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Roads and Buildings Department Government of Gujarat



Second Gujarat State Highway Project (GSHP-II)

ENVIRONMENTAL AND SOCIAL SCREENING REPORT

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1 INTRODUCTION

1.1 PROJECT OBJECTIVE

Continuing the development process under GSHP II, R&BD Government of Gujarat has selected four additional corridors, aggregating to 155 km length for preparation of developmental intervention and implementation of existing State Highways. The corridors are proposed for Rehabilitation / Strengthening and Widening; as necessary. This document places the Environmental and Social Screening Report (ESSR) for the additional four corridors under GSHP II. Out of four, three corridors are situated in northern part of the state comprising 127.3 km of length, while remaining one is located in Saurashtra region of Gujarat comprising 27.7 km of length. The Environmental and Social Screening process carried out earlier (during 2011-12) for a length of 1577 km is extended to the additional four corridors and builds upon the baseline conditions established for the project.

The report includes study of proposed improvements, incorporating environmental and social safeguard measures as per the national, state and World Bank safeguard policies and operational directives, inclusion of safety measures and preparation of environmental (and social) budget.

1.2 PROJECT INTERVENTIONS

Details of additional corridors considered for improvement under GSHP II are:

Sr. No	List of Roads	Length (Km)	SH No	RoW	Present Lane Configuration	Proposed Improvement	Districts Covered	Specific regions
1	Mehsana - Unjha - Siddhpur - Palanpur	61.8	41	60	4LPS	4 LPS to 6L + Paved Side Shoulder and Hard Shoulders+ Pilgrim Pathway on LHS	Mehsana, Patan Banaskantha	North Gujarat
2	Four laning of Mehana bypass including RoB	5.1	41	60 & 100	2LPS	2 LPS to 4 L + Paved Side Shoulder	Mehsana	
3	Chanasma-Harij-Sami-Radhanpur	60.4	55	30	2LPS	Rehabilitation / Strengthening	Patan	
4	Vallabhipur-Ranghola (Via Dhola&Parvala)	27.7	39	24/30	2LPS	Rehabilitation / Strengthening	Bhavnagar	Saurashtra Region
Total		155						

Note: 2LPS-Two Lane with Paved Shoulder; 4LPS-Four Lane with Paved Shoulder; 4L-Four Lane; 6L – Six Lane

Interventions suggested for these additional corridors under GSHP II comprise the following:

- Upgradation: Existing 4 Lane with PS to 6 Lane + Paved Side Shoulder+ Hard shoulder and Pilgrim pathway on LHS (Mehsana Palanpur Road); and existing 2 Lane to 4 Lane + Paved Side Shoulders (Mehsana Bypass)
- Rehabilitation / Strengthening : Radhanpur-Chanasma and Vallabhipur-Ranghola Road

1.3 SCOPE FOR ENVIRONMENTAL AND SOCIAL ASSESSMENT

As stated earlier environmental and social safeguard measures as per the national, state and World Bank policies need to be integrated into the project preparation, implementation and operation stages. The scope for environmental and social assessment in the present assignment is as follows:

- ▶ Environmental and Social Screening of additional four GSHP II roads (155 km length);
- ▶ Scoping for DPR including detailed EIA preparation for proposed widening corridors under GSHP II: Corridors at sr. no. 1 and 2 from the above table. (66.9 km length);
- ▶ Scoping for DPR including detailed EIA preparation for proposed maintenance corridors: Corridors at Sr. No. 3 and 4 from the above table (88.1 km length);
- ▶ Environmental & Social Management Framework (ESMF) which is to be followed has already been prepared under GSHP II earlier.

Detailed Environment and Social Assessment for these corridors comprise the following:

Environment

- ▶ A comprehensive Environmental Impact Assessment (EIA) report for all four additional corridors including a section on Climate resilience provisions, hydrological study and appropriate design interventions, and
- ▶ An Environmental Management Plan (EMP) for each corridor

Social

- ▶ A comprehensive Social Impact Assessment (SIA) report for all four additional corridors,
- ▶ Individual Resettlement and Rehabilitation Action Plans (RAP) for each widening corridor
- ▶ HIV Prevention Plan for all four additional corridors

1.4 ENVIRONMENTAL AND SOCIAL SCREENING STUDY

This is the Environmental and Social Screening Report prepared for the recently shortlisted and newly added GSHP II corridors. These corridors have been finalised after the screening exercise was carried out earlier (during 2016-17) for the selected corridors. This is reflected in the present screening study that indicates; all the project corridors are exempt from requirement of Wildlife Clearance (Wildlife Protection Act 1972 and its subsequent amendments; periodic notifications on the same); environmental clearance (EC) including CRZ Clearance from the Ministry of Environmental Forest and Climate Change (MoEF and CC), GoI as per the EIA Notification 2006 and its subsequent amendments.

Since the corridors have been added later on i.e. after prioritization process, the objectives of the present environmental and social screening exercise have been to:

- ▶ Establish baseline for environmental and social attributes along the project corridors through analysis and review of secondary information supplemented with site visits and preliminary consultations;

- ▶ Relate the proposed interventions with identification¹ of environmental and social issues to be addressed in GSHP II, and
- ▶ Identify corridor specific Valued Environmental Components (VEC²) and their locations.
- ▶ Identify environmental and social issues (as part of the scoping exercise), including clearance requirements; and,
- ▶ Identify survey requirements to be carried out as part of the EIA of the DPR corridors, including establishment of a monitoring network.

In order to achieve these objectives, detailed review of secondary information as well as field surveys have been carried out along the project corridors.

1.5 STRUCTURE OF THE REPORT

This particular report is structured in such a way that it provides the details and appreciation in a proper flow. Accordingly, six sections are formulated, including this first one as introduction. As required they are supported with appendices.

- ▶ Section-1: Introduction
- ▶ Section-2: Project interventions
- ▶ Section-3: Environment and Social Screening Approach
- ▶ Section-4: Preliminary Environmental and Social Impacts
- ▶ Section-5: Monitoring Network based on Screening approach
- ▶ Section-6: Screening Outputs or Findings

¹Identification of environmental and social issues will provide useful information / input for assessing technical and economic feasibility of the project interventions and provide recommendations for modifications in the project design.

²VEC is defined as Social or biophysical component, which is of value (for any reason) in a project influenced area.

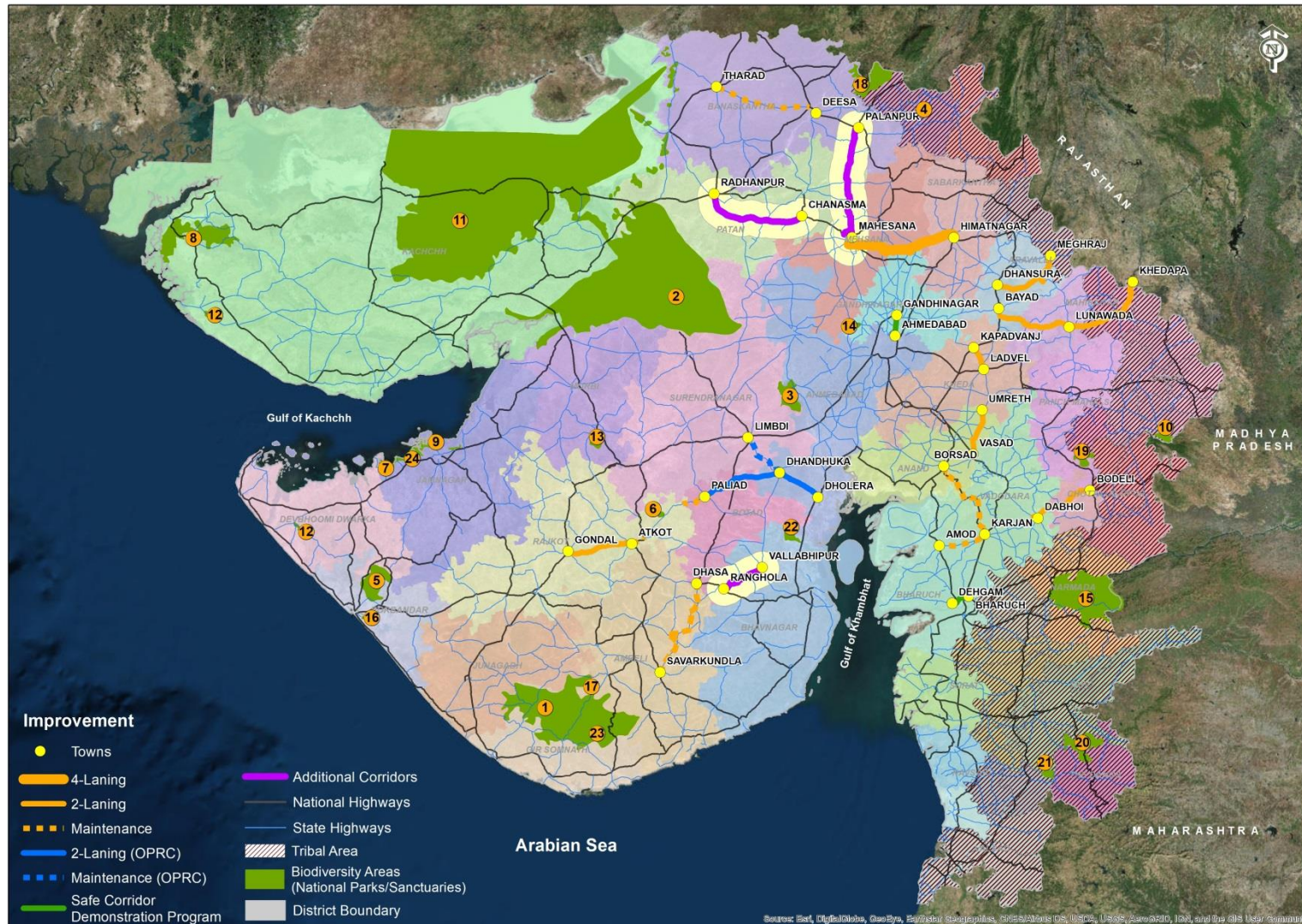


Figure 1-1: Additional Project Corridor Locations and Environmental Sensitivity across the State

2 PROJECT INTERVENTIONS

As stated in the previous Section Environmental and Social Screening is to be undertaken for four newly added state highways (including two maintenance corridors), under GHSP II which comprise of 155 km in length. Various degrees of interventions are proposed for each improvement option. A summary of key improvement measures considered under each improvement option is presented in Table 2.1.

Table 2-1: Details of Improvement measures for Additional corridors under GSHP-II

Sr. No.	Name of the Corridor	Chainage, km.		Length	Existing Lane	Proposed Treatment	Pavement Strengthening & Safety improvement
		From	To	Km.			
1	Mehsana to Palanpur, SH 41	79.30	141.1	61.8	4LPS	6L + Paved shoulder + hard shoulders and Pilgrim pathway on LHS	Yes
2	Mehsana Bypass SH 41A	11.75	16.85	5.1	2LPS	4 Lane+Paved Shoulders	Yes
3	Radhanpur Harij Chanasma SH 55	00.00	60.4	60.4	2LPS	Rehabilitation	Yes
4	Vallabhipur Ranghola-SH-39	00.00	27.7	27.70	2LPS	Rehabilitation	Yes
Total Length in Km.				155			

Note: 2LPS-Two Lane with Paved Shoulder; 4LPS-Four Lane with Paved Shoulder; 4L-Four Lane; 6L-Six Lane

2.1 DESIGN APPROACH TO MINIMIZE LAND ACQUISITION

Discussions were carried out with the PIU prior to the formulation of preliminary design options and the cross-sections along the project corridors. In line with the requirements of the revised scope for the assignment, the team was advised to design cross-sections to be accommodated within the available RoW.

Accordingly, RoW information from each of the field divisions along the four corridors was collected. The information collected for the various sections is presented in Table 2-2.

Table 2-2: RoW availability along four corridors

Sr. No.	Name of the Corridor	Chainage, Km.		Length	Existin g Lane	Proposed Treatment	RoW (m)
		From	To	km.			
1	Mehsana to Palanpur, SH 41	79.30	141.1	61.8	4LPS	6L+ paved shoulder+Hard Shoulder and Pilgrim pathway on LHS	60
2	Mehsana Bypass SH 41A	11.75	16.85	5.1	2LPS	4 Lane+Paved Shoulders	60 & 100
3	Radhanpur Harij Chanasma SH 55	00.00	60.4	60.4	2LPS	Rehabilitation	30
4	Vallabhipur Ranghola-SH-39	00.00	27.7	27.70	2LPS	Rehabilitation	24/30
Total Length in Km.				155			

Various cross sections have been adopted for the each intervention option. In addition, cross sections adopted for rural and urban stretches differ. The RoW requirements for the improvement options have been worked out based on the available RoW. Cross sections have been accordingly worked out for the various improvement options.



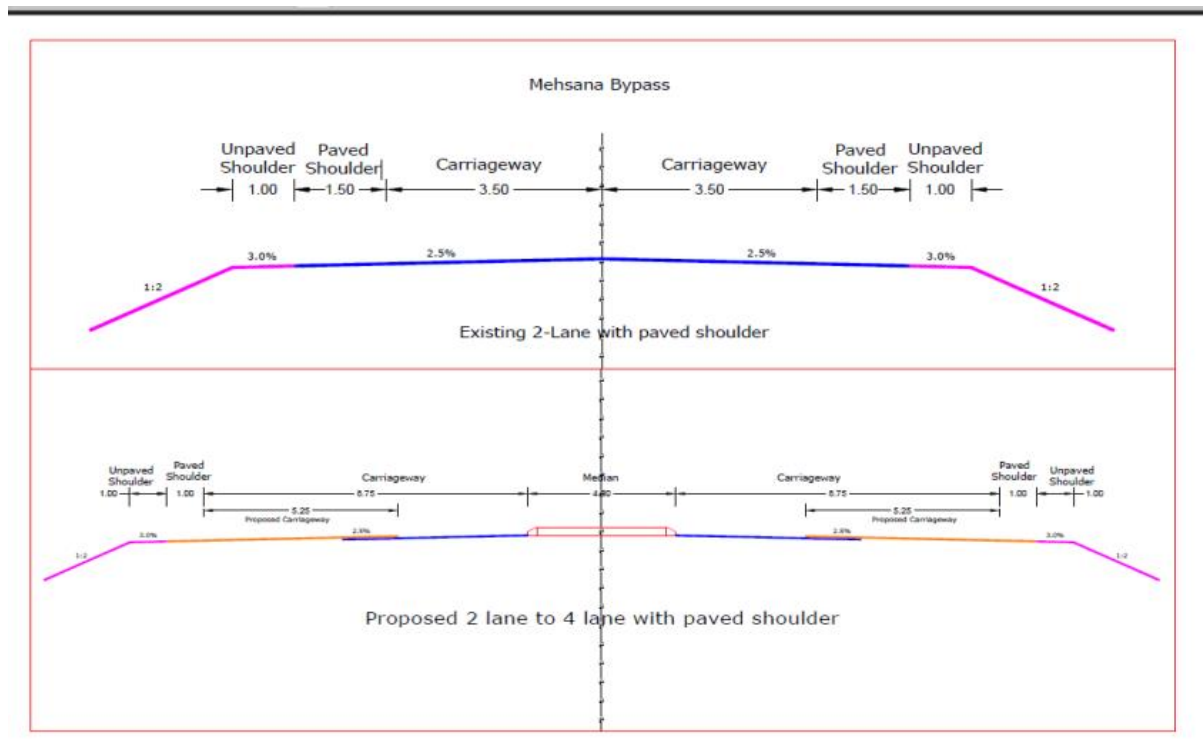


Figure 2-2: Proposed Typical cross-section for 2 Lane+PS option to 4 Lane –Mehasana Bypass (60 and 100 m RoW)

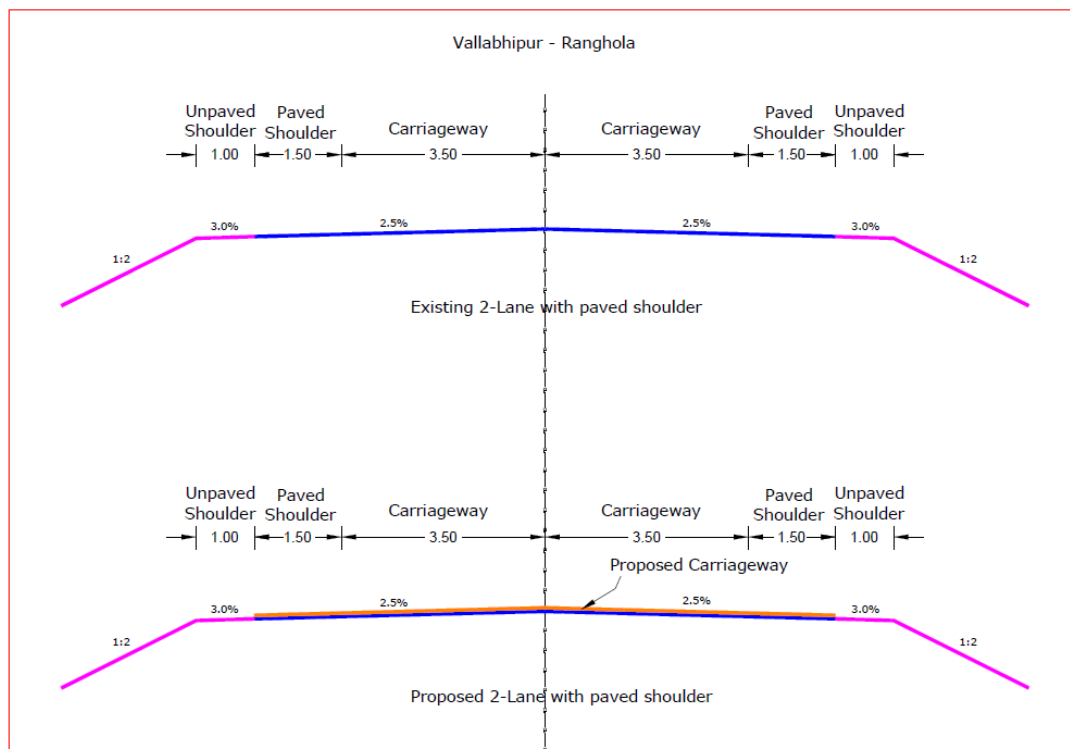


Figure 2-3: Proposed Typical cross-section for Rehabilitation & Strengthening of Vallabhipur-Ranghola Corridor (30m RoW)

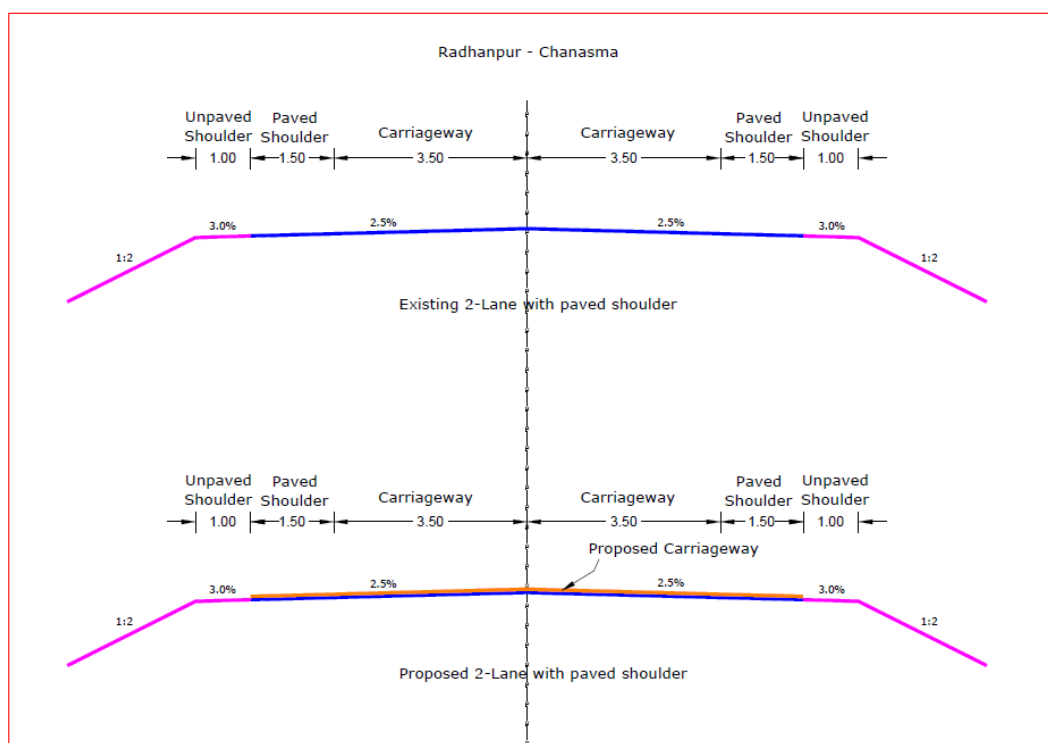


Figure 2-4: Proposed Typical cross-section for Rehabilitation & Strengthening of Chanasma-Radhanpur Corridor (30m RoW)

3 ENVIRONMENT AND SOCIAL SCREENING APPROACH

Screening determines the sensitivity of the environmental and social attributes of project corridors to the proposed improvement measures. This in turn helps to estimate the level of planning required in terms of time, budget and efforts to undertake the proposed road development (scoping) incorporating all the environmental and social safeguard measures.

The screening exercise is used as a planning tool for fixing priorities for systematic implementation of the proposed development measures.

3.1 CORRIDORS FOR SCREENING

List of corridors under GSHP II for which environmental and social screening exercise is undertaken is presented in Table 3.1.

Table 3-1: List of DPR Corridors under GSHP II

Sr. No.	Name of the Corridor	Length	District	Region
		Km.		
1	Mehsana to Palanpur, SH 41	61.8	Mehsana, Patan, Banaskantha	North
2	Mehsana Bypass SH 41A	5.1	Mehsana	
3	Radhanpur Harij Chanasma SH 55	60.4	Patan,	
4	Vallabhipur Ranghola	27.70	Bhavnagar	Saurashtra
	Total Length	155.90		

3.2 ENVIRONMENTAL AND SOCIAL SCREENING PROCEDURE

The total length of the four (4) project corridors for which environmental and social screening has been done is 155 km. Environmental and social screening process is designed to identify potential significant issues that need to be addressed through further environmental and social assessment process during detail design stage of project preparation. The methodology devised for screening adopts a focused approach to accomplish the screening objectives based on a series of steps as stated below:

- ▶ Review of applicable legislations and policies,
- ▶ Identification and consultation with stakeholders,
- ▶ Collection of secondary information,
- ▶ Identification and record of indicators,
- ▶ Roadside community consultations,
- ▶ Recommendations for environmental and social safeguard measures

The above mentioned steps are briefly described in the following paragraphs.

3.2.1 Review of Legislations and Policies

This involves review of all acts, rules and policies that are applicable to the proposed development. All environmental and social acts, rules, regulations and policies of the center and the state were reviewed for their applicability to the present project. All relevant operational policies and directives of the World Bank were also reviewed (**Refer Annexure I**).

3.2.2 Identification and Consultation with Stakeholders

The relevant stakeholders were identified as part of the screening exercise. This includes, the Forest Department, Environment (Including Wildlife) Department, (State and Central level), Revenue Department, Pollution Control Board, various utility agencies, etc., who have a stake in the proposed road improvement measures.

Preliminary consultations were held with the above agencies in addition to the Roads and Buildings Department (R&BD), GoG to appreciate their roles and responsibilities and understand the clearance requirements of the proposed road improvement project.

3.2.3 Collection of Secondary Information

Past reports and information: All previous reports of the R&BD were collected and reviewed such as the Gujarat State Highways Project, Second Gujarat State Highway Project (GSHP-II), Updated Strategic Options Study and the Gujarat Road Management System. Information on the project corridors were compiled and utilized to the extent possible in formulation of the present report.

Other published information: Information from other published sources too was collected for the purposes of the screening exercise, these included the Maps from Survey of India-, NATMO, CGWB, etc.

(Annexure-II).

3.2.4 Gujarat State Highway Project³: Lessons Learned

The Government of Gujarat has implemented the Gujarat State Highway Project (GSHP) from the year 2000 to 2007. The components of the project included (i) widening and strengthening of State Highways, (ii) land acquisition, relocation and resettlement, (iii) periodic maintenance of State Highways, (iv) design and supervision of civil works contracts, (v) institutional strengthening, TA, training and equipment and (vi) pre-investment studies. The achievement of GSHP, especially with respect to the safeguard compliance, is noteworthy. The Bank has observed that the R&BD designated environmental and social safeguard staff to work with consultants and contractors. This helped in defining organized measures in discussion with Bank missions, enforcement and follow-up on the pending issues throughout the project period.

