



**ROADS AND BUILDINGS DEPARTMENT
GOVERNMENT OF GUJARAT**



Gujarat State Highway Project-II



Resettlement Action Plan

Summary



19th July, 2013

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ABBREVIATIONS

AIDS	-	Acquired Immune Deficiency Syndrome
BPL	-	Below Poverty Line
CoI	-	Corridor of Impact
ESMU	-	Environmental and Social Management Unit
FGD	-	Focused Group Discussion
GoG	-	Government of Gujarat
GSACS	-	Gujarat State Aids Control Society
GSHP	-	Gujarat State Highways Project
GWSSB	-	Gujarat Water Supply and Sewerage Board
Ha	-	Hectares
HH	-	Household
HIV	-	Human Immunodeficiency Virus
HPP	-	HIV/AIDS Prevention Plan
IPDP	-	Indigenous Peoples Development Plan
Km	-	Kilometre
LA	-	Land Acquisition
LASA	-	LEA Associates South Asia Pvt. Ltd.
LHS	-	Left Hand Side
MDR	-	Major District Road
M&E	-	Monitoring and Evaluation
NGO	-	Non-Governmental Organization
NRRP	-	National Rehabilitation and Resettlement Policy
OBC	-	Other Backward Community
OP	-	Operational Policy
PAF	-	Project Affected Family
PAP	-	Project Affected Person
PIU	-	Project Implementation Unit
R&BD	-	Roads and Buildings Department
R&R	-	Resettlement and Rehabilitation
RAP	-	Resettlement Action Plan
RHS	-	Right Hand Side
RoW	-	Right of Way
RPF	-	Resettlement Policy Framework
SC	-	Scheduled Caste
SH	-	State Highway
SIA	-	Social Impact Assessment
sq.m	-	Square Meter
ST	-	Scheduled Tribe
TCIF	-	Transport Corporation of India Foundation
WHH	-	Woman Headed Household

1. INTRODUCTION

1.1. BACKGROUND

1. The Government of Gujarat (GoG), through the Roads and Buildings Department (R&BD), has taken up the second Gujarat State Highway Project (GSHP-II), covering up-gradation, maintenance and improvement of identified core road network in the state. The GoG has proposed to take up this project with financial assistance from the World Bank. R&BD has retained LEA Associates South Asia Pvt. Ltd., (LASA) for project preparatory works consultancy services for GSHP-II. An Updated Strategic Options Study (USOS) was carried out by the R&BD in 2005-06 which was subsequently revalidated in 2010 for the State Core Road network. The improvements of 1003.22 km in the project includes: (i) upgradation corridors for a length of 644.05 km, involving the strengthening and upgrading of single/intermediate lane roads to standard 2-lane/ 2-lane-with-paved-shoulders / 4-lanes, and (ii) major maintenance, of the remaining 359.17km. In line with the prioritization exercise, R&BD has selected nine corridors, aggregating to about 394 km in length. The upgradation corridors to be taken up for implementation include thirteen corridors. Out of these, as part of DPR preparation, social safeguard reports have been prepared for 8 corridors. List of project corridors considered under GSHP-II are presented in **Error! Reference source not found.**, Table 1-2 and Table 1-3. Details of DPR corridors are given in **Error! Reference source not found.**

Table 1-1: Project Corridors (widening and upgradation corridors - DPRs prepared)

Sl.no	Link Name	Length (km)	Present Configuration	Improvement Options
1	Dabhoi – Bodeli	38.60	2L	2L+PS+HS
2	Dhandhuka - Dholera	27.00	IL	2L+HS
3	Atkot – Gondal	35.55	NTL	2L+HS
4	Mehsana-Himatnagar	60.70	2L/2L+PS	4L+HS+Drain
5	Umreth- Vasad (incl. Ladvel -Kapadvanj)	41.91	2L	2L+PS+HS & 4L+FP+CD
6	Bayad – Lunawada	44.86	IL, SL/2L	2L+HS
7	Dhansura – Meghraj	43.05	SL, IL	2L+HS
8	Lunawada – Khedapa	56.70	2L/SL	2L+HS

SL – single lane, 2L – two lane, IL – intermediate lane, NTL – narrow two lane, 4L – four lane, PS – paved shoulders, HS – hard shoulders, FP+CD – footpath with closed drain

Table 1-2: Project Corridors (widening and upgradation corridors - DPRs to be prepared)

Sl.no	Link Name	Length (km)	Present Configuration	Improvement Options
1	Bagodara - Bhavnagar	129.30	2L	4L
2	Jamnagar – Mewasa (Link to Bhavad-Jamjodhpur)	68.20	IL, SL/2L	2L+HS
3	Tarapur - Anand	34.60	2L	2L+PS
4	Kheda - Nadiad	29.70	2L	2L+PS
5	Kapadvanj - Balasinor	29.45	2L	2L+PS

SL – single lane, 2L – two lane, IL – intermediate lane, NTL – narrow two lane, 4L – four lane, PS – paved shoulders, HS – hard shoulders, FP+CD – footpath with closed drain

Table 1-3: Project Corridors (Maintenance Corridors)

Sl.no	GSHP-II Maintenance Corridors	Length(km)	District
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1.	Paliyad-Dhandhuka (DPR Corridor)	46.00	Ahmedabad
2.	Palanpur – Danta	36.00	Banas kantha
3.	Atkot-Paliyad	22.25	Rajkot, Bhavnagar
4.	Tharad – Deesa	54.89	Banas Kantha
5.	Chanasma – Deesa	45.05	Patan
6.	Vallabhipur-Rangola	26.60	Bhavnagar
7.	Viramgam–Nandasan	51.85	Mehsana, Ahmedabad
8.	Pardi – Dixal	67.40	Valsad
9.	Bechraji-Chanasma	29.00	Patan, Mehsana
10.	Karjan – Borsad (Partly under RMC)	55.15	Anand, Vadodara
11.	Savar Kundla – Dhasa	70.30	Amreli, Bhavnagar

2. This report presents the summary of Social Assessment and Resettlement Action Plan of the corridors to be taken up in the first phase of implementation of GSHP-II. In line with the safeguard policy requirements of the World Bank, an independent review of the Social Assessments has been carried out by M/S. Wapcos Limited. The findings and observations of the Independent Review on the draft social assessment reports have been addressed and incorporated.

1.2. DESIGN INTERVENTIONS

1.2.1. Upgradation Corridors

3. Based on the traffic projections till 2042, corresponding upgradation and rehabilitation proposals have been suggested for the project corridors. Details of proposed road cross sections are presented in Table 1-4.

Table 1-4: Proposed Cross Sections for GSHP-II DPR Corridors

Sl.no	Link Name	Present Configuration	Specific Improvement Options		Reference figures
			Rural stretch	Urban stretch	
1	Dabhoi – Bodeli	2L	2L+PS+HS	2L+PS+HS	Figure 1-2
2	Dhandhuka - Dholera	IL	2L+HS	2L+HS	Figure 1-3
3	Atkot – Gondal	NTL	2L+HS	2L+HS	Figure 1-3
4	Mehsana-Himatnagar	2L/2L+PS	4L +HS	4L+HS+Drain	Figure 1-4
5	Umreth- Vasad (incl. Ladvel- Kapadvanj)	2L	2L+PS+HS	4L+FP+CD	Figure 1-5
6	Bayad – Lunawada	IL, SL/2L	2L+HS	2L+HS	Figure 1-3
7	Dhansura – Meghraj	SL, IL	2L+HS	2L+HS	Figure 1-3
8	Lunawada – Khedapa	2L/SL	2L+HS	2L+HS	Figure 1-3

SL – single lane, 2L – two lane, IL – intermediate lane, NTL – narrow two lane, 4L – four lane, PS – paved shoulders, HS – hard shoulders, FP+CD – footpath with closed drain.

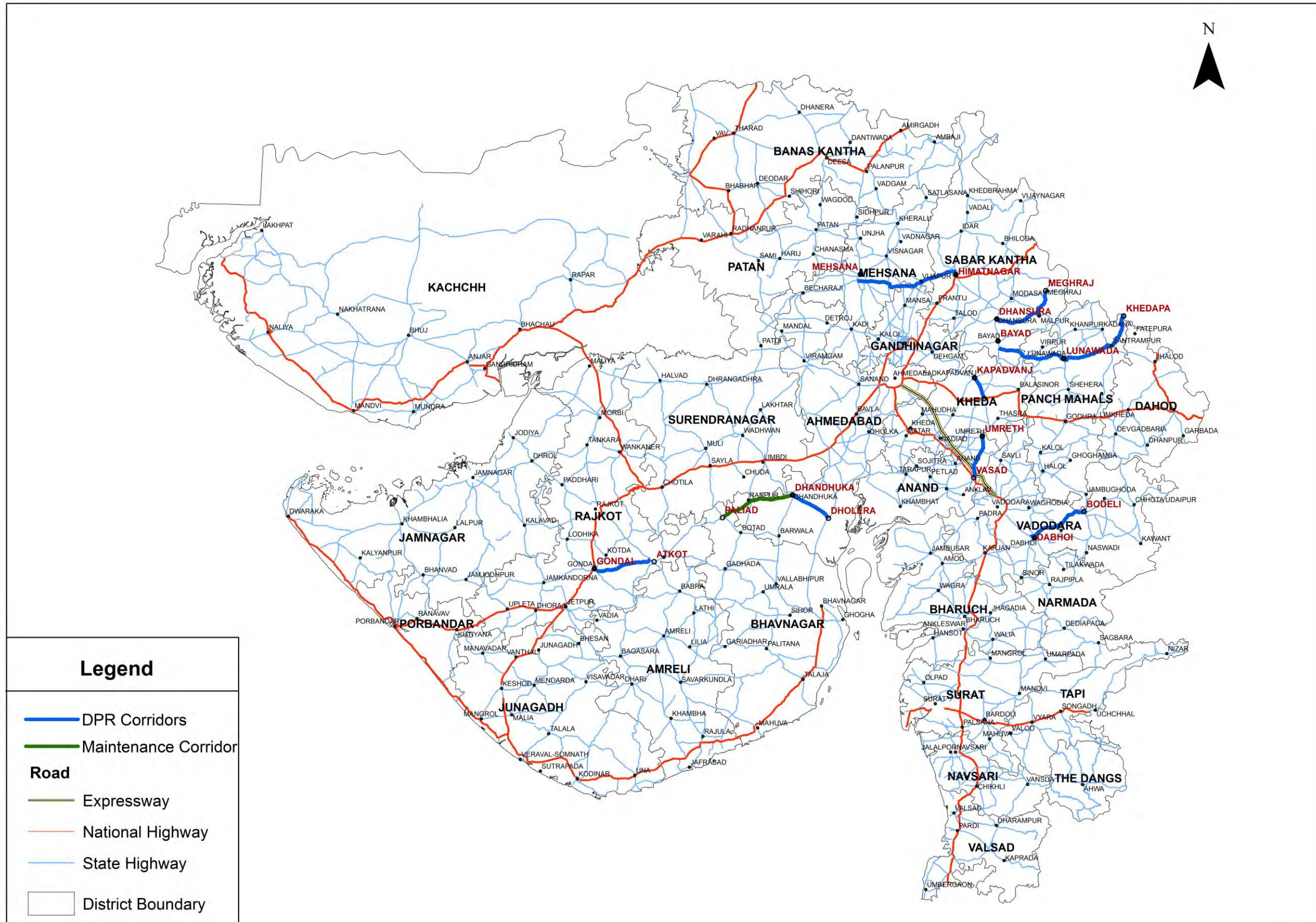


Figure 1-1: Project Corridors

4. In addition to the improvement of road cross section by widening, strengthening and/or reconstruction of the pavement, other design measures undertaken are presented below:

- Improvement of horizontal alignment and vertical profile of the roads with minimum land acquisition and through avoidance of obstructions such as trees, utilities, road side building structures, etc. to the extent possible,
- Improvement of intersections and junctions,
- Provision of road side appurtenances such as signage, delineators, guard rails, street lighting, etc., and
- Provision of road side facilities such as road side drains, pedestrian footpaths, pedestrian and cattle crossings, bus bays, bus shelters, parking bays, etc.

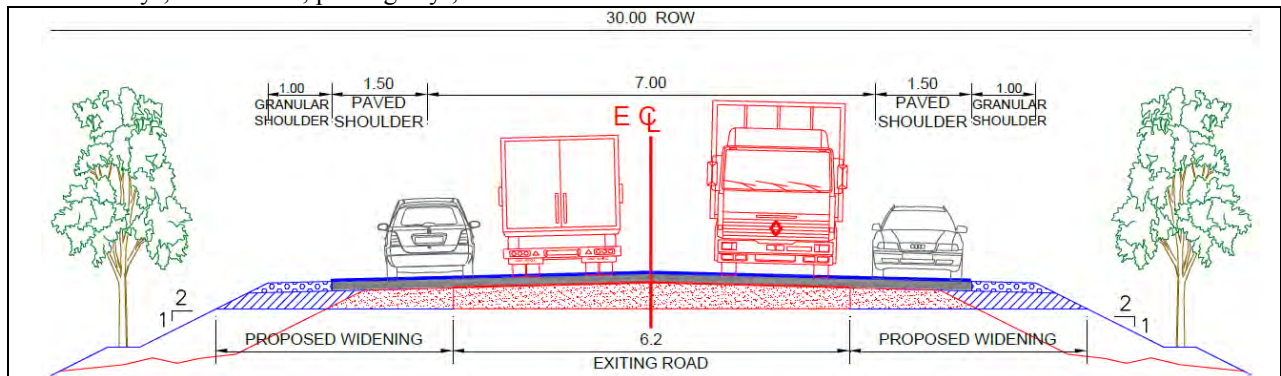


Figure 1-2: Typical Cross Section for 2 Lanes with Paved and Hard Shoulder (2L+PS+HS) Option

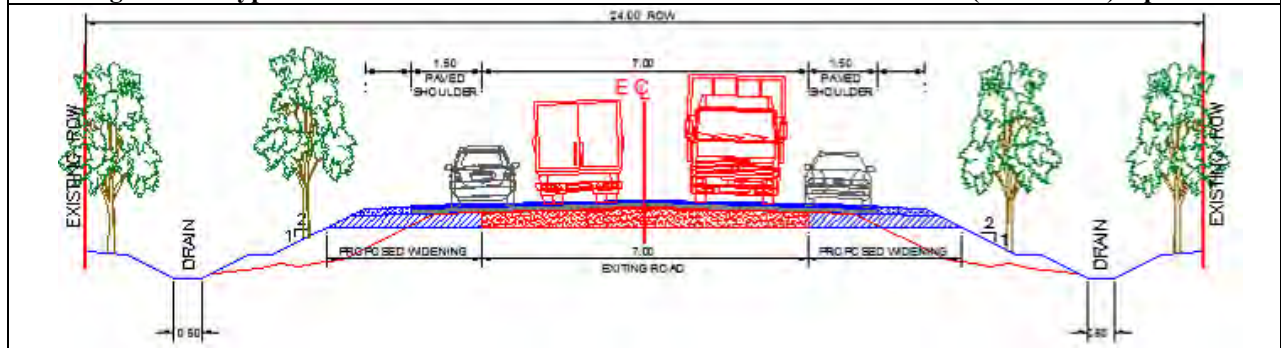


Figure 1-3: Typical Rural Cross Section for 2 Lanes with Hard Shoulder (2L+HS) Option

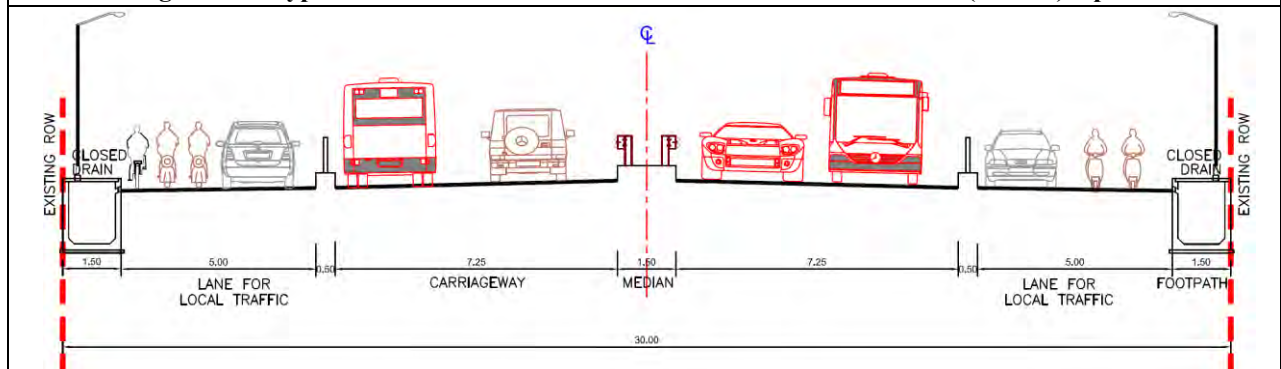


Figure 1-4: Typical Urban Cross Section for 4 Lanes with Hard Shoulder (4L+HS) with Drain Option

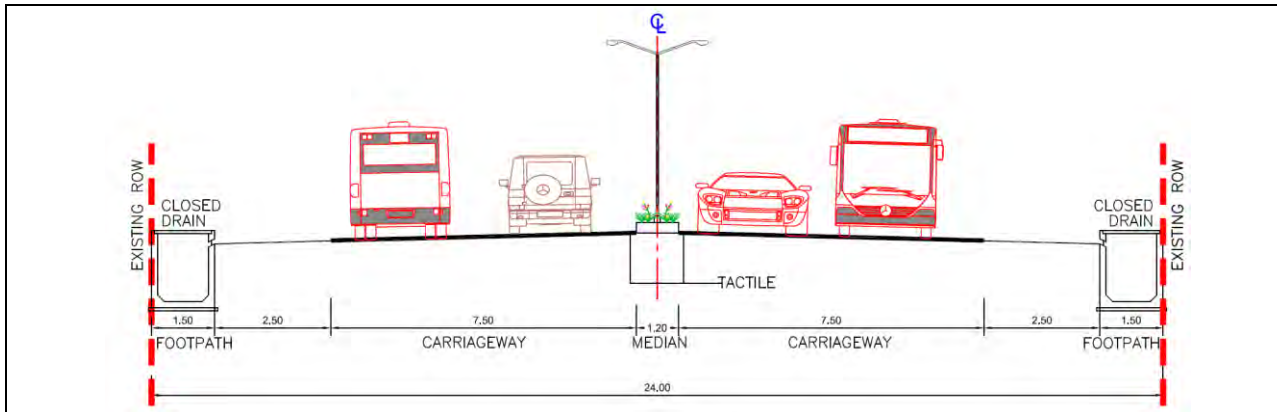


Figure 1-5: Typical Urban Cross Section for 4 Lanes with Hard Shoulder (4L+HS) with Foot Path and Closed Drain Option

1.2.2. Maintenance corridors

5. The maintenance of the project corridor focuses primarily on thin resurfacing, shape correction, shoulder repairs and drainage, with some potential for inclusion of modest structural overlay. All improvements to the maintenance corridors are proposed within the available RoW. Impact on land and assets including those of non-titleholders is not envisaged under the maintenance component. As a result, impacts are limited to typical construction stage / maintenance related impacts which are short term and not significant. An Environment and Social Management Framework (ESMF) has been prepared to address the limited environmental and social impacts likely due to the maintenance operations, at the various stages of project preparation, implementation and maintenance of the corridors.

1.3. SOCIAL SCREENING

6. At an initial stage of the project preparation, screening of the 1577 km of project corridors, including the DPR corridors to be taken up in the first phase was carried out. Screening site visits, consultations with stakeholders and review of secondary information formed the basis for screening. Key findings of the screening with respect to the social aspects are highlighted in Table 1-5.

Table 1-5: Findings of the Screening Exercise – Social Aspects

<ul style="list-style-type: none"> • Design cross-sections are proposed to be accommodated within the available RoW to the extent possible, and hence major land acquisition is not envisaged for the DPR corridors. Only at locations unavoidable, acquisition of land shall be taken up, and include: (i) locations requiring geometric improvements, (ii) constricted locations with insufficient RoW to accommodate the basic road width, and (iii) locations requiring improvements for enhanced road safety, approaches to new bridges, etc. There are no major settlements along the corridors which warrant development of bypasses. • Along 2 corridors (Bayad-Lunawada and Mehsana-Himatnagar) of 8 upgradation corridors, the impact on private land is comparatively higher (these two corridors constitute 88 percent of the total land to be acquired in all the 8 corridors – details given in Chapter 6). Sections of the Bayad-Lunawada corridor include widening of 12.4 km of village roads/MDR with RoW less than 15m to two lane standards, while the Mehsana – Himatnagar corridor envisages four-laning of the existing two lane highway triggering additional land acquisition. • Based on the screening site visits and consultations, the available RoW along all the DPR corridors is generally free of encumbrances, with the exception of junctions and settlement stretches. The impacts on these non-titleholders shall be addressed during the detailed designs; • Cattle movement along and across the project corridors were observed along Dabhoi–Bodeli, Atkot–Gondal and Mehsana-Himatnagar; • Water bodies comprising open wells, ponds and lakes exist along the corridors. However, impacts over these water bodies would be negligible since they are mostly located away from the road edge. Where these are close to the corridor design measures shall ensure minimum impact on such features; • The following corridors pass through tribal Talukas notified under Fifth Schedule: DPR corridors: Dabhoi–Bodeli, Dhansura- Meghraj and Lunawada-Khedapa. However, impacts on land owned by tribal communities are not envisaged due to the project approach to minimize land acquisition and impacts on private properties

owned by tribal communities are minimal. As per the Operational Policy of the World Bank (OP 4.10-Indigenous Peoples), a project proposed for Bank financing that affects Indigenous Peoples requires a process of Free, Prior and Informed Consultation (FPIC) with the affected Indigenous People's Communities at each stage of the project, and particularly during project preparation, to fully identify their views and ascertain their broad community support for the project and requires preparation of an Indigenous Peoples Plan. Accordingly, a Indigenous Peoples Development Plan for the road stretches falling in the above Talukas shall be formulated, and shall include the FPIC of the tribal communities along the corridor, prior to the finalization of the project interventions;

- Road side community consultations during the screening stage revealed that the people welcome the proposed road improvement measures. The following suggestions have been forwarded by road side communities for due consideration while designing the road improvement measures: junction improvements with adequate street lighting, construction of drains and culverts to improve roadside drainage, provision of parking areas with amenities such as public toilets, provision for safety measures in urban stretches such as speed breakers, pedestrian crossings, foot paths, guard rails, sign boards, street lights, etc., and construction of noise barriers at sensitive locations (hospitals, schools, etc).

