requirements and entitlement plan;
- Day to day management and problem solving of LA and R&R issues;
- Develop and maintain PAP level database including aspects related to losses, compensation, R&R entitlement, release of funds utilization, livelihood restoration etc.;
- Smooth implementation of R&R and ensuring no disruption of project works;
- Ensure disbursement of resettlement and rehabilitation assistance in a transparent manner;
- Monitor physical and financial progress on LA, R&R;
- Monthly progress documentation and reporting to CRO/SEMU on the physical and financial progress of implementation of LA and RAP;
- Management of any other social impacts linked to the project.

Capacity building of the team will need to be carried out to augment the understanding and skills of the staff/officers handling the LA and R&R aspects. It is suggested that such training and capacity building exercises are taken early- on in the process to ensure that the LA and R&R is done as per the requirements and also to ensure that the approach followed is consistent in different areas.

The flow chart below presents the broad organizational structure at the headquarter and field level





### 7.1.6 Monitoring and Evaluation

The project requires mechanism to monitor and report on the effectiveness of RAP implementation, including the physical progress of resettlement and rehabilitation activities, the disbursement of compensation, the effectiveness of public consultation and participation activities, and the sustainability of income restoration and development efforts among affected indigenous communities. The objective of monitoring is to provide the government with feedback on RAP implementation and to identify problems and successes as early as possible to allow timely adjustment of implementation arrangements. For these reasons, RAP monitoring and evaluation activities should be effectively implemented by qualified specialists, and integrated into the overall project management process.

The RAP should provide a coherent monitoring plan that identifies the organizational responsibilities, the methodology, and the schedule for monitoring and reporting. The three major components of a monitoring plan should be performance monitoring, impact monitoring, and completion audit. the scope of the monitoring plan should be commensurate with the scale and complexity of the RAP.

#### Suggestive Monitoring Matrix:

<b>M&amp;E Component</b>	<b>Type of information and data to be collected</b>	<b>Source of information and data collection methods</b>	<b>Responsibility of data collection, analysis and reporting</b>	<b>Frequency and Audience for reporting</b>
<b>Performance monitoring</b>	Measurement of input indicator against proposed timetable and budget including procurement and physical delivery of goods, structures and services	Monthly or quarterly narrative status and financial reports	Project resettlement unit or organisation responsible for RAP implementation	Six monthly/annual as required by Railway dept. and central/state/local government (such as PRIs and Gram Sabha)
<b>Impact monitoring</b>	Tracking effectiveness of inputs against baseline indicators	Quarterly or six monthly quantitative and qualitative surveys  Regular public meetings and other consultations with affected IPs , review of grievance redress mechanism	Project resettlement unit or external agency outsourced for the purpose	Annual or as frequently as required by Railways and central/state /local governments

		output		
<b>Completion audit</b>	Measurement of output indicators such as productivity gains, livelihood restoration, infrastructure development and impact against baseline	External assessment report based on performance and impact monitoring reports, independent surveys and consultations with IPs	Appointed external auditing and evaluation agency	On completion of RAP timetable, as agreed by Railways

Ref : Resettlement handbook of IFC

### 7.1.7 Performance Monitoring

Performance monitoring is an internal management function which allows Project Resettlement Unit to measure physical progress against milestones established in the RAP. Progress is usually reported against a schedule of required actions (typically displayed through such devices as bar charts, Gantt charts or Logframe table etc.). Examples of performance milestones could be as following :

- Number of public meetings held;
- Census, assets inventories, assessments, and socioeconomic studies completed;
- Grievance redress procedures in place and functioning;
- Compensation payments disbursed;
- Housing lots allocated;
- Housing and related infrastructure amenities completed;
- Relocation of people completed;
- Livelihood restoration and development activities initiated;
- Monitoring and evaluation reports submitted.

Performance monitoring of the RAP should be integrated into the overall project management to ensure that RAP activities are synchronized with all project implementation activities. Performance monitoring reports should be prepared at regular intervals (monthly, quarterly, six monthly , and annually) beginning with the commencement of any activities related to resettlement.