GSHP has adopted a unique method of payment of compensation for land acquisition. The land acquisition was carried out through traditional land acquisition method of applying 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 Implementation Completion and Results Report (ICRR) regarding land acquisition and resettlement are summarized below.

- Land acquisition and R&R was carried out successfully and in line with the World Bank safeguard policies;

³ Implementation Completion and Results Report (IBRD-45770), Sustainable Development Department, India Country Management Unit, South Asia Region. The World Bank. June 18, 2008.

- ▶ 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;
- ▶ Environment Management Unit (EMU) 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 and adjudicate grievances, during the RAP implementation;
- ▶ Despite the time taken to complete the land acquisition, the civil works were not delayed for this reason;
- ▶ 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);
- ▶ Need of effective and vigorous public consultation on proposals regarding realignment and bypasses to incorporate their views and local requirements;
- ▶ Well planned and coordinated effort on the work of land acquisition and shifting of utilities;
- ▶ Need for completion of all pre-construction activities before award of work;
- ▶ Need for an independent and dedicated cell comprising R&BD officials (headed by Chief Engineer) for a smooth flow of onsite works. This should be supported by a daily appraisal system from field and weekly or fortnight meeting of the coordination committee for land acquisition;
- ▶ Requirement of temporary land acquisition for traffic diversions. Land should be identified as far as possible and resolved at the design stage in such cases where insufficient space exists within RoW.

3.2.5 Gujarat State Highway Project-II: Lessons Learned

With the demonstrated excellence through Gujarat State Highway Project⁴, Government of Gujarat (GoG) - Roads and Buildings Department (R&BD) and the World Bank (WB) are now continuing with their successful partnership. This is another teaming up and effort towards empowering the communities with enhanced road infrastructure and building the capacities of stakeholders participating in Second Gujarat State Highway Project (GSHP-II). R&BD-GoG had selected ten⁵ corridors, aggregating to about 460 km for the detailed engineering designs and in length for Project Preparatory Works. Remaining corridors carry forwarded for the environmental and social screening of GSHP II roads (1117 km) from the year 2011-13.

The Government of Gujarat has implemented the Gujarat State Highway Project-II (GSHP-II) from the year 2014 and onwards. The components of the project included:

- (A) Civil Works-(Component A1:09 packages and A2:02 packages),
- (B) Consultancy services for Institutional Development Action Plan-(IDAP-1,2,3 and 4) and Goods and Equipment and

⁴ GSHP, 2001-2007 one of the most successful WB assisted state highway project, set many benchmarks for others to follow.

⁵ This comprises of mix of up-gradation and maintenance interventions. Nine corridors are covered under up-gradation, out of which one road corridor is for Four Laning while rest are either covered under Two Laning or Wide Two Laning project. While to set a tone, one maintenance/rehabilitation corridor is included in the assignment scope.

(C) Safety Corridor Development Plan, Other Consultancies and Goods and Equipment.

The achievement of GSHP II, especially with respect to the safeguard compliance of recently completed corridors is appreciated by the Bank during the mid-term project.

GSHP-II has also followed the payment of compensation for R&R assistance as per the approved entitlement matrix in the Resettlement Policy Framework agreed for the project. The land acquisition process followed the procedures under the LA Act, 1894, and the land compensation was paid under the RFTCTLAR&R Act, 2013. The project has also formulated an E-RAP Tool, a web-based and android-based mobile application designed to monitor and capture the information at various stages of RAP implementation. Within the E-RAP Tool, each step of RAP implementation, its management and monitoring is computerized and georeferenced enabling R&BD and other stakeholders in remote tracking. The mid-term project mission of the Bank has rated the safeguards as highly satisfactory.

3.2.6 Identification and Inventorisation of Indicators

The outputs of stakeholder consultations and review of secondary information are utilized to formulate a list of valued environmental components (VEC) to be inventoried through site visits. An exhaustive list was prepared to record all components that may be adversely affected by the proposed road improvement measures.

Macro level indicators of screening have been recorded from secondary information such as presence of forest stretches, National Parks, Wildlife Sanctuaries, Reserved Forests, Coastal Regulation Zone (CRZ) stretches, etc.

Micro level VEC indicators were recorded through road inventory (**VECs for all the corridors are provided in the Annexure III**). Information collected included incidence and significance of settlement areas, cultural properties, incidence of trees, community properties, etc. within a 30 m offset on either side from centerline of the road (15 m offset for rehabilitation corridors). This is with the presumption that the Corridor of Impact (COI) is not more than 30 m on either side for Widening corridors (6Laning of Mehsana Palanpur, 4Laning of Mehsana Bypass) and 15 m on either side for rehabilitation corridors (Radhanpur Chanasma and Vallabhipur Ranghola). Likely impacts due to additional area required for specific road improvement measures shall be addressed during the Detailed Project stage of the assignment. Table 3-2 below presents the various micro level VEC indicators mapped along the proposed corridors.

Table 3-2: Micro level VEC indicators mapped through Road Inventory Survey

Sr. No	Valued Components	Unit of measurement
1.	Tree Density and Distance	Number of trees per km length of corridor and Distance (in m) of trees from edge of carriageway (CW)
2.	Water Body	Typology of water body (pond, lake etc.) in direct influence area – use and distance (in m) of water body from edge of CW
3.	Water Crossings	Width of river, stream, canal etc. intercepting the road
4.	Forest Areas	Length of corridor passing through/parallel to forest area and distance (in m) of forest boundary from CW
5.	Other Environmentally Sensitive Areas	Length of the corridor passing through national park, wildlife sanctuary, reserved forest area and other biodiversity areas
6.	Settlement stretches	Length of settlement along the road and distance from CW of the structures (in m)

Sr. No	Valued Components	Unit of measurement
7.	Cultural Properties	Number of cultural properties (shrine/temple/dargah/church/graveyard etc.) on the corridor
8.	Community Property Resources	Number of community properties (wells, schools, hospitals bus stops, parks etc.) on the corridor and proximity (in m) to the CW
9.	Tribal areas	Tribal villages along the road, if any

3.2.7 Roadside Community Consultations

In addition to the record of tangible road side environmental and social features, consultations were undertaken at regular intervals along the project corridor to detail the intent of the project and obtain views and perceptions of the roadside communities on key issues that merit incorporation in the project road designs. Consultations were carried out at junctions, settlements and roadside sensitive receptors such as hospitals, schools. These included discussions on present issues of the road corridor, likely impacts due to the project interventions and the likely mitigation measures that need to be inbuilt into the project design to address them effectively.

Consultation locations were selected so that they were representative of the various land uses (rural/ urban/ industrial), stretches with high vehicular traffic, stretches of divided communities due to severance, poor road condition, etc. The meetings were initiated with introduction of the consultation team, the project, key department involved and the consultants. The roles of the principal agencies involved (R&BD and the World Bank) were explained. These were followed by project brief, need and benefits of the project. People were given an overview of the planned activities to be carried out. Observations and suggestions of the participants on matters relevant to them were noted down. These consultations enabled to:

- ▶ Identify existing issues along the project corridors,
- ▶ Appreciate likely impacts due to project interventions,
- ▶ Identify suggestions of the community on ways to avoid or mitigate impacts, and
- ▶ Identify suggestions on ways to improve road-side environment.

3.3 RECOMMENDATIONS FOR ENVIRONMENTAL AND SOCIAL SAFEGUARD MEASURES

The above information along with the proposed improvement measures for the four (4) corridors has been utilized to formulate recommendations for each corridor. The recommendations comprise both engineering and non-engineering measures to minimize adverse impact due to the proposed road improvement project. These recommendations shall be studied in detail at the time of preparation of detailed project report for these corridors.

The subsequent Sections elaborate the findings and recommendations for each of the four additional corridors under GSHP II.

4 PRILIMINARY ENVIRONMENT AND SOCIAL IMPACTS

4.1 INTRODUCTION

The screening outcome of the four corridors is summarized in the following paragraphs. These are based on the environment and social aspects identified during site visits and consultations at these corridors. The record of number of structures, religious buildings, etc. and issues identified here are indicative and on the higher side. Adoption of mitigation measures in road designs such as adopting Corridor of Impact (Col) approach, constricting width and restricted road cross sections shall significantly reduce the likely impacts identified in the screening report.

Overview of environmental and social attributes and their sensitivity has been provided in below Table 4-1 for all four corridors. These have been identified based on site visits and consultations being undertaken as part of the environment and social screening exercise and review of secondary information of a particular corridor. Detailed inventory of environmental and social sensitivity of each kilometer wise for all corridors are provided in Annexure III.

Table 4-1: Overview of environment and social attributes along project corridors

Corridor	Mehsana-Palanpur	Mehsana-Bypass section	Radhanpur-Chanasma	Vallabhipur-Ranghola
Length (km)	61.8	5.1	60.4	27.7
Improvement options	6L+PS+HS (Pilgrim pathway)	4L+PS	Rehabilitation/Strengthening	Rehabilitation/Strengthening
Attributes				
Reserved Forests				
Protected forests				
Dense Tree Stretches				
Water bodies				
Major cultural properties				
Protected monuments				
Settlements				
Land acquisition				
Sensitive receivers				
Livestock movements				
Tribal taluks				
LEGEND	No impacts			
	Significant impacts			
	Not significant impacts			

Source: Compiled by LASA based on secondary information and field survey, 2018

4.2 MEHSANA TO PALANPUR (SH 41)

4.2.1 Corridor Characteristics

The corridor Mehsana to Palanpur (SH 41) passes through 06 Talukas; Mehsana, Unjha and Visnagar of Mehsana district, Siddhpur of Patan district and Vadgam and Palanpur of Banaskantha district in the State of Gujarat. The existing RoW of project corridor is 60 m, which is sufficient to accommodate the proposed treatment from four lane paved shoulder to six lane paved and hard shoulders, also proposed for pilgrim pathway.

The Mehsana Palanpur corridor starts from km. 79.300 on SH 41, at Mehsana, near end of Mehsana bypass on SH 41A, and ends at km. 141.100 on SH 41 at Palanpur having a total length of 61.800 km. The Corridor passes through major settlement areas of Unjha, Sidhapur, Chappi, Kanodar and Palanpur. Few squatters/encroachments are located at adjacent to the bus stops. Impact on squatters/encroachments is envisaged within the COI. Apart from these, impact on CPRs including shrines, temples, water tanks, public-toilets and police check posts. Land acquisition is not envisaged along the project corridor with the proposed improvement. To maintain speed limit, traffic calming measures, and if required foot over bridges shall be proposed to cross the corridor particularly at the junctions / bus stop locations.



Starting point of the Corridor at Mehsana



End point at Palanpur

Pilgrim pathway is proposed along the road for safety of pilgrims, where more number of pilgrims was observed during the pedestrian count survey (total 6884 pilgrims at different locations were noticed along the corridor during the peak time) and this will carries the giving of importance of social environment. The project road besides the commercial prominence hold social importance being one of the connecting links travelled by large assemblage of people for religious purpose reaching to Ambaji temple and Ranuja, which are important pilgrim places to visit every year particularly in the months of August to October and on full moon day of every month . The corridor development hence will integrate the social purpose by providing a pilgrim path on one side of the corridor.



The project corridor abuts Notified Protected Forest (NPF) area along the road. Diversion of this Notified protected forest land is ascertained. Based on this information, additional requirement of forest land width - for diversion of forest land, proposal was submitted for the area of 211.27 ha. In addition,

roadside avenue plantations exist throughout the project corridor, about 18,720 nos. of trees exists on both sides of the road. Common species observed are Neem (*Azadirachta indica*); Gulmohar (*Delonix regia*); Ardusa (*Alianthus excelsa*); Baval (*Acacia nilotica*); Sirus (*Albizia lebbbeck*); Kassod (*Senna siamea*); and Asopalav (*Polyalthia longifolia*) etc.

Ensuing section presents the salient features of the corridor, Table 4-2.

Table 4-2: Corridor Characteristics (Mehsana-Palanpur)

1	Name of Road	:	Mehsana-Palanpur (SH-41)				
2	District	:	Mehsana, Patan and Banaskanta				
3	Villages/settlements enroute	:	28				
4	Corridor Length	:	61.8 km				
5	Terrain	:	Plain				
	Existing	:	Four lane Paved shoulder				
6	Proposed treatment	:	Six lanes + Paved and Hard shoulders (6L+PS+HS) also proposed for pedestrian pathway (Pilgrim path) on LHS throughout corridor				
7	CD Structures						
8	Bridges	:	Particulars		Major Bridges		Minor Bridges
			No. of existing Bridges		5		16
9	Culverts		Particulars		Slab	HP	Box
			No. of existing culverts		1	59	13
10	Forests / environmentally sensitive areas	:	Notified Protected Forest area exists along the corridor within in RoW				
11	Religious Structures Affected	:	4 Shrines and 5 Temples within COI				
12	Fifth Scheduled Areas	:	Nil				
13	River crossings	:	River crossings: 3 (Sarasvati, Rupen, Pushpavati River)				
			Canal crossings:3 (incl: SSNNL)				
			Drains: 13				
14	Water bodies / ponds	:	1 Pond (93+675) 2 Open Wells (80+500 on LHS and 85+700 on Median)				
15	Sensitive receptors	:	3 Schools and 2 Hospitals located at beyond COI/RoW				
16	Transshipment areas/truck parking locations	:	Unjha, Unava, Sidhpur, Chaapi, Palanpur				
17	Other features / issues if any	:	Sabarmati Gas Limited, ONGC, IRMEPL, IOCL, OFC (Airtel, BSNL, Vodaphone, Idea etc.), Water pipeline: 4 Water kundi (irrigation ducts): 4 and UGVCL –Electrical poles:300 nos.				

4.2.2 Proposed Improvements and Nature of Impacts

Private land and assets

The existing four lane corridor is proposed to be upgraded to six lane with paved shoulder and hard shoulders and also proposed for pilgrim pathway on left hand side of the road. The existing RoW all along the corridor is 60 m. considering the improvements, interventions for corridor, 151 properties/structure and CPRs are likely to be impacted during road widening and strengthening. The existing RoW available is to be clear for encumbrances for entire length with the removal of squatters, encroachers, road side shops identified at settlements / bus stops along the corridor. Given the project intervention, few CPRs also will be affected.

Community assets

The community assets that are likely to be impacted due to proposed intervention along the corridor includes, 04 shrines, 05 temples, 11 community properties (Wells, water tanks, public toilets and police check posts) exist within COI/RoW.

Other Features

Few cattle crossing locations are identified along the corridor. In few of the locations, women carrying firewood were also observed crossing the road, along the settlement stretches, which requires safety provisions in the proposed design. Educational institutions are located beyond the RoW; however students cross the road frequently which requires to be considered for road safety provisions. At Chaapi location, observed most of the garages, vehicle parking areas and used vehicle re-selling areas.

Utilities such as Sabarmati, ONGC Gas Pipe lines, OFC cables (Airtel, BSNL, Vodaphone, Idea etc.), Water pipelines, Water kundi (irrigation ducts) and UGVCL –Electrical poles (approx. 300 numbers) are located within the RoW on both sides of the corridor. R&BD has issued letters to respective Departments for relocation of the affected utilities. Copy of letter issued to various departments is provided in Annexure-IV.

Forests

Notified Protected Forest (NPF) exists along the state highway section 41 from Mehsana to Palanpur. **Copy of the Gazette Notification in this respect is given in Annexure V.** Diversion of this Notified protected forest land is ascertained. Based on this information, additional requirement of forest land width for diversion of notified protected forest (NPF) land, a proposal is submitted to the state government for the area of 211.27 ha. (in consultation with R&BD and Forest Department) for obtaining the in-principle and formal approval from Ministry of Environment and Forest and Climate Change (MoEF and CC), Govt. of India. Approximately 18720 nos. of trees (6459 on LHS, 12261 on RHS) exists within the forest area which is to be diverted. Since proposed improvement and intervention along the corridor is six lane paved side shoulders and hard shoulders, from the existing four lane carriageway configuration, most of these trees are likely to be impacted. However, through adopting Corridor of Impact (Col) and constricting the width in best possible way, all efforts will be made in design intervention, to save these trees to the extent possible.

Environmental Quality and Monitoring:

Through Field Inventory, environmental and social sensitivity across the corridor has been identified (Ref Annexure VI of this report). Based on field inventory and mapping environmental social sensitivity along the corridor, locations have been identified to check the environmental quality in that particular region.





Identified locations for Monitoring of Environmental Parameters:




- ▶ Ambient Air Quality Monitoring : Fatehpur Circle, Near Start Point, Unjha, Km. 100 / Siddhapur, Km. 112; Near Km. 120; Palanpur, Km. 141
- ▶ Monitoring of Water Quality: Sujlam Suflam Canal or Village Pond at Bhandu at km. 87.125 / Or Farmer's Pipeline (km. 90.500); Village Pond at Unjha, Km. 100, Canal at km. 104.150 / OR Village Pond at Brahmanvada, km. 105.990), Borewell near km. 104,
- ▶ Monitoring of Noise Levels : Near Unjha Bus Stand, Km. 100 / Near Indian Oil Petrol Pump at Chapi road, Km. 120; Near Gasoline Station at Palanpur, Km. 141
- ▶ Soil Characteristics: Fatehpura Junction near start point of the road, Unjha, Km. 100 / Siddhapur, Km. 112; Chapi road near Km. 120; at Palanpur, Km. 141.

4.2.3 CONSULTATION FINDINGS

Summary of the consultations carried out along the corridor is presented in Table 4-3.

Table 4-3: Summary of preliminary consultations (Mehsana Palanpur)

Situation Assessment	Suggestions (from consultations) for integration into project design	Pictures
Mehsana-Palanpur (79.300 to 141.100) SH 41		
Bhandu village (km 88+700) Date: 03rd July 2018; Participant Details: Villagers and Sarpanch		
<ul style="list-style-type: none"> Accident prone area due to lack of safety measures and median height which is not visible to the traffic plying on the road. Water logging problem due to low capacity of drainage line. 	<ul style="list-style-type: none"> Incorporating safety measures such as speed breakers, road markings, sign boards and increase the median/divider height. Improvement of drainage condition with high capacity of drainage line. 	
Unava village (km 93+500)-LHS Date: 03rd July 2018: Participant Details: Panchayat members and Sarpanch		
<ul style="list-style-type: none"> Irrigation ducts (kundies) and temple located at 93+600 on LHS are affected due to proposed treatment Improvement of pond which is non-perennial in nature and approach road near pond. 	<ul style="list-style-type: none"> Making/Providing roundabout near village entrance and to realign the road as per old highway road, in order to reduce accidents. Enhancement of pond and temple relocation. 	
Siddhpur near Dethali Circle (Km. 112 .000) Date: 04th April, 2018 Participant Details: residents of Sidhpur area		
<ul style="list-style-type: none"> Residential/Cultural structures on RHS and Commercial establishment on LHS exist on both side of the highway. A shrine is located on RHS with distance of 5m from the edge of carriage way (70 years old and 100 to 150 people visit on daily basis). One residential structure and another shrine are located adjacent to the shrine. 	<ul style="list-style-type: none"> Shrine (Shikotar Mata) to preserve and carry out road widening activities towards LHS of the corridor. For the safety of village community and local people, and for religious devotees, pedestrian crossing facility is recommended. Installation of appropriate road signs is also suggested. 	 

Situation Assessment	Suggestions (from consultations) for integration into project design	Pictures
Sidhpur at km 113.00-LHS Date: 04th April 2018; Participant Details: Shrine owner and local person		
<ul style="list-style-type: none"> A Shrine is located at 3 m from existing carriage way. The Shrine was constructed by local community alongside their commercial establishments. 	<ul style="list-style-type: none"> Relocation of Shrine and appropriate design measures suggested. 	
Shakti Traders (km. 83.400) Date: 15th September 2018 Participant details: Shop owners and workers		
<ul style="list-style-type: none"> Parking of Private Vehicles in addition to Truck parking within RoW. Presence of hotels, restaurants, roadside eateries, rest places, garage, etc. at parking areas. 	<ul style="list-style-type: none"> Provision of Vehicle / Truck parking bays and basic amenities such as sanitation and water facility for Vehicle Operators / truckers at these locations. Appropriate safety measures such as speed breaker, sign boards along the settlement area. 	
Nanidau Village (82+200) Date: 16th September 2018: Participant Details: Villagers including 8 Women participants		
<ul style="list-style-type: none"> Bus shelter located and frequent movement of people from nearby educational institutions. Women carrying firewood crossing the road frequently Cattle movement across the road section passing through the village. Prone to frequent accidents while crossing the road 	<ul style="list-style-type: none"> Incorporating the safety measures such as the speed breakers or zebra crossing and provisions for cattle movement 	

4.2.4 Scoping and Inputs to Detailed Designs

Clearance requirements

- ▶ Diversion of forest land and permission for tree cutting (within proposed COI) from Forest and Social Forest Department along Notified Protected Forests stretches abutting corridor.
- ▶ Clearances for canal/rivers from Irrigation department.

Design measures

- ▶ To maintain speed limit, traffic calming measures such as elevated pedestrian crossing and if required foot over bridges shall be proposed to cross the corridor particularly at the junctions / bus stop/ Settlement locations.
- ▶ Improvement of road geometry and junction improvements.
- ▶ Appropriate safety measures such as cautionary sign boards to limit the speed at accident prone stretches along with proper lights and dividers.
- ▶ Provision of pedestrian paths and crossings at settlement and sensitive roadside developments.

Resettlement

- ▶ Preparation of RAP for identified encroachments & Squatters,

Public Health Issues (HIV/AIDS)

Truck lay bays and truck parking locations identified along the corridor and also presence of long-route trucks from Nagaland, Rajasthan, Andhra Pradesh, etc. Detailed study to be carried out to identify hotspots. Requires providing awareness on public health issues including HIV/AIDS.

Environmental enhancements

1. Enhancement locations are identified for the benefit of road users such as:
 - a. Bus stand locations (new and existing) selected for aesthetic beautification, tree seating arrangement and public utilities (i.e drinking water facility and public toilets)
 - b. Baba Ramdev peer temple (km 80.300): Plantation, seating arrangement and water tank
 - c. Pond (km 93+500): slope stability and approach steps and aesthetic beautification around pond.
 - d. Well located at km 80.700: Raise the height of wall of well and provision of iron grill for safety measures.

PRELIMINARY BUDGET ESTIMATES

A preliminary budget estimates for mitigating the potential environmental impacts along with resettlement costs is presented in Table 4-4. Preliminary cost for various components such as structure, compensation for other assets with affected properties, resettlement and rehabilitation assistance (as per the RTFCTLARR Act 2013 and latest SOR), is estimated based on screening findings. While the environmental management measures shall be considered part of the good engineering practices and shall be incidental to the civil works, the environmental budget included additional environmental measures required and the costs towards environmental monitoring. The budget does not include the costs associated with the diversion of forest lands, payments to be made to the forest department towards cutting of the trees, as these shall be covered under the project costs. These will be further detailed during the detailed design stage.

Total cost estimated (tentatively) for Mehsana-Palanpur corridor is INR 67.46 million

Table 4-4: Preliminary Environment and Resettlement Budget, Mehsana-Palanpur Road

Sr. No.	Category	Total Cost (INR)
A	Environment	
1	Environment Monitoring cost	60,27,500.00
2	Environmental Enhancement Cost	33,600,000.00
	Sub-total (A)	39,627,500.00
B	Resettlement cost	
1	Compensation for Structures	20,663,340.00
2	R&R Assistance	2,675,000.00
	Sub-total (B)	23,338,340.00
C	HIV / AIDS Awareness (Campaign) including health checkup Cost	4,500,000.00
	Total (A+B+C)	67,465,840.00

Note: Public health (HIV/AIDS) cost included as of now that 0.1% of total civil construction cost, it may vary after finalization of civil construction cost. This will be further detailed during DPR stage.

4.3 MEHSANA BYPASS (SH 41A)

4.3.1 Corridor Characteristics

The bypass road is a 5 km stretch (the stretch may include as a part of Mehsana-Unjha-Siddhpur-Palanpur Road and shall be combined with the same package). This stretch passes through Mehsana taluka of Mehsana District and the available RoW of this stretch is 60 to 100m adequate to accommodate from two lane with paved shoulder to four lane stretch. Nine settlements about the corridor in the entire length. Major settlements enroute the project corridor are at Mehsana city area.

The corridor bypasses the town and is for long distance traffic bound to north India/Rajasthan. It improves safety and travel time by segregating long distance traffic with local traffic in Mehsana.