1.4. PERCEIVED POSITIVE AND ADVERSE IMPACTS

7. The proposed project has positive as well as adverse impacts. The advantages of the project as perceived by the stakeholders are (i) The project will provide faster movement of people and goods which in turn would provide a boost to local as well as State economy; (ii) The people felt that the interconnectivity of settlements along the corridor will improve substantially; (iii) Help alleviate development constraints in agriculture, commerce, education, health and social welfare; (iv) Travel time would be saved; and (v) Better designs and safety measures will lead to reduction of accidents. Adverse impacts perceived by people are (i) loss of land; (ii) displacement of people; (iii) loss of livelihood; and (iv) loss of community assets. The efforts taken to avoid or minimize adverse impacts have been presented in the following sections.

2. GSHP II APPROACH TO MINIMIZE SOCIAL IMPACTS

2.1. APPROACH TO MINIMIZE LAND ACQUISITION AND ADVERSE SOCIAL IMPACTS IN GSHP-II

8. A conscious effort towards avoidance of land acquisition and resettlement impacts has been taken up as an integral part of the entire project preparation and design in GSHP-II. Wherever unavoidable, efforts to minimize impacts through design interventions have been worked out. A three stage iterative process to minimise land acquisition and resettlement impacts has been worked out, and is detailed in the following sections. The iterative approach adopted for minimizing impacts is illustrated in Figure 2-3.

2.1.1. Improvements to be planned within the available RoW

9. In line with the requirements of the ToR for the assignment, the team was advised to design cross-sections to be accommodated within the available RoW. Only at locations unavoidable, acquisition of land shall be taken up in the project, and could include:

- locations requiring geometric improvements,
- constricted locations with insufficient RoW to accommodate the basic road width, and,
- locations requiring improvements for enhanced road safety, approaches to new bridges, etc.

10. Accordingly, RoW information from each of the R&BD field divisions along the project corridors was collected. As is reflected in Table 1-1, RoW of at least 24 m is available along all the corridors, except for Bayad-Lunawada.

2.1.2. Adoption of Corridor of Impact (CoI) Approach

11. In GSHP-II, a Corridor of Impact (COI) approach has been followed to reduce impacts on environmental and social features within the road RoW¹. The corridor of impact considered is the width between the toe walls of the proposed road cross section. **The objective of social inputs to project design has been to ensure that the corridor of impact is reduced, within acceptable design principles and standards, to minimize displacement and other project impacts.** An illustration of the CoI is given in Figure 2-1.

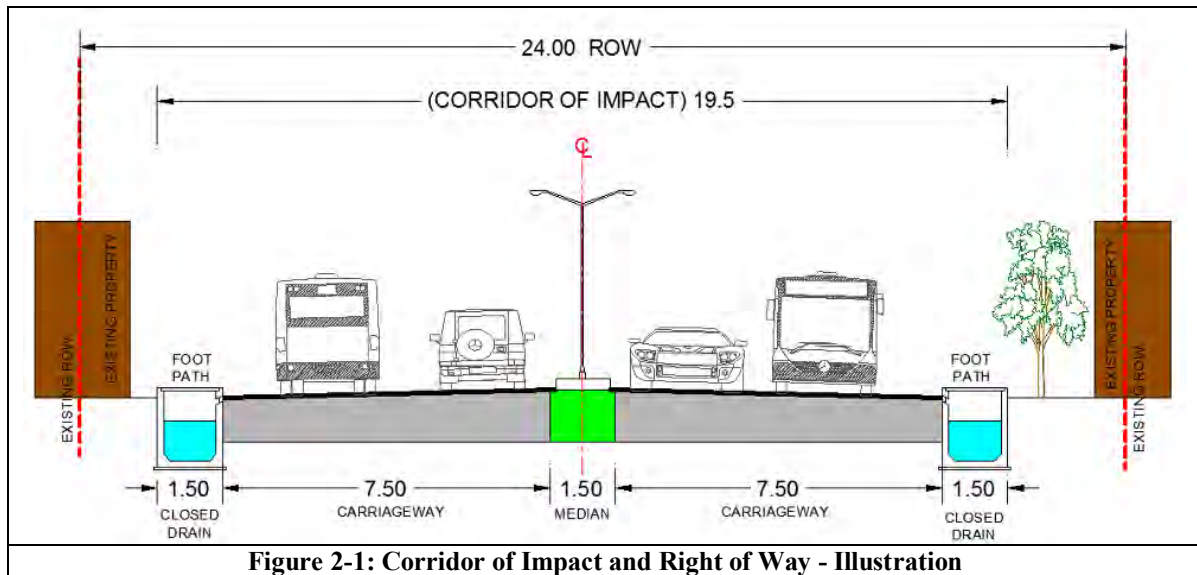


Figure 2-1: Corridor of Impact and Right of Way - Illustration

2.1.3. Location specific measures to further minimize impacts within the CoI

12. Census and socio-economic surveys of the affected persons within the CoI were compiled. Possibilities of further reduction of impacts on people were worked out as part of the designs finalization. Properties that could be avoided from being impacted were saved, after adoption of necessary design modifications, and adoption of protection measures etc. An illustration of the impacts minimization achieved along a particular settlement stretch is highlighted in Figure 2-2.

¹ The Right of Way is the lawfully acquired corridor of public land owned by the State Government and administered by the R&BD for transit. The corridor of impact (CoI) is the width required for the actual construction of the road, including carriageway, shoulder and embankments. For Mehsana-Himatnagar, CoI shall be decided based on the Forest Clearance.

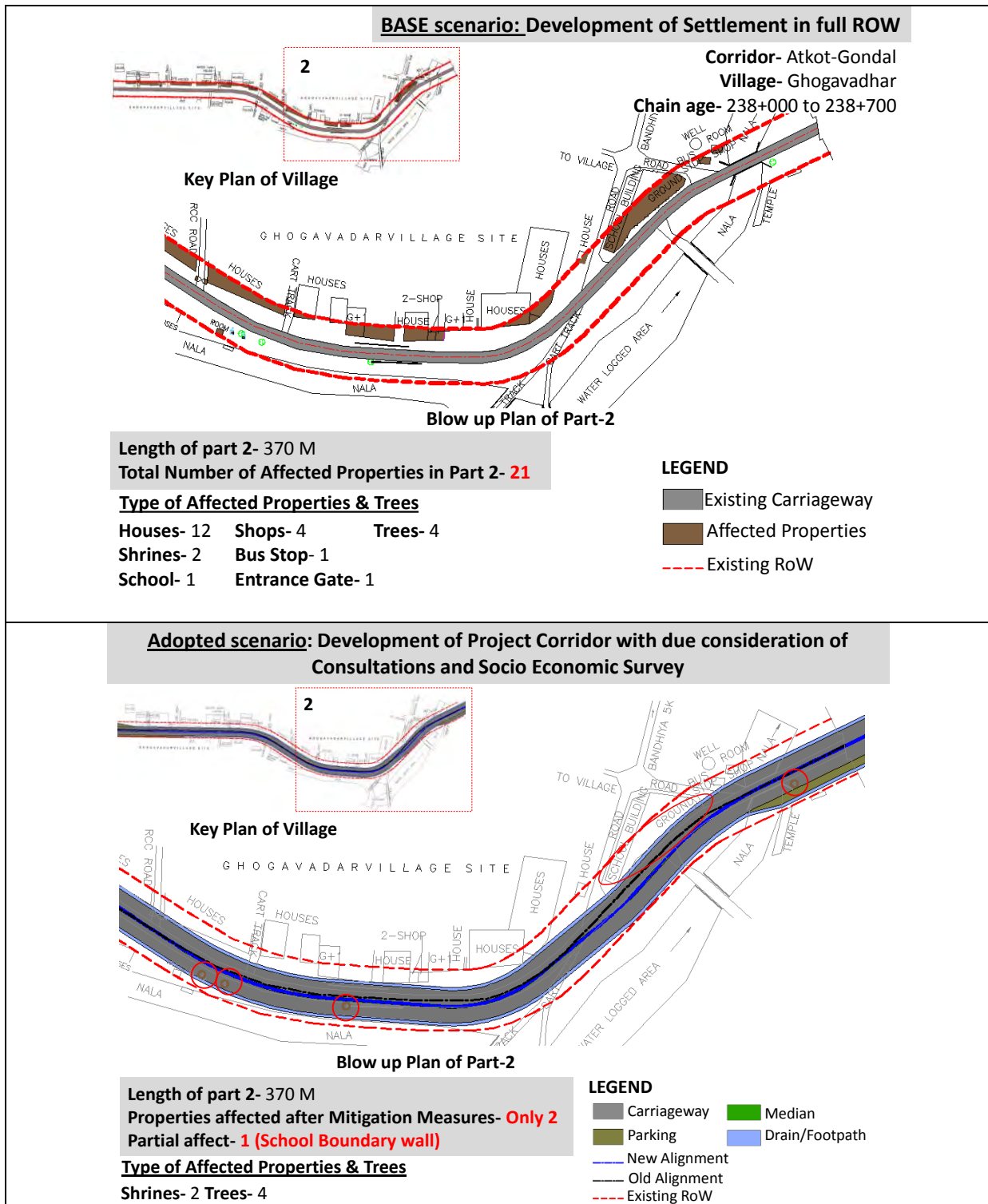


Figure 2-2: Minimization of impacts – Ghogavadhar Village, Atkot-Gondal

13. Joint efforts with the design team were taken in the form of design modifications as part of impact minimization exercise. This has ensured that the grievances/suggestions of the community during the consultations are addressed to the extent feasible. Table 2-1 summarizes the number of structures saved. Half of all the impacted structures as per the initial designs have been saved by adopting the three-stage impact minimisation process.

Table 2-1: List of Structures Saved with Design Interventions

S.No.	Project Corridors	Number of Impacted Structures before Design Intervention	Number of Structures saved due to Design Intervention	Number of Impacted Structures after Design Intervention
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S.No.	Project Corridors	Number of Impacted Structures before Design Intervention	Number of Structures saved due to Design Intervention	Number of Impacted Structures after Design Intervention
1	Dabhoi-Bodeli	37	19	18
2	Dhandhuka- Dholera	12	8	4
3	Atkot-Gondal	161	125	36
4	Mehsana-Himatnagar	247	2	245
5	Umreth-Vasad (including Ladvel-Kapadvanj)	66	26	40
6	Bayad-Lunawada	349	0	349
7	Dhansura- Meghraj	56	32	24
8	Lunawada- Khedapa	67	54	13
TOTAL		995	266	729

Source: LASA, 2012

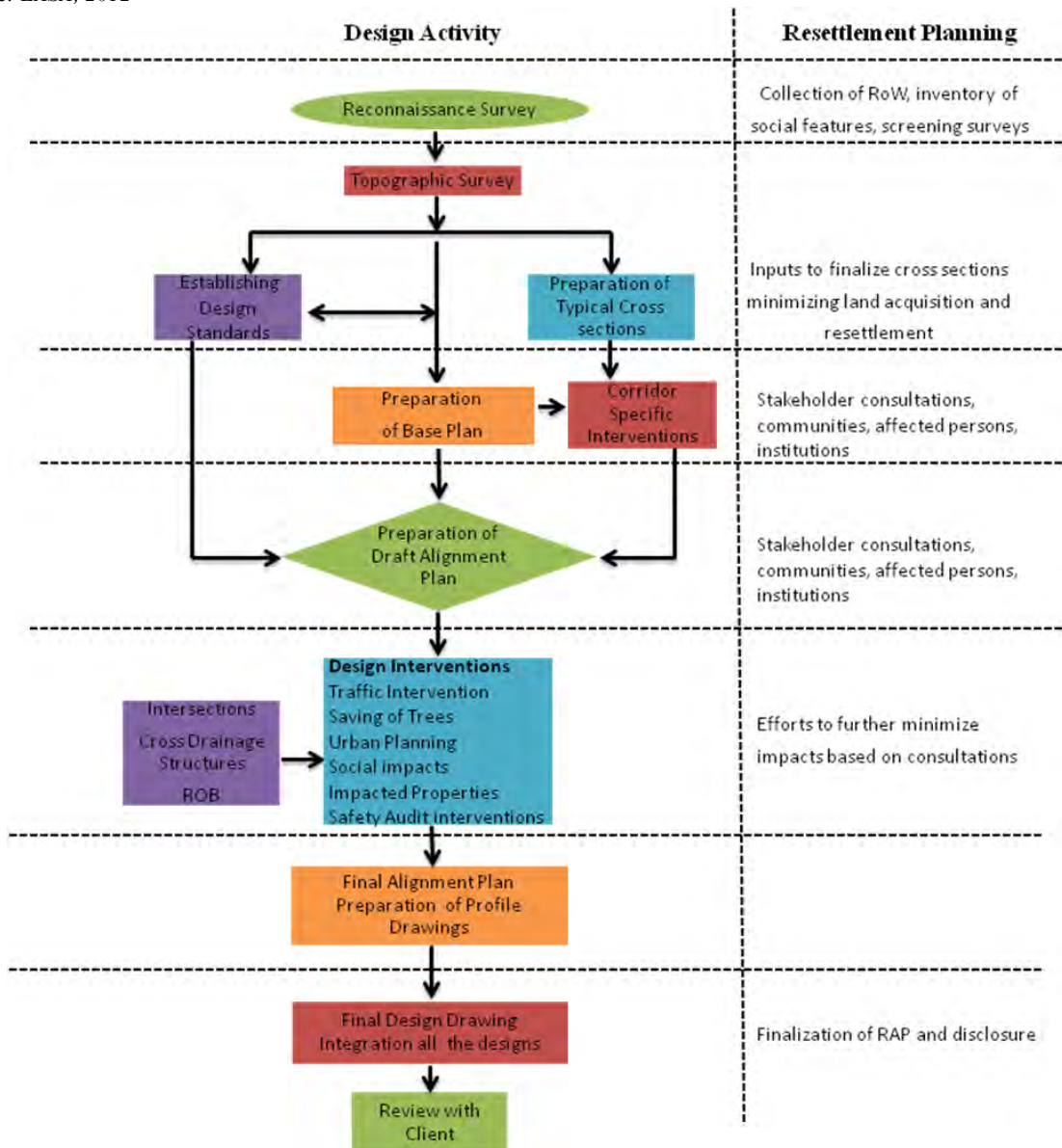


Figure 2-3: Iterative approach towards minimizing land acquisition and resettlement impacts

3. LEGAL AND POLICY FRAMEWORK

14. Applicable Acts and Policies relevant in the context of the project have been reviewed and their relevance to the project outlined in **Table 3-1**. R&BD will ensure that project activities implemented are consistent with the following regulatory/legal framework.

Table 3-1: National and World Bank Policies: Relevance and Applicability for the Project

Sl. No.	Acts and Policies	Relevance to this project	Applicability
1	Land Acquisition Act, 1894	Land required for the project shall be acquired as per the provisions of this Act.	Applicable to all project corridors
2	National Rehabilitation and Resettlement Policy (NRRP), 2007	This Policy provides for basic minimum requirements. The State Governments, other requiring bodies can also opt for greater benefit levels than those prescribed in this Policy.	Applicable to all project corridors
3	Provisions of the Panchayats (Extension to the Scheduled Areas) Act, 1996	One of the important provisions of this act states “the Gram Sabha or the Panchayats at the appropriate level shall be consulted before making the acquisition of land in the Scheduled Areas for development projects and before re-settling or rehabilitating persons affected by such projects in the Scheduled Areas.	Applicable to Fifth Schedule Areas – project corridors viz., Dabhoi-Bodeli, Lunawada-Khedapa, Dhansura-Meghraj
4	The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006	This law provides for recognition of forest rights to Scheduled Tribes in occupation of the forest land prior to 13.12.2005 and to other traditional forest dwellers who are in occupation of the forest land for at least 3 generations i.e. 75 years, up to maximum of 4 hectares. These rights are heritable but not alienable or transferable.	Applicable to project corridors viz., Dabhoi-Bodeli, Lunawada-Khedapa, Dhansura-Meghraj
5	World Bank OP 4.12 –Involuntary Resettlement	Cash compensation should be sufficient to replace the lost land and assets; eligibility of benefits include, the PAPs who have formal legal rights to land (including customary and traditional land rights recognised under law), the PAPs who don't have formal legal rights to the land they are occupying; particular attention to the needs of vulnerable groups; timely and relevant information to displaced persons, consulted on resettlement options, and offered opportunities to participate in planning, implementing, and monitoring resettlement; establishment of grievance mechanisms	Applicable to all project corridors
6	OP 4.10 – Indigenous Peoples	Project proposed for Bank financing that affects Indigenous Peoples requires a process of Free, Prior and Informed Consultation (FPIC) with the affected Indigenous People’s Communities at each stage of the project, and particularly during project preparation, to fully identify their views and ascertain their broad community support for the project and requires preparation of an Indigenous Peoples Development Plan.	Applicable to project corridors viz., Dabhoi-Bodeli, Lunawada-Khedapa, Dhansura-Meghraj
7	The Right to Information Act, 2005	The Act provides for setting out the practical regime of right to information for citizens to secure access to information under the control of public authorities, in order to promote transparency and accountability in the working of every public authority.	Applicable to all project corridors

4. STAKEHOLDER CONSULTATIONS

15. Consultations were carried out with a wide range of stakeholders including affected communities, government agencies, municipal authorities, NGOs etc. These consultations were to disseminate information about project to the stakeholders including the potentially affected people, and also to appraise their views and suggestions about the project and the project impacts. The views expressed by the community in general and of the affected population in specific have been discussed in details with the Design Team for appropriate design interventions. At an early stage of the project, the project preparation team of the consultants identified key stakeholders for the project based on reconnaissance visits along the project corridors (Table 4-1).

Table 4-1: Stakeholders Consulted

<ul style="list-style-type: none"> • Potential PAPs; • Groups of affected persons; • Communities along the project corridors; • Revenue Department; • Forest Department (FD); • Village representatives like Sarpanch and members, PRIs, Village level health workers; • Tribal groups; • Local voluntary organizations like CBOs and NGOs; 	<ul style="list-style-type: none"> • Women Groups and resource persons of Mission Mangalam/Sakhi Mandal Project; • Field level R&B Engineers; • Gujarat State AIDS Control Society representatives; • Tribal Development Department; • Taluka Development Officers; and • Other project stakeholders such as officials of line Departments.
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16. The consultation mechanism had been planned at each level of project preparation. Village and Block level consultations were planned during SIA stage which will be continued even during the project implementation. Officials of line Departments (Revenue, Town Planning and Valuation, Forest, Tribal Development and Water Resources) were consulted at State/District and Taluka level to gather relevant information.

4.1. CONSULTATION WITH NON-GOVERNMENTAL ORGANISATIONS

17. NGOs operational in the project area were consulted to understand the issues of tribal and social development, livelihood, health, gender specific concerns etc. Interactions with these NGOs were necessary to create an encouraging environment for carrying out social mobility survey, trucker survey for HIV/AIDS Prevention plan and public consultations. Their inputs have helped in preparation of the Indigenous Peoples Development Plan and the HIV/AIDS Prevention plan.

4.2. CONSULTATION WITH COMMUNITY GROUPS (SCHEDULED TRIBES, WOMEN, TRUCKERS)

18. Apart from the detailed consultations with NGOs, consultations were arranged at various locations with trucker community, scheduled tribes, women, consultations on cultural properties and community assets.

- **Scheduled Tribes:** Santrampur and Kadana Taluka of Lunawada-Khedapa corridor, Meghraj Taluka of Dhansura-Meghraj corridor and Sankheda Taluka of Dabhoi-Bodeli corridor are part of Fifth Schedule Areas. State, district and Taluka level consultations were done following the strategy of FPIC in the identified Fifth Schedule Areas along the project corridors. The consultation at state level is carried out with the Commissioner, Tribal Development Department, GoG. The district level consultations have been carried out with Project Administrators of Integrated Tribal Development Project areas. At Taluka level, consultations have been carried out with Taluka Development Officers, Gram Panchayat members, Talatis, Sarpanchs and ST households residing in Fifth Schedule Area;
- **Women:** During consultations with women, special attention was made to discuss issues related to the road improvement project and its consequent impact on women community. Participation of resource persons of Mission Mangalam² during consultation along Lunawada-Khedapa was noteworthy. During consultation along Atkot-Gondal corridor, women have come forward and suggested to save structures of religious importance. The facilitating NGO will ensure that these women are consulted and their views are accounted during implementation;
- **Cultural Properties and Community Assets:** Altogether 224 consultations were carried out with respect to cultural properties and community assets along the project corridors. Irrespective of the nature of impacts, consultations were carried out with the concerned stakeholders to understand the felt needs and perceptions of the communities with respect to these cultural and community assets; and,
- **Trucker Community:** Consultations as well as individual interviews have been carried out along all project corridors. The consultations have been done at locations such as highway-side hotels, guest houses, transporter/brokers office, truck parking areas, market yard, industries, eateries etc on the corridors.