### **Suggestive RAP Monitoring Framework**

1. Verify internal RAP implementation reports by a field check of the following:
    - Payment of compensation including its levels and timing
    - Settlement of land/resource access claims
    - Preparation and adequacy of resettlement sites
    - Housing construction
    - Provision of employment, its adequacy and income levels
    - Adequacy of training and other developmental inputs
    - Rehabilitation of vulnerable groups
    - Infrastructure repair, relocation or replacement
    - Enterprise relocation, compensation and its adequacy
    - Transition allowances
  2. Interview a random sample of affected people in open-ended discussion to assess their knowledge and concerns regarding the resettlement process, their entitlements and rehabilitation measures.
  3. Observe public consultations with affected people at the village or town level.
  4. Observe the function of the resettlement operation at all levels to assess its effectiveness and compliance with the RAP.
  5. Check the type of grievance issues and the functioning of grievance redress mechanisms by reviewing the processing of appeals at all levels and interviewing aggrieved affected people.
  6. Survey the standards of living of the affected people (and of an unaffected control group where feasible) before and after implementation of resettlement to assess whether the standards of living of the affected indigenous people have improved or been maintained.
  7. Advise project management regarding necessary improvements in the implementation of the RAP, if any.
- (Adapted from: The World Bank Resettlement Source Book.)

#### **7.1.8 Impact Monitoring**

Impact monitoring gauges the effectiveness of the RAP and its implementation in meeting the needs of the affected indigenous population. Depending on the scale of resettlement, impact monitoring is conducted by the project's management (such as an internal Project resettlement Unit) or an independent external agency (for example, through a consultant, an NGO, or an academic institution). The purpose of impact monitoring is to provide the sponsor and/or the agency responsible for RAP implementation with an assessment of the effects of resettlement, to verify internal performance monitoring, and to identify adjustments in the implementation of the RAP as required. Wherever feasible, affected indigenous peoples should be included in all phases of impact monitoring, including the identification and measurement of baseline indicators.

The effects of a RAP are tracked against the baseline conditions of the indigenous population before resettlement. This baseline is established through the census, assets inventories, land-use assessments, and socioeconomic studies of the population and the area affected by the Project. The project resettlement unit or the organization responsible for RAP implementation should establish objectively verifiable indicators for measuring the impact of physical

relocation on the health and welfare of affected population and the effectiveness of impact mitigation measures, including livelihood restoration and development initiatives.

The RAP should budget sufficient resources to finance independent monitoring of these indicators by qualified professionals on a regular basis during RAP implementation. This monitoring should continue for a number of years beyond the completion of the RAP to ensure that the project's livelihood restoration efforts and development initiatives have succeeded and that the affected population has successfully reestablished itself at its new site. An impact-monitoring schedule based on a set of generic indicators that measure social integration, public health, and economic well-being should be in place. Regular monitoring alerts in respect of any problems arising among the affected population (such as decline in crop yields, increased incidence of disease, and decline in household incomes) that should trigger remedial action on the part of the project.

In addition to the quantitative indicators described above, impact monitoring should be supplemented by the use of qualitative indicators to assess the satisfaction of affected indigenous people with resettlement initiatives and, thus, the adequacy of those initiatives. The most effective qualitative monitoring methodology is direct consultation with the affected populations through regular meetings, focus group discussions, or similar forums established by the project resettlement unit for public participation as part of the consultation plan. Where feasible, it is advisable for project resettlement unit that it should allow for the participation of affected people in all phases of impact monitoring, including the identification and measurement of baseline indicators.