The Mehsana bypass corridor starts from Mehsana Radhanpur Junction at km. 11.750 of SH 41 and ends at km. 16.850 of SH 41 A on Mehsana Palanpur Junction of SH 41, having its length as 5.1 km. This small stretch of bypass corridor passes through two fly overs (Vehicle under Pass (VUP) and Rail over Bridge (RoB). Three encroachments and two squatters were observed, which are to be considered as impact or shall be protected / saved with minimization of impact on the same with provision and adjustment of proposed 4 lane corridor. Other than that, any other impact and land acquisition is not envisaged along the bypass alignment.



Starting point of Bypass Road



End point of the Corridor-Bypass road

Subsequent section presents the salient features of the corridor Table 4-5

Table 4-5: Corridor Characteristics (Mehsana Bypass)

1	Name of Road	:	Mehsana Bypass				
2	District	:	Mehsana				
3	Villages/settlements enroute	:	Mehsana, Rangapur				
4	Corridor Length	:	5.1 km				
5	Terrain	:	Plain				
	Existing	:	Two lane with Paved shoulder				
6	Proposed treatment	:	Four lanes +Paved shoulders (4L+PS)				
7	CD Structures						
8	Bridges	:	Particulars	VUP/PUP		RoB	
			No. of existing Bridges	2		1	
9	Culverts		Particulars	Slab	HP	Box	Others (Buried)
			No. of existing culverts	-	6	3	9
10	Forests / environmentally sensitive areas	:	Nil				
11	Religious Structures Affected	:	Nil				
12	Fifth Scheduled Areas	:	Nil				
13	River crossings	:	Nil				
14	Water bodies / ponds	:	Nil				
15	Sensitive receptors	:	1 Schools at beyond RoW (km 13.200)				
16	Transshipment areas/truck parking locations	:	Starting and ending of the bypass road				
17	Other features / issues if any	:	Railway crossing (ROB), OFC Cables (Airtel, BSNL, Vada phone etc.,)				

4.3.2 Proposed Improvements and Nature of Impacts

Private land and assets

The existing four lane bypass corridor section is proposed as a widening to four lane with wide paved side shoulder corridor configuration. The existing RoW along the corridor is 60 m throughout the corridor and 100m at starting point and ending point of the corridor. Considering the improvements, interventions for corridor, no land and structure will be impacted due to widening and strengthening. The existing RoW available is clear of encumbrances for entire length with the exception of two squatters and three encroachments identified at settlement areas.

Forests

Project corridor does not pass through any type of forests. Hence Forest Clearance is not envisaged. No trees exist within the proposed width.

Environmental Quality and Monitoring





Through Field Inventory, environmental and social sensitivity across the corridor has been identified. Based on field inventory and mapping environmental social sensitivity along the corridor, locations have been identified to check the environmental quality in that particular region.

Identified locations for Monitoring of Environmental Parameters:

- Ambient Air, Surface and Ground Water and Soil Quality and Noise Levels Monitoring: Radhanpur Junction on Mehana Bypass (km. 11.750 of SH 41 A); Fatehpura Junction on Mehana Bypass Km. 16.750 of SH 41 A on end of Mehana Bypass / Km. 79 of SH 41 on Mehana Palanpur.

4.3.3 Consultation Findings

Table 4-6: Summary of preliminary consultations (Mehsana-bypass)

Situation assessment	Suggestions (from consultations) for integration into project design	Pictures
Mehsana Bypass (11.750 to 16.850)		
Start point -Tilak Restaurant at 0.125 on LHS Date: 03rd July 2018: Participant Details: Hotel Staff		
<ul style="list-style-type: none"> Problem regarding ROB design and non-visibility of the vehicle plying towards opposite direction on the bridge. Water logging problem at junctions 	<ul style="list-style-type: none"> Appropriate design measures to improve the visibility of vehicles, commuters. 	
Tea stall -Squatter at End point on RHS at 0.175 Date: 03rd July 2018: Participant Details: Villagers and shop owner		
<ul style="list-style-type: none"> Villagers did not specify any specific apprehensions with respect to road widening. On shop structure is affected (squatter). The affected person has agreed for relocation. 	<ul style="list-style-type: none"> To clear the road width, advance intimation to be provided for relocation of structure. 	
Gangapura Village at 2.425 on LHS Date: 03rd July 2018: Participant Details: Villagers		
<ul style="list-style-type: none"> Problem regarding water logging in the underpass. The underpass was made for cattle crossing, but due to improper slope, issue of water logging throughout the monsoon season. (Gangapura village has total 10 houses and approx. 200 cattle.) 	<ul style="list-style-type: none"> Design improvements of underpass to resolve water logging issue. Appropriate safety measures such as speed breaker, sign boards along the settlement area. 	
Tea stall at end point of the road (4.725 km) on RHS Date: 03rd July 2018 Participant Details: Villagers and shop owner		
<ul style="list-style-type: none"> One shop structure is affected and are ready to be relocated. Require advance notice before road works begins. Raised concern regarding safety issues and observation of many robberies on the road. 	<ul style="list-style-type: none"> Advance notice to squatter for removal/relocation of structure Proper lighting system and junction improvement with safety measures at the junction/end point. 	

4.3.4 Scoping and Inputs to Detailed Designs

Design measures

- Provision of adequate signage at starting and ending point of the fly over, at sensitive roadside developments and junction areas.
- Water logging problem at cattle under pass to be solved and to improve the drainage conditions

Resettlement

Preparation of RAP for identified squatters and encroachments.

Public Health Issues including HIV/AIDS

- Heavy movement of long-distance trucks noticed and also truck parking locations. Detailed study is proposed to be carried out to identify the hotspots. Public Health Awareness including HIV/AIDS awareness is required to be provided along the project corridor.

Environmental enhancements

As such this 5 km stretch does not require and identified any further enhancement measures, except for the junction improvement options and noise barrier.

Preliminary Budget Estimate

A preliminary budget estimate for mitigating the potential environmental impacts is presented in Table 4-7. Preliminary cost is estimated based on screening findings. While the environmental management measures shall be considered part of the good engineering practices and shall be incidental to the civil works, the environmental budget included additional environmental measures required and the costs towards environmental monitoring. The budget does not include the costs associated with the diversion of forest lands, payments to be made to the forest department towards cutting of the trees, as these shall be covered under the project costs. These will be further detailed during the detailed designs stage.

Total cost estimated (tentatively) for Mehsana-Bypass is 11.15 million

Table 4-7: Preliminary Environment and Resettlement Budget, Mehsana-Bypass Road

Sr. No.	Category	Total Cost (INR)
A	Environment	
1	Environment Monitoring cost	2,881,000.00
2	Environmental Enhancement Cost	7,475,000.00
	Total (A)	10,356,000.00
B	Resettlement cost	
1	Compensation for Structures	300,000.00
2	R&R Assistance	50,000.00
	Sub-total (B)	350,000.00
C	HIV / AIDS Awareness (Campaign) including health checkup Cost	450,000.00
	Total (A+B+C)	11,156,000.00

Note: Public health (HIV/AIDS) cost included as of now that 0.1% of total civil construction cost, it may vary after finalization of civil construction cost. This will be further detailed during DPR stage.

4.4 RADHANPUR HARIJ CHANASAMA (SH 55)

The Project corridor passes through 4 talukas Chanasma, Harij, Sami and Radhanpur of Patan District. The existing RoW of project corridor is 30 m and the proposed treatment is Rehabilitation and Strengthening of the existing two lane with paved shoulder configuration.

The Chansma-Radhanpur corridor starts from km. 0.000 at Radhanpur and ends at km. 60.400 at Chanasma. The corridor passes through settlement areas of Radhanpur, Baspa, Harij Chansama along with few squatters / vendors placed near to the carriage way. Parking of vehicles at all the settlement areas along the corridor is also being observed. Due to vehicle parking, road is congested for traffic, hence, traffic calming measures to be maintained along with providing of safety barriers to avoid the vehicle parking along the project road.

The project corridor proposes for the overlaying of bituminous for the entire road, hence private land acquisition and any resettlements for encroachments/squatters are not envisaged with the proposed treatment.

Corridor passes through Notified Projected Forest (NPF) area; however no diversion is envisaged in forest land. Approximately 114 nos. of trees exists on both sides within RoW. Since proposed improvement and intervention along the corridor is limited to maintenance of the existing carriageway, hence trees are not likely to be impacted. All the trees within RoW will be saved.



Start point of the corridor at Radhanpur



End point of the corridor at Chanasma

Subsequent section presents the salient features of the corridor.

Table 4-8: Corridor Characteristics (Radhanpur Chanasma)

1	Name of Road	:	Radhanpur-Chanasma (SH-55)				
2	District	:	Patan				
3	Villages/settlements enroute	:	20				
4	Corridor Length	:	60.4 km				
5	Terrain	:	Plain				
	Existing	:	Two lane with paved shoulder				
6	Proposed treatment	:	Rehabilitation and Maintenance				
7	CD Structures						
8	Bridges	:	Particulars		Major Bridges		Minor Bridges
			No. of existing Bridges		3		27
9	Culverts		Particulars	Slab	HP	Box	Others (Buried)
			No. of existing culverts	-	42	1	43
10	Forests / environmentally sensitive areas	:	Notified Protected Forest with in RoW. However, required Forest Clearance from GoI is already obtained. Hence, requirement of diversion of NPF area is not triggers for the proposed intervention which is maintenance only.				
11	Religious Structures Affected	:	7-Shrines, 1Temple with in RoW (No impact on any cultural properties with the proposed treatment)				
12	Fifth Scheduled Area	:	Nil				
13	River crossings		River crossings: 1				
			Canal crossings:1 SSNNL				
14	Water bodies / ponds	:	2Ponds (59+000, 65+000) on LHS				
15	Sensitive receptors	:	2 Schools, 1-ITI and 1- Hospital within RoW				
16	Transshipment areas/truck parking locations	:	Chanasma and Radhanpur junctions				
17	Other features / issues if any	:	Sardar Sarovar Narmada Nigam –Canal crossing				

4.4.1 Proposed Improvements and Nature of Impacts

Private land and assets

The project corridor is proposed as a maintenance corridor. The existing RoW along the corridor is 30 m throughout the corridor. Considering the improvements, interventions for corridor, no property and structure will be impacted during road maintenance and strengthening. The existing RoW available is clear of encumbrances for entire length with the exception of few road side squatters; identified along the settlements abuts the project corridor. Given the project intervention, none of these properties will be affected.

Community assets

Altogether, 7 Shrines and 1 Temple are located within RoW, at distance of 4 to 15 m from edge of CW. Proper safety barrier are required as protection measures.

Forests

Project corridor abutting the Notified Protected Forest (NPF) area along the corridor. However no impact on forest land, as Forest Clearance for the road side Notified Protected Forest along the stretch of subject project road has already been obtained in the past (year 2010) for a width which can accommodate proposed project intervention which is limited to maintenance only (refer **Annexure VII** contains copy of Formal Approval from MoEF and CC, GoI). There are significant roadside plantations with in the RoW, and trees with girth-size varies from 80 to 250 cm. However, no trees are to be cut for the proposed improvement based on the proposed project intervention.

Environmental Quality and Monitoring

Through Field Inventory, environmental and social sensitivity across the corridor has been identified (Ref Annexure VI of this report). Based on field inventory and mapping environmental social sensitivity along the corridor, locations have been identified to check the environmental quality in that particular region.

Identified locations for Monitoring of Environmental Parameters:

- ▶ Ambient Air Quality Monitoring : Radhanpur (km. 00.500 on SH 55) start point of Radhanpur Harij Chanasma section, Harij (km. 39.500 of SH 55) on the way from Radhanpur to Chanasma SH 55; Chanasma town at km. 60.400; end point of Radhanpur Harij Chansama project corridor (road);
- ▶ Monitoring of Water Quality: Radhanpur (km. 00.500 on SH 55) start point of Radhanpur Harij Chanasma section and Banas River (km. 6.6 on SH 55 for water sampling); Narmada Main Canal, km. 52.050; Farmer's Pipeline (km. 40.410) / OR GWSSB Pipeline (km. 41.510) / OR Harij Br. Canal (km. 42.695)
- ▶ Monitoring of Noise Levels: : Radhanpur (km. 00.500 on SH 55) start point of Radhanpur Harij Chanasma section, Harij (km. 39.500 of SH 55) on the way from Radhanpur to Chanasma SH 55; Chanasma town at km. 60.400; end point of Radhanpur Harij Chansama project corridor (road);





Other environmental impacts



- ▶ Water logging problem notified near Dharmoda village and at Radhanpur end point, which gets adverse situation during rainy season.
- ▶ Protection and preservation of Shrine Maaku maa (Ch. 57.000) is required as it is located within 3.8 m from edge of carriage way.
- ▶ Traffic congestion was observed along few settlement areas: Radhanpur (Ch. 0.000), Harij (Ch. 37.400) and Chanasma (Ch. 60.00)

4.4.2 Consultation Findings

Summary of the consultations carried out along the corridor is presented in Table 4-9.

Table 4-9: Summary of preliminary consultations (Radhanpur Chanasma)

Situation assessment	Suggestions (from consultations) for integration into project design	Pictures
Radhanpur-Prajapita Brahmakumari's Vishwavidyalaya & Commercial Shop (0+000) Starting point Date: 7th April 2018 Participant Details Shop owners and Staff of Barahmakumari's Vishwavidyalaya		
<ul style="list-style-type: none"> • Brahmakumari Vishwavidyalaya and other commercial shops located adjacent to the project road at starting point are congesting the road due to improper footpath and parking areas. • At starting point of the corridor, water logging issues due to improper drainage lines 	<ul style="list-style-type: none"> • Incorporating the provisions of safety measures, foot paths, pedestrian crossings, road humps and cautionary sign boards • Improving the drainage condition, in road designs are suggested 	
Maaku Maa Temple (57+000) – RHS- Dharmoda Village Date: 7th April 2018 No. of Participants: 8 Villagers and Shrine owners		
<ul style="list-style-type: none"> • Shrine is at distance of 3.8 m from Carriage way and it is 150 years old. Every year nearly, from 100 to 150 devotees visit temple twice and gather for celebration. • Water logging problem during rainy season, due to low levelling of the road. 	<ul style="list-style-type: none"> • Provisions of crash barrier at shrine location and cautionary sign boards to preserve the shrine. • Improving the drainage condition, in road designs is suggested. 	 
Harij Police station/check post , Km. 37.400 Date: 2nd May 2018 Participant Details: Police staff		
<ul style="list-style-type: none"> • The Harij settlement area comprises mix of Residential and commercial category along the road. • Frequent accidents at Harij settlement and congestion due to vehicle parking along the road. 	<ul style="list-style-type: none"> • Adequate design of road junction with proper rotary. • Provision of appropriate safety measures such as speed breakers, sign boards and safety railing along the road. 	

Situation assessment	Suggestions (from consultations) for integration into project design	Pictures
<ul style="list-style-type: none"> Continuous local movement of travels/shuttles/cars results in accidents. 		
Chanasma Junction, Km. 60.400 Date: 2nd May 2018 Participant Details: Shop Owners		
<ul style="list-style-type: none"> At Chanasma few accidents occur at this stretch due to traffic congestion. The movement of local travellers are more such as shuttles/cars/jeeps etc., 	<ul style="list-style-type: none"> Incorporating the provisions of appropriate safety measures such as speed breaker, sign boards and safety railing along the road. 	

4.4.3 Scoping and Inputs to Detailed Designs

Design measures

- ▶ Design interventions to improve drainage condition along the road
- ▶ Design interventions such as provision of guard rails are required to avoid vehicle parking along the road on both the sides
- ▶ Improvement of road geometry and junction improvements as stated above,
- ▶ Specific design interventions to avoid impacts on Common Properties (particularly at Shrine locations).
- ▶ Appropriate safety measures such as cautionary sign boards to limit the speed at accident prone stretches along with railing and lights at dividers especially at junctions.

Resettlement

No resettlement and land acquisition is envisaged along the corridor since improvement is limited to maintenance of the existing road.

Public Health Issues including HIV/AIDS

- ▶ HIV/AIDS awareness and related interventions at Junctions (at start point Radhanpur junction) and at end point (Chanasma junction), for migrant population and long distance truckers are to be incorporated in the project.

Environmental enhancements

- ▶ Landscaping and enhancement at School compound (57+000 on LHS)- Plantation, Solar lights, Paver blocks, sitting arrangements etc.
- ▶ Provision of slope stabilization at pond located at 56+800 on RHS

Preliminary Budget Estimates

A preliminary budget estimate for mitigating the potential environmental impacts is done (Table 4-10). Preliminary cost is estimated based on screening findings. While the environmental management measures shall be considered part of the good engineering practices and shall be incidental to the civil works, the environmental budget included additional environmental measures required and the costs towards environmental monitoring. The budget does not include the costs associated with the diversion of forest lands, payments to be made to the forest department towards cutting of the trees, as these shall be covered under the project costs. These will be further detailed during the detailed designs stage.

Total cost estimated (tentatively) for Radhanpur-Chanasma is 13.46 million

Table 4-10: Preliminary Environment and Resettlement Budget, Radhanpur-Chanasma Road

Sr. No.	Category	Total Cost (INR)
A	Environment	
1	Environment Monitoring cost	36,16,500.00
2	Environmental Enhancement Cost	8,850,000.00
	Total (A)	12,466,500.00
B	Resettlement cost	
1	Compensation for Structures	-
2	R&R Assistance	-
	Sub-total (B)	-
C	HIV / AIDS Awareness (Campaign) including health checkup Cost	1,000,000.00
	Total (A+B+C)	13,466,500.00

Note: Public health (HIV/AIDS) cost included as of now that 0.1% of total civil construction cost; it may vary after finalization of civil construction cost. This will be further detailed during DPR stage.

4.5 VALLABHIPUR RANGHOLA (SH 39)

The selected project road passes through Vallabhipur and Umralla taluka of Bhavanagar District. The RoW of the corridor is 24 m and the proposed treatment is Rehabilitation and Strengthening of the existing two lane with paved shoulder configuration.

The Vallabhipur to Ranghola corridor starts at km. 0.000 (near Vallabhipur town) and ends at km. 27.7 km near Ranghola on Bhavnagar Rajkot state highway. The corridor passes through settlement areas of Umralla, Timbi and Parvala villages. Project corridor also abuts Notified Protected Forest area on either side for the corridor. However, diversion is envisaged in forest land due to proximity of large girth size of trees located at the edge of carriage way. For that area of forest diversion is estimated for 31.692 ha. Approximately 602 numbers of trees exist within RoW. Since proposed improvement and intervention along the corridor is limited to maintenance of the existing carriageway, however, few trees are likely to be cut which are located at edge of CW. All efforts will be made to save the trees that exist within Col / RoW through corridor of impact approach and design interventions.



Start point of the Corridor



End point of the corridor

Subsequent section presents the salient features of the corridor

Table 4-11: Corridor Characteristics (Vallabhipur Ranghola)

1	Name of Road	:	Vallabhipur-Ranghola (SH-39)				
2	District	:	Bhavnagar				
3	Villages/settlements enroute	:	10				
4	Corridor Length	:	27 km				
5	Terrain	:	Plain				
	Existing	:	Two lane with paved shoulders				
6	Proposed treatment	:	Rehabilitation and Maintenance				
7	CD Structures	:					
8	Bridges	:	Particulars	Major Bridges		Minor Bridges	
			No. of existing Bridges	1		12	
9	Culverts	:	Particulars	Slab	HP	Box	Others (Buried) Total
			No. of existing culverts	13	09	-	22
10	Forests / environmentally sensitive areas	:	Notified Protected Forest Exists along the Project Corridor. Large girth size of trees exists at the edge of shoulders, few on the paved shoulder. Hence, diversion of Notified Protected Forest Land is envisaged for the width that can accommodate proposed project intervention.				
11	Religious Structures Affected	:	6 Temples 1 Shrine, 1-tomb with in RoW				
12	Fifth Scheduled Areas	:	NIL				
13	River crossings	:	River crossings: 1 (Kalubha River at km 8.750)				
			Canal crossings:2				
			Drains: 9				
14	Water bodies / ponds	:	1 Pond (6.800 on LHS) 1 Open Well (8.800 on LHS) with in RoW				
15	Sensitive receptors	:	2 Schools within RoW 1 Hospital within RoW				
16	Transshipment areas/truck parking locations	:	Starting and end point of the corridor				
17	Other features / issues if any	:	Railway crossing, UGVCL (Electric poles), irrigation ducts				

4.5.1 Proposed Improvements and Nature of Impacts

Private land and assets

The existing Two Lane with Paved Side Hard Shoulders corridor is proposed as a rehabilitation and maintenance corridor. The existing RoW along the corridor is 24 m throughout the corridor. Considering the improvements, interventions for corridor, no property and structure will be impacted during road maintenance and strengthening. The existing RoW available is clear of encumbrances for entire length.

Community assets

Altogether, 6 temples and 2 Shrines (including tomb) are located within Row, however there is no impact on any CPRs.

Forests

Project corridor abuts Notified Protected Forest (NPF) area on either side for the corridor. Hence, diversion of Notified Protected Forest Land is envisaged for the width that can accommodate proposed project intervention. Diversion is also envisaged in forest land due to proximity of large girth size of trees located at the edge of carriage way and for road safety concern. Estimated area of forest diversion is 31.692 ha., for which online proposal has already been made (Ref. **Annexure VIII** contains receipt of the acceptance of the proposal by the state forest department.) Approximately 602 numbers of trees exist within RoW. Since proposed improvement and intervention along the corridor is limited to maintenance

of the existing carriageway, many of the trees are likely to be cut, most of these trees are located at the edge of the existing carriageway. All efforts will be made to save the trees that exist near the edge of the proposed Col and within RoW through corridor of impact (Col) approach and design interventions.

Environmental Quality and Monitoring

Through Field Inventory, environmental and social sensitivity across the corridor has been identified Based on field inventory and mapping environmental social sensitivity along the corridor, locations have been identified to check the environmental quality in that particular region.




Identified locations for Monitoring of Environmental Parameters:





- ▶ Ambient Air Quality and Noise levels Monitoring : Vallabhipur at km. 0.250 (LHS), T Junction of Vallabhipur – Bhavnagar – Ranghola (near Vallabhipur town), start pt. of road / OR Canal Syphon at km. 3.7 / or at km. 7.2
- ▶ Monitoring of Water Quality : Nearby Bore well at 15 m offset on the corridor, Ghelo River / Canal Syphon on the corridor, Village Pond near Juna Rampar settlement.
- ▶ Monitoring of Soil Quality :Tulsi dining hall near Vallabhipur town, Umralla Village

4.5.2 Consultation Findings

Summary of the consultations carried out along the corridor is presented in **Table 4.12**.

Table 4-12: Summary of preliminary consultations (Vallabhipur to Ranghola)

Issues Discussed	Suggestion and Inputs for Road Design	Pictures
Vallabhipur-Ranghola (0.000 to 27.000) SH-039		
Start point of the corridor-Junction of SH 39 at km 0.000 -Bajrang Hotel		
Date: 12th April 2018		
Participant Details: Shop Owners		
<ul style="list-style-type: none"> • T junction and prone to frequent accidents and location of existing Way Bridge at Junction point. • Except safety issues, no other issues were observed. 	<ul style="list-style-type: none"> • Appropriate safety measures such as cautionary sign boards to limit the speed at Junction point along with lights at dividers/ junctions. 	
Umralla Village at Police Station (Km. 9+800)		
Date: 12th April 2018		
Participant Details: Police Staff		
<ul style="list-style-type: none"> • Temple located on RHS and Umralla Bus stand located on LHS are accident prone areas. • Accidents occur due to reckless driving of drivers of commercial vehicles /truck drivers. 	<ul style="list-style-type: none"> • Appropriate safety measures such as cautionary sign boards for limiting speed at accident prone areas with lights at dividers especially near settlement areas. 	 

Issues Discussed	Suggestion and Inputs for Road Design	Pictures
Near Timbi Village (13.800)-Meldi Mata Temple (LHS) Date: 12th April 2018 Participant Details: Temple Staff		
<ul style="list-style-type: none"> • Temple was constructed in remembrance of elders by resident of Timbi village. • Daily 100 to 150 people visit the temple and to take a break from travelling and to have potable water under the shade of Neem Tree. 	<ul style="list-style-type: none"> • Provision of appropriate safety measures such as speed breaker, sign boards along the Temple location. • Basic amenities like water facilities are suggested. 	 
End point near Ranghola (27.500) Date: 12th April 2018 Participant Details: Hotel Staff		
<ul style="list-style-type: none"> • Large number of vehicles plying on the road and increase in the traffic during festival time • Daily 6 to 10 truck drivers park their trucks in front of hotel during day & night time. 	<ul style="list-style-type: none"> • Appropriate safety measures such as sign boards along with junction improvement. 	 

4.5.3 Scoping and Inputs To Detailed Designs

Clearance requirements

- ▶ Permission for tree cutting within proposed COI from Forest and Social Forest Department along Notified Protected Forest stretches abutting corridor are required.