4.3. CONSULTATION WITH AFFECTED COMMUNITIES

19. Community consultations have been carried out at various locations along the project corridors. The views, concerns and suggestions of the community were recorded. Venue, time and date of the meeting was communicated to the participants in advance. The participants included peoples' representatives, local leaders, women, STs, shop-owners, farmers, representatives from schools and religious institutions, affected people and common public.

20. Along 6 of the 8 project corridors (except Bayad-Lunawada and Mehsana-Himatnagar), impacts pertaining to land acquisition and resettlement are minimal. The consultations along these corridors

² The Mission Mangalam/Sakhi Mandal project is being implemented by Government of Gujarat (Commissionerate of Rural Development) aiming at formation and nurturing women self-help groups for creation of self-employment opportunities and employment of rural women. The women SHGs popularly called as Sakhi Mandals, are given training for capacity building, infrastructure and credit support.

largely focused on impact on community assets, especially water sources, educational and religious structures and its relocation. Road safety issues became another major focal point of discussion. The discussions during the consultations along Bayad-Lunawada and Mehsana-Himatnagar corridors focused on the process of determination of compensation, opportunities in the project towards minimization of land acquisition etc., apart from the other community level impacts and road safety concerns. The outcomes of consultations were discussed with the design team, and all attempts were made to integrate the views and suggestions of the community into the project design (Table 4-2).

Table 4-2: Key issues discussed and integration into project design

Corridor	Highlights of Key Issues Discussed	Response/Integration into Project Design
Dabhoi-Bodeli	<ul style="list-style-type: none"> • Compensation for affected structure to be provided at prevailing market rate; • Disbursement of compensation should be done within a reasonable time; advance notice should be served to relocate affected structures. • Road safety measures near school and hospital location and T-junction. • Protection of road-side trees. 	<ul style="list-style-type: none"> • Affected structures will be compensated as per R&BD Schedule of Rates without factoring for depreciation. • Disbursement will be done before the commencement of civil works; advance notice period will be served as per RPF. • Provision for rumble strips, raised pedestrian crossings, warning signs, bus-bays, rotary and traffic calming measures included in design. • If impacts on trees become unavoidable, compensatory tree plantation will be carried out as per the requirement of Forest Department.
Dhandhuka-Dholera	<ul style="list-style-type: none"> • Considering land on LHS to avoid impact on residential and religious structures. • Water logging and measures to avoid the same. • Compensation for affected structures at market rate. • Movement of cattle and subsequent safety issues. 	<ul style="list-style-type: none"> • Shift in road alignment to save the structures. • Provision of drains on both sides of the road included in the design. • Compensation at market rate following the provisions of RPF. • Signboards informing commuters about cattle crossing included in the design.
Atkot-Gondal	<ul style="list-style-type: none"> • Protection of religious structures, open/dug wells, to the extent possible; avoidance of impact on one school having historical importance. • Alternative designs to save commercial shops. • Movement of cattle and subsequent safety issues. • Developing an underpass along the present culvert location for easy movement of vehicles from villages. Presently, potential of accidents due to the direct entry of vehicles from village-road to main road. • Time schedule of civil works and prior notice to remove affected structures. 	<ul style="list-style-type: none"> • Shift in alignment and limiting the impact within CoI adopted to avoid/minimize impact on structures. • Parking space removed or reduced to save commercial shops, to the extent possible. • Signboards informing commuters about cattle crossing included in the design. • Underpass option will affect nearby temple of religious importance. Raised foot-path and warning signs included in design as safety measures. • Time schedule of civil works included in RAP and advance notice period mentioned in RPF.
Mehsana-Himatnagar	<ul style="list-style-type: none"> • Whether the passengers need to pay any toll-tax after the up-gradation of the corridor to 4-lane. • Affected persons should be duly consulted before finalisation of options for rehabilitation and resettlement. • In addition to the compensation for loss of land and assets, GoG should give priority to affected households for jobs in government departments in accordance with the qualification of the candidate. • Compensation for affected land and structures should be provided at prevailing market rates. • Construction camps should be established away from the village area, for the purpose, barren land near the Dabhla chokdi may be considered. • Provision for proper drainage to drain out accumulated water on road side should be included in the design. 	<ul style="list-style-type: none"> • Tolling of this road is not envisaged at this stage. • Consultations will be carried out with the affected persons during project preparation as well as project implementation stages respectively. • Training on alternative livelihood opportunities to any one member of the household losing livelihood. Training cost shall be borne by the project. • Latest Jantri value will be considered for the estimation of compensation for affected land and the compensation for affected structures will be based on R&BD schedule of rates (SOR) without factoring for depreciation. • The site for construction camps will be identified in consultation with the village Panchayats. The camp sites will be selected away from settlement areas. • Provision of drains on both sides of the road has been included in the design.

Corridor	Highlights of Key Issues Discussed	Response/Integration into Project Design
Umreth-Vasad (Including Ladvel-Kapadvanj)	<ul style="list-style-type: none"> Road safety measures near school locations, market places, T-junction, etc. Parking space near church location. Protection of water body (large pond) and open/dug well. Water logging as a major problem and suggestions to provide drains. 	<ul style="list-style-type: none"> Road safety measures like humps, warning signs, speed-control measures, cautionary signboards, road markings included in the design. Parking space included in the design. Provision of retaining wall alongside the road; protection of open/dug well and provision crash barriers for safety. Provision of drains on both sides of the road included in the design.
Bayad-Lunawada	<ul style="list-style-type: none"> Majority of the villagers are dependent on agriculture for their livelihood and hence loss of agriculture land will have adverse impacts on their livelihood. Some of the land owners are willing to part with their land; provided alternative land is made available to them as compensation for the affected land. People have already lost their land for the Sujalam Sufalam Project, for which they had not received any compensation. Further land acquisition will add to their woes. Land acquisition should be avoided as far as possible. 	<ul style="list-style-type: none"> Loss of agriculture land will be compensated based on latest Jantri rates and assistance in the form of training for income generation will be provided following the provisions of RPF. Instead of land-for-land compensation, the RPF provides for , (i) registration and stamp duty charges for acquired land; and (ii) all fees, taxes and other charges as applicable under the relevant laws, apart from compensation for affected land based on latest Jantri rates. Sections of the corridor include widening of village roads with RoW less than 15m to two lane standards triggering land acquisition, which is unavoidable.
Dhansura-Meghraj	<ul style="list-style-type: none"> Protection of open/dug well, boundary walls and built-up structure of cultural properties. Safety issues, especially safety of pedestrians at T-junctions and market places; straitening of curves to avoid accidents. Compensation for affected structures at prevailing market rates. Provide compensation before the start of road construction so that the impacted shops could be relocated without affecting livelihood. 	<ul style="list-style-type: none"> Shift in alignment and limiting the impact within Col adopted to avoid/minimize impact on structures. Road safety measures like cautionary signs, road markings and speed-breakers included in the project design. Compensation at market rate following the provisions of RPF Civil works will be initiated only after the payment of compensation, following the principles of RPF³
Lunawada-Khedapa	<ul style="list-style-type: none"> Road improvements should be carried out within the available government land, avoiding land acquisition. Compensation for affected structures should be provided at prevailing market rates. Curve improvement should be carried out to avoid accidents. Compensation should be paid within a reasonable time period. Sufficient time should be given to the affected shop owners for shifting. The land on the RHS of the road section Lunawada-Santrampur-Zalod-Kushalgadh belongs to the erstwhile Royal family wherein there are old temples and Samadhi of the royal family. The road improvements should be carried out within the available land 	<ul style="list-style-type: none"> The proposed improvements will be carried out within the existing RoW. For locations requiring geometric improvement, land acquisition is unavoidable. Compensation for affected structures will be based on R&BD Schedule of Rates without factoring for depreciation. The curve improvements will be carried out within the available RoW. Compensation will be paid to the affected shop owners before the commencement of civil works. Notice period of 4 months will be served to the affected shop owners for shifting. Impacts have been minimised by limiting the proposed improvements within the RoW. Being part of Scheduled Areas, land acquisition has been completely avoided in Santrampur.

5. LAND ACQUISITION AND COMPENSATION IN RECENT PROJECTS

21. Land acquisition procedures and determination of compensation for various infrastructure development projects within Gujarat in recent past were reviewed in order to understand the prevailing compensation equates the replacement cost of affected properties. The findings of the review is summarised in Table 5-1.

³ Operational Policy (OP 4.12 Involuntary Resettlement) of the World Bank prescribes that implementation of resettlement activities is linked to the implementation of the investment component of the project to ensure that displacement does not occur before necessary measures for resettlement are in place...these measures include provision of compensation and of other assistance required for relocation, prior to displacement. In particular, taking of land and related assets may take place only after compensation has been paid to the displaced persons

Table 5-1: Land Valuation and Compensation in Recent Projects

S. No.	Agency/Project	Details
1.	Land acquisition and compensation followed in Road Development Project by Gujarat State Road Development Corporation, Gandhinagar	<ul style="list-style-type: none"> Land acquisition is based on Land Acquisition Act, 1894. For some road projects, the acquisition of land was under emergency clause (section 17) of the Land Acquisition Act, 1894. Land rate estimated was the average of registry rate of land in past five years in respective villages Valuation of the affected structure was carried out by concerned sub-divisions of R&BD based on Schedule of Rates considering depreciation. Cost of standing crops were assessed by concerned Agriculture Offices.
2.	Land valuation in acquisition of land and allotment of land for public purpose by Town Planning and Valuation Department, Gandhinagar	<ul style="list-style-type: none"> <i>For acquisition of land for public purpose:</i> land rate is based on last five-year sale-deed instead of Jantri value. <i>For allotment of land for public purpose:</i> Land value is finalized by considering one-year sale-deeds. After considering average rate of comparable sale-deeds, multiplicative factors are applied to arrive at the final value of land. These factors include development plan proposals, development level of the area, connectivity, upcoming and proposed projects, land use conversion etc. The allotment rate thus decided by the TPVD is generally considered as the 'market rate' of land in respective locations and is nearly 4-5 times higher than the Jantri value.
3.	Ascertaining of land value for projects undertaken by GIDC, GIPCL or GPCL, Revenue Department, Gujarat	<ul style="list-style-type: none"> Land acquisition was as per LA Act, 1894. Land rates were decided based on both Jantri value and average of five-year sale-deed-estimates done by District Level Price Committee. Both the rates were then disclosed to the affected persons for choosing the preferred option. Near 80% accepted the sale- deed estimates and were paid compensation as per Section 11(2) of LA Act, 1894, by using consent method for payment of compensation. Land owners who did not agree to sale deed estimate were compensated through "regular award" process which is decided by the Court. The same procedure is being followed for land acquisition in road projects of NHAI, following the provision of National Highway Act 1956.
4.	Process of Fixing Jantri Value - Office of Superintendent of Stamp, Government of Gujarat	<ul style="list-style-type: none"> Land values are collected from every square kilometre area, termed as 'Grids'. Separate Information Schedules are used for urban areas and rural areas. In case of village area: <ul style="list-style-type: none"> rates are collected for both agricultural and non-agricultural land; and land rates are recorded for various categories such as those abutting National Highway/State Highway/MDR/ODR; In case of urban areas: rates of open plot, flat/apartment, office space, shop, industrial, agricultural land are considered. The Jantri value reflects the market rate prevailing in respective areas, however in areas where there are no transactions done in recent past, the rates may not be true reflection of market rates. The finalised Jantri value is finally published for every plot (survey number based).

5.1. LAND VALUATION AND COMPENSATION: OPTIONS

22. This section discusses the various options for land valuation and compensation:

- **Consent Award:** Consent award is made where the persons interested in the land are agreeable to the award which the Land Acquisition Officer (LAO) proposes or in cases where the person interested in the land and the Acquiring Body have mutually settled the amount of compensation and requested the LAO to make a consent award accordingly. This is usually based on average of five-year sale-deed-estimates done by District Level Price Committee (DLPC). The DLPC comprises District Collector, District Development Officer, District Head – Town Planning and Valuation Department and Deputy Collector as Member Secretary. The land rates were decided based on average of five-year sale-deed-estimates and the Jantri rates (the mention here is about the pre-revised Jantri rates). The two rates will be disclosed to the affected person seeking his consensus. For about 80 percent of cases, sale-deed estimates would be the consented rate by the affected person and as per Section 11(2) of LA Act, 1894, consent method will be carried out. Those affected persons who are not willing to give consent will be compensated through "regular award" process which will be decided by the Court.
- **Negotiation⁴:** The acquiring bodies such as public works department, district Panchayats, Gujarat State Road Transport Corporation, Gujarat Electricity Board, Oil & Natural Gas Commission, etc, obtain possession of the

⁴ Land Acquisition Procedure regarding – Circular No. LAQ/2268/L.A.IV., Sachivalaya, Ahmedabad-15, dated 6th July 1968, Revenue Department, Government of Gujarat.

lands which are urgently necessary for their schemes and projects by private negotiations with the occupants of lands and thereafter send acquisition proposals to the Revenue Department. In the cases of these private negotiations, the land owners shall receive 75 percent of the estimated compensation as advance compensation. The acquiring body at the time obtaining possession of the lands by private negotiations from the occupants has to enter into an Agreement with the occupants. The acquiring body is required specifically to inform the interested persons concerned in writing that they would apply to the LAO for the advance compensation.

- **Jantri-based:** Valuation of land based on Jantri rates published by the Department of Stamp Duty, would be a novel approach. The updated Values are collected from every square kilometre area, termed as 'Grids'. Separate Information Schedules are used at urban areas (Municipality/Corporation/Authority) and rural areas (Village Area: rural areas, developed areas or areas influenced with development; Village Proper) to collect necessary information towards estimation of Jantri Values. In the case of village area, the rates are collected for both agricultural and non-agricultural land. The land rates are recorded for various categories such as those abutting National Highway/State Highway/MDR/ODR. Agricultural land included irrigated, non-irrigated, non-cultivable land (ravine, river bank land, sandy, bumpy, land with mud flap) and land with minerals. Non-agricultural land included that of residential, commercial, industrial and land with mineral. In the case of urban areas, rates of open plot, flat/apartment, office space, shop, industrials land, agricultural land (irrigation and non-irrigation land). The revision of Jantri is done by the GoG every year as per the resolution No. STP-12209-769-11-H.1, of GoG., dated 31.03.2011.

23. In recent projects implemented across Gujarat, the land compensation was based on average-sale-deed statistics following the provisions of LA Act, 1894. GSHP-I had followed the provisions of LA Act and additionally provided 'top-up money' to equate with the replacement cost, which is differential amount between rate decided as per LA Act and the rates estimated by the TPVD. As evident in the Implementation Completion and Results Report (ICRR) of GSHP-I, the process adopted for the determination of top-up money was delayed by more than two years, which was mainly due to difficulties in coming up with a set of objective criteria to arrive at appropriate and agreed replacement cost for lost assets.

24. Adoption of jantri value avoids the complicated process of determining the top-up money, and shall ensure minimization of delays in the disbursement etc. The latest published Jantri value, 2011 shows significant increase over the previously published Jantri values, 2006 (refer section 5.2 for details). Given the objective criteria and methodology for arriving at revised Jantri Values annually, (for every 1 sq km grid), the Jantri values shall provide to realistically compensate the affected persons at replacement costs. Discussions with government officials (of GoG departments) reveal that there is mounting demand from (i) the communities for adoption of Jantri rates for valuation of land as it is higher than the conventional sale deeds statistics and (ii) the Government agencies, as the Jantri rates provide a more realistic tool, and avoids subjectivity and enables speedier determination of compensation values.

5.2. JANTRI VALUES (2006 AND 2011) ALONG THE CORRIDOR: A COMPARISON

25. The average Jantri values⁵ for affected land parcels in respective corridors have been compared. The rate of increase of the Jantri values between 2006 and 2011 were compared to understand the correlation between land price increases and the revision of the Jantri values over the period.

26. In four of the six corridors, there has been a significant increase in Jantri rates, wherein the revised 2011 rates range from 280% to 530% of the 2006 rates. In case of two corridors, Lunawada-Khedapa and Bayad-Lunawada, the increases have been 70% and 30% respectively. The revision of Jantri is required to be done by the GoG every year as per the resolution No. STP-12209-769-11-H.1, of GoG., dated 31.03.2011.

⁵ Jantri value published by Department of Stamp Duty, GoG is considered. The latest publication is of year 2011 and the previous publication is of year 2006.

5.3. GUJARAT STATE HIGHWAY PROJECT6: LESSONS LEARNED

27. The Government of Gujarat has carried out the Gujarat State Highway Project I between 2000 and 2007. This project had adopted a unique method for payment of compensation for land acquisition. The land acquisition was carried out through traditional land acquisition procedures under LA Act, 1894. The compensation paid under the LA Act was compared with the rate derived following the valuation procedures of Town Planning and valuation Department. The difference in the rate of land, the ‘top-up’ money was paid as assistance. Some observations from the ICRR regarding land acquisition and resettlement are summarised below:

- Land acquisition and R&R were carried out successfully and in line with the World Bank safeguard policies.
- The final land acquisition and the final number of affected households were lower than anticipated at the appraisal stage due to the efforts made by R&BD in exploring alternative options to minimize impacts through adjustments in the alignments and reducing the CoI width wherever possible;
- Environmental and Social Management Unit (ESMU) established by R&BD was responsible for implementing RAP with the assistance of NGOs, procured specifically for the purpose;
- PAPs and families were satisfied with the RAP implementation and associated compensation and training provided;
- A grievance redress committee was established to hear an adjudicate grievances, during the RAP implementation;
- Delay in the payment of ‘top-up’ money, mainly due to the difficulties in coming up with a set of objective criteria to arrive at appropriate and agreed replacement cost;
- Delay in providing permanent resettlement to the displaced households (Phase I roads);
- Well planned and coordinated effort on the work of land acquisition and shifting of utilities; and,
- Need for completion of all pre-construction activities before award of work.

5.4. COMPARISON OF PROVISIONS OF VARIOUS RESETTLEMENT POLICIES

28. A comparative analysis of various entitlement provisions adopted in recent World Bank funded projects in the Transport sector with respect to compensation and assistance to various impact categories have been carried out. The comparative analysis has considered entitlement matrix of GSHP-I, R&R Policy of Government of Kerala (being adopted for the Kerala State Transport Project-II), Mumbai Urban Transport Project (MUTP), Karnataka State Highways Improvement Project-II and National Rehabilitation and Resettlement Policy (NRRP), 2007.

29. The Resettlement Policy Framework for GSHP-II has considered these provisions and accordingly developed suitable entitlement provisions in consonance with relevant Acts and policies.

6. LAND ACQUISITION AND RESETTLEMENT IMPACTS

6.1. LAND REQUIREMENT DETAILS

30. The available RoW along the project corridors varies, in general, from 24 to 30m, except for a 12km stretch of Bayad-Lunawada corridor (from VR/MDR to SH-63 Jn), where the RoW is 10-12m. The proposed improvement has followed CoI approach. The total land to be acquired or transferred to achieve encumbrance-free CoI is approximately 54.52 ha. This includes 22.43 ha of private land, 7.11 ha of government land and 24.98 ha of reserve forest . There are 28 villages impacted by private land acquisition and no land will be acquired in tribal villages. (Table 6-1).

Table 6-1: Corridor-wise Land Requirement Details

S.No.	Corridor Name	Area of land (ha)			Total Land
		Private Land	Government Land	Reserve Forest	
1	Dabhoi-Bodeli	0	0	0	0
2	Dhandhuka-Dholera	0	0	0	0

⁶ Implementation Completion and Results Report (IBRD-45770), Sustainable Development Department, India Country Management Unit, South Asia Region. The World Bank. June 18, 2008.

3	Atkot-Gondal	0.24	0.87	0	1.11
4	Mehsana-Himatnagar	3.02	3.52	0	6.54
5	Umreth-Vasad (incl. Ladvel-Kapadvanj)	0.19	0	0	0.19
6	Bayad-Lunawada	18.05	2.61	5.37	26.03
7	Dhansura-Meghraj	0.47	0.11	0	0.58
8	Lunawada-Khedapa	0.46	0.00	19.61	20.07
	TOTAL	22.43	7.11	24.98	54.52

Source: Land Acquisition Plan, LASA 2012

6.2. CENSUS, SOCIO-ECONOMIC SURVEY AND VIDEOGRAPHY

31. Census survey was carried out for all affected households within the CoI and detailed socio-economic information collected from 384 out of 729 PAHs. Data were collected for each affected property, the details were documented and photographs of structures were taken. The cut-off date for the PAPs to establish their presence along the corridor was the last date of the census survey. The survey information provided a baseline assessment of potential impacts on affected households and formed the basis for estimating the entitlement-based resettlement budget.

32. Videography of the project corridor, covering the entire RoW was carried out prior to the conduct of the census surveys (Table 6-2). This exercise formed the basis for the inventory of non-titleholders.