#### **7.1.9 Completion Audit**

Depending on the scale of displacement, the project may require to undertake an evaluation by an independent third party to assess whether the outcome of the RAP complies with the involuntary resettlement policy and legal plan. The key objective of this external evaluation, or **completion audit**, is to determine whether the project's efforts to restore the living standards of the affected population have been properly conceived and executed. The audit should verify that all physical inputs committed in the RAP have been delivered and all services provided. In addition, the audit should evaluate whether the mitigation actions prescribed in the RAP have had the desired effect. The socioeconomic status of the affected population, including the host population, should be measured against the baseline conditions of the population before displacement, as established through the census and socioeconomic studies.

The completion audit should be undertaken after all RAP inputs—including development initiatives that have been completed. The timing of the audit thus enables the sponsor to undertake corrective action, if any, as recommended by the auditors before the project is complete. In the majority of cases, the completion audit should bring to closure the project's liability for resettlement, compensation, livelihood restoration, and development support.

## Chapter 8. Budget & Cost Estimates

The resettlement budget for IPP comprise estimated value of compensation for land, private structures, various resettlement assistances, cost of CPRs, institutional cost, contingency, hiring of individuals/NGOs for IPP implementation, awareness generation, capacity building, External monitoring and evaluation consultant, etc. Although substantial proportions of the estimated IPP-Budget are included in the RAP report, budget here explains share of IPP in estimated RAP.

The financial plan similar to RAP report essentially includes the following broad heads.

### Compensation

**Land Costs:** Project will require acquisition of land for developing of tracks and associated facilities like stations, depots for maintenance, workshop and car maintenance etc. Hence the project will need to provide compensation for land acquired from legal titleholders, from other government departments.

**Structure Costs:** On account of land acquisition, the project will cause loss of structures for which compensation will need to be paid to affected stakeholders.

**Resettlement & Rehabilitation (R&R) Cost:** Budget provisions under this head will meet direct expenses made on account of various R&R benefits proposed to be provided to affected households and persons.

**R&R Implementation and M&E Costs:** The project proponents will require to engage an external NGO/Consultant for implementation of IPP activities. Similarly, an additional independent agency is proposed to be engaged for M&E purposes. Related costs will be met from budget provisions made under this head.

The proposed IPP budget will be as per below:

<b>Table 8.1: IPP Budget</b>			
	<b>Item</b>	<b>Amount (in INR)</b>	<b>Remarks</b>
1.	Compensation		Amount is considered in RAP
2.	Structure Cost	21,570,790	Calculated as per market replacement cost
3.	R&R Benefit Cost	61,823,000	Drawn from LARR 2013 recommendations
4.	R&R Implementation and M&E	9,273,450	Calculated as 15 % of R&R Benefit Cost
	<b>Total t Cost</b>	<b>92,667,240</b>	
<b>Land cost</b> In absence of land record and ownership data (and related 20A notification under RAA 2007 for land acquisition), figures are not available for number of affected land owner			

### Structure Cost

Loss of structures primarily include two categories namely private structures and common and public properties (including government and railway properties). Related costs for compensation against structures impacted have been estimated based on actual estimate for each of the structures and its typologies.

A total of 103 private structures (e.g. residential building units, detached kitchen, bathroom, cowshed, hand pumps, tube well, shops, apartment, go down, boundary wall etc.) and another 243 common and Public properties are expected to be permanently impacted by the project. The affected structures are of different construction types and will witness varying project impacts.

For cost estimation purposes, the affected structures were classified on multiple and cross cutting parameters like, its geographic location, construction type, utility type etc. Hence, instead one uniform rate applicable across all structures, structure specific unit rate was estimated to arrive at structure cost (replacement cost). The total estimated cost figures are as given below.