Design measures

- ▶ Specific design interventions to avoid impacts on large trees (giant trees)
- ▶ Specific design interventions to avoid impacts on Common Properties;
- ▶ Provision of adequate signage, pedestrian paths and crossings at settlement and sensitive roadside developments

Resettlement

- ▶ No resettlement and land acquisition envisaged along the corridor since widening / upgradation is limited to maintenance of the existing CW.

Public Health Issues including HIV/AIDS

- ▶ HIV/AIDS awareness and related interventions at T Junctions (both at start point (km. 0.800) and at end point Km. 27.800), for migrant population and long distance truckers are required.

Environmental enhancements

- ▶ Hanuman Temple at Umralla Village (9+700)- Safety measures (crash barriers on both the sides), Solar power lights, Sign boards, speed breaker.
- ▶ Well at 8+800: Increase the wall height from ground level, covered with iron grill, painting, Solar power lights

Preliminary Budget Estimates

A preliminary budget estimates for mitigating the potential environmental impacts is presented in Table 4-5. Preliminary cost is estimated based on screening findings. While the environmental management measures shall be considered part of the good engineering practices and shall be incidental to the civil works, the environmental budget included additional environmental measures required and the costs towards environmental monitoring. The budget does not include the costs associated with the diversion of forest lands, payments to be made to the forest department towards cutting of the trees, as these shall be covered under the project costs. These will be further detailed during the detailed designs stage.

Total cost estimated (tentatively) for Vallabhipur-Ranghola is 8.96 million

Table 4-13: Preliminary Environment and Resettlement Budget, Vallabhipur-Ranghola Road

Sr. No.	Category	Total Cost (INR)
A	Environment	
1	Environment Monitoring cost	36,16,500.00
2	Environmental Enhancement Cost	4,850,000.00
	Total (A)	8,466,500.00
B	Resettlement cost	
1	Compensation for Structures	-
2	R&R Assistance	-
	Sub-total (B)	-
C	HIV / AIDS Awareness (Campaign) including health checkup Cost	500,000.00
	Total (A+B+C)	8,966,500.00

Note: Public health (HIV/AIDS) cost included as of now that 0.1% of total civil construction cost; it may vary after finalization of civil construction cost. This will be further detailed during DPR stage.

5 MONITORING NETWORK BASED ON SCREENING APPROACH

5.1 INTRODUCTION

The various environmentally and socially sensitive locations and receptors who may be directly or indirectly affected by air, noise, water, soil pollution are ascertained (based on the VESC) and issues related to them as observed on site and brought out during the consultations. Environmental monitoring points for collecting baseline information on air, water and soil pollution and noise levels are selected for certain locations. It is intended that future environmental monitoring during the project implementation and operation stages should be carried out at these same locations to ascertain the change in pollution levels due to road related activities. The following paragraphs / tables present the proposed environmental monitoring network for each corridor.

5.2 MEHSANA TO PALANPUR (SH 41)

Locations / Parameters	Latitude Longitude	Ambient Air	Noise Levels	Surface Water	Ground Water	Soil
Sujlam Saflam Canal (km. 87.125) / Or Farmer's Pipeline (km. 90.500), a likely source of perennial water for collection of surface water sample; A ground water sample was suggested to be taken from nearby well / tube well near canal at km. 87.125 or between km. 87.125 to km. 90.500 stretch from the nearby farm. as a representative sample.	23°42'41.77"N 72°22'57.49"E			01	01	
Canal (km. 104.150 / OR km. 105.990) Collection of surface water was suggested from either of the canals as representative sample, as these are likely source of perennial water. A ground water sample was suggested to be taken from nearby well / tube well near km. 104 – km. 105.	23°51'40.28"N 72°21'59.31"E			01	01	
Being a busy junction with considerable traffic inflow, either at Unjha km 98 - km. 100 / or at Siddhapur km. 100 – 112.5 / OR both can be suggested to have an AAQ, Noise level Monitoring as well as for collection of Surface and Ground Water Samples (Since Siddhapur has nos. of Washing / Bathing Ghats with likely perennial source of surface water). Also, keeping in the mind future development at both these junctions including proposed DMIRC near Unjha, determining the soil fertility and to prevent it from degradation during project construction, soil sampling shall be suggested / selected.	23°48'8.47"N 72°22'47.70"E	01	01	01	01	01
Near Km. 120	24° 0'8.44"N	01	01			01

Locations / Parameters	Latitude Longitude	Ambient Air	Noise Levels	Surface Water	Ground Water	Soil
Due to considerable traffic movement at the given locations, it was suggested to take samples for given parameters (AAQ, Noise and Soil) from this location.	72°23'2.96"E					
Palanpur, Km. 141 Palanpur is a major cross junction with Palanpur city on one end, Deesa on opposite end, Rajasthan (Abu Road and Mt. Abut) in North and Mehsana in South, with heavy traffic in all the directions. Hence, collection of Air Samples (AAQ), Noise Levels and Soil Sample is suggested / selected.	24°10'12.16"N 72°24'55.28"E	01	01			01
Total Mehsana Palanpur		03	03	03	03	03

5.3 MEHSANA BYPASS (SH 41 A)

Locations / Parameters	Latitude Longitude	Ambient Air	Noise Levels	Surface Water	Ground Water	Soil
Radhanpur Junction on Mehsana Bypass, km. 11.750 of SH 41 A	23°37'11.71"N; 72°20'49.17"E	01	01	01	01	01
Fatehpura Junction on Mehsana Bypass; Km. 16.750 of SH 41 A on end of Mehsana Bypass/Km. 79 of SH 41 on Mehsana Palanpur	23°38'37.90"N; 72°23'8.15"E	01	01	01	01	01
Total Mehsana Bypass		02	02	02	02	02

5.4 RADHANPUR TO CHANSAMA (SH 55)

Locations / Parameters	Latitude Longitude	Ambient Air	Noise Levels	Surface Water	Ground Water	Soil
Radhanpur (km. 00.500 on SH 55) start point of Radhanpur Harij Chanasma section and Banas River (km. 6.6 on SH 55 for water sampling). Radhanpur (km. 00.500 on SH 55) is a start point of Radhanpur Harij Chanasma section. Banas river exists and flows at about 5 km. from the start point. Hence, location was so chosen to have Air, Noise, Surface Water, and Soil Samples. Ground Water can be identified from nearby by farms near Radhanpur, the start point of the corridor.	23°49'3.61"N 71°36'54.72"E	01	01	01	01	01
Chanasma town at km. 60.400; end point of Radhanpur Harij Chanasma project corridor (road) Chanasma (km. 60.400 on SH 55) is an end point of Radhanpur Harij Chanasma section. Location was so chosen to collect Air, Noise, and Soil Samples to have baseline environmental quality in city area.	23°42'59.53"N 72° 6'5.42"E	01	01			01
Harij (km. 39.500 of SH 55) on the way from Radhanpur to Chanasma SH 55, is a	23°41'43.32"N 71°54'29.94"E	01	01			01

Locations / Parameters	Latitude Longitude	Ambient Air	Noise Levels	Surface Water	Ground Water	Soil
small town. Location was so chosen to collect Air, Noise, and Soil Samples to have baseline environmental quality in town area.						
Narmada Main Canal, km. 52.050 Location was so chosen to collect surface water sample. Ground water requires to be identified from nearby field in the form of Well / Tube Well.	72° 2'3.68"E 72° 2'3.68"E			01	01	
Farmer's Pipeline (km. 40.410) / OR GWSSB Pipeline (km. 41.510) / OR Harij Br. Canal (km. 42.695) Locations were so collected as farmer's pipe line exits near km. 40 so that surface water sample can be collected, while there is a GWSSB pipeline near km. 41.5 from which sample for Ground water source can be extracted. Hence, both these locations were selected.	23°41'17.56"N 71°56'11.57"E			01	01	
Total Mehsana Palanpur		03	03	03	03	03

5.5 VALLABHIPUR TO RANGHOLA (SH 39)

Locations / Parameters	Latitude Longitude	Ambient Air	Noise Levels	Surface Water	Ground Water	Soil
Vallabhipur at km. 0.250 (LHS), T Junction of Vallabhipur – Bhavnagar – Ranghola (near Vallabhipur town), a start point of the project road ; and a Canal Syphon exists near km. 3.7 also at km. 7.2. Vallabhipur is a junction, where one road leads to Bhavnagar (40 km. from Vallabhipur), Ranghola is a point on Bhavnagar Rajkot State Highway (27 km from Vallabhipur), leading to considerable movement of traffic at Vallabhipur junction. Hence, locations are so chosen to have samples of AAQ, Noise and Soil (due to proposed Vallabhipur Jn. development / surrounding area). Surface water can be taken from nearby selected surface water source.	21°52'47.03"N 71°52'36.66"E	01	01	01	01	01
Either at Umralla village (at km. 11) / or at Parvala village (at km. 22.5) between Vallabhipur Ranghola section from km. 0.500 to km. 26.500 of SH 39) / OR End point of Vallabhipur Ranghola section (km. 26.500 of SH 39, near Rajkot Bhavnagar State Highway	21°50'41.93"N 71°48'4.22"E (Umralla)	01	01	01	01	01
Total Mehsana Palanpur		02	02	02	02	02

* Locations are marked on Google Earth, depicted as Image in Annexure VI

6 ENVIRONMENTAL AND SOCIAL SCREENING: MAJOR FINDINGS

This section presents the key findings of the screening study, lists the general findings of the secondary data analysis and primary site visits, overall findings from the inventory, roadside community consultations and mapping section wise environmental and social sensitivity and scope of works envisaged for the additional corridors.

6.1 FINDINGS

Environmental clearance from the Expert Appraisal Committee (EAC), MoEF & CC and State level Environmental Impact Assessment Authority (SEIAA), GoG is not required as per the latest amendment by MoEF & CC dated 22nd August 2013, and S.O. 695 (E), dated 6th April 2011 to the EIA Notification 14th September 2006. CRZ Clearance is also not required, as none of the corridors are in the CRZ area as per CRZ Notification 2011 and Draft Amendment 2018.

Since significant stretches across the Gujarat, especially those along the state highways have been notified and declared as protected forests (PF) in Gujarat, the proposed improvements and widening activities including removal of trees beyond 9.75 m width necessarily requires diversion of notified protected forest. Hence, Forest Clearance from the Central Government (MoEF and CC, GoI) is required for Mehsana Palanpur (SH 41) and Vallabhipur Ranghola (SH 39). However, for the proposed state highway section of Radhanpur Chanasma, Forest Clearance is already obtained and proposed design intervention is limited to rehabilitation and maintenance only, the corridor does not require forest clearance. Black Buck National Park is found to be near Vallabhipur Ranghola State Highway No. 39, albeit more than 20 km. distance away from the nearest point. Though no statutory clearances are required for this stretch, it is suggested that as part of the improvement of the section and detailed designs, to have consultations with forest officials and integrate specific measures, if required, for addressing wildlife impacts. However, diversion is envisaged in forest land due to proximity of large girth size of trees located at the edge of carriage way. For that area of forest diversion is estimated for 31.692 ha. and submitted the proposal to the respective Forest Department on 25th October 2018. Since proposed improvement and intervention along the corridor is limited to maintenance of the existing carriageway, however, few trees are likely to be cut which are located at edge of CW. All efforts will be made to save the trees that exist within Col / RoW through corridor of impact approach and design interventions. .

Mehsana Bypass is small section of SH 41A, a newly proposed State Highway and hence available land on either side of the road within RoW does not falls under Notified Protected Forest (NPF) category, hence Forest Clearance is not envisaged for Mehsana Bypass as well. For widening corridor i.e. Mehsana Palanpur, based on design interventions, required for diversion of protected forest area. The proposal for Forest Clearance (Notified Protected Forest) from the competent authority is submitted for the area of 211.17 ha on 6th September 2018.

Water resources comprising ponds, open wells, tube wells, etc. have been observed along the corridors. However, impacts of the proposed road improvement over these water resources 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 properties.

The environmental impacts due to the proposed improvements, with the exception of the removal of trees, shall not result in any major environmental impacts pertaining to siting of components in environmentally sensitive areas / locations. The impacts are largely construction related and can be addressed through adoption of appropriate mitigation measures during the construction period.

Design cross-sections for all corridors are proposed to be accommodated within the available RoW to the extent possible, and hence land acquisition is not envisaged for all the corridors including corridors with widening and strengthening activities and interventions.

Based on the screening site visits and consultations, the available RoW along all the corridors is generally free of encumbrances, with exception of junctions and settlement stretches. The impacts on non-titleholders are few and these shall be addressed during the detailed designs.

None of corridors pass through areas notified under Fifth Schedule by Govt. of India

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 safety,
- ▶ 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.

The nature of various other clearances required for the various GSHP-II corridors as identified during the screening stage are presented in Table 6-1.

Table 6-1: Applicability of Clearances

Sl. No	Sensitive Environmental Features	Clearances	Name of Corridor	Requirement	Remarks
1	Coastal Area	CRZ Clearance	Nil	Not Required.	None of the subject project corridor found to be exists in the vicinity of the Coastal Area.
2	Reserve Forest (RF)	Forest clearance (under FCA 1980)	Nil	Not Required.	None of the subject project corridor found to be exists in the vicinity of the Reserve Forest (RF) Area.
3	Protected Forest / Notified Protected Forest (NPF)	Forest clearance (under FCA 1980)	Mehsana-Palanpur	Required	Since, road side trees are classified under Notified Protected Forest (NPF), for occupying the land for widening purpose beyond 9.75 m, triggers diversion of the Forest land and Forest Clearance from MoEF & CC, Gol.
			Meshana-Bypass	Not Required	Do not pass through any notified protected forest area
			Radhanpur-Chanasma	Not Required	Formal Approval already obtained, and due to Maintenance and Rehabilitation corridor
			Vallabhipur-Ranghola	Required	Notified Protected Forest (NPF), exists along the road, for occupying the land for widening purpose beyond 9.75 m, triggers diversion of the Forest land and Forest Clearance to be obtained from MoEF & CC, Gol

Sl. No	Sensitive Environmental Features	Clearances	Name of Corridor	Requirement	Remarks
4	National Park and Sanctuary	Wild Life clearance (under WL Act 1972)	Nil	Not Required.	None of the subject project corridor found to be exists in the vicinity of the Wildlife (NP or Sanctuaries) as per Wildlife Act.
5	Archaeological monuments	Clearance from National Monument Authority	Nil	Not Required	---

6.2 SCOPING WITH RESPECT TO PROJECT UPGRADATION (WIDENING AND STRENGTHENING)

- Widening and strengthening will not involve any land acquisition (sufficient land width is available for proposed improvement), very few people displacement (Squatter/Encroachers), felling of trees, etc. The anticipated environmental and social impacts would be low to very low depending on presence of Valued Environmental and Social Components and extent of widening proposed.

Key anticipated impacts which need to be mitigated through design interventions include:

- Resettlement of people (Mehsana-Palanpur road)
- Forest land diversion comprising Protected Forest (PF), Social Forest etc.,
- Avenue tree removal,
- General construction stage impacts like air, water, noise and soil pollution,
- Likely impacts on road side community features like schools, hospitals, temples, cultural and community properties

6.3 SCOPING WITH RESPECT TO PROJECT MAINTENANCE

In case of road maintenance, the impacts shall be very limited, due to no land acquisition and no impact to road side structures and properties. There would only be limited tree cutting requirements based on safety norms. Hence, anticipated impacts include:

- Limited to tree felling,
- General construction stage impacts like dust and noise during construction,
- Minimal impact on roadside schools, hospitals, etc.,
- Little impact to cultural and community properties,

6.4 PRELIMINARY BUDGET ESTIMATES

The screening exercise has confirmed that there are no corridors warranting exclusion based on environment and social sensitivity. While adoption of Col approach and designing of cross section within available RoW shall ensure minimization of social and resettlement impacts, the environmental impacts shall be addressed through adoption of good engineering practices during construction. The preliminary estimates for addressing environment and social impacts for the DPR is presented in Table 6-2.

Total cost estimated (tentatively) for all 4 corridors is 87.79 million

Table 6-2: Preliminary Environment and Resettlement Budget for four DPR Corridors (in INR)

Sr. No.	Description	Total Cost (INR)
A	Environment	
1	Environmental Monitoring Cost	2,881,000.00
2	Environmental Enhancement Cost	54,775,000.00
	Sub-total	57,656,000.00
B	Land acquisition and resettlement	
1	Compensation for Structures	20,963,340.00
2	R&R Assistance	2,725,000.00
3	LAQ	-
	Sub-total	23,688,340.00
C	HIV / AIDS Awareness (Campaign) including health checkup Cost	6,450,000.00
	Total (A+B+C)	87,794,340.00

Note: Public health (HIV/AIDS) cost included as of now that 0.1% of total civil construction cost and depends on the project size; it may vary after finalization of civil construction cost. This will be further detailed during DPR stage.

ANNEXURE

Annexure I: Environmental and Social Policies and Legal Framework

This Annexure to the Environmental and Social Screening (Maintenance Corridors only) describes the relevant national, state and World Bank's environmental and social sector policies, rules and regulations that apply to the proposed intervention measures on the project corridors. Through adherence to the applicable laws and policies the project shall strive to minimize the adverse impacts of the proposed development measures and ensure timely completion of the project works.

These rules and regulations apply to one or more of the various project stages viz. Design (project preparation), Construction (implementation) and Operation (post project) stages.

1.1 POLICIES, RULES AND REGULATIONS APPLICABLE IN HIGHWAY PROJECTS

List of all applicable national and state rules and regulations are provided in **Table 1**. Relevant details of these policies, acts and rules are presented in the subsequent paragraphs.

Table 1: Summary of Social and Environmental / policies/ rules/ Legislations applicable

Policy / Act / Rule	Year	Objective	Responsible Authority	Applicability
Environment (protection) Act	1986	To protect and improve the overall environment	MoEF& CC, CPCB/SPCB	Applicable to all project corridors
Notification on Environment Impact Assessment of Development projects (and amendments) (referred to as the Notification on Environmental Clearance)	2006 2009 2011 2013	To provide environmental clearance to new development activities following environmental impact assessment.	MoEF & CC, CPCB	Not applicable to all project corridors.
Wildlife Protection Act	1972	To protect Wildlife (Flora and Fauna) through the creation of National Parks and Sanctuaries	MoEF & CC/ NWBL/ Supreme Court	Not applicable, the project corridors do not fall under Wild life protected areas
Forest (Conservation) Act Forest (Conservation) Rules	1980 1988 2003	To protect and manage forests	MoEF & CC	Applicable for Mehsana-Palanpur and Vallabhipur-Ranghola corridors
Biological Diversity Act	2000	Disclosure of species survey or collection activities to the National Biodiversity Authority	MoEF & CC	Not applicable
Coastal Regulatory Zone (CRZ)	2011 (and Draft Amendment 2018)	To protect and manage coastal areas	MoEF&CC	Not applicable to all project corridors
Water (Prevention and Control of Pollution) Act (and subsequent amendments)	1974	To provide for the prevention and control of water pollution and the maintaining or restoring of wholesomeness of water.	GPCB	Applicable to all project corridors
Air (Prevention and Control of Pollution) Act (and subsequent amendments)	1981	To provide for the prevention, control and abatement of air pollution, and for the establishment of Boards to carry out these purposes.	GPCB	Applicable to all project corridors
Noise Pollution (Regulation and Control)	2001	Noise pollution regulation and controls	GPCB	Applicable to all project corridors

Policy / Act / Rule	Year	Objective	Responsible Authority	Applicability
rules 2000				
Central Motor Vehicle Act	1988	To control vehicular air and noise pollution. To regulate development of the transport sector, check and control vehicular air and noise pollution.	Ports and Transportation Department, GoG	Applicable to all project corridors
Central Motor Vehicle Rules	1989			
The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013	2013 (effective from January 2014)	<ul style="list-style-type: none"> ▪ To ensure, in consultation with institutions of local self-government and Gram Sabha established under the Constitution of India, a humane, participative, informed and transparent process for land acquisition for industrialization, development of essential infrastructural facilities and urbanization ▪ Provide just and fair compensation to the affected families whose land has been acquired or proposed to be acquired or are affected by such acquisition ▪ Make adequate provisions for such affected persons for their rehabilitation and resettlement ▪ Ensure that the cumulative outcome of compulsory acquisition should be that affected persons become partners in development leading to an improvement in their post-acquisition social and economic status 	Department of Land Resources, Ministry of Rural Development	Applicable to all project corridors
The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement (Gujarat Amendment) Act, 2016	2016 (effective from August 2016)	<ul style="list-style-type: none"> ▪ Further to amend the "Principal Act" referred to the Right to Fair Compensation, Transparency in Land Acquisition and Resettlement and Rehabilitation Act, 2013 in its application to the State of Gujarat, enacted the Gujarat Amendment Act, 2016 with simplify the provisions, which was commenced on 15th August 2016. ▪ The Right to Fair Compensation, Transparency in Land Acquisition and Resettlement and Rehabilitation (Gujarat Amendment) Act, 2016 is almost follows similarly to the Principal Act (Central Act) with reference to compensation and R&R practices. Two major changes made and inserted as following: ▪ Power of State government to exempt of public interest and SIA for certain projects mentioned in sub section of 10A. ▪ Another major point to be noted that the Gujarat (Amendment) Act 	Revenue Department, Govt. of Gujarat	Applicable to the project corridors

Policy / Act / Rule	Year	Objective	Responsible Authority	Applicability
		2016 provides the R&R Assistance, such lump sum amount equal to 50% of the amount of land compensation as determined under section 27 of principal Act to the affected families, in case of project which are linear in nature.		
The Provisions of the Panchayats (Extension to the Scheduled Areas) Act, 1996	1996	<ul style="list-style-type: none"> 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. 		Not applicable. The project corridors do not fall under Fifth Schedule Area
The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006	2006	<ul style="list-style-type: none"> 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 all project corridors.
Ancient Monuments and Archaeological sites and Remains Act	1958	Conservation of Cultural and historical remains found in India.	National Monuments Authority, Gol.	Not applicable. Not envisaged any monuments near by the project corridors.
The Ancient Monuments and Archaeological sites and Remains (Amendment and Validation) Act	2010	Amendment to AMASR Act, 1958 and to make provision for validation of certain actions taken by central government.	Director of Archaeology, Govt. of Gujarat	Not applicable. Not envisaged any monuments near by the project corridors.
Supreme court order, pertaining to removal and restriction of encroachment of religious structures on the public space	2009	To disallow / regulate the use of RoW, public spaces for construction of temples, mosques, shrines, church in public land and public spaces.	District Collector and District Magistrate	Applicable to all project corridors
Labour laws: Workman compensation Act,	1923	The Act provides for compensation in case of injury by accident arising out of and during the course of employment	Labour and Employment Department, GoG	Applicable to all project corridors
Payment of Gratuity Act	1972	gratuity is payable to an employee under the Act on satisfaction of certain conditions on separation if an employee has completed 5 years' service or more or on death the rate of 15 days wages for every completed year of service. The Act is applicable to all establishments employing 10 or more employees	Labour and Employment Department, GoG	Applicable to all project corridors
Contract Labour (Regulation & Abolition) Act	1970	The Act provides for certain welfare measures to be provided by the Contractor to contract labour and in	Labour and Employment Department, GoG	Applicable to all project corridors

Policy / Act / Rule	Year	Objective	Responsible Authority	Applicability
		case the Contractor fails to provide, the same are required to be provided, by the Principal Employer by Law. The Principal Employer is required to take Certificate of Registration and the Contractor is required to take license from the designated Officer. The Act is applicable to the establishments or Contractor of Principal Employer if they employ 20 or more contract labour		
Minimum Wage Act	<u>1948</u>	The Employer is supposed to pay not less than the Minimum Wages fixed by appropriate Government as per provisions of the Act if the employment is a schedule employment. Construction of Buildings, Roads, Runways are schedule employments	Labour and Employment Department, GoG	Applicable to all project corridors
Child Labour (Prohibition & Regulation) Act	<u>1986</u>	The Act prohibits employment of children below 14 years of age in certain occupations and processes and provides for regulation of employment of children in all other occupations and processes. Employment of Child Labour is prohibited in Building and Construction Industry.	Labour and Employment Department, GoG	Applicable to all project corridors
Inter-State Migrant workmen's (Regulation of Employment & Conditions of Service) Act	<u>1979</u>	The Act is applicable to an establishment which employs 5 or more inter-state migrant workmen through an intermediary (who has recruited workmen in one state for employment in the establishment situated in another state). The Inter-State migrant workmen, in an establishment to which this Act becomes applicable, are required to be provided certain facilities such as housing, medical aid, traveling expenses from home upto the establishment and bank etc.	Labour and Employment Department, GoG	Applicable to all project corridors
Maternity Benefit Act	<u>1961</u>	The Act provides for leave and some other benefits to women employees in case of confinement or miscarriage etc	Labour and Employment Department, GoG	Applicable to all project corridors
Sexual Harassment of Women at the Workplace (Prevention, Prohibition and Redressal) Act	<u>2013</u>	This Act defines sexual harassment in the workplace, provides for an enquiry procedure in case of complaints and mandates the setting up of an Internal Complaints Committee	Labour and Employment Department, GoG	Applicable to all project corridors

Source: GoI, GoG, MoEF & CC, CPCB, etc.