Table 6-2: Details of Videography and Census Surveys Carried Out

S. No.	Project Corridors	Date of Videography	Date of Census
1	Dabhoi-Bodeli	12.05.2012	03.06.2012 to 06.06.2012
2	Dhandhuka-Dholera	05.05.2012	06.04.2012
3	Atkot-Gondal	27.04.2012	25.03.2012 to 28.03.2012
4	Dhandhuka-Paliyad	28.4.2012	Not Applicable ⁷
5	Mehsana-Himatnagar	15.5.2012	8.7.2012 – 22.7.2012
6	Umreth-Vasad (Including Ladvel-Kapadvanj)	03.05.2012	18.05.2012 to 19.05.2012
7	Bayad-Lunawada	7.05.2012	22.05.2012 to 31.05.2012
8	Dhansura-Meghraj	05.05.2012	8.05.2012 to 9.05.2012
9	Lunawada-Khedapa	08.05.2012	17.05.2012 to 19.05.2012

Source: LASA, 2012

6.3. IMPACT ON PROPERTIES

33. The proposed road improvement will impact 729 private properties along the corridors. Of these, 314 (43%) will have major impacts⁸. 14% of the affected properties having major impact belong to titleholders. Majority of the impacted properties (81%) are in Mehsana-Himatnagar and Bayad-Lunawada. Sections of the Bayad-Lunawada corridor include widening of village roads with RoW less than 15m to two lane standards, while the Mehsana-Himatnagar corridor envisages four-laning of the existing two lane highway triggering additional land acquisition (Table 6-3).

Table 6-3: Details of Properties having Major and Minor Impacts

S. No.	Project Corridors	Total Affected Properties	Major Impact				Minor Impact			
			Structure	Land	Structure & Land	Total	Structure	Land	Structure & Land	Total
1	Dabhoi-Bodeli	18	18	0	0	18	0	0	0	0
2	Dhandhuka-Dholera	4	3	0	0	3	1	0	0	1
3	Atkot-Gondal	36	7	4	4	15	15	0	6	21
4	Mehsana-Himatnagar	245	96	4	17	117	28	66	34	128
5	Umreth-Vasad (including Ladvel-Kapadvanj)	40	30	0	0	30	0	7	3	10

⁷ No census survey has been carried out as only maintenance work will be carried out along this corridor.

⁸ (i) **Major impact:** includes those properties where the major part of the structure/land is affected and becomes untenable and the affected party is unable to live/do businesses in the unaffected portion of the property, OR 25% or more portion of the property is affected; and (ii) **Minor impact:** includes all impacts other than major impacts, OR those properties where only a part of the structure/land is acquired and the remaining portion is intact and the affected party can continue to live/do business in the unaffected portion of the property.

S. No.	Project Corridors	Total Affected Properties	Major Impact				Minor Impact			
			Structure	Land	Structure & Land	Total	Structure	Land	Structure & Land	Total
6	Bayad-Lunawada	349	34	74	0	108	1	240	0	241
7	Dhansura-Meghraj	24	10	0	0	10	2	10	2	14
8	Lunawada-Khedapa	13	9	4	0	13	0	0	0	0
Total		729	207	86	21	314	47	323	45	415

Source: LASA Primary Survey, 2012

6.3.1. Type of Ownership

34. 50% of the affected properties are squatters and encroachers (Table 6-4). Squatting for business and encroachment of residential as well as agricultural land is observed in all the corridors.

Table 6-4: Ownership Details of Affected Properties

S. No.	Project Corridors	Total Affected Properties	Ownership Types			
			Owners	Tenants/Leased	Squatters	Encroacher
1	Dabhoi-Bodeli	18	0	0	18	0
2	Dhandhuka-Dholera	4	0	0	3	1
3	Atkot-Gondal	36	4	3	5	24
4	Mehsana-Himatnagar	245	13	24	97	111
5	Umreth-Vasad (including Ladvel-Kapadvanj)	40	6	0	30	4
6	Bayad-Lunawada	349	313	3	31	2
7	Dhansura-Meghraj	24	6	0	10	8
8	Lunawada-Khedapa	13	4	0	9	0
Total		729	346	30	203	150

Source: LASA Primary Survey, 2012

6.3.2. Type of Use

35. Majority of the affected properties are commercial shops (squatted in government land), except in the case of Bayad-Lunawada where majority of the impact is on agriculture land (314 agriculture land parcels out of total number of 349 affected properties). Out of the 267 affected commercial category, 225 (84%) are shops belonging to non titleholders. A total number of 5 industrial properties are affected all along the 8 project corridors, of which 3 are located along Mehsana-Himatnagar and the impact is minor as only boundary-walls and gates are affected.

Table 6-5: Affected Properties and Type of Use

S. No.	Project Corridors	Total Affected Properties	Use of Impacted Properties						
			Residential	Commercial	Mixed use	Industrial	Agri. Land	Vacant Plot	Others ⁹
1	Dabhoi-Bodeli	18	0	18	0	0	0	0	0
2	Dhandhuka-Dholera	4	0	3	0	1	0	0	0
3	Atkot-Gondal	36	10	20	1	1	4	0	0
4	Mehsana-Himatnagar	245	12	141	1	3	72	14	2
5	Umreth-Vasad (including Ladvel-Kapadvanj)	40	0	32	0	0	6	1	1
6	Bayad-Lunawada	349	0	34	1	0	313	1	0
7	Dhansura-Meghraj	24	4	10	0	0	10	0	0
8	Lunawada-Khedapa	13	0	9	0	0	4	0	0
Total		729	26	267	3	5	409	16	3

Source: LASA Primary Survey, 2012

6.3.3. Type of Loss

36. Land alone will be affected in 409 cases (56%), out of the total number of 729 affected properties. Of the total number of land parcels affected, 86 (12%) have major impact, of which 74 are in Bayad-Lunawada corridor. A total of 384 households are surveyed within which 166 are land holders. Cotton, bajra, paddy, moong and papaya are cultivated in these agriculture lands.

⁹ It includes 2 cattle shed and 1 farm house impacted under (Mehsana Himmatnagar and Umreth Vasad Corridor)

6.3.4. Inventory of Assets located within Affected Property

37. A total number of 876 assets are identified within the affected property, of which 90% are along the properties located in Mehsana-Himatnagar and Bayad-Lunawada corridor.

Table 6-6: Assets located within Affected Property

Assets	Dabhoi-Bodeli	Dhandhuka-Dholera	Atkot-Gondal	Mehsana-Himatnagar	Umreth-Vasad (including Ladvel-Kapadvanj)	Bayad-Lunawada	Dhansura-Meghraj	Lunawada-Khedapa	Total
Trees	-	3	5	124	18	555	12	35	752
Water Tap	-	-	-	10	-	2	-	-	12
Water Tank/water kundi	-	-	-	20	-	3	-	1	24
Motor Pump	-	-	-	-	-	8	2	-	10
Tube well	-	-	-	-	-	-	-	-	0
Open / dug Well	-	-	-	1	-	25	-	1	27
Hand Pump	-	-	1	1	-	3	-	-	5
Barbed Wire Fencing/ Gate	-	-	-	20	-	1	1	1	23
Boundary walls	-	-	1	13	-	3	1	-	18
Cattle shed	-	-	-	2	-	-	-	-	2
Temporary shed	-	-	-	-	-	-	-	1	1
Shrine	-	-	-	-	-	-	-	-	0
Country stove	-	-	-	-	-	-	-	-	0
Seating around trees	-	-	-	1	-	-	-	1	2
Bathroom	-	-	-	-	-	-	-	-	0
Total		3	7	192	18	600	16	40	876

Source: LASA Primary Survey, 2012

6.3.5. Impact on Cultural Properties and Community Assets

38. A total number of 19 cultural properties and 48 community assets will be affected after considering for design modification to avoid impact on such properties. The highest number of impact is observed in Mehsana-Himatnagar corridor and there is no impact envisaged in Dabhoi-Bodeli and Lunawada-Khedapa corridors. The community assets include hand pump, water kundi¹⁰, water tanks, community toilet, open-well, seating around tree, rest-shelters, etc. Protection and mitigation of the affected cultural properties and community assets will be taken up in consultation with the community.

Table 6-7: Impact on Cultural Properties and Community Assets

S. No.	Project Corridors	Total number of Affected Properties	Major Impact		Minor Impact	
			Cultural Property	Community Assets	Cultural Property	Community Assets
1	Dabhoi-Bodeli	0	0	0	0	0
2	Dhandhuka-Dholera	1	0	0	1	0
3	Atkot-Gondal	6	5	0	0	1
4	Mehsana-Himatnagar	55	4	36	7	8
5	Umreth-Vasad (including Ladvel-Kapadvanj)	2	2	0	0	0
6	Bayad-Lunawada	1	0	0	0	1
7	Dhansura-Meghraj	2	0	1	0	1
8	Lunawada-Khedapa	0	0	0	0	0
Total		67	11	37	8	11

Source: LASA Primary Survey, 2012

¹⁰ On-ground water-storage facility made of bricks and cement, of size 5 sq.m to 8 sq.m.

Table 6-8: Resettlement Impacts: Summary

Sl. No	Details	Dabhoi-Bodeli	Dhandhuka-Dholera	Atkot-Gondal	Mehsana-Himatnagar	Umreth-Vasad (Incl.Ladvel-Kapadvanj)	Bayad-Lunawada	Dhansura-Meghraj	Lunawada-Khedapa
1A	Titleholder Agri.land/ Non-agri.land / Homestead Land	Nil	Nil	Agri.land of 4 HH	Agricultural land of 72 HH; Vacant land of 14 HH.	Agri.land of 6 HH	Agri.land of 313 HH	Agri.land of 6 HH	Agri.land of 4 HH
1B	Titleholder Residential Structure	Nil	Nil	9 houses	5 Households	Nil	Nil	4 boundary walls of houses	Nil
1C	Titleholder Commercial / Industrial Structure	Nil	Fencing, gate and 1 open well of an industrial property	13 shop and one industrial property	27commercial structures, 3 industrial structures	2 (1 commercial establishment and 1 poultry farm)	Nil	Nil	Nil
1D	Titleholder Residential- cum-commercial/ industrial structure	Nil	Nil	1 Mixed property (shop and house)	1 Mixed property (shop and house)	Nil	1 Mixed property (residential-cum- commercial)	Nil	Nil
2A	Tenant Residential/ Commercial/ Industrial	Nil	Nil	3 (commercial)	24 tenants (23 commercial and 1 residential)	Nil	3 Shops (Non- Titleholders)	Nil	Nil
3A	Squatters	18 shops	3 shops	7 commercial, 1 residential	114 commercial structures (squatters) and 7 residential squatters	30 shops	34 commercial shops (shops)	10 shops	9 shops
3B	Encroachers	Nil	1 industrial property	13commercial, 9 residential , 1 mixed and 1 industrial	Commercial structures (27), Agricultural land (64), Industrial (3), Residential (5), Vacant land (9), Mixed (1), Cattle shed (2)	4 (2 commercial, 1 farm house and 1 open plot).	1 Mixed property (Shop and House) and open land of 1 household	4 Agri.land and boundary wall of 4 houses	Nil
4A	Additional Support for Vulnerable Groups	4 ST HH	Nil	5 HH (1 ST HH, 3WHH and 1 HH above age 60)	40 HH (2 WHH, 26 BPL households, 8 physically challenged households and 2 households headed by aged person above 60years and 2 schedule tribes)	9 HH (4 BPL, 2 ST, 1 ST as well as BPL and 2 HH above age 60)	41 HH (5 WHH, 35BPL households, 1 is schedule tribe as well as BPL)	9 HH (5 BPL, 1 BPL-cum-WHH, 3 WHH)	4 BPL HH
5A	Employees in shops, agricultural labourers, share-croppers	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
6A	Loss of Community Assets	Nil	Religious-1 Community Assets- Nil	5 religious structures and boundary wall of a school	11 Religious Structures (6 temples, 4 shrines and 1 mosque), 44 community assets comprises 4 schools, 3 Rest tents ,1 community hall ,3 toilets, 1 underground tank,29 water tanks/kundi and 3 government property of police station, LPG gas station and a statue.	Religious-2 Community Assets-Nil	1 school boundary wall	Religious-Nil Community Assets-2	Nil
7A	Additional Support for Schedule Tribes	4 shops	Nil	1 commercial structure (shop)	1 shop, and 1 agricultural land	3 shops	1 shop	1 shops	Nil

Source: LASA Primary Survey, 2012

7. SOCIO-ECONOMIC PROFILE OF AFFECTED POPULATION

39. Socio-economic details collected through specific questionnaire in all the project corridors has been analysed and presented in this chapter. The survey has collected information from 384 households out of the total number of 729 households, and these households comprise 2107 project affected persons (there would be 4000 PAPs for 729 PAHs), with an average household size of 6. *Household* is considered based on the nature of impacted structure/land and is a socio-economic unit irrespective of kinship ties, whereas *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. The analysis has focused on households and the family profiling will be done during implementation. The analysis intends to prepare a measurable data required for providing R&R assistance for different categories of PAPs and for monitoring changes in people's conditions beyond the project period.

40. The strategy for socio-economic survey has been drawn up based on the findings of SIA exercises¹¹ and has covered 50 percent of the project affected households. The sample drawn for the detailed socio-economic survey is representative and includes all categories of impacted population. All the households will be covered during the PAP verification and preparation of Micro-plan exercises to be carried out by NGO during RAP implementation.

7.1.1. Social Category

41. Of the total 384 affected households, 12 belong to Scheduled Tribe and 42 belong to Scheduled Caste. The number of ST households for the entire impacted households would be approximately 23. Among the corridors, Dabhoi-Bodeli, Dhansura-Meghraj and Lunawada-Khedapa pass through Scheduled Area, in which 4 shops (Non titleholders) operated by ST households in Dabhoi-Bodeli corridor and one in Dhansura-Meghraj corridor will be affected. Social category of affected households in respective corridors is presented in Table 7-1.

Table 7-1: Social Category of Affected Households

Social Category	General		Other Backward Community		Scheduled Caste		Scheduled Tribe		TOTAL	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Dabhoi-Bodeli	1	0.56	3	2.0	5	11.90	4	33.33	13	3.4
Dhandhuka-Dholera	3	1.69	1	0.7	0	0.00	0	0.00	4	1.0
Atkot-Gondal	21	11.80	6	3.9	1	2.38	1	8.33	29	7.6
Mehsana-Himatnagar	91	51.12	85	55.9	9	21.4	2	16.7	187	48.7
Umreth-Vasad (including Ladvel-Kapadvani)	15	8.43	15	9.9	5	11.90	3	25.00	38	9.9
Bayad-Lunawada	36	20.22	25	16.4	14	33.33	1	8.33	76	19.8
Dhansura-Meghraj	6	3.37	10	6.6	7	16.67	1	8.33	24	6.3
Lunawada-Khedapa	5	2.81	7	4.6	1	2.38	0	0.00	13	3.4
TOTAL	178	0.56	152	100	42	100.00	12	100.00	384	100

Source: LASA Primary Survey, 2012

7.1.2. Vulnerable Households

42. Vulnerable households are those which are headed by persons who are physically challenged, widows, persons belonging to Scheduled Tribes, persons above sixty years of age, below-poverty line households, and woman. Total 112 households amongst the 384 households are categorized as vulnerable households (the number of vulnerable households would be 213 out of 729 households). 74 out of 384 households lives below poverty line (assessment based on the possession of BPL cards), 5 affected households are headed by aged persons (above 60 years of age), 13 affected households are headed by

¹¹ This is in line with the Terms of Reference of Social Impact Assessment, Resettlement Action Plan and Indigenous Peoples Development Plan, provided along with the World Bank Aide Memoire dated 4th November 2010.

women and 8 are headed by physically challenged persons. Corridor-wise distribution of vulnerable households is given in Table 7-2.

Table 7-2: Distribution of Vulnerable Households

Vulnerable Category	Dabhoi-Bodeli		Dhandhuka-Dholera		Atkot-Gondal		Mehsana-Himatnagar		Umreth-Vasad (incl. Ladvel-Kapadvanj)		Bayad-Lunawada		Dhansura-Meghraj		Lunawada-Khedapa	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
WHH	0	0	0	0	3	60	2	5.0	0	0	5	12.2	3	33	0	0
BPL	0	0	0	0	0	0	26	65.0	4	44	35	85.4	5	56	4	100
ST	4	100	0	0	1	20	2	5.0	3	33	1	2.4	1	11	0	0
Physically Challenged	0	0	0	0	0	0	8	20.0	0	0	0	0.0	0	0	0	0
Aged person HH (above 60)	0	0	0	0	1	20	2	5.0	2	22	0	0.0	0	0	0	0
TOTAL	4	30.8	0	0	5	17.2	40	21.4	9	24	41	53.9	9	38	4	30.8
Total PAHs	13		4		29		187		38		76		24		13	

Source: LASA Primary Survey, 2012

7.1.3. Age-distribution

43. Out of the total number of 2107 PAPs, 22 percent are less than 14 years of age and about 8 percent are above 60 years age group. Age profile of the affected population in respective corridors has been presented in Table 7-3.

Table 7-3: Age Distribution of PAPs: Corridor-wise

Age Group	Dabhoi-Bodeli			Dhandhuka-Dholera			Atkot-Gondal			Mehsana-Himatnagar		
	Female	Male	Total	Female	Male	Total	Female	Male	Total	Female	Male	Total
< 6 years	2	2	4	2	1	3	3	6	9	33	51	84
6-14 years	4	6	10	1	3	4	7	10	17	60	84	144
15-24 years	10	6	16	4	7	11	13	9	22	83	105	188
25-45 years	8	12	20	4	3	7	12	17	29	177	154	331
46-60 years	2	2	4	1	2	3	7	10	17	61	103	164
> 60 years	2	1	3	0	2	2	4	4	8	33	27	60
Total	28	29	57	12	18	30	46	56	102	447	524	971

Age Group	Umreth-Vasad (incl. Ladvel-Kapadvanj)			Bayad-Lunawada			Dhansura-Meghraj			Lunawada-Khedapa		
	Female	Male	Total	Female	Male	Total	Female	Male	Total	Female	Male	Total
6-14 years	8	13	21	26	24	50	0	3	3	5	6	11
15-24 years	15	15	30	24	29	53	6	7	13	4	4	8
25-45 years	17	23	40	44	56	100	9	10	19	12	8	20
46-60 years	20	38	58	93	99	192	20	17	37	12	15	27
> 60 years	6	14	20	59	61	120	13	10	23	6	9	15
Total	21	2	23	18	26	44	7	7	14	2	4	6
	87	105	192	264	295	559	55	54	109	41	46	87

Source: LASA Primary Survey, 2012

7.1.4. Income Distribution

44. Analysis of the monthly income shows that a comparatively higher percentage (38 percent) of the affected households belong to the income category of Rs.2001-5000 and about 19 percent of the affected households have a stated income of Rs.14000 and above. Corridor-wise analysis also shows that a major percentage of affected households are in the income category of Rs.2001-5000.

Table 7-4: Monthly household income: Corridor-wise

Income Range	Dabhoi-Bodeli		Dhandhuka-Dholera		Atkot-Gondal		Mehsana-Himatnagar	
	No.	%	No.	%	No.	%	No.	%
Less than 2000	--	--	--	--	2	7	1	1
2001-5000	11	85	--	--	5	17	55	33
5001-8000	2	15	1	25	7	24	52	31
8001-11000	--	--	2	50	3	10	17	10
11001-14000	--	--	--	--	4	14	14	8
14001 and above	--	--	1	25	8	28	28	17
Total	13	100	4	100	29	100	167	100

Income Range	Umreth-Vasad (incl. Ladvel-Kapadvanj)		Bayad-Lunawada		Dhansura-Meghraj		Lunawada-Khedapa	
	No.	%	No.	%	No.	%	No.	%
Less than 2000	6	16	1	1	--	--	--	--
2001-5000	24	63	24	32	10	42	8	62
5001-8000	3	8	14	18	8	33	2	15

8001-11000	3	8	8	11	6	25	1	8
11001-14000	--	--	1	1	--	--	1	8
14001 and above	2	5	28	37	--	--	1	8
Total	38	100	76	100	24	100	13	100

Source: LASA Primary Survey, 2012

7.1.5. Household Expenditure

45. The average monthly household expenditure on items such as food, education, health and local travel has been studied. This is relatively a better indicator of the household economic status, compared to the stated income. The expenditure on food items is estimated to be Rs.2458 and that of education is Rs.944 (Table 7-5).

Table 7-5: Average Monthly Household Expenditure on various Items

Corridor	Monthly Expenditure on			
	Food	Education	Health	Local travel
Dhaboi-Bodeli	1918	150	214	155
Dhandhuka-Dholera	3000	2400	2367	2700
Atkot-Gondal	2800	2624	1306	1103
Mehsana-Himatnagar	3318	618	470	428
Umreth-Vasad (including Ladvel-Kapadvanj)	1791	321	310	179
Bayad-Lunawada	2694	697	343	371
Dhansura-Meghraj	2150	515	464	415
Lunawada-Khedapa	1989	229	422	256
Total	2458	944	737	701

Source: LASA Primary Survey, 2012

7.1.6. Education Profile

46. Of the total number of PAPs, 26 percent are having secondary level of education and 9 percent of the PAPs are graduates. A total number of 53 affected persons are having technical/vocational qualifications and of which 46 are residing alongside Mehsana-Himatnagar (34) and Bayad-Lunawada (12) corridors. There are number of industrial/manufacturing units (includes garages, cast-iron manufacturers, cement structure manufacturers, etc.), especially along Mehsana-Himatnagar corridor.