<b>Table 8.2: Replacement Cost of Structures Affected Structure</b>					
<b>Sl. No..</b>	<b>District/ Villages</b>	<b>Private Structure</b>	<b>Cost of Private Structure</b>	<b>CPR Structure</b>	<b>Cost of CPR Structure</b>
	<b>PALGHAR</b>				
1	Ambesari	6	544,050	7	9,600
2	Chari	8	664,040	14	1,162,781
3	Hanuman Nagar	4	376,350	2	1200
4	Jamset	6	725,270	6	4275
5	Jitgaon	17	1,459,185	13	16,575
6	Santoshi	1	52,325	8	544,894
7	Vangam	3	168,025	9	1,245,600
8	Kapase	2	427,700	6	286,675
9	Silkhe	2	217,100	6	39,420
10	Vakashi	4	639,600	3	1,875
11	Aam Gaon	1	144,300		
12	Dhamangaon	2	189,800	3	195,000
13	Karajgaon	2	154,050	4	1,875
14	Kavada	1	52,650	1	
15	Talasri	1			
16	Uplat	3	144,625	4	1,875
17	Zari	6	430,625	10	107,600
	<b>VALSAD</b>				
18	Balda	2	496,000	15	983,850
19	Dangra	1		19	867,450
20	Paria	17	1,433,500	29	435,000
21	Rata	3	402,500	4	162,350
22	Achchhari	1	160,000	10	6,600

23	Tal	3	874,900	28	2,891,700
24	Chanvai	1	90,000	22	2,379,000
25	Panchlai	6	350,500	20	28,500
	Grand Total	103	10,197,095	243	11,373,695
<b>Source:</b> IOL & CPR Survey Data, Sep-Dec 2014					

## R&R Benefit Costs

R&R benefits are proposed to be provided in addition to compensation. The costing in brief is presented below.

<b>Table 8.3: R&amp;R Benefit Costs</b>			
<b>Heads</b>	<b>Rate</b>	<b>No.</b>	<b>Amount</b>
Onetime payment against employment and Annuity	500,000	93	46,500,000
Subsistence Grant for displaced	36,000	93	3,348,000
Additional Subsistence grant to SC and ST (in Scheduled Area)	50,000	93	4,650,000
Transportation Cost	50,000	93	4,650,000
Cattle Shed and Petty shop construction	25,000	12	300,000
Grant to artisan/small traders	25,000	2	50,000
Resettlement Allowance	25,000	93	2,325,000
<b>Total Cost</b>			<b>61,823,000</b>



### Annexure 1: List of Affected Tribal Households (all Districts)

*It may be noted that the list below identified all ST Households who will be losing structures (does not include list of land losers) residing along the project RoW. However, for the purpose of IPP, only the ST communities from the district of Palghar (except Vasai taluka) and Valsad district were considered. In other districts, the ST households are not native of the area, and are largely migrants e.g. Ahmedabad.*

<b>1. List of Scheduled Tribe (ST) Household</b>				
Sl. No.	Household Head (anonymity)	Village	Taluka	District
1	H.C.D 001	Anjur	Bhiwandi	Thane
2	H.C.D 002	Anjur	Bhiwandi	Thane
3	H.C.D 003	Anjur	Bhiwandi	Thane
4	H.C.D 004	Anjur	Bhiwandi	Thane
5	H.C.D 005	Anjur	Bhiwandi	Thane
6	H.C.D 006	Anjur	Bhiwandi	Thane
7	H.C.D 007	Shirgava	Thane	Thane
8	H.C.D 008	Shirgava	Thane	Thane
9	H.C.D 009	Kalyan Pada	Thane	Thane
10	H.C.D 010	Kalyan Pada	Thane	Thane
11	H.C.D 011	Kalyan Pada	Thane	Thane
12	H.C.D 012	Anjur	Bhiwandi	Thane
13	H.C.D 013	Kalyan Pada	Thane	Thane
14	H.C.D 014	Kalyan Pada	Thane	Thane
15	H.C.D 015	Kalyan Pada	Thane	Thane
16	H.C.D 016	Uplat	Talasri	Palghar
17	H.C.D 017	Aam Gaon	Talasri	Palghar
18	H.C.D 018	Zari	Talasri	Palghar
19	H.C.D 019	Zari	Talasri	Palghar
20	H.C.D 020	Karajgaon	Talasri	Palghar
21	H.C.D 021	Dhamangaon	Talasri	Palghar