1.1.1 Environment (Protection) Act, 1986

The Environment (Protection) Act, popularly known as EP Act, is an umbrella legislation that supplements existing environmental regulations. Empowered by the EP Act, the Ministry of Environment

& Forests (MoEF & CC), Government of India has issued the following notifications regulating siting of industry and operations, procuring clearance to establish industries and development of projects with appropriate EIA studies, coastal zone regulations and other aspects of environment are:

- Empowers the Government of India (section 6) to make rules to regulate environmental pollution by stipulating standards and maximum allowable limits to prevent air, water, noise, soil and other environmental pollutants.
- Prohibits operations that emit pollutants in excess of standards (section 7).
- Regulates handling of hazardous substances and identifies persons responsible for discharges and pollution prevention (section 9).
- Section 17 deals with offences committed by Government Departments.
- Formulated Environmental (Protection) Rules, 1986, Hazardous Wastes (Management and Handling) Rules, 1989 and Manufacture, Storage & Import of Hazardous Chemical Rules, 1989 in accordance with the sections 6, 8 and 25 of EP Act.
- The act has been supplemented with EIA notification 2006.

1.1.2 Environmental Impact Notification

EIA notification of the MoEF & CC dated the 14th September 2006 provides for the following:

- All projects and activities are broadly categorized in to two categories - Category A and Category B, based on the spatial extent of potential impacts and potential impacts on human health and natural and manmade resources.
- All projects or activities included as **Category 'A'** in the Schedule, including expansion and modernization of existing projects or activities and change in product mix, shall require prior environmental clearance from the Central Government in the Ministry of Environment and Forests (MoEF & CC) on the recommendations of an Expert Appraisal Committee (EAC) to be constituted by the Central Government for the purposes of this notification;
- All projects or activities included as **Category 'B'** in the Schedule, including expansion and modernization of existing projects or activities as specified in sub paragraph (ii) of paragraph 2, or change in product mix as specified in sub paragraph (iii) of paragraph 2, but excluding those which fulfil the General Conditions (GC) stipulated in the Schedule, will require prior environmental clearance from the State/Union territory Environment Impact Assessment Authority (SEIAA). The SEIAA shall base its decision on the recommendations of a State or Union territory level Expert Appraisal Committee (SEAC) as to be constituted for in this notification.

1.1.2.1 Environmental Impact Assessment Notification, amendment vide S.O.3067 (E), dated 1st December 2009

The amendment in EIA notification, 2006 explains that “all state highways and state highway expansion Projects in hilly terrain (above 1000m AMSL) and / or ecological sensitive areas” requires to obtain environmental clearance from State Environmental Impact Assessment Authority (SEIAA)⁶.

⁶The amendment also states that prior environmental clearance is needed for all State Highway projects, which was eventually superseded in the subsequent amendment of 2011.

(xv) against item 7(f),

(a) in column (4), for the entry, the following entry shall be substituted namely:-

- "(i) All State Highway Projects; and
- (ii) State Highway expansion projects in hilly terrain (above 1,000 m AMSL) and or ecologically sensitive areas.";

Source: http://www.moef.nic.in/legis/env_clr.htm

1.1.2.2 Environmental Impact Assessment Notification, amendment vide S.O. 695 (E) dated 6th April 2011

Latest Amendment April, 2011 to EIA notification 2006 states "All New state highway projects should obtain environmental clearance from SEIAA". The new amendment excludes carrying out widening, strengthening and improvement works on the existing state highways from environmental clearances.

(ii) against item 7(f), -

in column (4), for the entry "(i) All State Highway Projects; and" the following entry shall be substituted, namely:-

"(i) All New State Highway Projects".

Source: http://www.moef.nic.in/legis/env_clr.htm

1.1.3 Wildlife Protection Act, 1972

This act is promulgated to provide for the protection of wild animals, birds and plants and for matters connected therewith. The provisions under this act are as below:

- Section 9 of the Act mentions that no person shall hunt any wild animal specified in Schedule-I
- The act prohibits picking, uprooting, damaging, destroying, acquiring any specified plant from any forestland
- It bans the use of injurious substances, chemicals, explosives that may cause injury or endanger wildlife in a sanctuary
- No alteration of the boundaries of a National Park shall be made except on a resolution passed by the Legislature of State
- Destruction or damage of wildlife property in a National Park is prohibited.

GUIDELINES FOR TAKING NON-FORESTRY ACTIVITIES IN WILDLIFE HABITATS

PROCEDURE TO BE FOLLOWED FOR ACTIVITIES WITHIN 10 KMS FROM BOUNDARIES OF NATIONAL PARKS AND WILDLIFE SANCTUARIES:

In case the project site is located within the eco-sensitive zone or 10 Kms in absence of delineation of such a zone from the boundaries of National Parks, Wildlife Sanctuaries or is an Elephant Reserve/Tiger Reserve and/or important corridors of wildlife movement, the User agency/Project Proponent should seek prior clearance from the Standing Committee of NBWL before seeking Environmental Clearance and the procedure as mentioned under paragraphs 2.1 to 2.8 above are required to be followed in such cases also.

1.1.4 Forest (Conservation) Act, 1980, (as Amended In 1988)

As per Section 26 of Indian Forest Act, 1927 a number of activities are prohibited in forest areas and prior approval is required from the Central Government to use forest land for non-forest purposes.

The Forest (Conservation) Act, 1980 prohibits large-scale diversion of forestland for non-forest use. As amended in 1988, no State Government or authority shall make such diversions except with the prior approval of the Central Government. Salient features of the act are summarized below.

- The Indian Forest Act, 1927: Section 5 states that after declaring a particular land as reserved forest, no fresh clearings for any purpose shall be made, except in accordance with such rules as made by the state government.
- Section 26 states the acts prohibited in such forests, in addition to section 5.
- Sections 30, 32 furnish power to the State government to regulate certain acts (clearing for cultivation, building or any other purpose) in such forests as specified in the section
- Section 35 furnishes power to the State government to prohibit certain acts (clearing of vegetation etc.) in lands not being the property of the government.
- The Forest (Conservation) Act, 1980: Section 2 of the Act restricts the state government on the de-reservation of forests or use of forestland for non-forest purposes

The Forest (Conservation) Rules, 1981: Rule 4 states that the procedure for state governments to make a proposal seeking prior approval to de-reserve a forest for non-forest purposes (section 2 of Forest Act, 1980), provided all proposals involving clearing of naturally grown trees in forest land or portion thereof, for the purpose of using it for afforestation, shall be sent in the form of a working plan / management plan.

1.1.5 Biological Diversity Act 2002

The Biological Diversity Act 2002 is a law meant to achieve three main objectives:

- The conservation of biodiversity;
- The sustainable use of biological resources;
- Equity in sharing benefits from such use of resources

Its key provisions aimed at achieving the above are:

- Measures to conserve and sustainably use biological resources, including habitat and species protection, environmental impact assessments (EIAs) of projects, integration of biodiversity into the plans, programmes, and policies of various departments/sectors;
- Prohibition on transfer of Indian genetic material outside the country, without specific approval of the Indian Government;
- Measures for sharing of benefits from the use of biodiversity, including transfer of technology, monetary returns, joint Research & Development, joint IPR ownership, etc.;

- Protection of indigenous or traditional knowledge, through appropriate laws or other measures such as registration of such knowledge;
- Regulation of the use of genetically modified organisms;
- Setting up of National, State, and Local Biodiversity Funds, to be used to support conservation and benefit-sharing;
- Setting up of Biodiversity Management Committees (BMC) at local village level, State Biodiversity Boards (SBB) at state level, and a National Biodiversity Authority (NBA).

1.1.6 Water (Prevention and Control of Pollution) Act 1974, amended in 1988

Water Act is the first environmental regulation that brought at the state and center levels, pollution control boards to control / regulate environmental pollution in India. Amended twice in 1978 and 1988, the Act vests regulatory authority on the State Pollution Control Boards and empowers them to establish and enforce effluent standards for industries and local authorities discharging effluents.

The act vests regulatory authority on the State Pollution Control Boards and empowers them to enforce effluent discharge standards to prevent water pollution (both for industries and local authorities)

- Section 24 of the act prohibits use of stream / well or on land disposal for polluting substances that violate disposal standards laid down by the board
- Section 25 of the act requires an application to be made to the state board to establish any treatment and disposal system that is likely to discharge sewage or trade effluent in to a stream or well or sewer or on land
- Sections 41 and 44 provide for penalties for not complying with the various provisions or directives of the board
- Section 48 deals with offences committed by Government Departments
- Section 55 asserts that all local authorities shall render help & assistance and furnish information to the board as required for discharge of functions, and shall make available to the board, for inspection and examination, such records, maps, plans and other documents as may be necessary

The act empowers the board to levy and collect cess on water consumed by the industry or local authority and to utilize and augment resources for the Pollution Control Boards. In line with this provision, The Water (Prevention & Control of Pollution) Rules, 1975 were formulated.

1.1.7 Air (Prevention and Control of Pollution) Act 1981

Similar to Water Act, the Air Act vests regulatory authority on the State Pollution Control Boards and empowers them to enforce air quality standards to prevent air pollution in the country. Section 21 of the act requires an application to be made to the state board to establish or operate any industrial unit.

1.1.8 Manufacture, Storage and Import of Hazardous Chemical Rules, 1989

These rules aim at controlling the generation, storage and import of hazardous chemicals. According to these rules, the user of hazardous chemicals has to perform the following and dispose hazardous waste as mentioned in the rules:

- Identify the potential hazards of the chemicals and take adequate steps to prevent and control such hazards
- Develop or provide information about the chemical in the form of safety data sheets
- Label the specified information on the container of the hazardous chemical

1.1.9 Noise Pollution (Regulation & Control) rules 2000

As a result of considering the deleterious and psychological effects of the noise pollution on the human well-being, MOEF has drawn up the above rules, which have come to force with effect from February 14, 2000. According to the provisions of the rules notified, a person might make a complaint to the designated 'Authority' in the event that the actual noise levels exceed the ambient noise standards by 10dB(A) or more as compared to the prescribed standards. The designated authority will take action against the violator in accordance with the provisions of these rules or other law in force.

- EA shall identify all 'industrial', 'commercial', 'residential' and 'silent' zones within the project study area.
- EA shall assess if the levels of noise generated by the project in any area exceeded the ambient air quality standards in respect of noise as specified in the Schedule of the Rules.
- EA shall describe noise pollution control measures to achieve compliance with the ambient air quality standards in respect of noise.

1.1.10 The Ancient Monuments and Archaeological sites and Remains (Amendment and Validation) Act, 2010

<p>THE ANCIENT MONUMENTS AND ARCHAEOLOGICAL SITES AND REMAINS (AMENDMENT AND VALIDATION) ORDINANCE, 2010 No. 1 of 2010</p>	
<p>2. The limits of prohibited area and regulated area around the monuments, archaeological sites and remains declared by the Central Government as protected have been specified in the principal Act as 100 m and 200 m, respectively. The limits so fixed may be further extended on the basis of gradation and classification of the monuments, archaeological sites and remains to be done by the National Monument Authority, which is to be constituted by the Central Government by virtue of the Amendment in the principal Act.</p>	
<p>4. Henceforth, no permission for construction of any public projects or any other nature shall be granted in the prohibited areas of the protected monument and protected area. However, permission for repair and renovation could be granted by the Competent Authority, to be specified by the Central Government, on the recommendation of the National Monument Authority, subject to the condition that the building or structure is pre-1992 or permission for construction or reconstruction of such building or structure had been granted by the Archaeological Survey of India.</p>	

1.1.11 the Right to Fair Compensation and Transparency in Land Acquisition and Resettlement and Rehabilitation Act 2013

The Right to Fair Compensation and Transparency in Land Acquisition and Resettlement and Rehabilitation Act 2013 is the eminent domain for acquisition of land for public purpose in all parts of India except the State of Jammu and Kashmir. The Act aims to establish the law on land acquisition, as well as the rehabilitation and resettlement of those directly affected by the land acquisition in India.

The Act is applicable when:

- ▶ Government acquires land for its own use, hold and control, including land for Public sector undertakings.
- ▶ Government acquires land with the ultimate purpose to transfer it for the use of private companies for stated public purpose.
- ▶ Government acquires land for immediate and declared use by private companies for public purpose.
- ▶ The provisions of the Act does not apply to acquisitions under 16 existing legislations including the Special Economic Zones Act, 2005, the Atomic Energy Act, 1962, the Railways Act, 1989, etc.

Under section 105, the Central Government shall direct that any of the provisions of this Act relating to the determination of compensation in accordance with the First Schedule and rehabilitation and resettlement specified in the Second and Third Schedules, being beneficial to the affected families, shall apply to the cases of land acquisition under the enactment specified in the Fourth Schedules or shall apply with such exceptions or modifications that do not reduce the compensation or dilute the provisions of this Act relating to compensation or rehabilitation and resettlement as may be specified in the notification, as the case may be.

1.1.12 the Right to Fair Compensation, Transparency in Land Acquisition and Resettlement and Rehabilitation (Gujarat Amendment) Act, 2016:

Further to amend the “Principal Act” referred to the Right to Fair Compensation, Transparency in Land Acquisition and Resettlement and Rehabilitation Act, 2013 in its application to the State of Gujarat, enacted the Gujarat Amendment Act, 2016 with simplify the provisions, which was commenced on 15th August 2016.

The Right to Fair Compensation, Transparency in Land Acquisition and Resettlement and Rehabilitation (Gujarat Amendment) Act, 2016 is almost follows similarly to the Principal Act (Central Act) with reference to compensation and R&R practices. One major point to be noted is that the Gujarat (Amendment) Act 2016 provides the R&R Assistance, such lump sum amount equal to 50% of the amount of land compensation as determined under section 27 of principal Act to the affected families, in case of project which are linear in nature. As of now State Rules for this amendment Act has not been finalized, as and when finalized the rules for the State amendment Act, the entitlements presented in the report requires to be updated in accordance with the Right to Fair Compensation Transparency in Land Acquisition and Resettlement & Rehabilitation (Gujarat Amendment) Act, 2016

1.1.13 Supreme Court order, pertaining to removal and restriction of encroachment of religious structures on the public space, 2009

In line with the requirements of the Supreme Court Order in 2009, the Gog has vested authorities with the District Collector and District Magistrate/ Deputy Commissioner in charge of the district to ensure that no unauthorized construction is carried out or permitted in the name of temple, church, mosque or gurudwara etc. on the public streets public parks or other public places etc.

Accordingly, the selection criteria for identification of cultural properties for enhancement under GSHP II shall exclude encroached religious properties within the RoW.

1.2 RELEVANT OPERATIONAL POLICIES AND DIRECTIVES OF THE WORLD BANK

In addition to the national and state policies, acts and rules, the World Bank policies and directives on environmental and social safeguards need to be adhered to in the present assignment. Some of the relevant policies are presented in the following paragraphs.

1.2.1 OP/BP 4.01 - Environmental Assessment

Operational Policy 4.01 (OP 4.01) is one of the ten safeguard policies of the World Bank, which provides the Environmental Assessment (EA) guidance for the lending operations. The OP 4.01 requires the borrower to screen projects upstream in the project cycle for potential impacts. Thereafter, an appropriate EA approach to assess, minimize / enhance and mitigate potentially adverse impacts is selected depending on nature and scale of project. The EA needs to be integrated in the project development process such that timely measures can be applied to address identified impacts. The policy requires consultation with affected groups and NGOs to recognize community concerns and the need to address the same as part of EA.

1.2.2 OP 4.04 - Natural Habitats

OP 4.04 sets out the World Bank's policy on supporting and emphasizing the precautionary approach to natural resource management and ensuring opportunities for environmentally sustainable development. As per this policy, the Bank does not support projects that involve significant conversion or degradation of critical natural habitats. As per this policy, the Bank does not support projects that involve significant conversion or degradation of critical natural habitats. Projects involving non-critical habitats are supported if no alternatives are available and if acceptable mitigation measures are in place.

1.2.3 OP 4.11 – Physical cultural resources

Guided by Operational Policy Note 11.03, this OP sets out the Bank's policy to assist in preservation and avoiding elimination of cultural properties with archaeological (prehistoric), paleontological, historical, religious and other unique natural values. Projects that could significantly damage non-replicable cultural properties are declined for funding and the Bank will in turn assist protection and enhancement of cultural properties encountered in the project rather than leave that protection to chance.

1.2.4 OP 4.36 - Forests

This policy of the bank aims to harness the potential of forests to reduce poverty in a sustainable manner, integrate forests effectively for sustainable economic development and protect vital local and global environmental services and values of forests. According to this policy, the bank does not finance projects involving significant conversion or degradation of critical forest areas or critical natural habitats. The potential impacts on forests resources are addressed as per OP/BP 4.01 and projects are financed only after incorporating appropriate mitigation measures.

1.2.5 OP 4.12 Involuntary Resettlement

Involuntary Resettlement is triggered in situations involving involuntary taking of land and involuntary restrictions of access to legally designated parks and protected areas. The policy aims to avoid involuntary resettlement to the extent feasible, or to minimize and mitigate its adverse social and

economic impacts. It promotes participation of displaced people in resettlement planning and implementation, and its key economic objective is to assist displaced persons in their efforts to improve or at least restore their incomes and standards of living after displacement. The policy prescribes compensation and other resettlement measures to achieve its objectives and requires that borrowers prepare adequate resettlement planning instruments prior to Bank appraisal of proposed projects.

1.2.6 OP 4.10 Indigenous Peoples

The World Bank policy on indigenous peoples, OP/BP 4.10, Indigenous Peoples, underscores the need for Borrowers and Bank staff to identify indigenous peoples, consult with them, ensure that they participate in, and benefit from Bank-funded operations in a culturally appropriate way - and that adverse impacts on them are avoided, or where not feasible, minimized or mitigated.

Annexure II: Environmental and Social Baseline

As the project corridors are spread all across the state of Gujarat, the environmental and social baseline has been assessed for the entire state. Information collected from secondary and primary sources has been utilized for evaluating the existing environmental and social condition.

ENVIRONMENTAL BASELINE

Climate

Gujarat has a tropical climate with hot summers and cold winters. The year can be divided into: the winter season from November to February, the hot season from March to May, the south-west monsoon season from June to September and the intervening month of October. Gujarat receives its rainfall from the southwest monsoon [June to September]. The annual rainfall varies between 300mm in the North to 2500 mm in the South. The summer months are from April to June with temperatures ranging from 27°C to 42°C. Winters are better with a temperature variance of 14°C to 29°C. The relative humidity in all parts of the State is low.

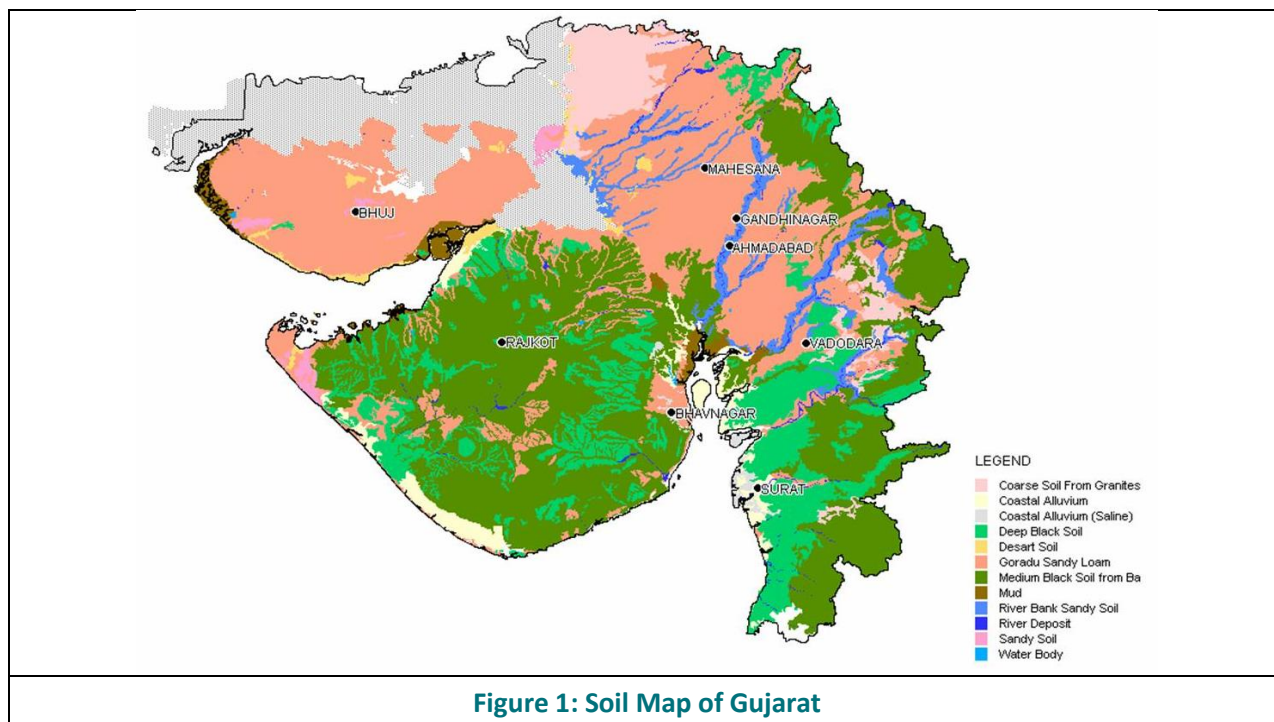
Physiography

The state has been divided into five major physiographic divisions:

- ▶ Alluvial Plains: These extend in North Gujarat to Valsad in the south, and westwards to the little Rann and Banni area of Kachchh.
- ▶ The Eastern hilly tract: This tract lies between the altitude of 300-1400 m and forms a major divide.
- ▶ Uplands of Kachchh and Saurashtra: These are upland consisting of sandstone, shale and basalt rock with elevations of about 150-500 m sloping radically towards the coast, the Ginar hill forest is at an elevation of 1117 m.
- ▶ The low-lying coastal tract ranges in elevation from 3-25 m surrounding the Kachchh and Saurashtra uplands. These low-lying areas extend from Rann of Kachchh to little Rann of Kachchh and to the low-lying delta region of Bhadar, Bhogavo Sabarmati, Mahi, Dhadar, Narmada and Tapi rivers.
- ▶ The Rann and little Rann of Kachchh are a vast expanse of saline wilderness which extend into the saline Tracts around the Gulf of Khambhat. The general elevation of this tract varies between 1-4 m.

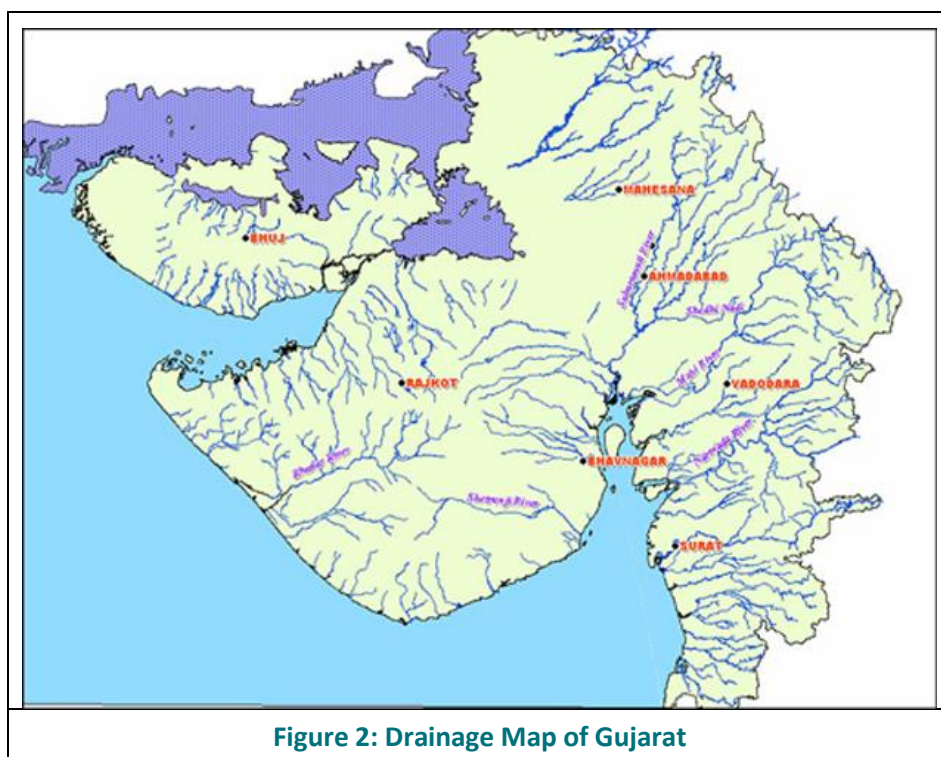
Soil

The predominant soil types in Gujarat are Brown Soil, Black Soil and alluvium. The region wise distribution of soil type for the state has been given in following Figure 1.