Table 7-6: Education Profile of PAPs: Corridor-wise

Education	Dabhoi-Bodeli		Dhandhuka-Dholera		Atkot-Gondal		Mehsana-Himatnagar		Umreth-Vasad (incl. Ladvel-Kapadvanj)		Bayad-Lunawada		Dhansura-Meghraj		Lunawada-Khedapa	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Illiterate	7	12.3	6	20	22	21.6	116	11.9	27	14.1	123	22.0	23	21.1	20	23.0
Primary	12	21.1	2	7	17	16.7	162	16.7	27	14.1	54	9.7	26	23.9	12	13.8
Middle School	18	31.6	3	10	0	0	0	0	0	0	0	0	21	19.3	0	0
High School	0	0	0	0	29	28.4	201	20.7	36	18.8	83	14.8	0	0	15	17.2
Secondary	16	28.1	5	17	26	25.5	271	27.9	61	31.8	120	21.5	20	18.3	25	28.7
Higher Secondary	3	5.3	4	13	5	4.9	118	12.2	25	13.0	78	14.0	8	7.3	8	9.2
Graduation and Above	1	1.8	8	27	2	2.0	69	7.1	14	7.3	89	15.9	9	8.3	7	8.0
Technical	0	0	1	3.3	1	1.0	6	0.6	2	1.0	7	1.3	2	1.8	0	0
Vocational	0	0	1	3.3	0	0	28	2.9	0	0	5	0.9	0	0	0	0
Total	57	100	30	100	102	100	971	100	192	100	559	100.0	109	100	87	100

Source: LASA Primary Survey, 2012

7.1.7. Occupation Profile

47. Analysis of the occupation profile shows that 36 percent of the employed PAPs are engaged in farming (33 percent farmers and 3 percent agricultural labourers). 22 percent PAPs are engaged in business/trade related activities. Many respondent households of the affected commercial shop category are also engaged in farming activities, as observed during the survey.

Table 7-7: Occupation Profile of PAPs: Corridor-wise

Occupation	Dabhoi-Bodeli		Dhandhuka-Dholera		Atkot-Gondal		Mehsana-Himatnagar		Umreth-Vasad (incl. Ladvel-Kapadvanj)		Bayad-Lunawada		Dhansura-Meghraj		Lunawada-Khedapa	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Artisans	1	6.25	0	0	2	3.8	9	3.7	5	9.3	2	1.0	1	2.9	0	0
Farmer	2	12.5	4	44.4	19	35.8	58	23.8	11	20.4	91	46.7	21	61.8	5	19.2
Agriculture Labour	2	12.5	2	22.2	3	5.7	22	9.0	1	1.9	8	4.1	9	26.5	1	3.8
Business/Trade	10	62.5	3	33.3	9	17.0	87	35.7	5	9.3	19	9.7	0	0	4	15.4
Govt. Service	0	0	0	0	1	1.9	13	5.3	1	1.9	46	23.6	0	0	3	11.5
Industrial Labour	0	0	0	0	2	3.8	2	0.8	0	0	1	0.5	0	0	0	0
Private Service	1	6.25	0	0	2	3.8	10	4.1	6	11.1	12	6.2	0	0	13	50.0
Other Works	0	0	0	0	12	22.6	24	9.8	25	46.3	16	8.2	2	5.9	0	0
House Maid	0	0	0	0	3	5.7	19	7.8	0	0	--	--	1	2.9	0	0
TOTAL	16	100	9	100	53	100	244	100	54	100	195	100	34	100	26	100

Source: LASA Primary Survey, 2012

7.1.8. Possession of Household Assets

48. The survey has collected information regarding the types of household-assets such as television, telephone, refrigerator, computer, etc., which the affected families possess. The details are presented in Figure 7-1.

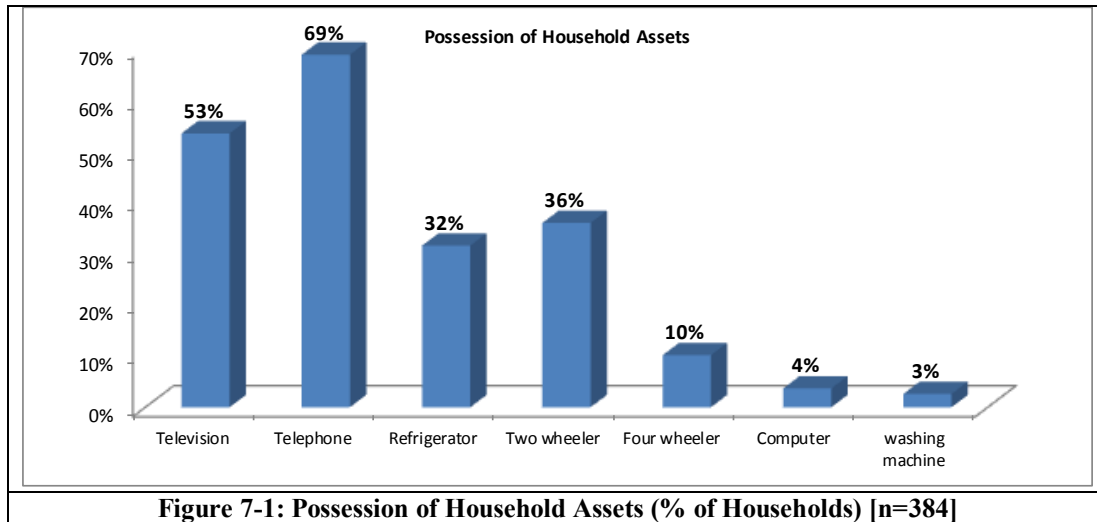


Figure 7-1: Possession of Household Assets (% of Households) [n=384]

8. SCHEDULED TRIBES

49. In Gujarat, Scheduled Areas consists of 43 tribal Talukas, 15 pockets and 4 clusters located in 12 districts. These areas are among the most backward in the State, characterized by hilly terrain, rocky soil, uncertain rainfall and the presence of large tracts of forest land. Of these 12 districts, project corridors passes through four Talukas of 3 districts i.e. Meghraj Taluka of Sabarkantha district (Dhansura-Meghraj corridor), Santrampur and Kadana of Panchmahal (Lunawada-Khedapa corridor) and Sankheda of Vadodara district (Dabhoi-Bodeli corridor). To address the specific impact on tribal communities, and in compliance with the national, state and World Bank safeguard policies, a standalone Indigenous Peoples Development Plan (IPDP) has been prepared. IPDP has been prepared for those corridors which pass through Schedule area.

8.1. APPROACH ADOPTED IN SCHEDULED AREAS

50. SIA looked into the impact of the project especially on the Scheduled Areas (Taluka) through which the project road passes, and how the road project is likely to affect ST population. Apart from the consultations held in the Scheduled Areas, census survey of all the potentially affected population

including ST households within the likely CoI has been carried out and compensation and R&R assistance were estimated.

51. No acquisition of lands is proposed for the section of corridors passing through Scheduled Areas. The designs for the proposed corridors have been worked out within the available RoW to minimize land acquisition and resettlement impacts. As a result, direct impacts on tribal communities pertaining to land acquisition are not envisaged. The impacts along the corridors through Scheduled Areas are limited to 17 non-titleholder shops squatting within the RoW for commercial purposes, out of which 3 are owned by STs who belong to *Rathwa* community (Table 8-1). Impacts on these ST households are being addressed through the provisions of the Resettlement Policy Framework (RPF), which recognizes STs as vulnerable groups and provides additional assistance.

Table 8-1: Summary of Impacts in Fifth Schedule Area

Corridor	Taluka	Proposed Treatment	Impact on Land	Impact on Assets/Structures
Dhansura-Meghraj	Meghraj	2-lane with COI of 16m	No impact	1 Hand pump
Lunawada-Khedapa	Santrampur, Kadana	2-lane with COI of 16m	No Impact	4 shops owned by non-STs
Dabhoi-Bodeli	Sankheda	2-lane with COI of 16m	No Impact	3 shops (Non titleholders) owned by STs and 10 shops (Non titleholders) owned by non-STs

Source: LASA Primary Survey, 2012

52. The 3 affected ST households have 10 family members, of which one member is illiterate and 4 members each have primary and high school level of education respectively and one person have higher secondary level of education. One affected household has a land holding area of 2 bigha and two others does not own any land. One affected person is handicapped.

8.2. IMPACTS ON FOREST RIGHTS AND ACCESS TO RESOURCES

53. As per Forest Rights Act, 2006 the scheduled tribes have rights to use forest land for agricultural purposes, fishing in ponds located within forest areas, non-timber forest produces, grazing of cattle etc. The proposed improvements of the corridors will not affect any such rights of the tribal people as these are proposed within the available Right of Way. SIA and consultations carried out at various levels (state, district, Taluka and village level) in the Fifth Schedule Areas of Lunawada-Khedapa, Dhansura-Meghraj and Dabhoi-Bodeli reveal that the proposed road improvement will not affect any customary rights of the ST community residing in the villages of Santrampur, Kadana or Sankheda Taluka. The ST population in the Meghraj village¹² is not concentrated in the project influence area. The consultations carried out with the community revealed that the ST population of Meghraj village is concentrated along the Shamlaji-Godhra corridor (SH-146), which is away from the proposed corridor and will not be influenced by the proposed improvement.

54. There are 51 villages located along the project corridor which is part of 4 Talukas (Santrampur, Kadana, Meghraj and Sankheda), of which 32 villages are part of Scheduled Area. The project road passes through protected forest area in all the 51 villages. In line with the provisions of the FRA, 2006 – for each of the 32 tribal villages along the three corridors, R&BD has convened meetings of the Gram Sabha, wherein resolutions accorded no-objection for felling of the trees / protected forests after confirmation that (i) there are no forest dwellers with traditional forest rights and (ii) there are no recognized forest rights of the ST communities.

8.2.1. Notified Tribes in Gujarat and Influence in Project Corridor Areas

55. There are 24 notified tribes in Gujarat as per the notification no. AJS/2003 /20 GOI/ 23/ CH/ Secretariat, Government of Gujarat, dated 05/09/2003. It is reported that, out of 24 notified tribe

¹² Meghraj village in Meghraj Taluka is part of Fifth Schedule Area.

community in the state of Gujarat, the tribes such as *Bhil, Dhanka, Dubla, Gamit, Koli Dhor, Nayak, Patelia, Rathwa and Varli* live in Chota Udaipur, Jetpur Pavi, Dabhoi, Sankheda, Kadana and Santrampur Talukas.

8.2.2. Primitive Tribal Groups

56. Government of India has identified 75 tribal communities as Primitive Tribal Groups (PTG), spread over 15 states/union territories. The PTGs are characterized by smallness in size and diminishing in number, backwardness and isolation, use of pre-agricultural technology and very low literacy. Government of Gujarat¹³ has five PTG, such as *Kolgha, Kathodi, Kotwalia, Padhar and Siddhi*¹⁴. Siddhi is excluded from the latest notification No. AJS/2003 /20 GOI/ 23/ CH/ Secretariat, Government of Gujarat, dated 05/09/2003. Atkot-Gondal traverses a Taluka which has population of 81 PTG households belonging to Siddhi. Siddhi community is not affected in any way by the proposed road improvement project. The residential place of Siddhi community is located about 2 km away from the project corridor. Members from Siddhi also participated in the consultation held at Gondal.

8.2.3. On-going Tribal Development Programmes, GoG

57. A comprehensive tribal development programme was initiated by the Government of Gujarat, termed as Vanbandhu Kalyan Yojana or Chief Minister's ten-point programme. The programme was launched in 2007 and aims at ensuring high quality social and civil infrastructure and sustainable employment such that the income of every tribal family doubles in five years. The programme covers 43 ITDP Talukas. There are various development projects initiated by GoG under the flagship programme of Vanbandhu Kalyan Yojana and as part of Integrated Tribal Development Project or Tribal Sub Plan. The projects which were implemented in the Talukas of GSHP-II corridors are:

- Agriculture Diversification Project for Tribal Areas of Gujarat;
- New Gujarat Pattern of Financial Allocation;
- Eklavya Model Residential School;
- Ashram Sala;
- Adarsh Niwasi Schools;
- Project Sunshine¹⁵; and
- Integrated Diary Development Project (IDDP)¹⁶ in Tribal Areas;

58. These programmes aims at the socio-economic development of tribal communities through income generating schemes allied with infrastructure development programmes and protection of the tribal communities against exploitation.

8.3. INSTITUTIONAL ARRANGEMENTS OF GOG FOR TRIBAL DEVELOPMENT

59. The institutional arrangements at state and district level has been studied basically to develop a framework for Free, Prior and Informed consultation with affected ST community and those who reside in the Fifth Schedule Area. FPIC to be taken up during project implementation stage also conceived the existing government level institutional set up.

60. At the State level, the Secretary executes the relevant administrative and budgetary control for various development schemes and also coordinates the inter-departmental activities for the effective

13 Source: http://guj-tribaldevelopment.gov.in/downloads/ptg_development_plan_website.pdf, accessed on date 25.02.2012

14 Siddhi is the only tribe in the state found to have Negroid racial traits in their physical appearance. They have a tall and strong physique, black curly hair and thick lips tracing out their African origin. They are believed to have been brought to India by Portuguese as slaves and are also known by the name Siddhi Badshah.

15 *Project Sunshine* focuses on enhancing the economic conditions of tribal farmers in Gujarat by providing modern inputs for increasing agricultural productivity, developing infrastructure and leveraging on appropriate public private partnerships.

16 The IDDP aimed at doubling the income of whole Taluka and to assist 80 percent of BPL households to achieve income above poverty line.

implementation of the sub-plan programmes. The Commissioner is the head of field operations of the Tribal Development Department and facilitates speedy implementation of various programmes under Tribal Sub Plan. The Director of primitive tribes and Ex-Officio Deputy Tribal Development Commissioner deal with the development of the most backward tribes among the STs and support the Commissioner in overall project administrative activities.

61. Tribal Sub Plan Areas in the State comprises 12 ITDP Areas. Each project team is headed by Project Administrator of the rank of Additional Collector. The Project Administrator has Jurisdiction over Talukas, pockets and clusters included in the project area.

8.4. IPDP FOR CORRIDORS THROUGH SCHEDULED AREAS

62. In line with the findings of the SIA, Indigenous Peoples Development Plan has been prepared for the 3 project corridors which pass through Scheduled Areas. The number of ST households for the entire impacted households would be approximately 23 and socio-economic details of all the affected ST households will be collected by NGO during RAP implementation stage. Given that there are no adverse impacts in terms of tribal land acquisition or on forest rights, the IPDP focuses largely on consultations with the tribal communities and the institutions in the Scheduled Areas. These consultations enabled garnering support and larger acceptance from the communities for the project, and also helped identify any specific issues and concerns of the tribal communities, for integration into the project designs. IPDP recognises the importance of consultation in Scheduled Areas during project implementation, (i) consultation with affected households for livelihood restoration, and (ii) consultation with communities and key stakeholders to ensure broader community support. Further, given that the scale and extent of impacts on the tribal communities are almost insignificant, the institutional arrangements for the implementation of the resettlement provisions shall be adequate to handle the measures proposed in the IPDP. The minimal resettlement impacts on the three affected ST non-titleholder households along the Dabhoi – Bodeli corridor are addressed in line with the RPF provisions for the project, which identifies ST as vulnerable and includes special assistance measures for ST households.

9. GENDER DEVELOPMENT

63. Gujarat is among the frontline states which have made progressive initiatives for the development of women. GoG has formulated a State Policy for Equity – Nari Gaurav Niti, in 2006. The Policy recognizes the contribution of women in the economic and industrial development of Gujarat. The Policy has set forth the following goals:

- Creating an enabling environment for enjoyment of all human rights and fundamental freedom by women on equal basis with men in all spheres;
- Shared responsibility for children and home;
- Mainstreaming gender perspective in the development process, policies and programmes;
- Strengthening participation of civil society, in particular women's groups, networks and organizations;
- Eradicate all forms of violence against women and girl child.

9.1. SOCIO-ECONOMIC PROFILE OF FEMALE PAPS

64. Based on the analysis of socio-economic information collected from 384 households, the female PAPS constitute 47% (980 out of 2107 PAPS – within 384 households). The total number of women among the PAPS would be approximately 1860 (within 729 households). Of the 980 female PAPS, 73 percent reside in two corridors [Mehsana-Himatnagar: 447 (46 percent) and Bayad-Lunawada: 264 (27 percent)].

9.1.1. Education Profile

65. Analysis of the education profile shows that 23 percent of women PAP population are having secondary level of education and about 7 percent are graduates. 22 percent are illiterates, 14 percent are educated upto primary school and 22 percent are having high school level of education. Education profile of PAPs in respective corridors is presented in Table 9-1.

Table 9-1: Education Profile of Female PAPs: Corridor-wise

Education	Dabhoi-Bodeli		Dhandhuka-Dholera		Atkot-Gondal		Mehsana-Himatnagar	
	No.	%	No.	%	No.	%	No.	%
Illiterate	5	17.9	3	25	12	26.1	65	14.5
Primary	6	21.4	3	25	8	17.4	74	16.6
High School	7	25.0	1	8.3	14	30.4	115	25.7
Secondary	9	32.1	2	16.7	9	19.6	115	25.7
Higher Secondary	0	0	1	8.3	3	6.5	42	9.4
Vocational	1	3.6	2	16.7	0	0	8	1.8
Graduation and Above	0	0	0	0	0	0	27	6.0
Technical	0	0	0	0	0	0	1	0.2
Total	28	100	12	100	46	100	447	100
Education	Umreth-Vasad (incl. Ladvel-Kapadvanj)		Bayad-Lunawada		Dhansura-Meghraj		Lunawada-Khedapa	
	No.	%	No.	%	No.	%	No.	%
Illiterate	15	17.2	82	31.1	20	56.47	12	29.3
Primary	11	12.6	24	9.1	8	14.55	5	12.2
High School	20	23.0	45	17.0	9	16.36	8	19.5
Secondary	29	33.3	46	17.4	7	12.73	11	26.8
Higher Secondary	6	6.9	33	12.5	6	10.91	4	9.8
Vocational	0	0	1	0.4	0	0	0	0
Graduation and Above	6	6.9	33	12.5	5	9.091	1	2.4
Technical	0	0	0	0	0	0	0	0
Total	87	100	264	100.0	55	100	41	100

Source: LASA Primary Survey, 2012

9.1.2. Age Distribution

66. About 35 percent of the women PAPs are of the age group of 25-45 years, 9 percent are aged 60 years or more and 20 percent are in the age group of 14 years or lesser. Age distribution of women PAPs for respective corridors is presented in Table 9-2.

Table 9-2: Age Distribution of Female PAPs: Corridor-wise

Age Group	Dabhoi-Bodeli		Dhandhuka-Dholera		Atkot-Gondal		Mehsana-Himatnagar	
	No.	%	No.	%	No.	%	No.	%
< 6 years	2	7	2	17	3	7	33	7
6-14 years	4	14	1	8	7	15	60	13
15-24 years	10	36	4	33	13	28	83	19
25-45 years	8	29	4	33	12	26	177	40
46-60 years	2	7	1	8	7	15	61	14
> 60 years	2	7	0	0	4	9	33	7
Total	28	100	12	100	46	100	447	100
Age Group	Umreth-Vasad (incl. Ladvel-Kapadvanj)		Bayad-Lunawada		Dhansura-Meghraj		Lunawada-Khedapa	
	No.	%	No.	%	No.	%	No.	%
< 6 years	8	9	26	10	0	0	5	12
6-14 years	15	17	24	9	6	11	4	10
15-24 years	17	20	44	17	9	16	12	29
25-45 years	20	23	93	35	20	36	12	29
46-60 years	6	7	59	22	13	24	6	15
> 60 years	21	24	18	7	7	13	2	5
Total	87	100	264	100	55	100	41	100

Source: LASA Primary Survey, 2012

9.1.3. Occupation Profile

67. Out of the total number of 980 women PAPs, 79 have stated about their occupation. About 28 percent are engaged in farming activity, 25 percent are occupied as home-maid, 7 percent are into

business/trade and 24 percent are occupied in government service. Occupation profile of women PAPs for respective corridors is presented in Table 9-3.

Table 9-3: Occupation Profile of Female PAPs: Corridor-wise

Occupation	Dabhoi-Bodeli		Dhandhuka-Dholera		Atkot-Gondal		Mehsana-Himatnagar	
	No.	%	No.	%	No.	%	No.	%
Artisans	0	0	0	0	1	7.7	5	18.5
Farmer	0	0	0	0	6	46.2	0	0.0
Agri.Labour	1	100	0	0	2	15.4	3	11.1
Business/Trade	0	0	1	100	0	0	0	0.0
Govt. Service	0	0	0	0	1	7.7	0	0.0
Private Service	0	0	0	0	0	0	0	0.0
Other Works	0	0	0	0	2	15.4	17	63.0
House Maid	0	0	0	0	1	7.7	2	7.4
TOTAL	1	100	1	100	13	100	27	100
Occupation	Umreth-Vasad (incl. Ladvel-Kapadvanj)		Bayad-Lunawada		Dhansura-Meghraj		Lunawada-Khedapa	
	No.	%	No.	%	No.	%	No.	%
Artisans	0	0	0	0	0	0	0	0
Farmer	0	0	4	16.7	6	60	0	0
Agri.Labour	0	0	0	0	0	0	0	0
Business/Trade	1	50	1	4.2	3	30	0	0
Govt. Service	1	50	16	66.7	0	0	1	100
Private Service	0	0	2	8.3	0	0	0	0
Other Works	0	0	1	4.2	0	0	0	0
House Maid	0	0	0	0	1	10	0	0
TOTAL	2	100	24	100.0	10	100	1	100

Source: LASA Primary Survey, 2012

9.1.4. Household Income: Woman-Headed Households

68. The average earnings of the women PAPs are worked out to be Rs.6157 (based on the stated income estimates from 35 respondents). The socio-economic survey has identified 13 woman-headed households (3% of the total PAHs), of which 10 households are in the income category of Rs.2001-5000 (average monthly household income). Each of the remaining WHH has an average monthly household income of Rs.2000, Rs.9000 and Rs.11000 respectively.