22	<i>H.C.D 022</i>	Jitgaon	Dahanu	Palghar
23	<i>H.C.D 023</i>	Jitgaon	Dahanu	Palghar
24	<i>H.C.D 024</i>	Jitgaon	Dahanu	Palghar
25	<i>H.C.D 025</i>	Jitgaon	Dahanu	Palghar
26	<i>H.C.D 026</i>	Jitgaon	Dahanu	Palghar
27	<i>H.C.D 027</i>	Ambesari	Dahanu	Palghar
28	<i>H.C.D 028</i>	Ambesari	Dahanu	Palghar
29	<i>H.C.D 029</i>	Jamset	Dahanu	Palghar
30	<i>H.C.D 030</i>	Santoshi	Dahanu	Palghar
31	<i>H.C.D 031</i>	Jamset	Dahanu	Palghar
32	<i>H.C.D 032</i>	Jamset	Dahanu	Palghar
33	<i>H.C.D 033</i>	Jamset	Dahanu	Palghar
34	<i>H.C.D 034</i>	Chari	Dahanu	Palghar
35	<i>H.C.D 035</i>	Chari	Dahanu	Palghar
36	<i>H.C.D 036</i>	Chari	Dahanu	Palghar
37	<i>H.C.D 037</i>	Vangam	Dahanu	Palghar
38	<i>H.C.D 038</i>	Vakashi	Palghar	Palghar
39	<i>H.C.D 039</i>	Vakashi	Palghar	Palghar
40	<i>H.C.D 040</i>	Kapase	Palghar	Palghar
41	<i>H.C.D 041</i>	Kapase	Palghar	Palghar
42	<i>H.C.D 042</i>	Silkhe	Palghar	Palghar
43	<i>H.C.D 043</i>	Chandansar	Vasai	Palghar
44	<i>H.C.D 044</i>	Chandansar	Vasai	Palghar
45	<i>H.C.D 045</i>	Valaipada	Vasai	Palghar
46	<i>H.C.D 046</i>	Valaipada	Vasai	Palghar
47	<i>H.C.D 047</i>	Nalasopara	Vasai	Palghar
48	<i>H.C.D 048</i>	Tivani	Vasai	Palghar
49	<i>H.C.D 049</i>	Navagaon	Vasai	Palghar

50	<i>H.C.D 050</i>	Uplat	Talasri	Palghar
51	<i>H.C.D 051</i>	Uplat	Talasri	Palghar
52	<i>H.C.D 052</i>	Zari	Talasri	Palghar
53	<i>H.C.D 053</i>	Zari	Talasri	Palghar
54	<i>H.C.D 054</i>	Zari	Talasri	Palghar
55	<i>H.C.D 055</i>	Zari	Talasri	Palghar
56	<i>H.C.D 056</i>	Talasri	Talasri	Palghar
57	<i>H.C.D 057</i>	Kavada	Talasri	Palghar
58	<i>H.C.D 058</i>	Karajgaon	Talasri	Palghar
59	<i>H.C.D 059</i>	Dhamangaon	Talasri	Palghar
60	<i>H.C.D 060</i>	Jitgaon	Dahanu	Palghar
61	<i>H.C.D 061</i>	Jitgaon	Dahanu	Palghar
62	<i>H.C.D 062</i>	Jitgaon	Dahanu	Palghar
63	<i>H.C.D 063</i>	Jitgaon	Dahanu	Palghar
64	<i>H.C.D 064</i>	Jitgaon	Dahanu	Palghar
65	<i>H.C.D 065</i>	Jitgaon	Dahanu	Palghar
66	<i>H.C.D 066</i>	Ambesari	Dahanu	Palghar
67	<i>H.C.D 067</i>	Ambesari	Dahanu	Palghar
68	<i>H.C.D 068</i>	Ambesari	Dahanu	Palghar
69	<i>H.C.D 069</i>	Ambesari	Dahanu	Palghar
70	<i>H.C.D 070</i>	Chari	Dahanu	Palghar
71	<i>H.C.D 071</i>	Chari	Dahanu	Palghar
72	<i>H.C.D 072</i>	Jamset	Dahanu	Palghar
73	<i>H.C.D 073</i>	Jamset	Dahanu	Palghar
74	<i>H.C.D 074</i>	Chari	Dahanu	Palghar
75	<i>H.C.D 075</i>	Chari	Dahanu	Palghar
76	<i>H.C.D 076</i>	Vangam	Dahanu	Palghar
77	<i>H.C.D 077</i>	Vangam	Dahanu	Palghar