Drainage

The rivers Banas, Sabarmati, Mahi, Narmada and Tapi are the important drainage lines of the Gujarat plain draining into the Gulf of Khambatt while the rivers Bhadar, Ojat and Shetrunji are those of the Kathiawar peninsula draining into the Arabian sea. There are few seasonal and small rivers draining into the Gulf of Kachchh.



Floral

Forest Cover in Gujarat

As per the report of Forest Survey of India, (FSI, 2013) the total forest cover of the state is 14653 sq. km. During the assessment year 2013, the forest cover has been found an increase of 34 sq. km as compared to that of assessment year 2011. The Details of forest cover of the state in 2013 as per the report of Forest Survey of India 2001 are shown in Table 1.

Table 1: Present Status of Forest Cover in Gujarat in 2013

Type of forest cover	Area in sq. km	% percentage to the total forest cover
Very dense forest (Tree canopy density of 70% and above)	376	2%
Dense Forest (40 to &70% of tree canopy)	5220	33%
Open Forest (10 to 40% of Tree canopy)	9057	56%
Sub Total	14653	
Scrub (less than 10% tree canopy)	1492	9%
Total Area	16,145	100%

Source: Forest Department, Gujarat (<https://forests.gujarat.gov.in/forest-cover.htm>)

Gujarat has about 16145 sq.km of land under forest. A large part of the forest cover which is economically exploitable is distributed in the districts of Dangs, Mahisagar, Aravalli, Bharuch, Surat, Valsad, Junagadh, Sabarkantha and Banaskantha. Dangs, Surat and Bharuch which are the three southern districts of the state, have a sizable area under forest. The districts of Mahisagar, Aravali and Sabarkantha in northeast Gujarat and Junagadh in Saurashtra are other important areas of forest cover. The south and southeastern parts of the state support the growth of a tropical deciduous forest typified by teak, Shorea robusta for which the district of Valsad is well known.

Fauna

Though, Gujarat has saved many known endangered and threatened species from getting extinct such as Asiatic Lion, Leopard, Indian Crocodile, The Wild-Ass, Indian Wolf, Black-buck, Chinkara, Great Indian Bustard, Lesser Florican, etc. populations of many species particularly Tiger and its associate species in south and eastern Gujarat and those of birds and plants, are declining.

Gujarat is home to several species of avian fauna, some of the most commonly occurring avian fauna family being herons, storks, spoonbills, flamingoes, grebes, pelicans, pheasants, quails, water hens, bustards, jacanas etc.

Biodiversity (Protected Areas)

The protected area (PA) network of the State of Gujarat comprises of 26 PAs including 22 Sanctuaries and 4 National Parks having total area of 16422.71 sq.km. (8.37%) and 479.67 sq.km.(0.24%), respectively. Though, the geographical area of Gujarat is only 5.9% of the total area of India, it contributes 11.37% (16902.38 sq. km.) area to the total PA (148532 sq.km) of the country. List of protected area is given in the Table 2.

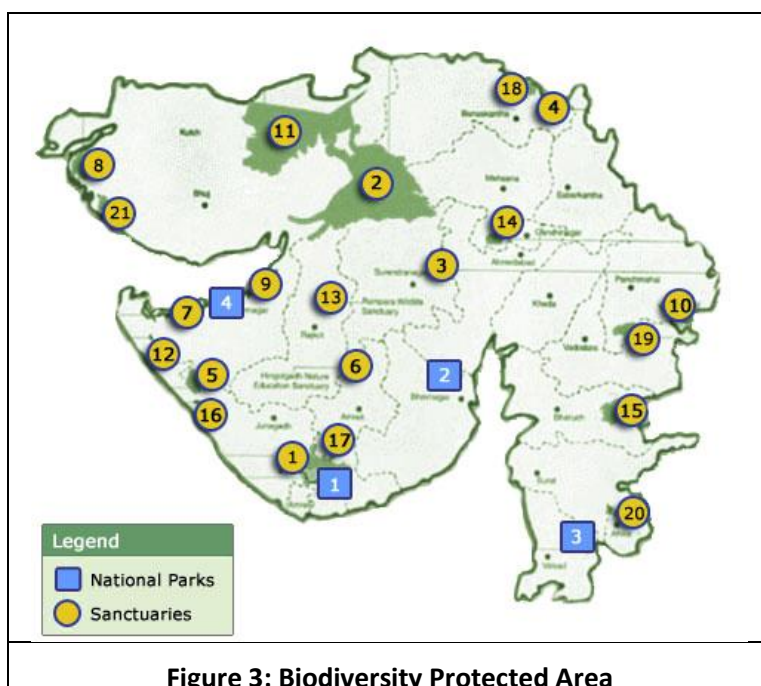


Table 2: List of Protected Areas

National Parks	Year of Estab.	Area in Sq. Kms.	Location	Major Species
Gir National Park	1975	258.71	Sasan Gir, Dist : Junagadh	Lion, Leopard, Chital, Chausinga, Hyena, Sambar, Chinkara, Herpetofauna, Crocodiles and birds.
Black Buck National Park	1976	34.08	Velavader, Dist : Bhavnagar	
Vansda National Park	1979	23.99	Vansda, Dist: Navasari	Leopard, Hyena Chital, Chausinga, Birds, Herpetofauna
Marine National Park	1982	162.89	Gulf of Kachchh, Dist : Jamnagar	Sponges, Corals, Jelly fish, Sea horse, Octopus, Oyster, Pearl oyster, Starfish, Lobster, Dolphin, Dugong, Waterfowls.
Sanctuaries	Year of Establish ment.	Area in Sq. Kms.	Location	Major Species
Gir Wild Life Sanctuary	1965	1153.42	Sasan Gir Dist: Junagadh, Amreli	Lion, Leopard, Chausinga, Chital, Hyena, Sambar, Chinkara, Herpetofauna, Crocodiles and birds
Wild Ass Sanctuary	1973	4953.7	Little Rann of Kachchh	Wild Ass, Chinkara, Blue bull, Houbara bustard, Wolf, Waterfowls, Herpetofauna
NalSarovar Birds Sanctuary	1969	120.82	NalSarovar Dist:Amdavad&Surendra nagar	Flamingos, Pelicans, Coot, ducks, waders, storks, Herons and other spp. of waterfowls, Herpetofauna
Jessore Sloth BearSanctuary	1969	120.82	NalSarovarDist:Amdavad &Surendranagar	Flamingos, Pelicans, Coot, ducks, waders, storks, Herons and other spp. of waterfowls, Herpetofauna
Barda Wild Life Sanctuary	1979	192.31	Hingolgadh Dist:Rajkot	Leopard, Blue bull, Hyena, wild boar, Jackal, Birds, Herpetofauna
Hingolgadh Sanctuary	1980	6.54	HingolgadhDist: Rajkot	Chinkara, Blue bull, Wolf, Hyena, Fox, Birds, Herpetofauna
Marine Sanctuary	1980	295.03	Gulf of Kachchh Dist: Jamnagar	Sponges, Corals, Jellyfish, Sea horse, Octopus,Oyster, Pearloyster, Starfish, Lobster, Dolphin, Dugong, waterfowls
Narayan SarovarSancuary	1981	444.23	Narayan Sarovar Dist: Kachchh	Chinkara, Caracal, Desert Cat, Hyena, Desert Fox, Jackal, Birds, Herpetofauna
Khijadia Bird Sanctuary	1981	6.05	Khijadia Dist: Jamnagar	Indian Skimmer, Ibises, Painted stork, Cormorants, etc. App. 220 spp. of birds, Herpetofauna
Ratanmahal Sanctuary	1982	55.65	Ratanmahal Dist: Dahod	Sloth bear, Leopard, Hyena, Jackal, Chausinga, Civet Cat, Jungle cat, Birds, Herpetofauna
Kutch Desert Sanctuary	1986	7506.22	Great Rann of Kachchh	Chinkara, Hyena, Fox, Flamingo, Pelicans & other waterfowls, Herpetofauna
Gaga Wild Life Sanctuary	1988	3.33	Gaga Dis: Jamnagar	Great Indian Bustard, Wolf, Jackal, Birds, Herpetofauna
Rampara Sanctuary	988	15.01	Rampara Dist: Rajkot	Blue bull, Chinkara, Wolf, Fox, Jackal, Birds, Herpetofauna
Thol Lake Bird Sanctuary	1988	6.99	Thol Dist: Mehasana	Cranes, Geese, Famingos, Sarus and app. 125 spp. of other waterfowls
Shoolpaneshwar Sanctuary	1982	607.7	Dist: Narmada	Sloth bear, Leopard, Rhesus macaque, Chausinga, Barking deer, Pangolin, Herpetofauna, birds including Alexandrian parakeet
Porbandar Birds Sanctuary	1988	0.09	PorbandarDist: Porbandar	Flamingos, Pelicans, Spoonbill and various bird spp.
Pania Wild Life Sanctuary	1989	39.63	Dist: Amreli	Lion, Chinkara, Leopard, Chital, Hyena, wild board, four horned antelope, pangolin, Blue bull, birds
BalaramAmbaji	1989	542.08	Dist: Banaskantha	Sloth bear, Leopard, Blue bull, Hyena, Wolf,

National Parks	Year of Estab.	Area in Sq. Kms.	Location	Major Species
Sanctuary				Jungle cat, Birds, Herpetofauna
JambuGhoda Sanctuary	1990	130.38	Jambughoda Dist: Panchmahal	Sloth bear, Leopard, Jungle cat, Hyena, Wolf, Four Horned Antelope, Herpetofauna, Birds
Purna Wild Life Sanctuary	1990	160.84	Dist: Dangs	Leopard, Barking deer, macaques, Four horned antelope, Sambhar, Hyena, Herpetofauna, birds
Kutch Bustard Sanctuary	1992	2.03	Near Naliya Dist: Kachchh	Great Indian Bustard, Lesser Florican, Houbara bustard, Chinkara, Blue bull, Herpetofauna
Mitiyala Wildlife Sanctuary	2004	18:22	Mitiyala Dist: Amerli	Lion, Leopard, Chital, Blue bull, Pangolin, Sambar, Chinkara, Herpetofauna, Birds

Source: Forest Department, GoG

SOCIO-ECONOMIC BASELINE PROFILE

Area and Population

Gujarat has an area of about 1.96 lakh sq. kms. The state is divided into 26 districts and 224 blocks as per Census 2011. The population of the state, as per provisional figures provided by Census 2011, stood at 6.04 crores. The population of Gujarat forms 4.99 percent of India in 2011. In 2001, the figure was 4.93 percent.

Population Density

Total area of Gujarat is 196,244 sq. km. Density of Gujarat is 308 per sq. km which is lower than national average 382 per sq. km. In 2001, density of Gujarat was 258 per sq. km, while nation average in 2001 was 324 per sq. km.

Sex ratio

Sex Ratio in Gujarat is 919 i.e. for each 1000 male, which is below national average of 940 as per census 2011. In 2001, the sex ratio of female was 920 per 1000 males in Gujarat.

Sex ratio of the project corridor districts are more than the state average, Banas Kantha higher with 938 No. of females per 1000 males compared with other project districts, Patan, Mehsana and Bhavnagar, with 935, 926 and 933 respectively with No. of females per 1000 males.

Literacy

Literacy rate in Gujarat has seen upward trend and is 78.03 percent as per 2011 population census. Of that, male literacy stands at 85.75 percent while female literacy is at 69.68 percent. In 2001, literacy rate in Gujarat stood at 69.14 percent of which male and female were 79.66 percent and 57.80 percent literate respectively. In actual numbers, total literates in Gujarat stands at 41,093,358 of which males were 23,474,873 and females were 17,618,485.

Except Mehsana, project corridor districts Patan, Banas Kantha and Bhavnagar have lower literacy rate as compared to state average. Mehsana district is having 83.6 Literacy rate that is higher compared to state average literacy rate.

Urbanization

The total figure of population living in urban areas is 25,745,083 of which 13,692,101 are males and while remaining 12,052,982 are females. The urban population in the last 10 years has increased by 42.60 percent. Sex Ratio in urban regions of Gujarat was 880 females per 1000 males. For child (0-6) sex ratio the figure for urban region stood at 852 girls per 1000 boys. Total children (0-6 age) living in urban areas of Gujarat were 2,952,359. Of total population in urban region, 11.47 % were children (0-6).

Average Literacy rate in Gujarat for Urban regions was 86.31 percent in which males were 90.98% literate while female literacy stood at 70.26%. Total literates in urban region of Gujarat were 19,672,516.

Scheduled caste and scheduled tribes

According to 2011 census, the population of Scheduled Castes in the state is 40, 74,447, which is 6.7 percent of the total population. The urban SC population in the state is 17,92,874, which is 44.00 per cent. The SC population in rural areas is 22,81,573, which is 56.00 percent.

According to 2011 census, the population of Scheduled Tribes in the state is 89,17,174, which is 14.8 percent of the total population. The urban ST population in the state is 8,95,326 which is 10.04 percent. The ST population in rural areas is 80,21,848, which is 89.95 percent.

Schedule cast and Schedule tribe population data by district is estimated, from that it can be drawn that project corridor districts are having significant amount of SC population. Compared to SC population ST population is lower in project corridor districts. (ST percentage in project districts: Mehsana (0.5%), Patan (1.0%), Banasakantha (9.1%) and Bhavanagar district (0.3%).

The following taluks in Gujarat have been specified⁷ as Scheduled Areas,

- ▶ Uchchhal, Vyara, Mahuwa, Mahuwa, Mandvi, Nizar, Songadh, Valod, Mangrol and Bardolitalukas in Surat district.
- ▶ Dediapada, Sagbara, Valia, Nandod and Jhagadiatalukas in Bharuch district
- ▶ Dangs district and taluka
- ▶ Bansda, Dharampur, Chikhali, Pardi and Umbergaontalukas in Valasad district
- ▶ Jhalod, Dohad, Santrampur, Limkheda and DeogarhBariatalukas in Panchmahal district
- ▶ Chhotaudepur and Naswaditalukas and Tilakwadamahar in Vadodora district
- ▶ Khedbrahma, Bhiloda and Meghrajatalukas, and Vijayanagarmahal in Sabarkantha district.

⁷The Scheduled Areas in the States of Bihar and Gujarat were originally specified by the Scheduled Areas (Part A States) Order, 1950 (Constitution Order, 9) dated 23.1.1950 and have been specified as above by the Scheduled Areas (States of Bihar, Gujarat, Madhya Pradesh and Orissa) Order, 1977 (Constitution Order, 109) dated 31.12.1977 after rescinding the Order cited first so far as that related to the States of Bihar & Gujarat.

Annexure III: Inventory and Environmental and Social Sensitivity

Corridor specific, chainage-wise environmental and social sensitivity has been mapped based field inventory, desktop review and analysis of outcome of field inventory.

To Map Chainage-wise Section-wise corridor sensitivity 4 Lane Mehsana Palanpur, SH 41

Chainage		Chainage-wise Environmental Social Sensitivity		
From	To	Environmental	Social	
Chainage; Km. / Attributes		Trees, Nos	Structures, No.	Community Properties, No.
79	80	212	2	
80	81	419	1	1
81	82	297	2	
82	83	206	3	
83	84	264	2	
84	85	208	4	
85	86	94	9	2
86	87	220	2	1
87	88	314	2	
88	89	289	3	
89	90	242	4	
90	91	236	3	
91	92	291	2	
92	93	424	1	
93	94	244	6	1
94	95	277	2	
95	96	239	4	1
96	97	253	2	
97	98	60	2	1
98	99	66	2	
99	100	109	2	1
100	101	265	4	1
101	102	194	2	
102	103	389	3	
103	104	377	2	
104	105	337	3	
105	106	375	4	1
106	107	351		
107	108	206	2	
108	109	197	2	
109	110	151		1
110	111	47	3	1
111	112	44		
112	113	85	2	
113	114	189	1	1
114	115	126	1	
115	116	86	2	1
116	117	258	4	
117	118	364	3	1
118	119	605	1	
119	120	964	1	
120	121	193	2	
121	122	286		

Chainage		Chainage-wise Environmental Social Sensitivity		
From	To	Environmental	Social	
Chainage; Km. / Attributes		Trees, Nos	Structures, No.	Community Properties, No.
122	123	382		
123	124	272	3	1
124	125	283	6	
125	126	478	2	1
126	127	547	6	
127	128	480	1	
128	129	355		1
129	130	187	1	
130	131	85	3	
131	132	111	2	1
132	133	407	3	
133	134	794	2	
134	135	782		
135	136	704		
136	137	662	2	
137	138	497	3	1
138	139	589	4	
139	140	52	4	
140	141	0	7	
		18720	151	20

Overall Sensitivity (Environmental & Social) across Mehsana Palanpur

Environmental Sensitivity (nos. of Trees):

Social Sensitivity i.e. nos. of Structures (Encroachers / Squatters/CPRs):

Environmental and Social Sensitivity

Low Sensitivity	
Medium Sensitivity	
High Sensitivity	

Mehsana-Bypss

Chainage; Km.		Chainage-wise Environmental Social Sensitivity			
From	To	Env.	Cultural	Social	
Chainage; Km. / Attributes		Trees, Nos	Temple, No	Structures, No.	Community Properties, No.
0	1			2	
1	2				
2	3				
3	4			1	
4	5			2	
Total		0	0	5	0

Overall Sensitivity (Environmental & Social) across Mehsana Bypass

Social Sensitivity i.e. nos. of Structures (Encroachers / Squatters):

Environmental and Social Sensitivity

Low Sensitivity	
Medium Sensitivity	
High Sensitivity	

Radhanpur Chanasma SH 55

Chainage; Km.		Chainage-wise Environmental Social Sensitivity			
From	To	Env.	Cultural	Social	
Chainage; Km. / Attributes		Trees, Nos	Temple, No	Structures, No.	Community Properties, No.
0	1	3	1		
1	2				
2	3				
3	4				1
4	5				
5	6	1			
6	7				
7	8				
8	9				
9	10				
10	11				
11	12				
12	13				
13	14			4	
14	15	1			
15	16				
16	17				
17	18				
18	19	2			
19	20	2			
20	21				
21	22				
22	23				
23	24			1	
24	25	1			
25	26				
26	27				
27	28				
28	29	1			
29	30				
30	31				
31	32				
32	33	4	1		
33	34		1		2
34	35				
35	36	2			
36	37				1
37	38				
38	39	1			
39	40	11	1		
40	41	1	1		
41	42				
42	43				
43	44		1	2	
44	45	1			
45	46			1	
46	47	1			1
47	48				
48	49				
49	50	3		2	
50	51				

Chainage; Km.		Chainage-wise Environmental Social Sensitivity			
From	To	Env.	Cultural	Social	
Chainage; Km. / Attributes		Trees, Nos	Temple, No	Structures, No.	Community Properties, No.
51	52	2		1	2
52	53	3			
53	54	11			
54	55	5			
55	56	6			
56	57	5		1	
57	58	9	1	1	
58	59	9			
59	60	29		2	
60	61	0			
Total		114	7	15	7

Overall Sensitivity (Environmental & Social) across Radhanpur Chanasma

Environmental Sensitivity (nos. of Trees):

Social Sensitivity i.e. nos. of Structures (Encroachers / Squatters), CPRs, Temples:

Environmental and Social Sensitivity

Low Sensitivity	
Medium Sensitivity	
High Sensitivity	

Vallabhipur Ranghola

Chainage; Km.		Chainage-wise Environmental Social Sensitivity			
From	To	Environmental	Cultural	Social	
Chainage; Km. /		Trees, Nos	Temple, No	Structures, No.	Community Properties, No.
0	1				
1	2	8	1		
2	3	34			
3	4	22			
4	5	23			
5	6	5			
6	7	8			
7	8	3			
8	9	11			2
9	10	19	2		
10	11	7			
11	12	16			
12	13	22			
13	14	28	1		
14	15	63		2	
15	16	65		1	
16	17	54		1	
17	18		1		
18	19				
19	20	34			
20	21	1	3	1	
21	22	13			
22	23	68			
23	24	13			
24	25	9		1	
25	26	16			
26	27	46		1	1
27	28	14			
Total		602	8	7	3

Overall Sensitivity (Environmental & Social) across Radhanpur Chanasma

Environmental Sensitivity (nos. of Trees):

Social Sensitivity i.e. nos. of Structures (Encroachers / Squatters), CPRs, and Temples:

Environmental and Social Sensitivity

Low Sensitivity	
Medium Sensitivity	
High Sensitivity	

Environmental and Social Inventory Data- Mehsana-Palanpur (SH-41)

**GUJARAT STATE HIGHWAY PROJECT -II
ROADS AND BUILDING DEPARTMENT-GOVERNMENT OF GUJARAT
ENVIRONMENT-SOCIAL DATA**

LHS

Sr. No	Chainage (Km)	Urban (U)/ Rural (R)	LHS/RHS	Name of Property	Type	Distance from edge of CW (m)		Area (approx.) in sqm	Remarks	Uses	Name & Contact Number
						BW	Structure		Age of Structure, Whether any annual fairs/ Uses	Used in Agriculture, Bathing	
1	79+400	R	LHS	Malgudi (Restaurent) steps and pillar of Hotel Board	Encroachment	14	14	7	Steps & Wall (2 Months/Shop)		Kishorbhai B. Dalvani 9824352944
2	79+400	R	LHS	Shop (tea stall)	Squatter		13	9			
3	80+300	R	LHS	Ramdevpir Temple (Fancing + Gate)	CPR	7	25	48	5 Years/ every Bij 2000 people's gathering		Shanajibhai Suraj Marji 9825556537
4	80+600	R	LHS	Agriculture Land	Encroachment	13					
5	81+200	R	LHS	Fencing (Agri. land)	Encroachment	14					
6	81+700	R	LHS	Squatter	Squatter		12	2*1	5 Years		Kholaji Devaji 90992216348
7	82+100	R	LHS	Jai Shree Chehar Bhavani Pan Parlour	Squatter		12	2*2	6 Months		Vaghela Dharmendra Prabhaji 6354056093
8	82+300	R	LHS	Bliss Aqua Park Boundary wall (corner)	Encroachment	14.5			Bounadary corner portion. 14.5 m		
9	82+500	R	LHS	Squatter near Bliss Water Park	Squatter		15	3*3			
10	84+200	R	LHS	Patel Group of institute	Encroachment	22.7	30	100 m			
11	84+500	R	LHS	Indira Nursery (fencing)	Encroachment	20					
12	84+500	R	LHS	Pump house+BW+borewell	Encroachment	16	16		Bounadary Wall & Well inside		
13	85+500	R	LHS	Jiya Parlour & tire Puncture Stall	squatter		12	2.5*2.5			Jagdishbhai Somabhai Raval 8128810014
14	85+550	R	LHS	Tea Stall & Other	squatter		8	(2*2), (2*1)			Jayantibhai Somabhai Raval 9725283977
15	85+850	R	LHS	Fencing (open land)	Encroachment	3			Fencing (Gram Panchayat)		
16	86+100	R	LHS	Swagat Pan Parlor	squatter		11	3*2.1 stall + Lari	2 Years		Ratanji Gobhaji Thakor 9727416160
17	88+600	R	LHS	Fencing+ Gate (form house)	Encroachment	15			Fencing & Gate		
18	89+600	R	LHS	Agriculture Land &	Encroachment	15					