9.2. FACILITIES FOR WOMEN IN CONSTRUCTION CAMPS

69. For women working at the construction site and staying in the labour camps, the following facilities will be ensured (i) temporary housing - during the construction the families of labourers/workers will be provided with the suitable accommodation and facilities for other civic requirements, particularly health and sanitation; (ii) health centre - health problems of the female workers will be taken care of through health centres temporarily set up for the construction camp where medicines and minimum medical facilities to tackle first-aid requirements or minor accidental cases will be provided. In addition, linkage to nearest higher medical care will be ensured whenever required. The contractor will arrange the visit of doctor, at least once in week, to provide required medical support to the workers in general and women in particular.

70. A strong vigilance mechanism will have to be developed by the contractor to ensure ceasing abuses at work places. NGO will also provide necessary support to check such exploitation. Scheduling of Work hours for women also needs to be regulated. Women, especially the mothers with infants will be exempted from the night shifts and from prolonged work hours.

10. HIV/AIDS PREVENTION PLAN

71. HIV/AIDS Prevention Plan (HPP) has been prepared to assess and address the pertinent issues arise due to the mobility pattern of bridge population and core groups¹⁷. HPP analyses the potential risk factors on the local communities and the construction workers during the implementation of the project. HPP also suggests for appropriate mitigation measures and institutional arrangements for the sustainable delivery of project benefits to community. Site visits and consultations along the corridors were undertaken and potential hotspots including major transport nodes, industrial hubs, construction sites, health-care service centres, etc were identified. Consultations were held with various agencies involved in the HIV/AIDS prevention in the state, including Gujarat State AIDS Control Society (GSACS) and Ahmadabad Municipal Corporation AIDS Control Society (AMCACS), Transport Corporation of India Foundation (TCIF), etc.

72. Reconnaissance visits and consultations have identified 16 hotspots, 36 health care centres, 6 NGO intervention areas and 8 major industrial areas along the 9 project corridors. Presence of Target Intervention (TI) NGOs is observed along Mehsana-Himatnagar, Umreth-Vasad (Including Ladvel-Kapadvanj) and Atkot-Gondal.

73. A detailed survey among trucker community has been carried out using structured questionnaires. These information provided inputs towards development of a strategy and action plan outlining measures for addressing impacts on the trucker community, HRGs associating with truckers along the project corridors, etc.

74. Gujarat is in a moderate HIV prevalence state with 6 out of 25 districts falls in category 'A' and four in 'B' category. Project corridors pass through one category 'A' district (Mehsana) and four category 'B' districts (Ahmedabad, Bhavnagar, Rajkot and Vadodara). GSACS observes that the epidemic has recently moved to the generalized population as well. In view of these, NACO/GSACS has strategized comprehensive coverage of high-risk groups in the state. Currently GSACS / AMCACS implementing 115 TIs out of which 79 are working with core population while remaining 36 are working with bridge population. The core group and bridge population identified along the corridor are covered as part of various interventions of NACO/GSACS and served by NGOs, ICTCs and CHCs¹⁸.

75. PIU at R&BD along with RAP implementing NGO will carry out awareness programmes along the corridors at identified locations of toll-plazas, construction camp sites and truck-parking lay-by in respective corridors. For the purpose, the IEC materials as well as technical advice from GSACS will be utilised in a timely manner. The specific measures to be taken up have been integrated into the bid documents and shall be implemented by the Contractors, with support from the PIU and the NGO implementing the RAP. HPP has been prepared as a standalone document.

11. ROAD SAFETY

76. Road safety issues became the focal point of discussion in the consultations carried out with the communities along the project corridors. Apart from the consultations had with communities, comprehensive road safety audit has been undertaken during the project preparation stage. The audit included collection of accident data and black spot identification, geometric deficiencies, constrictions, town/village stretches and at all junctions and cross road locations for all the project corridors. The issues

¹⁷ Core group includes Female Sex Worker, Male having Sex with Male & Injected Drug Users; Bridge Population includes Male Migrants and Truckers.

¹⁸ Source: <http://www.gsacsonline.org/prevention.php>

with respect to road safety were discussed with the Safety Audit Team and incorporated the same in project design. The strategy adopted to address the road safety issues in project corridors is as follows:

- **Outcome of Road Safety Audit of project corridors:** These include (i) accident data collected from Police Department; (ii) safety issues related to design aspects – carriage-way, geometric design, intersection/junctions, CD structures, etc; (iii) traffic management and control issues along the corridor; (iv) suggestive interventions for identified road safety risks.
- **Road safety issues identified based on road-side consultations:** These include (i) safety requirements for pedestrians at intersections; (ii) information regarding accidents at specific locations; (iii) potential safety hazards due to encroached built-up structures; (iv) road-side plantations with potential safety risks; and (v) safety requirements.

77. The approach to integrate road safety issues as part of the detailed designs preparation and the inputs provided by the SIA to incorporate road safety concerns is presented in **Table 11-1**.

Table 11-1: Activity Schedule and SIA inputs for Road Safety

Steps	Activity	Social Impact Assessment inputs
I	Collection of corridor geometric data through topographic surveys.	-
II	Collection of Road inventory data.	-
III	Finalising design standards and strategy to be used in consultation with the Client.	-
IV	Carry out Road Safety Audit and finding gaps between safe road and present condition of corridors.	-
V	Finalisation of design of typical section	Screening level consultations and site visits to identify potential issues including hotspots, safety issues, cattle crossing locations etc.
VI	Creation of complete roadway design	Provide inputs based on Social Impact Assessment, towards design formulation with minimal impacts on land acquisition and resettlement, without compromising safety and design standards.
	<i>Horizontal alignment</i>	
	Checking minimum radius	
	Super-elevation	
	Checking lateral clearance for the SSD	
	Avoiding broken back curve	
	Considering abutting property and its impact	
	<i>Vertical alignment</i>	
	Maximum grades	
	Stopping Sight Distance/Head light sight distance	
	Strive to achieve minimum grades for drainage purposes - ditches and curb gutters	
	Providing minimum length of vertical curve	
Balance cut and fill quantities		
VII	Side road design	
VIII	Intersection design	
IX	Other Design components	In addition to the observations made by the Road safety audit team, specific observations by the communities and stakeholders during consultations pertaining to provision of safety measures along the corridor have been incorporated in the designs. Such interventions include but not limited to: Locations for pedestrian/cattle crossing Protection measures around structures saved through design interventions, such as wells, shrines etc within the RoW; Provision of retaining walls to minimize land uptake; Signages and mitigation measures (in form of protective barriers, footpaths, specific crossing points etc) around sensitive receivers, including schools, hospitals and other cultural properties.
	Sidewalks	
	ROB	
	Vehicle under pass	
	Pedestrian / cattle crossing	
	Retaining Walls- where ever necessary	
	Truck Lanes	
	Busbays	
	Exclusive turn lanes	
	Island Design	
	Signal requirements / Cross walk locations	
	Signage	
Landscaping elements		
X	Preparation of Plan and Profile drawing sets for the corridors	Incorporation of the safety measures in the drawings and designs

11.1. INTEGRATION OF ROAD SAFETY ISSUES IN DESIGN

78. Adopting the approach defined in **Table 11-2**, the following sections highlight how the findings of the consultations and field visits carried out during the SIA have formed inputs to the finalization of the safety provisions as part of the detailed designs. Integration of road safety issues into the design of

Dabhoi-Bodeli corridor is given as an illustration. Similar efforts towards integration of road safety issues were made for all the project corridors and the corresponding measures designed and included in the final designs and the bid documents.

Table 11-2: Integration of Road Safety Issues into Project Design – An illustration

Design integration based on	
Consultations during SIA	Safety Audit
<ul style="list-style-type: none"> • Provision for lighting at junctions. • Speed control measures and parking facilities near schools, hospitals, temples, etc. • Safety measures for cattle crossing. • Curve improvement. 	<ul style="list-style-type: none"> • Design interventions at 6 major locations based on traffic accident data. • Interventions at identified locations based on inadequate shoulder width. • Removal of fixed concrete posts intended as guard stones but play as potential safety hazard. • Improvement of curve locations, intersections/ junctions and a level-crossing. • Improving the width and parapets of culverts. Safety interventions for 59 CD structures. • Warning signs for cart tracks and canal service road. • Specific safety interventions at 12 habitations (raised pedestrian crossing, rumble strips, traffic calming measures, zebra crossings, etc). • Signages at cattle crossing locations.

11.1.1. Additional safety measures incorporated in design

79. While the road safety audit formed the basis for the determination of the nature and type of safety provisions required at the individual location, the outcomes of the consultations formed useful inputs in confirming the need and justification for the provision. Apart from above mentioned aspects the following safety measures are incorporated in design.

- All existing and new structures and trees are delineated with Aluminium backed flexible prismatic sheeting on both sides of the project corridor.
- As part of safety intervention measures near habitations, centre-line and edge-line markings are incorporated all along the project corridor.
- Traffic signs are provided as per IRC:67:2010 Code of practice for Road Signs Standards and Guidelines to improve the safety operations during day and night details of the same is given in schedule of signage.
- Major junctions are designed with suitable channelisers and refuse islands. Details of the same are given in design drawing.
- Speed hump is provided on side road to give preference to the through traffic.
- Crash barriers are provided at sharp curvature and bridge approaches where the height of embankment is more than 3 m.
- New bus stands are provided with proper signages and footpath.











11.2. IRAP AND STAR RATING

80. The International Road Assessment Programme (IRAP) uses star rating to ensure that safety is built-in to design for major upgrades and new roads prior to construction. IRAP assesses safety risk across 610 km of roads¹⁹ in Gujarat. Star rating has considered road attributes such as median type, road sides, shoulders, lane width, horizontal curvature, delineation, road surface condition, intersections, footpath provision, pedestrian crossing facilities, motor cycle facilities, bicycle facilities, etc.

81. GSHP-II has conceived the safety attributes of IRAP and appropriate safety measures with respect to deficiencies observed on the project corridor are incorporated into the final improvement option. For example, raised pedestrian crossing facilities with rumble strips are provided at habitations / educational institutes and the same are to be marked with white paint and warning signs. Objective Performance Scores were tested for two of the upgradation corridors of GSHP-II and found that the proposed design features which envisaged the IRAP safety attributes has raised the star-rating of Dhansura-Meghraj and Dhandhuka-Dholera corridors. An illustrative set of star-rating before and after the design is presented in Table 11-3.

¹⁹ IRAP Roads in Gujarat are (i) Shamlaji to Pathan – 140 km; (ii) Sagbara to Dahej – 210 km; (iii) Rajula to Surendranagar – 260 km.

Table 11-3: Star Rating before and after the Design: Dhansura-Meghraj Corridor

Before Design			After Design		
Star Rating	Length (km's)	%	Star Rating	Length (km's)	%
	0.3km	1		7.7km	17
	12.2km	28		11.3km	26
	22.2km	50		18.4km	42
	6.0km	14		5.5km	12
	3.6km	8		1.4km	3
	0km	0		0km	0

Source: IRAP/R&BD based on Corridor Design of LASA, 2012.

12. RESETTLEMENT POLICY FRAMEWORK

82. RPF has been prepared based on the findings of SIA carried out for the corridors proposed for inclusion in the first year of the project. The principles and procedures (pertaining to land acquisition and resettlement) adopted for the implementation of the Gujarat State Highways Project (GSHP- I) has been proposed to be adopted for GSHP-II, with modifications in terms of policy requirements triggered due to the recent policies/legislations including but not limited to the National Resettlement and Rehabilitation Policy (NRRP, 2007), apart from incorporation of the learning from implementation of GSHP I and similar World Bank funded state highway projects in other states of India.

83. RPF outlines the principles and procedures, legal framework, operational guidelines, institutional arrangements, entitlements for different types of impacts, disclosure procedures and monitoring and evaluation. This framework will guide in management of social impacts caused by the proposed project and improvement works to be taken up for subsequent corridors. Preparation of Resettlement Action Plan, Indigenous Peoples Development Plan, strategies of public consultations, especially with the tribal population will be steered through the principles of this RPF. The RPF shall: (i) bring commonality in resettlement and rehabilitation benefits under the project, (ii) bring together and built upon the current good practices in terms of procedures to address more systematic and institutional issues, (iii) establish institutional arrangements at project level for the implementation of RAP, and (iv) establish mechanism for redressing grievances; and monitoring and evaluation etc.

12.1. RESETTLEMENT PRINCIPLES AND ELIGIBILITY CRITERIA

84. The RPF is based on the principle that affected people should be in a better-off position or at least at the same level as compared to the pre-project scenario. The RPF will guide in the effective management of social impacts caused by the proposed project. RPF ensures greater acceptability of the project among the community and is expected to facilitate effective communication. The RPF provides the following:

- Entitlements for project affected persons to cover the loss of land, structures and other assets, such as standing crops or trees. The broad categorisation of affected persons is (i) Titleholders; and (ii) Non-titleholders.
- The vulnerable sections among each of the above categories will receive additional support.
- Adverse impacts would be avoided or minimized by exploring all viable alternative project designs. Where the adverse impacts are unavoidable, the project-affected persons will be assisted in retaining or upgrading their standard of living.
- Compensation for land at replacement cost and assistance along with allowances for fees or other charges. Land will be acquired following Land Acquisition Act, 1894 and its amendments. The difference between the land cost decided as per LA Act and the updated Jantri values for the specific land parcel to be acquired will be paid by the project in the form of assistance.

- Compensation for residual unviable land parcels will be provided to those affected persons who are eligible and opting for the same.
- Compensation for loss of structures, other assets will be provided at replacement cost and will be paid before physical displacement from the occupied or affected area.
- Assistance will be provided to those affected persons who lose their livelihood due to the acquisition carried out as part of the project.
- Cut-off date for titleholders will be the date of publication of notification under Section 4(1) of Land Acquisition Act, 1894. For non-titleholders, the date of project census survey or a similar designated date declared by project authority will be considered as cut-off date.
- The households/land owners who are absent during the time of census survey will be entitled for assistance and budget provisions will include them also. However, people moving to the CoI after the cut-off date will not be entitled for any compensation or assistance.
- Vulnerable groups will be identified and given additional support and assistance in re-establishing or enhancing livelihood.
- Loss of common property resources will be compensated and reconstructed at project cost. Enhancement measures also will be provided for community assets located alongside the project corridor in consultation with the community.
- Information related to the preparation and implementation of resettlement plan will be disclosed to all stakeholders and people's participation will be ensured in planning and implementation.
- Appropriate grievance redress mechanism will be established at the district level to ensure speedy resolution of disputes.
- All consultations with PAPs shall be documented. Consultations will continue during the implementation of resettlement and rehabilitation works.

12.2. TERMS AND DEFINITIONS

- Agricultural land** means land being used for the purpose of: (i) agriculture or horticulture; (ii) raising of crops, grass or garden produce; and (iii) land used by an agriculturist for the grazing of cattle, but does not include land used for cutting of wood only;
- Assistance** refers to the support provided to PAPs in the form of ex-gratia payments, loans, asset services, etc. in order to improve the standard of living and reduce the negative impacts of the project.
- Below poverty line or BPL Family** means below poverty line families as defined by the Planning Commission of India, from time to time, and those included in the State BPL list in force.
- Compensation** refers to the amount paid under Consent Award as part of The Land Acquisition Act, 1894. For private property, structures and other assets acquired for the project, it refers to the amount as given in the Entitlement Matrix for the project.
- Cut off Date:** the date of Notification under Section 4(1) of Land Acquisition Act, 1894 shall be the cutoff date where the land acquisition will be required. For non-titleholders the date of census survey shall be considered as the cutoff date.
- Encroachers** are those person/family, who transgresses into the public land (prior to the cut-off date), adjacent to his/her own land or other immovable assets and derives his/her additional source of shelter/livelihood.
- 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; and includes "nuclear family" consisting of a person, his or her spouse and minor children.
- Government** refers to the Government of Gujarat.
- Land acquisition** means acquisition of land under the Land Acquisition Act, 1894, as amended from time to time.
- Marginal farmer** means a cultivator with an unirrigated land holding up to one hectare or irrigated land holding up to half hectare;
- Non-Perennial Crop:** Any plant species, either grown naturally or through cultivation that lives for a season and perishes with harvesting of its yields has been considered as a non-perennial crop in the project. For example, paddy, sugarcane, groundnut, etc.
- Notification** means a notification published in the Gazette of India, or as the case may be, the Gazette of State;
- Perennial Crop:** Any plant species that live for years and yields its products after a certain age of maturity is a perennial crop. Generally trees, either grown naturally or by horticultural and yield fruits or timber have been considered as perennial crop in the project. For example, tamarind, coconut, mango, etc. are perennial crops.
- Project Affected Family (PAFs)** means- (i) a family whose primary place of residence or other property or source of livelihood is adversely affected or involuntarily displaced by the acquisition of land for the project (ii) any tenure holder, tenant, lessee or owner of other property, who on account of acquisition of land in the affected area of otherwise, has been involuntarily displaced from such land or other property; (iii) any agricultural or non-agricultural labourer, landless person (not having homestead land or agricultural land) rural artisan, small trader or self-employed person; who has been residing or engaged in any trade, business, occupation or vocation in the affected area, 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.

- o. Project Affected Persons (PAPs)**, any persons who have economic interests or residence within the project impact corridor and who may be adversely affected directly by the project. PAP include those losing commercial or residential structures in whole or part, those losing agricultural land or homestead land in whole or part, and those losing income sources as a result of project action. PAPs would be of two broad categories, 'PAPs with Major Impact' and 'PAPs with Minor Impact'
- p. Replacement Cost** of the acquired assets and property is the amount required for the affected household to replace/reconstruct the lost assets through purchase in the open market. Replacement cost will be calculated at R&BD current Schedule of Rates without depreciation. Replacement cost shall be in line with the provisos of the Entitlement Matrix of the project.
- q. Small farmer** means a cultivator with an un-irrigated land holding upto two hectares or with an irrigated land holding upto one hectare, but more than the holding of a marginal farmer.
- r. Squatter** means a person/family that has settled on the public land without permission or has been occupying public building without authority prior to cut-off date and is depending for his or her shelter or livelihood and has no other source of shelter or livelihood.
- s. Tenants** are those persons having bonafide tenancy agreements, written or unwritten, with a private property owner with clear property titles, to occupy a structure or land for residence, business or other purposes.
- t. Vulnerable Persons:** persons who are physically or mentally challenged, widows, persons above sixty years of age, below-poverty line households and woman-headed household.
- u. Woman-Headed Household:** A household that is headed by a woman who is the major bread-earner of the household. This woman may be a widow, separated or deserted person.

12.3. ENTITLEMENT MATRIX

85. The Entitlement matrix provisions for the various impact categories have been worked out to update the provisions adopted in Gujarat State Highways Project (GSHP- I). The *update* addresses the modifications required in terms of policy requirements triggered due to the recent policies/legislations including but not limited to the NRRP, 2007 apart from incorporation of the learning from implementation of GSHP I and similar World Bank funded state highway projects in other states of India (Table 12-1).

Table 12-1: Entitlement Matrix

Code	Category of PAP	Type of Impact	Unit of Entitlement	Entitlement	Remarks
1A	Titleholder – Agriculture Land / Non-agriculture land / Homestead Land and assets	Loss of land and assets	Land owner(s)	<ol style="list-style-type: none"> 1. Cash compensation at “actual market values”. 2. Option for compensation of residual unviable land parcels²⁰. 3. Registration and stamp duty charges (currently applicable) for the land acquired. 4. All fees, taxes and other charges, as applicable under the relevant laws, shall be borne by the project. 5. Replacement of water-yielding bores shall be done subject to availability of water in the remaining landholding or anywhere near the beneficiary land in consultation with the affected community. If water is not available, replacement cost of the bore-well at rates decided on case-by-case (without depreciation) based on Gujarat Water Supply and Sewerage Board (GWSSB) Schedule of Rates. 6. Financial assistance for replacement of Cattle shed: One-time financial assistance of Rs.15000 for displaced households. 7. In case land owners become landless or marginal, financial assistance equivalent to 12 months of minimum agricultural wages of Gujarat (calculated for 25 days in a month), as subsistence allowance. 8. Ex-gratia assistance of Rs.20000 for land owners losing upto 500 sq.m of land in lieu of all other benefits. 9. In case of severance of agricultural land, an additional grant of 10 percent of the amount paid for land acquisition. 10. Advance notice of 4 months to harvest standing crops. 11. Crop/tree damage compensation as assessed by 	<ol style="list-style-type: none"> 1. Compensation shall be determined as per LA Act, 1894. Difference, if any, between the compensation award as per the LA Act, 1894 and the market value, shall be paid by the project in the form of assistance. The updated Guideline / Jantri values will be adopted for determination of actual market value for the specific land parcel to be acquired. 2. Compensation for Timber Trees shall be decided by Forest Department, Gujarat. Compensation for perennial trees and standing crops shall be decided by Agriculture and Cooperation Department, Government of Gujarat. 3. The rates for determination of assistances and compensation shall be revised annually during the project implementation period. The revision shall be effected from the 1st day of April every year. The real value of monetary compensation and assistance shall be assessed as follows: (i) Compensation for land shall be based on updated Jantri value; (ii) Compensation for structures/assets shall be based on updated Schedule of Rates; and (iii) Allowances and assistances shall be based on Consumer Price Index (CPI), updated 1st of April every year. In case, if Jantri Value or Schedule of Rates is not updated by the 1st of April, compensation and assistance shall be provided based on existing rates. Differences if any, between the existing rates and the updated rates will be provided by the project after publication of the updated rates.