78	<i>H.C.D 078</i>	Hanuman Nagar	Dahanu	Palghar
79	<i>H.C.D 079</i>	Hanuman Nagar	Dahanu	Palghar
80	<i>H.C.D 080</i>	Hanuman Nagar	Dahanu	Palghar
81	<i>H.C.D 081</i>	Vakashi	Palghar	Palghar
82	<i>H.C.D 082</i>	Vakashi	Palghar	Palghar
83	<i>H.C.D 083</i>	Silkhe	Palghar	Palghar
84	<i>H.C.D 084</i>	Chandansar	Vasai	Palghar
85	<i>H.C.D 085</i>	Manavpade	Vasai	Palghar
86	<i>H.C.D 086</i>	Nalasopara	Vasai	Palghar
87	<i>H.C.D 087</i>	Nalasopara	Vasai	Palghar
88	<i>H.C.D 088</i>	Panchlai	Valsad	Valsad
89	<i>H.C.D 089</i>	Panchlai	Valsad	Valsad
90	<i>H.C.D 090</i>	Panchlai	Valsad	Valsad
91	<i>H.C.D 091</i>	Panchlai	Valsad	Valsad
92	<i>H.C.D 092</i>	Panchlai	Valsad	Valsad
93	<i>H.C.D 093</i>	Chanvai	Valsad	Valsad
94	<i>H.C.D 094</i>	Balda	Pardi	Valsad
95	<i>H.C.D 095</i>	Paria	Pardi	Valsad
96	<i>H.C.D 096</i>	Paria	Pardi	Valsad
97	<i>H.C.D 097</i>	Paria	Pardi	Valsad
98	<i>H.C.D 098</i>	Paria	Pardi	Valsad
99	<i>H.C.D 099</i>	Paria	Pardi	Valsad
100	<i>H.C.D 100</i>	Paria	Pardi	Valsad
101	<i>H.C.D 101</i>	Paria	Pardi	Valsad
102	<i>H.C.D 102</i>	Paria	Pardi	Valsad
103	<i>H.C.D 103</i>	Paria	Pardi	Valsad
104	<i>H.C.D 104</i>	Paria	Pardi	Valsad
105	<i>H.C.D 105</i>	Paria	Pardi	Valsad