Sr. No	Chainage (Km)	Urban (U)/ Rural (R)	LHS/RHS	Name of Property	Type	Distance from edge of CW (m)		Area (approx.) in sqm	Remarks	Uses	Name & Contact Number
						BW	Structure		Age of Structure, Whether any annual fairs/ Uses	Used in Agriculture, Bathing	
				Encroachment							
19	91+200	R	LHS	industrial BW+Gate+Room	Encroachment	18.5		120 m			
20	91+600	R	LHS	BW+Gate form house	Encroachment	22.5		100 m			
21	93+600	R	LHS	Meldi Maa Temple & Pond (at distance of 25m from CW)	CPR	7	15	(14.0*8.7) running length 7 m	Temple (Approx 40 years) & Pond		Contacted to Sarpanch
22	93+700	R	LHS	BW +Room House	Encroachment	19		100 m			
23	94+400	R	LHS	Bansi Parlour & Platform (Concrete)	Encroachment		5	(2*2.5), (6*8) Platform	Pan Parlour		New Bansi Hotel Contact to Person there
24	94+700	R	LHS	APMC-Unava BW & Gate	Encroachment	15 to 7		400m			Patel Rajendrabhai Kantilala 9825046869
25	94+950	R	LHS	Tea stall	squatter		6	(2*2)	Tea Stall (25 years)		Santaben Thakor, Amratji Thakor 9978259236
26	95+080	R	LHS	Goswami Tea Stall (semi pucca)	squatter		6	3.5*5	30 Years Semi-Pukka		Vishal Goswami 9725617020
27	95+100	R	LHS	Gujcomasol fertilizer Depot Cop. BW+Gate+room	Encroachment			Approx Legth B/w(200m) + Gate + Room	40 Years Semi Government		
28	99+700	R	LHS	Pan Parlor	squatter		6.8	(1.5*2.0)			Arvindbhai ilabhai patel- 6353020566
29		R	LHS	Jay Ambe Parlor	squatter		9	(2*2)	6years		Homshingh Rajput- 8141120467
30	100+100	R	LHS	Rudali Cars-BW	Encroachment		11.0+12.0m	B/W	4 Year		Rakeshbhai s. patel- 9825370008
31	100+600	R	LHS	TEF School BW+Gate	CPR	13					
32	102+000	R	LHS	Thar Hotel	Encroachment	12.1			Gate& B/W & Hotel Boundary wall		
33	102+500	R	LHS	Bhagavati Traders (Fencing Gate)	Encroachment	9.5		50m length	Fancing		Karshanbhai R. patel- 9426480400
34	102+700	R	LHS	Shrine and residential structures	squatters	4.0+8.0		(3*4)+ (3*4)	Temple Small		Ganeshpuri Maharaj- 7698469656
35	103+000	R	LHS	Fencing (Vrundavan form house)	Encroachment	6.5		80m length	Well-11.0m (Drinking water)&purification		Vasantbhai s. patel- 9825047770
36	103+700	R	LHS	Fencing area with plantation (rest area)	Encroachment	5.5		30m length	Plantation-12.0m		Navinbhai K. Thakor- 9978079081
37	105+000	R	LHS	Ajit Shanti Tirthdham	Encroachment	12					

Sr. No	Chainage (Km)	Urban (U)/ Rural (R)	LHS/RHS	Name of Property	Type	Distance from edge of CW (m)		Area (approx.) in sqm	Remarks	Uses	Name & Contact Number
						BW	Structure		Age of Structure, Whether any annual fairs/ Uses	Used in Agriculture, Bathing	
				BW+gate							
38	105+200	R	LHS	Jay Mataji Tea Stall	squatter		9	2*2			Ajay B Zala- 9662559926
39	105+210	R	LHS	Jay Mataji Parlour	squatter		6.7	1*2	Near Bus stand		Rameshji P Zala-
40	105+240	R	LHS	Jay Ambe Nasta House	squatter		6.7		Moveble		Vijaykumar S. Thakor- 9913082128
41	106+600	R	LHS	Chambuda Parlour	squatter	9	10	(3*3) 10m length	Stall+Resident (20 years)		Bhomaji Thakor - 9726554738
42	110+400	U	LHS	GETCO+UGVCL Gate and BW	Encroachment	7.5		50 m			
43	110+800	U	LHS	5 Shops	Encroachment	2.5					
44	113+400	R	LHS	Shrine	CPR		3.9		Ready to move		Sanjay Sharma - 9427544237
45	113+800	R	LHS	tea stall	Squatter	6.5	7.5	(3*3)	Tea Stall		Kanuji P Thakor - 9909845641
46	114+200	R	LHS	Sadhi Tea Stall	Squatter	4	10.5	(3*3)	1.5 years		Jagatsinh S Thakor- 9879099040
47	115+600	R	LHS	Tea stall	squatter		8.5	(1*2)*2 Folding	Tea stall (1year)		Suresh R. Prajapati - 9687523464
48	115+650	R	LHS	Tea Stall	squatter		7.3	(1.5*1.5) Folding	1 year		Noorali A Shah- 8758739904
49	116+300	R	LHS	Tea Stall	squatter		9.5	(3*2) Folder	1 year		Jalaksinh Thakor - 7698671623
50	116+320	R	LHS	Prajapati Desi Dhaba	squatter		9.5				
51	116+500	R	LHS	Varudi Art Gallery fencing	Encroachment		9.5		Fencing		Dixit S. Sompura- 9428079117
52	116+900	R	LHS	Tier puncher store(owned by hotel)	squatter		10	(5*8) Folding	6 months		Ramjibhai M. Rajput- 9979551558
53	117+050	R	LHS	Temple fencing	Encroachment	11.5	12.5	80 length	Gate of Temple & Fencing		Rajvi S. Rajput - 9924714426
54	117+100	R	LHS	Jay Goga Pan parlor	Encroachment		11.5	(5*3)			Rajvi S. Rajput - 9924714426
55	120+900	R	LHS	Barbber shop & pan parlour	squatter		11.5	(2*2) Folding (1*1)	20 years		Kamleshbhai Nai - 9913421553
56	120+900	R	LHS	Drinking water tank	CPR		11.5				
57	120+950	R	LHS	Shree Khodiyar Nasta House	Squatter		9.5	(2*2) Folding	3 years		Dhulia Thakor 9909163966
58	123+100	R	LHS	Pan Parlour	squatter		8	(2*2) Folding			Mataji Thakor
59	123+400	R	LHS	Oil Shop	squatter		8	(2*2) oil shop	3 years		Mosinbhai Chapi-

Sr. No	Chainage (Km)	Urban (U)/ Rural (R)	LHS/RHS	Name of Property	Type	Distance from edge of CW (m)		Area (approx.) in sqm	Remarks	Uses	Name & Contact Number
						BW	Structure		Age of Structure, Whether any annual fairs/ Uses	Used in Agriculture, Bathing	
								Folding			8347138678
60	124+600	R	LHS	Pan Parlour	squatter		8	(2*1) Folding			Ramjanbhai Mir
61	124+800	R	LHS	Sai Tea Centre(besides bus stand)	Squatter		6	Folding (2*1)			Nallibhai Shah
62	125+000	R	LHS	Water Tank	CPR		10				
63	125+000	R	LHS	Maaj Pan Parlour	Squatter		7	Folding(2*1)			
64	126+400	R	LHS	Puncture shop	squatter		6				Sabbirbhai Sia
65	126+900	R	LHS	Tea Shop& Barber Shop	Squatter		8	Folding(2*2)*2	7 years		Dalpat V Nai-7043027487
66	129+200	R	LHS	Rohan Puncture Shop	squatter		12	(2*2)			
67	130+000	R	LHS	Squatter	squatter		12	(2*2) Folding			Azambhai Sekh- 9426385653
68	131+300	R	LHS	Nasta House Shed	Encroachment	12	13.5				
69	132+500	R	LHS	Apna Tea Parlour	squatter		7	Folding(2*1)			Imtiaz Junakia-932879663
70	138+400	R	LHS	Tea Stall	squatter		7.5	Folding(2*1)			Kantibhai Patel
71	139+050	R	LHS	Gajanand Steel-Fencing	squatter	3		15m Length	Fencing		Saurin Patel-9824271756

RHS

Sr. No	Chainage (Km)	Urban (U)/ Rural (R)	LHS/RHS	Name of Property	type	Distance from edge of CW		Area (approx) in sqm	Remarks	Uses	Name & Number
						BW	Structure		Age of Structure, Whether any annual fairs/ Uses	Used in Agriculture, Bathing	
1	140+050	U	RHS	Radhe pan parlour	Squatter		21	(6*3)	5 years 2 Stalls And 1Stalls (Snacks)		Gautambhai Patel-9998194983
2	140+050	U	RHS	Subh Sanetary	Squatter		19	(2*1)	Shop		Devanandbhai M Darji -9924060951
3	140+000	U	RHS	Speed Motors-garage	Encroachment	23		3*3	Fencing 5 Years 1 Shop (3*3) Movable		
4	140+150	U	RHS	RAMCO IND.LTD	Encroachment	19	23	30	Fencing And 1 Shop		Pravinbhai Patel-9824324830
5	140+150	U	RHS	TEA Stall	Squatter	18		2*2			Vijay Raval-8347764758
6	140+200	U	RHS	Jalaram Timbers	Encroachment	23		40	fencing wall +gate		Devjibhai Patel -9824054629
7	140+200	U	RHS	Jay Ambe Steel House	Encroachment	23		50	fencing wall +gate		Archandbhai Modi-9909816542
8	140+200	U	RHS	Shiv Timber Mart	Encroachment	22		30	fencing wall +gate		Shivjibhai Patel-9737047953
9	139+400	U	RHS	Sadhi ma Dabha+wall	Encroachment	23		5*2	Wall+floor		Dineshbhai Patel-9824098464
10	139+300	U	RHS	Gajanand Pan Parlour	Encroachment	21		(3*3)			Nilesh G Bhatt-9429900900
11	139+200	U	RHS	Bhoomi dham Steel- BW	Encroachment	23		320m Length	Wall		Babubhai Patel -9825452449
12	138+500	R	RHS	Jay Ambe Pan Parlour	Squatter		10	(2*1) movable			Kalubhai Thakor-9825724540
13	138+200	R	RHS	Ridhhi Sidhhi Party Plot- BW	Encroachment	7.8	26	60m	Brick Wall		Vinodbhai Nai-9898210881
14	138+100	R	RHS	Fencing open plot	Encroachment	26		100m	Fencing (approx 100 m)		
15	137+950	R	RHS	Shrine	CPR		10	1*0.5			
16	137+400	R	RHS	pan parlour	Squatter	16.5		(2*1)			Rohitbhai Thakor-7874303528
17	137+300	R	RHS	Prajapati snacks house	Squatter	13		(2*1)			Arjunbhai Prajapati-9099715657
18	136+900	R	RHS	Payal tyre & services	Squatter	10		(2*1)			Akshay Bhaghat-9898588261
19	136+800	R	RHS	Rahi petroleum CNG Pump-rest shelter	Encroachment	15.3	18.3	8*8	Public Seating With Shade And 1Shop		Amit Prajapati-9726448116
20	136+800	R	RHS	Shops Movable (6)	squatters	15		(2*1)*6	2 months (All ready move)		

Sr. No	Chainage (Km)	Urban (U)/ Rural (R)	LHS/RHS	Name of Property	type	Distance from edge of CW		Area (approx) in sqm	Remarks	Uses	Name & Number
						BW	Structure		Age of Structure, Whether any annual fairs/ Uses	Used in Agriculture, Bathing	
21	133+200	R	RHS	Barbber +pan parlour Shop	squatters	14		(2*2)*2			
22	133+100	R	RHS	Vijay Tractors - Fencing+Gate	Encroachment	17.5		15.0m Length	Gate + Fencing		Sarifbhai Algodia-98725923499
23	132+200	R	RHS	Swad Hotel+parking shed	Encroachment		22.5	5*3			Ashrafbhai Chaudhari-9427253787
24	132+200	R	RHS	Ambar Pan House	squatters		12	2*2			Hussainbhai Mukhi-9725408045
25	131+600	R	RHS	Central Pan Parlour (Pucca shop)	squatters		15	(3*3)			Wasimbhai Mushi(Rental)=9974567794
26	131+200	R	RHS	WATER TANK NEAR ROYAL FURNITURE, OPP. KANODAR BUS STAND	CPR		4	2*3			Mahitibhai vakaliya - 9375961032
27	130+600	R	RHS	Ashirwad Dhabha+fencing	Encroachment	13.5		20m	fencing		Faujam-7624098794
28	130+400	R	RHS	Kutch residence (temporary)	squatters		13	(3*8)	Hut (Resident)		Aminbhai khadivala-9825726124
29	128+300	R	RHS	Water kundi	CPR		10				
30	127+900	R	RHS	Karan Nursery And Farm-Fencing	Encroachment	15		30m	Fancing		Puranbhai Kusavala-7874188086
31	126+800	R	RHS	Forest Nursery	Encroachment	4.5		60m			
32	126+500	R	RHS	Royal Dairy & Garden Pan Parlour	squatter		17.5	3*3			Zavedbhai Haba-9979325883
33	125+300	R	RHS	Pan Parlour	squatter		10	(2.5*1) folding			Munnabhai Siddhi-9726057402
34	124+500	R	RHS	Aman Pan Parlour	squatter		8	3*3	Near Bus stand		Yasinbhai Memon-9998274833
35	124+550	R	RHS	Ami Restaurant	Encroachment	20			Shed		Abubkar Jadeja-9825035786
36	124+550	R	RHS	Mannat Pan Centre	squatter		10	2*2	40 Years :Besides police chowki		Munaf Idrish-9601775601
37	123+300	R	RHS	Kanaiyaa Classic Dhabha	squatter	17.5		(3*2)			Akabar Jadeja-9726985192
38				Police Check post-Chhapi	CPR		8				
39	119+700 to	R	RHS	Fencing-open land	Encroachment		6	50m	Fencing		

Sr. No	Chainage (Km)	Urban (U)/ Rural (R)	LHS/RHS	Name of Property	type	Distance from edge of CW		Area (approx) in sqm	Remarks	Uses	Name & Number
						BW	Structure		Age of Structure, Whether any annual fairs/ Uses	Used in Agriculture, Bathing	
	118+700										
40	118+700 to 117+900	R	RHS	Fencing-open land	Encroachment		10	50m	Fencing		
41	116+200	R	RHS	Pan Parlour And tea Stall	squatter	10		(3*2)	3 Months		Vishnubhai Joshi
42	115+800	R	RHS	Hanuman Temple (IOCL)	CPR	15.7		(5*7)	2 years		
43	111+900	U	RHS	Jay Mataji Pan Parlour	squatter		14.5	(2*2)	20 years		Brijeshbhai Chaudhary-9427675911
44	108+500	U	RHS	squatters	Squatters		12	(2*2)*2			
45	107+300	R	RHS	Shree Mahalakshmi psyllium PVT. Limited-Fencing	Encroachment	17			Fencing		
46	105+800	R	RHS	Temple	CPR	11.7	14	(3*7)			Sanipbhai v patel - 9825320260(Pinakini Super industry)
47	105+200	R	RHS	Pan Parlour	squatter		11.5	(2*2)			
48	101+800	R	RHS	Pan Parlour	squatter		12.5	(3*3)	2 months (All ready move)		Pahaji Thakor-9978758621
49	101+600	R	RHS	Jay Goga Auto Garage	squatter		10	(2*2)	6 months		Pradipbhai solanki 9998271711
50	100+200	R	RHS	3 Shrines+ BW	CPR	(1)4.5m(2)14.0m	1)5.0(2)17.50	(1*1)(2*1)	70 years		Nailinbhai Patel-9825044899
51	99+900	U	RHS	Pan Parlour And tea Stall	squatter		10	(2*1)	40 Years :		Sureshbhai Prajapati-9726997774
52	99+200	U	RHS	Fencing-open land	Encroachment		8	30m	Fancing		
53	97+500	U	RHS	Squater	squatter		12	2*2			
54	96+500	R	RHS	Agri Land Enchro	Encroachment		9				
55	95+800	R	RHS	Shrine	CPR		9	(1*1)			
56	95+100	R	RHS	Shrine (near flyover construction)	CPR		13	1*1			
57	94+700	R	RHS	Tea Stall (1 squater)	Squatter		9	(2*1)			Rakeshbhai Sitarambhai Raval-9712503626
58	94+700	R	RHS	Pan Parlour	Squatter		7	(1*1)			Sanjay Patel-7043523144
59	93+100	R	RHS	Jay Goga tea Centre	squatter		7.5	(2*2)	1.5 years		Mokajibhai s Chaudhari-
60	91+900	R	RHS	Agri Land Enchro	Encroachment	12					
61	91+700	R	RHS	Tea STALL	Squatter		10	(2*2)	10 years		Jawanji Thakor
62	90+200	R	RHS	Puncur shop	squatter		11	3*3	4 years		Mahommad Sammi-

Sr. No	Chainage (Km)	Urban (U)/ Rural (R)	LHS/RHS	Name of Property	type	Distance from edge of CW		Area (approx) in sqm	Remarks	Uses	Name & Number
						BW	Structure		Age of Structure, Whether any annual fairs/ Uses	Used in Agriculture, Bathing	
											8873060283
63	89+400	R	RHS	B/W Under Construction	Encroachment	6	100	Approx 50 m length			
64	89+500	R	RHS	Morpinchh BW+Temple+Room	Encroachment	5	5.5	(15*5.5)			
65	87+200	R	RHS	Well+Room	squatter		7	5*5			
66	87+200	R	RHS	Puncture shop	Squatter		9	3*3	18 Years		Lalabhai Patel-9898082862
67	85+800	R	RHS	Bhrahma Tea Stall	Squatter		5.5	(5*2)	3 Years		Lalabhai Khamabhai Patel-8849437641
68	85+800	R	RHS	squatters (5)	Squatter		11	(3*3)*5			
69	85+600	R	RHS	Sairam Parlour	Squatter		7	3*3			Jayantibhai Patel-9825350579
70	85+600	R	RHS	Toilet(public)	CPR		11	(3*2)			
71	85+600	R	RHS	2 Shops	Encroachment		11	5*2			
72	85+600	R	RHS	Bathroom-private	Squatter		10	(2*2)			
73	85+600	R	RHS	Hotel Jai Satnam Platform	Squatter		10	3*3			Arjunbhai p Panjabi-9601431427
74	85+300	R	RHS	Meldi Krupa Pan Parlour	Squatter		10	(2*2)			Hamirbhai Chaganbhai raval-9974899778
75	85+100	R	RHS	Zeel Indane Gramin	Squatter	10		Length 35m	Gate AND B/W		Gemarbhai desai-9825368646
76	85+100	R	RHS	OM Shanti Parlour	Squatter		10	(2*2)			Ravibhai patel-9924938328

GUJARAT STATE HIGHWAY PROJECT -II
ROADS AND BUILDING DEPARTMENT-GOVERNMENT OF GUJARAT
ENVIRONMENT-SOCIAL DATA (Tree Inventory)

Name of Road: Mehsana-Palanpur

Corridor No.

Section :

CHAINAGE		TREES										Green Tunnel	Name of tree species along the corridor
		Left Side					Right Side						
From	To	Distribution of Trees			Dist. from Centre Line (m)	Total Trees	No. of Rows	Distribution of Trees			Total Trees		
		1st row	2nd row	3rd row				1st row	2nd row	3rd row			
79.0	80.0	52	31	22		105		65	14	28	107		
80.0	81.0	194	51	39		284		69	17	49	135		Babool, Neem
81.0	82.0	116	55	17		188		39	12	58	109		Neem, Baval
82.0	83.0	56	15	22		93		74	16	23	113		Ardusa, Neem, Baval
83.0	84.0	81	39	24		144		47	35	38	120		Babool, Gulmohar
84.0	85.0	73	9	13		95		47	34	32	113		Neem, Ardusa
85.0	86.0	29	15	21		65		2	12	15	29		Babool
86.0	87.0	88	25	21		134		38	26	22	86		Ardusa, Cedar, baval
87.0	88.0	105	26	19		150		79	45	40	164		Babool, Neem
88.0	89.0	77	29	39		145		90	30	24	144		Arduosa, Bordi
89.0	90.0	87	18	26		131		38	35	38	111		Babool, Peepal,Baval
90.0	91.0	76	20	21		117		55	35	29	119		Babool, Bordi
91.0	92.0	123	50	50		223		44	12	12	68		Neem, Peepal
92.0	93.0	130	65	83		278		86	27	33	146		
93.0	94.0	113	8	9		130		73	13	28	114		
94.0	95.0	145	14	22		181		61	4	31	96		Cedar, Neem
95.0	96.0	98	33	21		152		49	15	23	87		Babool, Baval
96.0	97.0	27	53	30		110		70	39	34	143		Babool, Cedar
97.0	98.0	0	12	14		26		22	5	7	34		
98.0	99.0	21	16	5		42		6	0	18	24		Neem, Ardusa
99.0	100.0	6	25	13		44		20	25	20	65		
100.0	101.0	8	10	43		61		93	58	53	204		Ardusa, Peepal
101.0	102.0	5	5	9		19		85	47	43	175		Cedar,Babool
102.0	103.0	4	22	37		63		209	68	49	326		Neem
103.0	104.0	5	45	40		90		168	73	46	287		Neem, Babool, Baval
104.0	105.0	5	40	45		90		155	52	40	247		Gulmohar
105.0	106.0	6	48	50		104		123	82	66	271		Ardusa, Bordi

CHAINAGE		TREES										Green Tunnel	Name of tree species along the corridor
		Left Side					Right Side						
From	To	Distribution of Trees			Dist. from Centre Line (m)	Total Trees	No. of Rows	Distribution of Trees			Total Trees		
		1st row	2nd row	3rd row				1st row	2nd row	3rd row			
106.0	107.0	10	45	47		102		143	68	38	249		
Mehsana		1740	824	802		3,366		2050	899	937	3,886	7252	7,252
107.0	108.0	2	10	21		33		95	55	23	173		
108.0	109.0	7	47	15		69		39	51	38	128		Babool, Neem, Ardusa
109.0	110.0	0	50	13		63		54	30	4	88		
110.0	111.0	0	24	8		32		15	0	0	15		
111.0	112.0	0	8	1		9		25	9	1	35		
112.0	113.0	5	15	8		28		45	5	7	57		Cedar, Peepal
113.0	114.0	5	38	57		100		48	30	11	89		Neem, Baval, Ardusa
114.0	115.0	8	25	17		50		8	32	36	76		
115.0	116.0	3	19	7		29		5	45	7	57		Gulmohar, Babool
116.0	117.0	7	26	65		98		70	55	35	160		Babool, Bordi
117.0	118.0	9	21	32		62		127	115	60	302		
Patan		46	283	244		573		531	427	222	1180	1753	1,753
118.0	119.0	4	9	50		63		280	195	67	542		Ardusa, Bordi
119.0	120.0	7	45	57		109		325	350	180	855		Baval
120.0	121.0	16	22	33		71		52	33	37	122		Neem, Baval
121.0	122.0	5	15	66		86		60	65	75	200		Bordi
122.0	123.0	6	20	63		89		145	83	65	293		Ardusa, Neem
123.0	124.0	1	10	11		22		132	75	43	250		Baval, Bordi
124.0	125.0	9	77	122		208		32	25	18	75		Bordi, Neem
125.0	126.0	5	62	48		115		168	110	85	363		Gulmohar
126.0	127.0	8	108	140		256		148	98	45	291		
127.0	128.0	2	46	80		128		184	115	53	352		Baval, Neem
128.0	129.0	9	52	49		110		171	24	50	245		Cedar, Ardusa
129.0	130.0	0	7	12		19		125	27	16	168		Peepal
130.0	131.0	0	9	7		16		42	20	7	69		Neem, Baval
131.0	132.0	7	12	9		28		31	35	17	83		
132.0	133.0	13	47	90		150		80	85	92	257		Bordi
133.0	134.0	38	80	36		154		257	198	185	640		Baval, Neem
134.0	135.0	5	120	45		170		229	207	176	612		Ardusa
135.0	136.0	12	115	49		176		198	170	160	528		
136.0	137.0	57	174	57		288		167	108	99	374		Ardusa, Baval
137.0	138.0	90	65	43		198		195	64	40	299		Babool, Neem,Gulmohar
138.0	139.0	40	0	15		55		338	128	68	534		Babool, Neem
139.0	140.0	8	0	1		9		14	18	11	43		Ardusa

CHAINAGE		TREES										Green Tunnel	Name of tree species along the corridor		
		Left Side					Right Side								
From	To	Distribution of Trees			Dist. from Centre Line (m)	Total Trees	No. of Rows	Distribution of Trees			Total Trees				
		1st row	2nd row	3rd row				1st row	2nd row	3rd row					
140.0	141.0	0	0	0		-		0	0	0	-				
Palanpur		342	1095	1083		2520	0	3373	2233	1589	7195	9715	9715		
Total							6459						12261	18720	18720
Chainage		RHS/LHS-distance form CW			Dist.Wise										
		1st row	2nd row	3rd row	LHS	RHS	T								
79.0	96.0	6.50	3.25	3.00		Mehsana	3366	3886	7252						
96.0	141.0	12.50	9.25	3.00		Patan	573	1180	1753						
						Palanpur	2520	7195	9715						
						Total Trees	6459	12261	18720						

Environmental and Social Inventory Data- Mehsana Bypass (SH-41)

GUJARAT STATE HIGHWAY PROJECT -II									
ROADS AND BUILDING DEPARTMENT-GOVERNMENT OF GUJARAT									
ENVIRONMENT-SOCIAL DATA									
Corridor Name:			Mehsana-Bypass					Date: 5th July 2018	
Sr. No	Chainage (Km)	Urban (U)/ Rural (R)	LHS/RHS	Name of Property	Distance from edge of cw		Area (approx.) in sqm	Remarks (Age of Structure, Whether any annual fairs/ Uses)	Uses
					BW	Structure			Used in Agriculture, Bathing/others
1	0.175	U	RHS	Squatter		2.8	3.*3	Tea stall	
2	4.725	U	RHS	Squatter		6.8	3*3	Tea stall	
3	0.2	R	LHS	Encroachment Fencing Open land		4	50m	fencing	
4	3	R	LHS	Encroachment(BW)		8	15m	Boundary wall	
5	4.5	R	LHS	Encroachment-Fencing		3	60m	Fencing-open land	

Annexure IV: Request letters for Shifting of various Utilities-Mehsana-Palanpur

No. PIU/GSHP-II/BSNL/M-P/ 51th /2018

Office of the Superintending Engineer
Project Implementation Unit
Nirman Bhavan, Sector-10/A
Gandhinagar, Gujarat
Ph: 079-23252986 / 9825562693
Date: 17/7/2018

To,
Chairman & Managing Director,
Bharat Sanchar Bhavan,
Harish Chandra Mathur Lane, Janpath,
New Delhi- 110 001
Email:cmdcomplaints@bsnl.co.in,
pg_gujarat@bsnl.co.in, omdut@indiatimes.com
Ph: 079-30331424, Fax: 079-30331502

To,
Chief General Manager / Appellate Authority,
BSNL Bhavan,
Microwave (M.W.) Building,
Navrangpura,
Ahmedabad:380 006
Tel No: 079-26560203;
Fax No: 079-26423670

**Subject: Second Gujarat State Highway Project, Roads and Buildings Department (WB Aided):
Request for Shifting of BSNL utilities (Lines/OFC cables/poles) along/across Mehana-
Palanpur section of SH-41 in view of its proposed Six-Lanning- reg.**

Dear Sir,

The Government of Gujarat (GoG) through Roads & Buildings Department (R&BD) is implementing the Project "Second Gujarat State Highway Project (GSHP-II)" under the World Bank loan assistance. The Project, besides other roads, includes widening of Mehana-Palanpur section of State Highway-41 from existing Four-lane divided configuration to Six-lane divided configuration on Engineering, Procurement and Construction (EPC) contract basis. The Project Highway starts at Mehana bypass junction Km 79+300 and terminates at Palanpur Km 141+100.