²⁰ Less than 0.4ha in case of irrigated land and less than 1ha in case of non-irrigated land

Code	Category of PAP	Type of Impact	Unit of Entitlement	Entitlement	Remarks
				the concerned Government Departments. 12. Right to salvage materials from affected land or structure.	
1B	Titleholder – Residential Structure	Loss of structure	Land / structure owner(s)	<ol style="list-style-type: none"> 1. Compensation at replacement cost determined on the basis of R&BD Schedule of Rates as on date without depreciation. 2. Affected structures of size less than 20 sq.m., which are fully affected or if rendered unviable, shall have option to compensation equivalent to cost of provision of residential structure of size 20 sq.m. 3. Shifting Allowance: One-time financial assistance of Rs. 10,000. 4. Transitional allowance of Rs.10,000 towards temporary arrangements and rentals during the transition period. 5. Right to salvage materials from affected land or structure. 	1. Cost equivalent to the area mentioned in Para-2 shall be estimated based on R&BD Schedule of Rates without depreciation.
1C	Titleholder- Commercial/ industrial Structure	Loss of structure	Land / structure owner(s)	<ol style="list-style-type: none"> 1. Compensation at replacement cost determined on the basis of R&BD Schedule of Rates as on date without depreciation. 2. Affected structures of size less than 10 sq.m which are fully affected, or rendered unviable, shall have option to compensation equivalent to cost of provision of commercial structure, of size 10 sq.m. 3. Shifting Allowance: One-time financial assistance of Rs. 10,000. 4. Transitional allowance of Rs.10,000 towards temporary arrangements and rentals during the transition period. 5. Right to salvage materials from affected land or structure. 	1. Cost equivalent to the area mentioned in Para-2 shall be estimated based on R&BD Schedule of Rates without depreciation.

Code	Category of PAP	Type of Impact	Unit of Entitlement	Entitlement	Remarks
1D	Titleholder-Residential-cum-commercial/ industrial structure	Loss of structure	Land / structure owner(s)	1. The entitlement provisions that shall be higher among 1B and 1C shall be provided.	
2A	Tenants-Residential / commercial / industrial Structure	Loss of structure	Individual / Household	<ol style="list-style-type: none"> 1. For tenants (residential category) requiring relocation, rental allowance for 6 months at the rate of Rs.1000/month in rural areas and Rs.1500/month in urban areas, if the structure is fully affected or the unaffected part of the structure is unviable. 2. For tenants (commercial/industrial category), requiring relocation, rental allowance for 6 months at the rate of Rs.1500/month in rural areas and Rs.2000/month in urban areas, if the structure is fully affected or the unaffected part of the structure is unviable. 3. Shifting Allowance: One-time financial assistance of Rs. 5000. 4. For impacts to structures constructed by the EP, compensation at replacement cost determined on the basis of R&BD Schedule of Rates as on date without depreciation. 5. Right to salvage materials from affected land or structure. 	
3A	Squatter-Residential / Commercial / Residential-cum-commercial	Loss of structure	Individual / Household	<ol style="list-style-type: none"> 1. Compensation for impacted structures at replacement cost determined on the basis of R&BD Schedule of Rates as on date without depreciation (or) 2. (i) Costs towards land and house construction (of area as applicable to EWS housing scheme in Gujarat), for residential squatters (ii) Costs towards land and shop construction (of 100 sq ft area) for commercial squatters, whichever is higher among 3A.1 and 3A.2. 3. Shifting Allowance: One-time financial 	<ol style="list-style-type: none"> 1. Training programmes will be offered in coordination with any of the following agencies; <ul style="list-style-type: none"> o Education Department, Govt. of Gujarat (self employment programmes for women). o Tribal Development Department, Govt. of Gujarat (Vanbandhu Kalyan Yojana). o Department of Social Justice and Empowerment; Scheduled Caste Economic Development Corporation (Economic Upliftment Schemes for Scheduled Castes and women). o Commissionerate of Rural Development, Govt. of

Code	Category of PAP	Type of Impact	Unit of Entitlement	Entitlement	Remarks
				assistance of Rs. 5000.. 4. Training Assistance for Income Generation: Training in opted areas to any one member of the household losing livelihood. Training cost upto a maximum of Rs. 15000 shall be borne by the project implementation authority.	Gujarat. 2. PIU will carry out periodic review to assess the efficacy of training programmes and suggest corrective measures including need for inter-departmental coordination, as required.
3B	Encroachers	Loss of Assets	Household	1. Ex-gratia for impacted assets at replacement cost. 2. Encroachers shall be given advance notice of 4 months in which to remove assets (except trees), and harvest standing crops, if any	
4A	Additional support to vulnerable groups		Individual Household /	1. Training Assistance for Income Generation: Training in opted areas to any one member of the household losing livelihood. Training cost upto a maximum of Rs. 15000 shall be borne by the project implementation authority (or) 2. Lump sum amount of Rs.15000 as grant to those who cannot be provided with alternative livelihood sources.	1. Training programmes will be offered in coordination with any of the following agencies; o Education Department, Govt. of Gujarat (self employment programmes for women). o Tribal Development Department, Govt. of Gujarat (Vanbandhu Kalyan Yojana). o Department of Social Justice and Empowerment; Scheduled Caste Economic Development Corporation (Economic Upliftment Schemes for Scheduled Castes and women). o Commissionerate of Rural Development, Govt. of Gujarat 2. PIU will carry out periodic review to assess the efficacy of training programmes and suggest corrective measures including need for inter-departmental coordination, as required.
5A	Employees in shops, agricultural laborers, sharecroppers	Loss of livelihood	Individual	1. Training Assistance for Income Generation: Training in opted areas to any one member of the household losing livelihood. Training cost upto a maximum of Rs. 15000 shall be borne by the project implementation authority. (or) 2. Lump sum Financial assistance equivalent to 6 months of minimum agricultural wages of Gujarat (calculated for 25 days in a month), to those who cannot be provided with training on	1. Training programmes will be offered in coordination with any of the following agencies; o Education Department, Govt. of Gujarat (self employment programmes for women). o Tribal Development Department, Govt. of Gujarat (Vanbandhu Kalyan Yojana). o Department of Social Justice and Empowerment; Scheduled Caste Economic Development Corporation (Economic Upliftment Schemes for Scheduled Castes

Code	Category of PAP	Type of Impact	Unit of Entitlement	Entitlement	Remarks
				alternative livelihood opportunities.	and women). ○ Commissionerate of Rural Development, Govt. of Gujarat. 2. PIU will carry out periodic review to assess the efficacy of training programmes and suggest corrective measures including need for inter-departmental coordination, as required.
6A	Community Assets	Loss of community assets	Community	<ol style="list-style-type: none"> Resources such as cultural properties and community assets shall be conserved (by means of special protection, relocation, replacement, etc.) in consultation with the community. Adequate safety measures, particularly for pedestrians and children, landscaping of community common areas, improved drainage, roadside rest areas, etc shall be provided in design of the highways. 	
7A	Scheduled Tribes	Loss of land, structure or both	Household	<ol style="list-style-type: none"> Cash compensation at the actual market value based on the latest Jantri values. In the event of the latest Jantri values not being equivalent to market rates due to lack of evidence of recent land transactions, enhanced cash compensation for land equivalent to 1.5 times of latest Jantri value of affected tribal land parcel. Entitled for assistance applicable for vulnerable groups. Additional one-time financial assistance equivalent to 500 days minimum agricultural wages towards the loss of customary rights/usages of forest produce. 	
8A	Disruption	Temporary Impact	Owner(s)	<ul style="list-style-type: none"> Compensation for temporary use of land or structures outside Right of Way for construction activities shall be made by the Contractor. The use of such land or structure, compensation for the temporary occupation/use of lands and restoration post completion of the occupation shall be through written agreement between land/structure owner and the 	As laid down in Clause 111 on Precautions for safeguarding the environment, Technical Specifications in the Bid Document.

Code	Category of PAP	Type of Impact	Unit of Entitlement	Entitlement	Remarks
				contractor. • Temporary access would be provided, where necessary.	
9A	Unforeseen impacts			1. Any unforeseen impacts shall be documented and mitigated in accordance with the principles and objectives of the Policy.	

12.4. QUANTIFICATION BASED ON PRICE INDICES

86. In order to quantify the compensation amounts to the real value of monetary assistance the rates shall be revised annually during the project implementation period. The revision shall be effected from the 1st day of April every year. The real value of monetary compensation and assistance shall be accorded, (i) Compensation for land shall be based on most recent Jantri value; (ii) Compensation for structures/assets shall be based on most recent Schedule of Rates; and (iii) Allowances and assistances shall be based on Consumer Price Index (CPI).

12.5. CENSUS AND SOCIO-ECONOMIC SURVEYS: METHODOLOGY

87. The census survey shall be carried out for 100% of the Project Affected Families (PAFs) present during the survey period for the project corridor. The last date of the census survey shall be the cut of date for the PAP/PAF to establish their presence within the project corridor of impact. The census survey shall be based on the final design duly approved by the GoG. The strategy for socio-economic survey should be drawn up based on findings of the SIA exercise.

12.6. PUBLIC CONSULTATIONS

88. Individuals and group consultations would be carried out as part of the SIA, RAP and IPDP preparation to understand the needs and concerns of PAPs with regard to various issues such as project impacts, alternative design options, compensation, assistance, resettlement options, value addition to the project etc. Consultations shall be carried out with respective groups of affected population including women groups, STs, farmers and agricultural labourers, etc. Consultation with the community for affected cultural properties shall be carried out to inform them about the details of the nature of impact (no impact, partial or full) and to obtain their response and views on mitigation measures. All the participants shall be informed in advance about the date, venue and time of the consultation and their presence to be noted in the form of an attendance sheet. Documentation of details of all public meetings held with people and other stakeholders including government officials shall be carried out. The documentation of these consultations shall be appended to the RAP. In the event of public announcements being made, the details / notices of such announcements including a copy of the text of such announcements shall also be included in the documents.

12.7. ARRANGEMENTS FOR R&R IMPLEMENTATION

12.7.1. *Environmental and Social Management Unit (ESMU)*

89. ESMU will be headed by an officer of the rank of Executive Engineer (EE), and will be responsible for all activities related to resettlement and rehabilitation. Chief Engineer (World Bank Projects) will have overall responsibility of the project, who will be assisted by Superintending Engineer (SE). The EE will be assisted by an Environmental Specialist and a Social Specialist. ESMU will be housed in R&BD headquarters in Gandhinagar. One each Executive Engineers at field divisions²¹ will be responsible for E&S activities.

Roles and Responsibilities of EE at State Level:

- Co-ordinate the implementation of R&R activities with PIU, field staff, engineering and revenue officials;
- Ensure availability of budget for R&R activities;
- Approve micro plans prepared by the NGOs for implementing RAP;
- Monitor the progress related to R&R and LA carried out by NGO and M&E Consultants;
- Hold periodic meetings on R&R implementation and review of activities at Divisional Offices

²¹ The Field Divisions of R&BD are located at Rajkot, Mehsana and Vadodara.

90. Respective Divisional Offices at field level will assist the PIU in carrying out the R&R activities in roads passing through respective districts.

Roles and Responsibilities of Divisional Offices at District Level;

- Ensure continued participation of the people in entire project cycle;
- Verify and send the micro plans for approval of the PIU
- Assist the PIU in monitoring the progress related to R&R and LA carried out by NGO and M&E Consultants;
- Hold periodic meetings on R&R implementation and report to the PIU.

91. The Social Specialist will assist the EE. The Social Specialist shall have a minimum of 5 years of experience in resettlement and rehabilitation in highway projects.

Roles and responsibilities of Social Specialist at the State Level

- Assist SE to perform R&R activities.
- Co-ordinate with the district administration on LA and R&R. Coordinate and follow-up with Revenue Department member of the ESMU.
- Facilitate the appointment of external agency for impact evaluation and overall monitoring and supervision of implementing NGO.
- Training of NGOs – class –room and on-site.
- Review of reports and documents submitted by the NGO.
- Training to R&BD staff on social aspect management and reporting.
- Preparation of Social Aspect Status Reports for the WB and Government of Gujarat.
- Preparation of periodic progress reports for the WB and Government of Gujarat.
- Documentation of case histories.
- Preparation of reporting formats, checklists, guidelines on social management aspects.
- Translate the executive summary of RAP in Gujarati language and disseminate it among the project stakeholders and at important places along the project road.
- Organize fortnightly meetings with the NGO to review the progress on R&R and report to SE and CE.
- Review micro plan and monthly progress reports submitted by NGO.

Roles and responsibilities of Social Specialist at the District Level

- Participate in public consultations.
- Management of conflict resolution exercises for social issues.
- Assistance in-community property & temple relocation cases.
- Monitoring of community enhancement plans.
- Liaison with district administration and concerned departments for dovetailing government social security schemes for the socio-economic wellbeing of the PAPs.
- Develop and maintain a PAP level database including aspects related to losses, compensation, R&R entitlement, release of funds and utilization.
- Assistance in Cross-verification of PAPs identified by the NGO.
- Finalization of individual entitlements in co-ordination with the NGO and PIU.
- Checking of ID cards submitted by the NGO.
- Participation in the ID card distribution process with NGO and PIU.
- Cross-verification of PAP training details submitted by the NGO.
- Coordination with concerned divisions regarding distribution of shifting, subsistence and training allowances.
- Assistance and coordination with concerned divisions regarding notification process under RAP.
- Assistance and coordination for resettlement cases with State Road Project Divisions and concerned Government departments.
- Supervision of the socio-economic surveys.

- Assistance in redress grievances & coordination of field activities with the NGO.
- Assistant in Market Value Assessment Procedures.
- Technical assistance in creating socio-economic data base of HHs losing land.

92. The proposed implementation arrangement for the management of social issues is given in Figure 12-1.

12.7.2. Role of Revenue Department

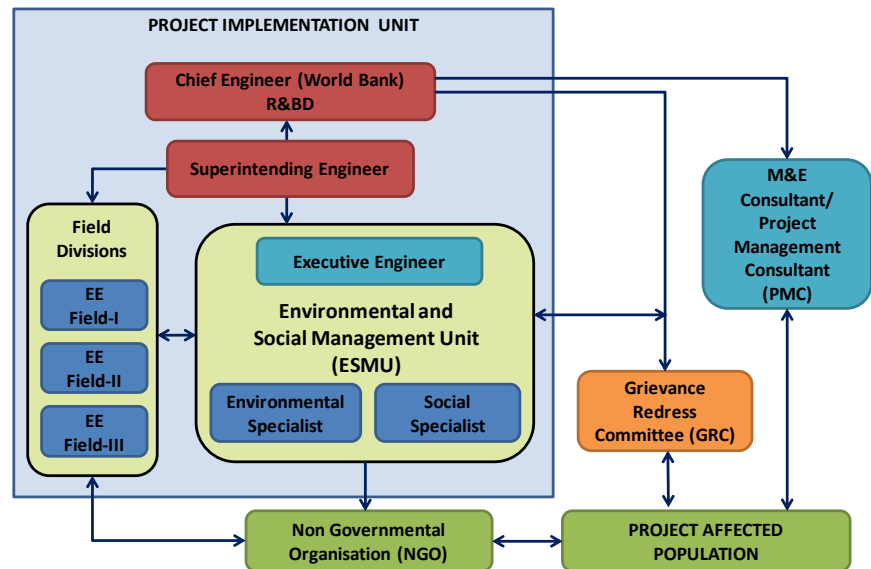


Figure 12-1: Implementation Arrangements

93. Acquiring Body have to make an application for acquisition of any land for a public purpose to the Collector of the district concerned and the Collector forwards such applications for acquisition of land to the Land Acquisition Officers concerned. On receipt of such applications, the LAO makes a preliminary enquiry. The land acquisition proceedings begin with a Notification under section 4(1) and survey and investigation will be carried out under section 4(2). Section 5-A provides for filing of objection and afterwards hearing of objection and report of Collector to Government. Declaration under section 6 will be published in the Official Gazette and two daily newspapers of the area, indicating actual location of the land for the project. Land acquisition officer (LAO) takes order for LA from the Government under section 7 and measurement of land done on ground under section 8. Inquiry and offer of compensation by Collector (section 11 to 13) and possession of land will be taken under section 16 after the award is made.

94. In these proceedings, PIU and LAO will carry out the joint verification of land, for which PIU will facilitate. To avoid delay of any sort, it is proposed that PIU may hire an Expert who is conversant with land acquisition procedures or utilise the services of NGO proposed to be in place for RAP implementation. Valuation of assets within affected land will be carried out by respective Departments.

95. The compensation for land and other assets for titleholders (assets alone in the case of non-titleholders) will be disbursed through Revenue Department. R&R assistance as per entitlement provisions for both titleholders and non-titleholders will be disbursed through PIU.

12.8. IMPLEMENTATION SUPPORT BY NGO

96. As prescribed in the World Bank Operational Policy²², GSHP-II envisages involvement of NGOs in the implementation of RAP. The roles and responsibilities of NGO are summarized as follows:

- Explain to PAPs about the potential adverse impacts and proposed mitigation measures and, R&R entitlements;
- Distribute the dissemination materials including pamphlets on RAP and other aspects;
- Facilitate ESMU in organizing public information campaign at the commencement of R&R activities;
- Prepare the micro plans;
- Participate in the meetings organized by ESMU;
- Provide support for implementation of RAP;

²² Annex A: Involuntary Resettlement Instruments, OP 4.12. The World Bank Operational Manual. December 2001.

- Prepare and issue identity cards to identified PAFs;
- Facilitate opening of joint bank accounts (PAPs and his/her spouse) for individual PAPs;
- Assist PAPs in receiving compensation, focusing on vulnerable PAPs to ensure that they get their dues on time;
- Generate awareness about the productive use of compensation money and R&R grants;
- Explain the resource base and other opportunities to enable them to make informed choices and participate in their own development;
- Ensure that vulnerable PAPs are given their dues both for payment of compensation and rehabilitation assistance;
- Submit monthly progress reports to ESMU;
- Identify training needs of PAPs for income generating activities and ensure they are adequately supported during the post-training period on respective income generating activities, and,
- Ensure that the grievances and problems faced by PAPs are presented to the Grievance Redress Committee for their resolution.

12.9. GRIEVANCE REDRESS COMMITTEE

97. The project proposes to establish a Grievance Redress Committee (GRC) to hear the complaints of project affected persons and resolve the same. The process will promote settlement of disputes and reduce litigation. GRC will be set up at the district level with District Collector as head. The following persons will be the members of GRC:

- District Collector or his designated representative of at least the rank of Assistant District Collector (preference would be given to women officers);
- The District Development Officer of the Department of Revenue;
- The Executive Engineer, PIU;

98. GRC will be responsible for the following: (i) Support PAPs in resolving issues related to R&R and LA; (ii) Record grievance and resolve them within stipulated time; (iii) Inform PIU about any serious cases; and (iv) Report to the aggrieved parties about the decisions of the PIU.

99. ESMU will provide all necessary help to PAPs in presenting his/her case before the GRC. The GRC will respond to the grievance within 15 days. The GRC will normally meet once in a month but may meet more frequently, if the situation so demands. A time period of 45 days will be available for redressing the grievance of EPs. The decision of the GRC will not be binding to PAPs. This means the decision of the GRC does not insist PAPs taking recourse to court of law, if he/she so desires. Broad functions of GRC are as under:

- Record the grievances of PAPs, categorize and prioritize them and provide solution to their grievances related to resettlement and rehabilitation assistance.
- The GRC may undertake site visit, ask for relevant information from Project Authority and other government and non-government agencies, etc in order to resolve the grievances of PAPs.
- Fix a time frame within the stipulated time period of 45 days for resolving the grievance.
- Inform PAPs through ESMU about the status of their case and their decision to PAPs for compliance.

100. The GRC will be constituted within 3 months by an executive order from GoG from the date of mobilization of RAP implementing NGO.