106	<i>H.C.D 106</i>	Paria	Pardi	Valsad
107	<i>H.C.D 107</i>	Paria	Pardi	Valsad
108	<i>H.C.D 108</i>	Rata	Pardi	Valsad
109	<i>H.C.D 109</i>	Rata	Pardi	Valsad
110	<i>H.C.D 110</i>	Achchhari	Umbergaon	Valsad
111	<i>H.C.D 111</i>	Dangra	Pardi	Valsad
112	<i>H.C.D 112</i>	Paria	Pardi	Valsad
113	<i>H.C.D 113</i>	Paria	Pardi	Valsad
114	<i>H.C.D 114</i>	Paria	Pardi	Valsad
115	<i>H.C.D 115</i>	Paria	Pardi	Valsad
116	<i>H.C.D 116</i>	Rata	Pardi	Valsad
117	<i>H.C.D 117</i>	Tal	Umbergaon	Valsad
118	<i>H.C.D 118</i>	Tal	Umbergaon	Valsad
119	<i>H.C.D 119</i>	Tal	Umbergaon	Valsad
120	<i>H.C.D 120</i>	Undach Vaniya Fali	Gandevi	Navsari
121	<i>H.C.D 121</i>	Undach Vaniya Fali	Gandevi	Navsari
122	<i>H.C.D 122</i>	Undach Vaniya Fali	Gandevi	Navsari
123	<i>H.C.D 123</i>	Undach Vaniya Fali	Gandevi	Navsari
124	<i>H.C.D 124</i>	Pati	Gandevi	Navsari
125	<i>H.C.D 125</i>	Oviyan	Kamrej	Surat
126	<i>H.C.D 126</i>	Oviyan	Kamrej	Surat
127	<i>H.C.D 127</i>	Oviyan	Kamrej	Surat
128	<i>H.C.D 128</i>	Oviyan	Kamrej	Surat
129	<i>H.C.D 129</i>	Oviyan	Kamrej	Surat
130	<i>H.C.D 130</i>	Oviyan	Kamrej	Surat
131	<i>H.C.D 131</i>	Oviyan	Kamrej	Surat
132	<i>H.C.D 132</i>	Oviyan	Kamrej	Surat
133	<i>H.C.D 133</i>	Oviyan	Kamrej	Surat

134	<i>H.C.D 134</i>	Oviyan	Kamrej	Surat
135	<i>H.C.D 135</i>	Kathor	Kamrej	Surat
136	<i>H.C.D 136</i>	Tralsi	Bharuch	Bharuch
137	<i>H.C.D 137</i>	Tralsi	Bharuch	Bharuch
138	<i>H.C.D 138</i>	Tralsi	Bharuch	Bharuch
139	<i>H.C.D 139</i>	Tralsi	Bharuch	Bharuch
140	<i>H.C.D 140</i>	Tralsi	Bharuch	Bharuch
141	<i>H.C.D 141</i>	Tralsi	Bharuch	Bharuch
142	<i>H.C.D 142</i>	Amod	Hansot	Bharuch
143	<i>H.C.D 143</i>	Tralsi	Bharuch	Bharuch
144	<i>H.C.D 144</i>	Tralsi	Bharuch	Bharuch
145	<i>H.C.D 145</i>	Chhani	Vadodara	Vadodara
146	<i>H.C.D 146</i>	Chhani	Vadodara	Vadodara
147	<i>H.C.D 147</i>	Chhani	Vadodara	Vadodara
148	<i>H.C.D 148</i>	Vadodara	Vadodara	Vadodara
149	<i>H.C.D 149</i>	Chhani	Vadodara	Vadodara
150	<i>H.C.D 150</i>	Vadodara	Vadodara	Vadodara
151	<i>H.C.D 151</i>	Vadodara	Vadodara	Vadodara
152	<i>H.C.D 152</i>	Ahmedabad	Ahmedabad	Ahmedabad
153	<i>H.C.D 153</i>	Ahmedabad	Ahmedabad	Ahmedabad
154	<i>H.C.D 154</i>	Ahmedabad	Ahmedabad	Ahmedabad
155	<i>H.C.D 155</i>	Ahmedabad	Ahmedabad	Ahmedabad
156	<i>H.C.D 156</i>	Ahmedabad	Ahmedabad	Ahmedabad
157	<i>H.C.D 157</i>	Ahmedabad	Ahmedabad	Ahmedabad
158	<i>H.C.D 158</i>	Ahmedabad	Ahmedabad	Ahmedabad
159	<i>H.C.D 159</i>	Ahmedabad	Ahmedabad	Ahmedabad
160	<i>H.C.D 160</i>	Ahmedabad	Ahmedabad	Ahmedabad
161	<i>H.C.D 161</i>	Ahmedabad	Ahmedabad	Ahmedabad