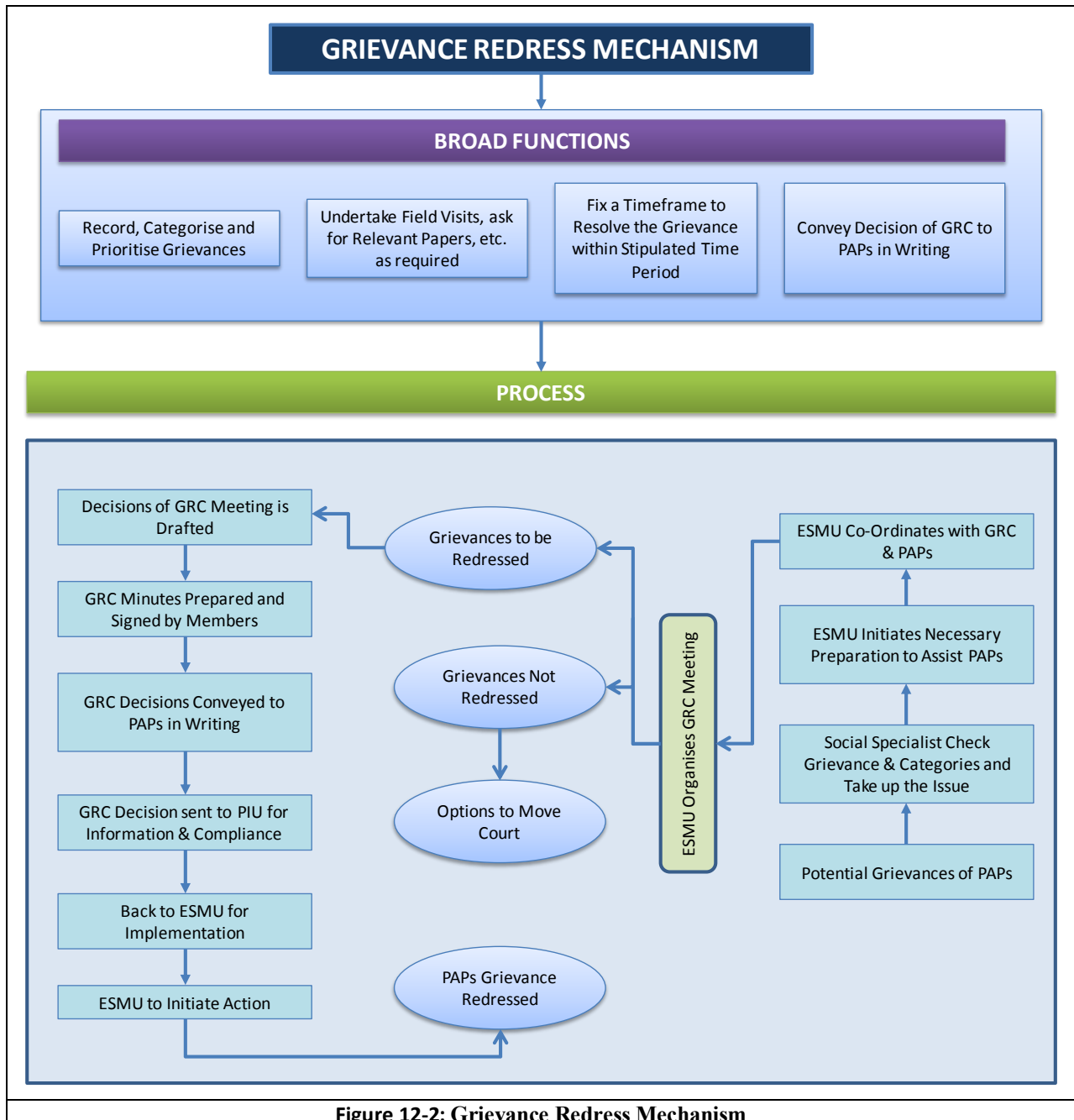


Figure 12-2: Grievance Redress Mechanism

12.9.1. Compensation and Assistance Procedures

- ESMU will facilitate for joint verification of land by LAO. Valuation of assets within affected land will be carried out by respective Departments²³. Implementing NGO will facilitate and assist in the valuation of assets.
- Micro-Plan will be prepared for each affected person. Micro-Plan will have details of affected area of land and the compensation for the same (including compensation for various assets located within the affected land) along with entitlements as per the Resettlement Policy Framework for respective members of households. NGO will prepare the Micro-Plan.
- The compensation for land and other assets for titleholders (assets alone in the case of non-titleholders) will be disbursed through Revenue Department.
- Assistance as per entitlement provisions for both titleholders and non-titleholders will be disbursed through PIU.

²³ Timber trees – Forest Department; Perennial trees and standing crops – Agriculture and Cooperation Department; Built-up structures – Roads and Buildings Department; Water resources – Gujarat Water Supply and Sewerage Department.

- Any grievances arise during valuation of land or other assets and estimation of entitlements will be referred to the Grievance Redress Committee. This will also be facilitated by NGO.

12.9.2. List of Documents/Information Required to Establish Ownership to Property and access Compensation

101. The PAP should produce the following documents/information to establish ownership to property and access compensation:

- Land Records [7/12 – 8A, *Khedut Pothi*²⁴];
- Statement showing details of the land under acquisition.
 - Survey number of the land;
 - True area of land for the purpose of award;
 - Tenure of the land [such as new tenure, old tenure, etc];
 - Category of land [*Jarayyat* (irrigated), *Bagayat* (unirrigated), *Kyari* (block), etc].
- Statement showing the details of claims filed and evidence produced by the interested persons.
 - Name of the Claimant (whether owner, lessee, tenant, etc);
 - Claim (area of land, number of trees, area and details of structures, details of other damages);
- ID card issued by PIU and cross verified by the NGO.
- Details of Bank Account for transfer of compensation amount.

12.10. INCOME RESTORATION MEASURES

102. The basic objective of income restoration activities is that no project-affected person shall be worse off than before the project. Restoration of pre-project levels of income is an important part of rehabilitating individuals, households, and socio-economic and cultural systems in affected communities. Income restoration (IR) schemes will be designed in consultation with affected persons so as to benefit them. Based on the information collected on IR activities through the census socio-economic surveys, the implementing NGO will identify suitable IR programme for the affected persons. Steps to be followed for income restoration include:

- Identification of target groups and choosing respective income restoration activities – NGO needs to identify the affected persons and prepare a list of feasible income restoration options. While identifying IR options, the following factors shall also be considered: (i) education level of affected persons, (ii) skill possession, (iii) likely economic activities in the post-displacement period, (iv) extent of land left, (v) suitability of economic activity to supplement the income, and (vi) market potential and marketing facilities.
- Training: option for training on skill enhancement for those losing their livelihood has been provided in the Entitlement Matrix. The beneficiary group includes employees in shops, agricultural labours, sharecroppers, squatters and vulnerable people. Training programmes will be conducted by PIU with assistance from NGO. Periodic review meeting will be carried out by the PIU to assess the efficacy of training programmes and corrective measures, if required, will be suggested for coordination with various training institutes/departments. NGO shall group the affected persons based on their preferred trades and make all the arrangements such as fixing the venue etc.
- Identification of Training Institutes/Departments: based on trades selected, NGO shall have to identify the training institute for different trades / activities who can provide on-the-job training²⁵.
- Monitoring: After training, the contracted M&E agency shall carry out the monitoring. Internal monitoring is the responsibility of PIU with support from PMC.

12.11. PUBLIC CONSULTATION AND DISCLOSURE

103. The Disclosure Policy of GSHP-II formulated by R&BD, GoG states that the Policy intends to enhance transparency in decision making process during implementation phase, including those for

²⁴ Khedut Pothi is a booklet where the details of land holdings of individual farmers are recorded. The Khedut Pothi is maintained by the Revenue Department and a copy of the same is issued to each farmer.

²⁵ The suggested institutes for training include Education Department, Govt. of Gujarat (self employment programmes for women); Tribal Development Department, Govt. of Gujarat (Vanbandhu Kalyan Yojana); Department of Social Justice and Empowerment; Scheduled Caste Economic Development Corporation (Economic Upliftment Schemes for Scheduled Castes and women); and Commissionerate of Rural Development, Govt. of Gujarat.

procurement, financial management, social and environmental safeguards, and to comply with all legal requirements under Right to Information Act, 2005.

104. In order to make the RAP implementation process transparent, a series of public disclosure meetings will be arranged. The RAP Executive Summary, translated in Gujarati language will be disclosed through public consultations and will also be made available through GSHP Website (<http://gshp.gujarat.gov.in>). The following project specific information related to social safeguards will be disclosed on the website.

- Approved resettlement action plan;
- Approved entitlement matrix;
- Village-wise area of government and private land to be acquired;
- Cultural and religious property to be shifted and relocated;
- Advance notice of 4 months to harvest standing crop;
- Disbursement status of compensation and assistance given to respective PAPs;
- Details of Grievance Redress Committee, its procedures and mechanism;
- Details of public consultation;
- Complaint handling procedures;
- Details of compensation given to land looser and PAP (Quarterly);
- Details of social/cultural and religious properties to be relocated;
- Details of benefits of project to the public;
- Details of NGO involved in implementation of RAP.

105. The objective of the consultations is to (i) understand the view of the affected persons on rehabilitation and resettlement issues; and (ii) facilitate delivery of appropriate and acceptable entitlement options.

106. The process and proceedings of such consultations shall be documented and PIU respond to the issues raised during the consultations.

12.12. COMPLAINT HANDLING MECHANISM

107. Being a project involving large scale of civil works along with implementation of RAP/IPDP/HPP, the project is likely to receive suggestions, complaints, inquiries, etc. R&BD recognizes the importance of this and hence intends to address such issues through the Complaints Handling Procedures for GSHP-II, under which a centralized monitoring of all the complaints received from and through various mechanisms / individuals can efficiently take place under the information of WB.

108. Complaints Handling Procedure ensures that any citizen can lodge complaints with (i) any officer not below the rank of executive engineer in charge of the work, and (ii) any officer in charge of the redress systems in vogue in the state. Complaints related to (i) project services (new proposal/alteration in the scope of project, ongoing /completed project services in the areas of quality, procurement, R&R, environment and inaction/delayed action) and (ii) personnel (misbehaviour, corruption, service matter).

109. Complaints Handling Procedures assigns SE, PIU as the Chief Complaint Handling Officer with set roles and responsibilities. He is mainly responsible for complaints not related to personnel. Complaints related to personnel require to be dealt with as per the existing system. Training to the employees working under WB wing needs to be given for clear understanding of the procedures involved and to treat the complaints as an opportunity for improvement and not to discriminate / antagonize the complainant in future dealings.

12.13. MECHANISM FOR TRAINING AND CAPACITY BUILDING

110. Training and development of project staff is an integral part for implementation GSHP-II. Training needs identification shall be carried out at State level (PIU), Regional level (Divisional offices of R&BD) and at Field level, based on which focused training modules shall be developed. This is with the objective of (i) strengthening in-house capacity to implement the RPF/RAP/IPDP/HPP; (ii) creating awareness, providing the tools for implementation and accompanying set of management procedures to all departments; and (iii) developing competence within key officials to provide training in their respective level.

111. The topics for training and capacity building includes:

- a. Introduction to social & R&R issues (R&R policies at state/national/international level, social issues pertaining to R&R (participation of women, poverty assessment, anti poverty programmes, highway related diseases, road safety, transparency, right to information);
- b. Land acquisition (Acts, policies, valuation of land, concept of replacement value, /market value, institutional mechanism etc.);
- c. Social Impact Assessment and RAP/IPDP/HIV/AIDS Awareness, prevention plan (social screening, census survey, socioeconomic survey, methodology, focus group discussions, institutional survey, free, prior informed consultation, data analysis report preparation);
- d. Resettlement Policy Framework (category of PAPs, category of impacts, valuation of assets (land, structure, crops, trees, community assets, etc.), entitlements, women and vulnerable groups, temporary impacts, disruption/damage during construction and respective mitigation measures);
- e. RAP/IPDP/HPP implementation (updating PAP database, joint verification of affected structures/land and affected population, preparation of Micro Plan, grievance redress procedures, conflict resolution packages, assistance and training for income restoration, monitoring and evaluation of social safeguards implementation.

112. The training programs are to be conducted with the help of local, state and national level training institutions and experts in various aspects of social management and safeguard issues. PIU will also identify courses offered by the premier institutions in India on social management and safeguard issues and enable participation of project staff. Towards enhancing the capacity of the R&BD engineers on social safeguards management, R&BD has over the past few years deputed engineers for participation in various safeguards training and capacity building programs.

12.14. MONITORING AND EVALUATION

113. Internal monitoring of the implementation of social safeguards will be carried out by the PIU with support of Project Management Consultant/Supervision Consultant. Towards enhancing the quality of RAP/IPDP implementation, in addition to the internal monitoring by the PIU, external monitoring will be done by a third-party agency or Project Management Consultant (PMC) for technical as well as environmental/social aspects. The role of third-party agency/PMC towards external monitoring of social safeguards will include the following:

- Conduct periodic monitoring of RAP/IPDP implementation on quarterly basis to provide early alert to redress any potential problems; and,
- Conduct mid-term, annual and end term monitoring to assess target achievements and slippages with respect to implementation of RAP/IPDP.

114. The RAP will contain indicators and benchmarks for achievement of the objectives under the resettlement programme. These indicators and benchmarks will be of (i): proposed indicators, indicating project inputs, expenditures, staff deployment, etc; (ii) output indicators, indicating results in terms of numbers of affected People compensated and assisted, training held, details of disbursements, etc; and (iii) impact indicators, related to the longer-term effect of the project on communities.

115. The benchmarks and indicators will be limited in number, and combine quantitative and qualitative types of data. The first two types of indicators, related to process and immediate outputs and results, will be monitored to inform project management about progress and results, and to adjust the work programme where necessary if delays or problems arise. The results of this monitoring will be summarized in reports which will be submitted to the PIU on a regular basis. Provision will be made for participatory monitoring involving the PAPs. Illustrative set of monitoring indicators for physical progress, financial progress and grievance redress have been presented in Table 12.2, Table 12.3 and Table 12.4. Illustrative set of evaluation indicators have been presented in Table 12.5.

Table 12.2: Monitoring Indicators for Physical Progress

Sl. No	Monitoring Indicators	Implementation Target	Revised Implementation Target	Progress this Month	Cumulative Progress	% against Revised Implementation Target
1	Land acquired – private (acre)					
2	Land transferred – government (acre)					
3	Compensation for land (INR)					
4	Compensation for structure					
5	Preparation and dissemination of leaflets to various stakeholders					
6	Preparation and approval of plans					
7	Number of joint bank accounts opened					
8	Issuance of identity cards					
9	Submission of monthly progress reports					
10	Shifting allowance for all affected categories					
11	Livelihood Restoration Allowance for affected categories					
12	Vulnerable groups					
13	Community Assets					

Table 12.3: Monitoring Indicators for Financial Progress

Sl. No	Category	Estimated Cost (INR)	Progress this month
1	Land Acquisition		
2	R&R Assistance		
3	NGO Services and M&E Services		

Table 12.4: Monitoring of Grievance Redress

Sl. No	Particulars	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
1	No. of cases referred to GRC				
2	No. of cases settled by GRC				
3	No. of cases pending with GRC				
4	Average time taken for settlement of cases				
5	No. of GRC meetings				
6	No. of PAPs moved court				
7	No. of pending cases with the court				
8	No. of cases settled by the court				

Table 12.5: Illustrative Evaluation Indicators of Atkot-Gondal Corridor

Indicators	Pre Project Baseline	Mid Term Evaluation	End Project Evaluation
ECONOMIC			
Below Poverty Line	Nil		
Household income (Annual)	< Rs. 24000 = 2 out of 29 (7%) Rs. 24001-48000 = 5 out of 29 (17%) Rs. 48001-72000 = 7 out of 29 (24%) Rs. 72001-120000 = 3 out of 29 (10%) > Rs. 120001 = 12 out of 29 (41%)		
Occupation	Business/Trade – 9 out of 53 (17%) Private service – 2 out of 53 (4%) Agriculture labour – 3 out of 53 (6%)		
Average household expenditure	Food (monthly) – Rs.2800 Education (yearly) – Rs.2624 Health (monthly) – Rs.1306 Local travel (monthly) – Rs.1103		
Percentage of earning women	28% (13 out of 46 female population)		
Average monthly earning of women	Rs.2875 (average earnings of 13 out of 46 working women)		
ASSET OWNERSHIP			
Ownership of household assets	Television – 19 out of 29 (66%) Refrigerator – 11 out of 29 (38%) 2-wheeler – 14 out of 29 (48%) 4-wheeler – 3 out of 29 (10%) Telephone – 16 out of 29 (55%) Washing machine – 2 out of 29 (7%) Computer – 2 out of 29 (7%)		

12.15. COORDINATION WITH CIVIL WORKS AND CERTIFICATION

116. The resettlement program will be co-coordinated with the timing of civil works. The required co-ordination has contractual implications, and will be considered in procurement and bidding schedules, award of contracts, and release of cleared CoI sections to project contractors. The project will provide adequate notification, counselling and assistance to affected persons so that they are able to move or give up their assets without undue hardship before commencement of civil works and after receiving the compensation.

117. Actions to be completed prior to bid and award of contract include: (i) resettlement action plan should be approved by the GoG; (ii) the action plan should be disclosed in the web site and other public places accessible to the local people; (iii) the first notification for private land acquisition should be issued; (iv) the issue of identity cards to eligible PAPs should be completed.

118. The actions to be completed prior to handing over the stretch to the contractor includes: (i) acquisition of private land should be completed and compensation for land and assistance as per

entitlement matrix should be disbursed; and (ii) transfer of Government land should be completed or no objection should be obtained from the land owning agency.

12.16. IMPLEMENTATION SCHEDULE OF RAP

119. RAP implementation schedule is provided in **Table 12.6**. This provides the key benchmarks of implementing RAP. The construction tenure of individual corridors ranges from 18 months to 30 months spread across an overall period of 36 months. Accordingly, R&BD has envisaged tenure of 36 months for the RAP implementing NGO. The on-ground rehabilitation and resettlement exercises and handing over the encumbrance free stretch for civil works will take 5 months to 14 months and simultaneously, the NGO will carry out awareness programmes on road safety, HIV/AIDS prevention campaign, repeat training for PAPs, facilitate overall monitoring, etc.

Table 12.6: RAP Implementation Schedule

ACTIVITY	MONTHS																																					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36		
Mobilising Personnel and Training																																						
ESMU in place	■																																					
M&E Consultant / PMC in place			■																																			
NGO in place			■																																			
GRC in place			■																																			
Training for PIU/ESMU Personnel			■																																			
Training for NGOs			■																																			
Information Campaign and Community Consultation				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
Compensation / R&R / Clearance of Col																																						
Verification of PAPs, listing of assets affected, measurement of structures, categorization of PAPs				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
ID Card distribution				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
Preparation of Micro Plan and approval				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
Opening joint account of PAPs				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
Payment of compensation				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
Payment of R&R assistance				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
Clearance of Col for civil works				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
Consultations (intermittant)				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
Skill and training needs assessment				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
Identification of government schemes				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
Enrollment into government schemes				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
Training of PAPs for income restoration schemes				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
Consultation for relocation/rehabilitation of Community assets/Cultural properties				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
Awareness programmes with respect to HIV/AIDS				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
Awareness on Road Safety				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Repeat training of PAPs for new vocation				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
Monitoring and Evaluation																																						
Internal Monitoring				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
External Monitoring and Evaluation				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Project Completion Survey																																						
Project Completion Survey Report																																						

13. RESETTLEMENT ACTION PLAN AND BUDGET

13.1. RESETTLEMENT ACTION PLANS

120. Separate RAPs have been prepared for each of the 8 upgradation corridors, based on the principles of RPF. The impact on private land and structures will be compensated and resettlement assistance will be given following the principles of RPF. The RAP is prepared to ensure that the affected persons are: (i) informed about their options and rights pertaining to resettlement; (ii) consulted, provided with technically and economically feasible resettlement alternatives and offered choices among them; (iii) provided prompt and effective compensation at full replacement cost for loss of assets caused due to the project; (iv) provided assistance (such as shifting allowance, transition allowance, etc.) during relocation and for a transition period, to restore their livelihood and standards of living; and, (v) provided with skill development assistance such as training, in addition to the compensation which the affected person is entitled.

13.2. RESETTLEMENT BUDGET

121. The resettlement budget prepared in view of the impact on private land, residential and commercial structures, community assets etc., has been presented in Table 13-1. The total resettlement budget estimated for the 8 project corridors is INR 96.72 million.

122. An amount of INR 29.6 million is earmarked for cost of trainings, RAP implementing NGO, monitoring and evaluation, awareness programmes on road safety, HIV/AIDS awareness, etc., for all the project corridors to be taken up in the first phase. Escalation of these components have been considered at an annual inflation rate of 7% based on consumer price index and the escalated amount for Year-I is INR 31.7 million and for Year-II, the amount is INR 33.9 million.

Table 13-1: Resettlement Budget

Sl.No.	Corridors/ Category	D-B	D-D	A-G	M-H	U-V	B-L	D-M	L-K	TOTAL (INR)
1	Compensation for Land			243,612	1,355,426	148,379	9,817,288	322,021	12,189,019	24075745
2	Compensation for Structures and community assets	720,000	213,600	699,270	9,976,001	1,361,500	1,516,000	562,480	3,60,000	15,048,851
3	Compensation for Structures (Encroachers)	-----	48,155	777,124	3,064,677	277,724	371,880	257,734	-----	4,797,293
3	Compensation for Assets within affected Property	-----	15,000	46,240	1,457,947	90,000	3,943,515	124,400	256,075	5,933,177
4	R&R Assistance	660,000	60,000	379,125	4,696,925	1,055,526	6,763,855	455,000	320,000	14,390,431
A	Sub Total (Compensation and R&R Assistance) (1+2+3+4)									64,245,497
5	RAP Implementing NGO									16,916,000
6	Monitoring & Evaluation (External Monitoring-PMC)									3,492,000
7	Training and Capacity Building									1400000
8	Administrative Expenses									7350000
9	Out of pocket expenses (corrective measures, grievance redress, un-anticipated works, etc.)									500000
B	Sub Total (Implementation Support) (5+6+7+8+9)									29,658,000
10	Sub Total (A+B)									93,903,497
11	Contingency@3%									2,817,105
12	Grand Total									96,720,602

Note: D-B: Dabhoi-Bodeli; D-D: Dhandhuka-Dholera; A-G: Atkot-Gondal; M-H: Mehsana-Himatnagar; U-V: Umreth-Vasad (including Ladvel-Kapadvanj); B-L: Bayad-Lunawada; D-M: Dhansura-Meghraj; L-K: Lunawada-Khedapa.