162	<i>H.C.D 162</i>	Ahmedabad	Ahmedabad	Ahmedabad
163	<i>H.C.D 163</i>	Ahmedabad	Ahmedabad	Ahmedabad
164	<i>H.C.D 164</i>	Ahmedabad	Ahmedabad	Ahmedabad
165	<i>H.C.D 165</i>	Ahmedabad	Ahmedabad	Ahmedabad
166	<i>H.C.D 166</i>	Ahmedabad	Ahmedabad	Ahmedabad
167	<i>H.C.D 167</i>	Ahmedabad	Ahmedabad	Ahmedabad
168	<i>H.C.D 168</i>	Ahmedabad	Ahmedabad	Ahmedabad
169	<i>H.C.D 169</i>	Ahmedabad	Ahmedabad	Ahmedabad
170	<i>H.C.D 170</i>	Ahmedabad	Ahmedabad	Ahmedabad
171	<i>H.C.D 171</i>	Ahmedabad	Ahmedabad	Ahmedabad
172	<i>H.C.D 172</i>	Ahmedabad	Ahmedabad	Ahmedabad
173	<i>H.C.D 173</i>	Ahmedabad	Ahmedabad	Ahmedabad
174	<i>H.C.D 174</i>	Ahmedabad	Ahmedabad	Ahmedabad
175	<i>H.C.D 175</i>	Ahmedabad	Ahmedabad	Ahmedabad
176	<i>H.C.D 176</i>	Ahmedabad	Ahmedabad	Ahmedabad
177	<i>H.C.D 177</i>	Ahmedabad	Ahmedabad	Ahmedabad
178	<i>H.C.D 178</i>	Ahmedabad	Ahmedabad	Ahmedabad
179	<i>H.C.D 179</i>	Ahmedabad	Ahmedabad	Ahmedabad
180	<i>H.C.D 180</i>	Ahmedabad	Ahmedabad	Ahmedabad
181	<i>H.C.D 181</i>	Ahmedabad	Ahmedabad	Ahmedabad
182	<i>H.C.D 182</i>	Vinzol	Daskroi	Ahmedabad
183	<i>H.C.D 183</i>	Ahmedabad	Ahmedabad	Ahmedabad
184	<i>H.C.D 184</i>	Ahmedabad	Ahmedabad	Ahmedabad
185	<i>H.C.D 185</i>	Ahmedabad	Ahmedabad	Ahmedabad
186	<i>H.C.D 186</i>	Ahmedabad	Ahmedabad	Ahmedabad
187	<i>H.C.D 187</i>	Ahmedabad	Ahmedabad	Ahmedabad
188	<i>H.C.D 188</i>	Ahmedabad	Ahmedabad	Ahmedabad
189	<i>H.C.D 189</i>	Ahmedabad	Ahmedabad	Ahmedabad

190	<i>H.C.D 190</i>	Ahmedabad	Ahmedabad	Ahmedabad
191	<i>H.C.D 191</i>	Ahmedabad	Ahmedabad	Ahmedabad
192	<i>H.C.D 192</i>	Ahmedabad	Ahmedabad	Ahmedabad
193	<i>H.C.D 193</i>	Ahmedabad	Ahmedabad	Ahmedabad
194	<i>H.C.D 194</i>	Ahmedabad	Ahmedabad	Ahmedabad
195	<i>H.C.D 195</i>	Ahmedabad	Ahmedabad	Ahmedabad
196	<i>H.C.D 196</i>	Ahmedabad	Ahmedabad	Ahmedabad
197	<i>H.C.D 197</i>	Ahmedabad	Ahmedabad	Ahmedabad
198	<i>H.C.D 198</i>	Ahmedabad	Ahmedabad	Ahmedabad
199	<i>H.C.D 199</i>	Ahmedabad	Ahmedabad	Ahmedabad
200	<i>H.C.D 200</i>	Ahmedabad	Ahmedabad	Ahmedabad
201	<i>H.C.D 201</i>	Ahmedabad	Ahmedabad	Ahmedabad
202	<i>H.C.D 202</i>	Ahmedabad	Ahmedabad	Ahmedabad