The Project preparation works for the Project Highway are in advance stage of finalization.

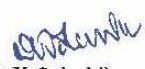
We envisage presence of **BSNL** utilities in the Right Of Way (ROW) of the Project Highway along/across it which shall need to be relocated appropriately to enable the execution of the six-laning works.

In view of above, you are requested to arrange to identify the **BSNL** utilities existing in the ROW of the Project Highway and take necessary steps for relocating them at the extreme of the ROW; the ROW is 60m, generally 30m either side from the centerline of the existing 4-lane highway. In this regard, you are requested to please direct your concerned officers as early as possible so that relocation work is completed before start of the execution of the construction activities by the agency to be engaged by us. This will help **BSNL** in maintaining its uninterrupted services even in construction period and us by meeting our obligation to hand over encroachment/utility-free site to the EPC Contractor in time, failure of which would cause R&BD pay heavy penalty to the EPC Contractor on the basis of per day of delay.

It is requested that this office be intimated of your program of shifting the utilities along with a copy of the approval letter issued by the concerned officer of R&BD including the Agreement entered between the parties (**BSNL** & R&BD) for laying of **BSNL** utilities in the Project Highway ROW.

It is therefore requested that this communication be given top priority and responded as early as possible.

Thanking you.


(D. K. Solanki)
Superintending Engineer,
Project Implementation Unit,
Gandhinagar.

Copy respectfully submitted to:

Chief Engineer (World Bank), R&B Department, 4th Floor, Nirman Bhavan, Gandhinagar for kind information.

Copy forwarded to:

1. Executive Engineer, SRP-Division-Mehana for information and necessary action.
2. Team Leader, LEA Associates South Asia Pvt. Ltd. Gandhinagar for information.

No. PIU/GSHP-II/SGL/M-P/486/2018

Office of the Superintending Engineer
Project Implementation Unit
Nirman Bhavan, Sector-10/A
Gandhinagar, Gujarat
Ph: 079-23252986 / 9825562693
Date: 05/07/2018

To,
The Chief Manager (O&M),
Sabarmati Gas Limited (SGL),
Plot No. 907,
Sector-21,
Gandhinagar - 382 021.
Phone: (079)-66737600
Email: info@sabarmatigas.com

Subject: Second Gujarat State Highway Project, Roads and Buildings Department (WB Aided): Request for details of SGL Gas pipelines running along / across Mehsana-Palanpur section of SH-41 in view of its proposed Six-Lanning- reg.

Dear Sir,

The Government of Gujarat (GoG) through Roads & Buildings Department (R&BD) is implementing the Project "Second Gujarat State Highway Project (GSHP-II)" under the World Bank loan assistance. The Project, besides other roads, includes widening of Mehsana-Palanpur section of State Highway-41 from existing Four-lane divided configuration to Six-lane divided configuration on Engineering, Procurement and Construction (EPC) contract basis. The Project Highway starts at Mehsana bypass junction Km 79+300 and terminates at Palanpur Km 141+100.

We observed SGL Gas pipelines existing along/across the project highway near Km 79+400, near Nursing college, Siddhpur, etc where present 4-lane divided highway is envisaged to be widened to 6-lane divided carriageway configuration with/without service road.

You are requested to kindly share with this office the location details of SGL Gas pipelines indicating the project highway **chainages (Km)**, **offsets (distances)** with respect to the project highway and **depth** with respect to the finished road level (black top level)/ original ground level of the project highway of the pipelines where running along the project highway within the project highway ROW and crossings' chainages (Km) and pipelines' depth where crossing the project highway with self-explanatory sketches (especially required where the crossing is oblique) so that the pipelines can be traced at site with ease. Details of other ancillary works like pipeline Chambers, Valves, etc., if any be also included in the details. These along with a copy of the approval letter issued by the concerned officer of R&BD including the agreement entered between the parties may please be communicated to this office for further needful action at our end.


You are requested to direct the concerned officers to visit the project highway as required at this stage itself so that execution of works goes without any interruption and delays.

Page 1 of 3

The likely typical cross-section of the proposed Six-laning without service road (existing service roads at urban/semi-urban locations would continue) and the relevant photographs of the SGL Gas pipeline route markers are herewith attached for your ready reference and better appreciation of the site conditions.

Project preparation works for the Project Highway are in advance stage of finalization. It is therefore requested that this communication be given top priority and responded as early as possible.

Thanking you.


(D. R. Solanki)
Superintending Engineer,
Project implementation Unit,
Gandhinagar.

Encl.: As Above.

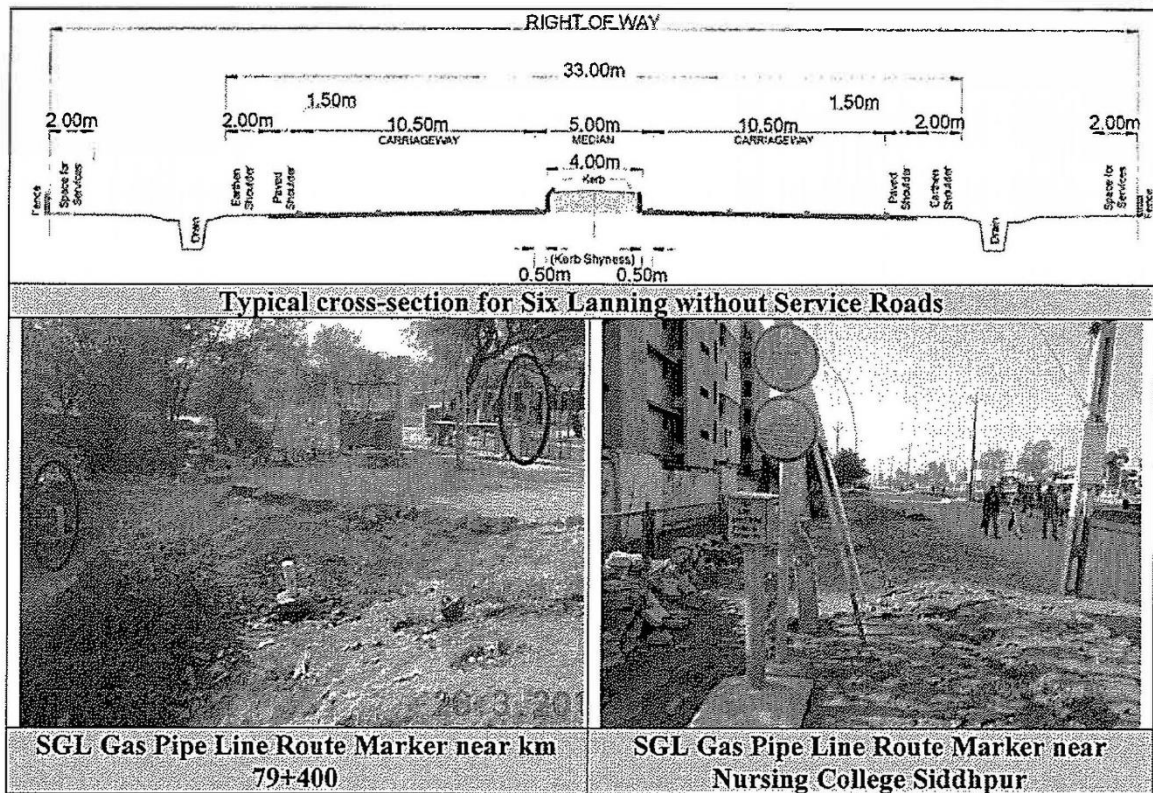
Copy respectfully submitted to:

Chief Engineer (World Bank), R & B Department, 4th Floor, Nirman Bhavan, Gandhinagar for kind information.

Copy forwarded to:

1. The Executive Engineer, SRP-Division-Mehsana for information and necessary action.
2. The Team Leader, LEA Associates South Asia Pvt. Ltd. Gandhinagar for Information.

Appnedix-1



**Annexure V: Govt. Order/Circular/Gazette Notification on Declared Notified
Protected Forest (NPF) across NHs and SHs in Gujarat State**

ક્રમાંક: વસધા/૨૮/૫/૩૮૩૧૫/૨૦૦૩-૦૪
અમી મુખ્ય વન સંરક્ષકશ્રીની કચેરી,
બ્લોક નં. ૧૪/૧, જુના સચિવાલય,
ગુજરાત રાજ્ય, ગાંધીનગર.
તા. ૨૮/૦૮/૨૦૦૩.

૨૮/૮/૨૦૦૩

પ્રતિ,
ચીફ એન્જીનીયરશ્રી અને
અધિક મુખ્ય સચિવશ્રી,
રોડ એન્ડ બીલ્ડીંગ વિભાગ,
સચિવાલય, ગાંધીનગર.

વિષય: કોમ્પેનશન ફોર કોમ્પેનસેટરી અફોરેસ્ટેશન ચાંજીજ ઓન રોડ સાઈડ પ્રોટેક્ટેડ લેન્ડ
ફોર એનએચસ ઈન ગુજરાત.

સંદર્ભ: આપના પત્રોંક:
(૧) NHR-MISC-102003-15-M, dt:16/06/2003.
(૨) NHR-MISC-102003-15-M, dt:07/08/2003.

સવિનય જણાવવાનું કે, ઉપરોક્ત વિષયને લગતા સંદર્ભ પત્ર સાથે મળેલ સરકારશ્રીના ઠરાવ,
સ્ટેટમેન્ટ તથા નકશાની અન્નેથી ચકાસણી કરવામાં આવેલ છે અને નીચે મુજબ સ્પષ્ટતા કરવામાં આવે છે.

૧. રાષ્ટ્રીય ધોરી માર્ગ તથા રાજ્ય ધોરી માર્ગની કુલ ૮.૭૫ મીટરની પહોળાઈમાં માર્ગ અને મકાન
વિભાગ દ્વારા સર્વેક્ષણ કરવાની કે અન્ય કોઈ કામગીરી કરવા માટે વન વિભાગની પરવાનગી
લેવાની રહેશે નહિ.

૨. રાષ્ટ્રીય ધોરી માર્ગ તથા રાજ્ય ધોરી માર્ગની પહોળાઈ ૮.૭૫ મીટર બાદનો તમામ વિસ્તાર રક્ષિત
વિસ્તાર તરીકે જાહેર મળેલ હોઈ, તેમાં બીના જંગલની પ્રવૃત્તિ કરવા માટે વન સંરક્ષણ ધારો લાગુ પડે
છે. જેથી માર્ગ અને મકાન વિભાગએ વન સંરક્ષણ ધારો હેઠળ મંજૂરી મેળવ્યા બાદ જ કામગીરી
કરવાની રહે છે.

(મહીપ ગાંધી)
મુખ્ય વન સંરક્ષક,
વન્યપ્રાણી, ગુજરાત રાજ્ય,
ગાંધીનગર.

નકલ રવાના: અમી સચિવશ્રી, વન અને પર્યાવરણ વિભાગ, સચિવાલય, ગાંધીનગર તરફ જાણ સારું.

નકલ રવાના: વન સંરક્ષકશ્રી તમામ તરફ જાણ તથા અગવ સારું.

(P.T.O)

True copy

અમી મુખ્ય વન સંરક્ષક
વન્યપ્રાણી વિભાગ, ગાંધીનગર.

૨૮/૮/૨૦૦૩

Annexure VI: Environmental Monitoring Locations along the Corridor Alignment (Key Map)

Locations

Along the State Highway sections from 1) Mehsana to Palanpur SH No. 41 and 2) Mehsana Bypass, SH 41 A, 3) Radhanpur Harij Chansama SH No. 55 and 4) Vallabhipur Ranghola, SH No. 39.

Sr. No.	Road Name	State Highway No.	Locations where monitoring and samples are require to be taken
1	Mehsana to Palanpur	SH 41	Sujlam Saflam Canal (km. 87.125) / Or Farmer's Pipeline (km. 90.500); Canal (km. 104.150 / OR km. 105.990); Unjha Km. 100 / OR Siddhapur Km. 112; Near Km. 120 / OR Palanpur Km. 141 on SH 41
2	Mehsana Bypass	SH 41 A	Radhanpur Junction on Mehsana Bypass km. 11.750 of SH 41 A; Fatehpura Junction on Mehsana Bypass Km. 16.750 of SH 41 A on end of Mehsana Bypass / Km. 79 of SH 41 on Mehsana Palanpur
3	Radhanpur to Harij to Chanasma	SH 55	Radhanpur (km. 00.500 on SH 55)start point of Radhanpur Harij Chanasma section and Banas River (km. 6.6 on SH 55 for water sampling); Harij (km. 39.500 of SH 55); Chanasma town at km. 60.400 end point of Radhanpur Harij Chanasma Narmada Main Canal, km. 52.050; Farmer's Pipeline (km. 40.410) / OR GWSSB Pipeline (km. 41.510) / OR Harij Br. Cancal (km. 42.695)
4.	Vallabhipur To Ranghola	SH 39	Vallabhipur at km. 0.250 (LHS), T Junction of Vallabhipur – Bhavnagar – Ranghola (near Vallabhipur town), start pt. of road; Canal Syphon at km. 3.7 / or at km. 7.2 of SH 39 on Vallabhipur Ranghola road Either at Umrala village (at km. 11) / OR at Parvala village (at km. 22.5) between Vallabhipur Ranghola section from km. 0.500 to km. 26.500 of SH 39 / OR near end point of Vallabhipur Ranghola section (km. 26.500 of SH 39, near Rajkot Bhavnagar State Highway)

Mehsana Palanpur Road (State Highway No. 41)

Locations / Parameters	Latitude Longitude	Ambient Air	Noise Levels	Surface Water	Ground Water	Soil
Sujlam Saflam Canal (km. 87.125) / Or Farmer's Pipeline (km. 90.500)	23°42'41.77"N 72°22'57.49"E			01	01	
Canal (km. 104.150 / OR km. 105.990)	23°51'40.28"N 72°21'59.31"E			01	01	
Unjha, Km. 100 / Siddhapur, Km. 112	23°48'8.47"N 72°22'47.70"E	01	01	01	01	01
Near Km. 120	24° 0'8.44"N 72°23'2.96"E	01	01			01
Palanpur, Km. 141	24°10'12.16"N 72°24'55.28"E	01	01			01
Total Mehsana Palanpur		03	03	03	03	03

Mehsana Bypass (State Highway No. 41 A)

Locations / Parameters	Latitude Longitude	Ambient Air	Noise Levels	Surface Water	Ground Water	Soil
Radhanpur Junction on Mehsana Bypass , km. 11.750 of SH 41 A	23°37'11.71"N; 72°20'49.17"E	01	01	01	01	01
Fatehpura Junction on Mehsana Bypass Km. 16.750 of SH 41 A on end of Mehsana Bypass / Km. 79 of SH 41 on Mehsana Palanpur	23°38'37.90"N 72°23'8.15"E	01	01	01	01	01
Total Mehsana Bypass		02	02	02	02	02

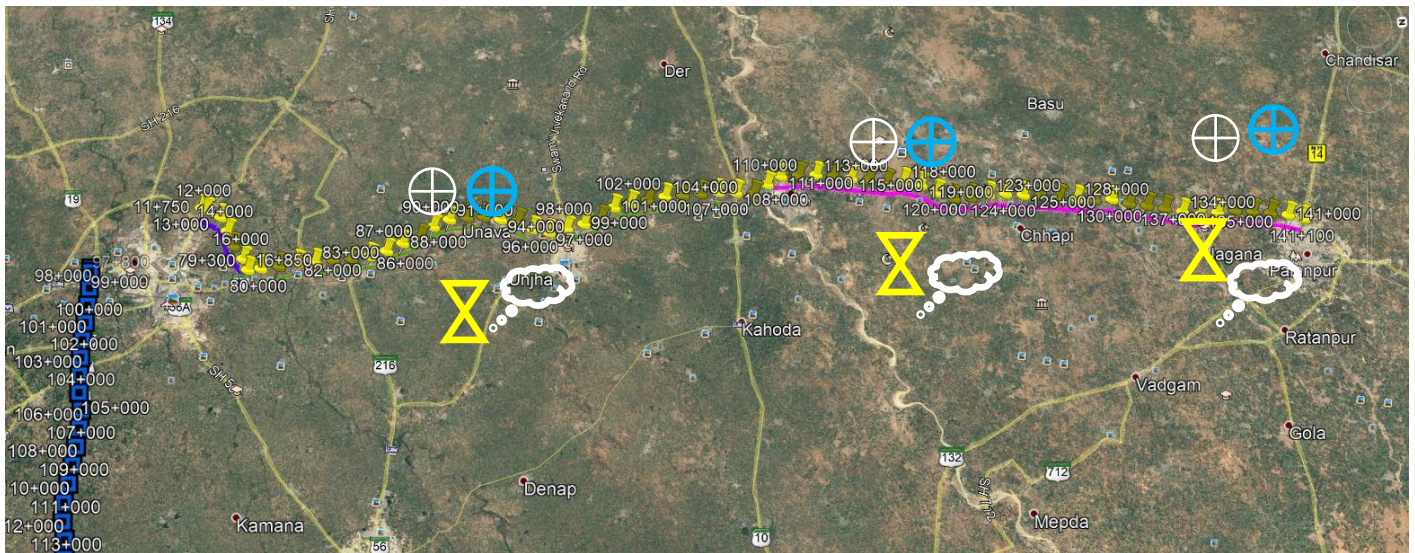
Radhanpur Chansama Harij (State Highway No. 55)

Locations / Parameters	Latitude Longitude	Ambient Air	Noise Levels	Surface Water	Ground Water	Soil
Radhanpur (km. 00.500 on SH 55) start point of Radhanpur Harij Chansama section and Banas River (km. 6.6 on SH 55 for water sampling)	23°49'3.61"N 71°36'54.72"E	01	01	01	01	01
Chansama town at km. 60.400; end point of Radhanpur Harij Chansama project corridor (road)	23°42'59.53"N 72° 6'5.42"E	01	01			01
Harij (km. 39.500 of SH 55) on the way from Radhanpur to Chansama SH 55	23°41'43.32"N 71°54'29.94"E	01	01			01
Narmada Main Canal, km. 52.050	72° 2'3.68"E 72° 2'3.68"E			01	01	
Farmer's Pipeline (km. 40.410) / OR GWSSB Pipeline (km. 41.510) / OR Harij Br. Canal (km. 42.695)	23°41'17.56"N 71°56'11.57"E			01	01	
Total Radhanpur Chansama Harij		03	03	03	03	03

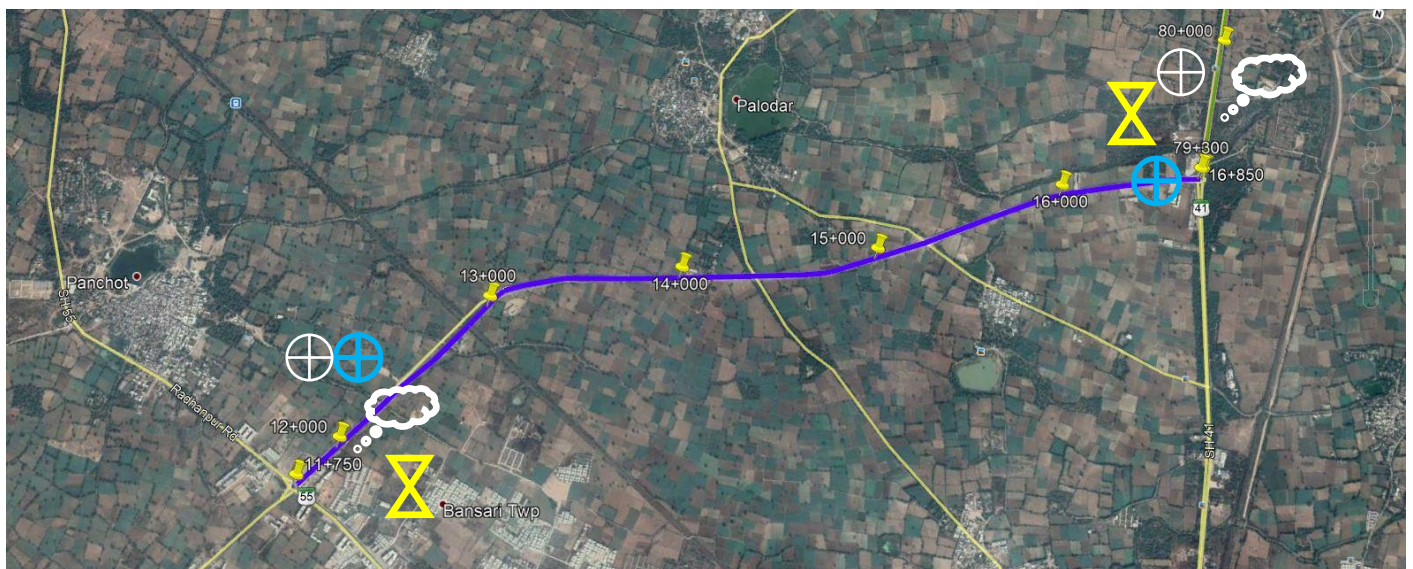
Vallabhipur Ranghola (State Highway No. 39)

Locations / Parameters	Latitude Longitude	Ambient Air	Noise Levels	Surface Water	Ground Water	Soil
Vallabhipur at km. 0.250 (LHS), T Junction of Vallabhipur – Bhavnagar – Ranghola (near Vallabhipur town), start pt. of road / OR Canal Syphon at km. 3.7 / or at km. 7.2	21°52'47.03"N 71°52'36.66"E	01	01	01	01	01
Either at Umralla village (at km. 11) / OR at Parvala village (at km. 22.5) between Vallabhipur Ranghola section from km. 0.500 to km. 26.500 of SH 39) / OR End point of Vallabhipur Ranghola section (km. 26.500 of SH 39, near Rajkot Bhavnagar State Highway	21°50'41.93"N 71°48'4.22"E (Umralla)	01	01	01	01	01
Total Vallabhipur Ranghola		02	02	02	02	02

Tentatively Identified - Indicative Locations on Google Map



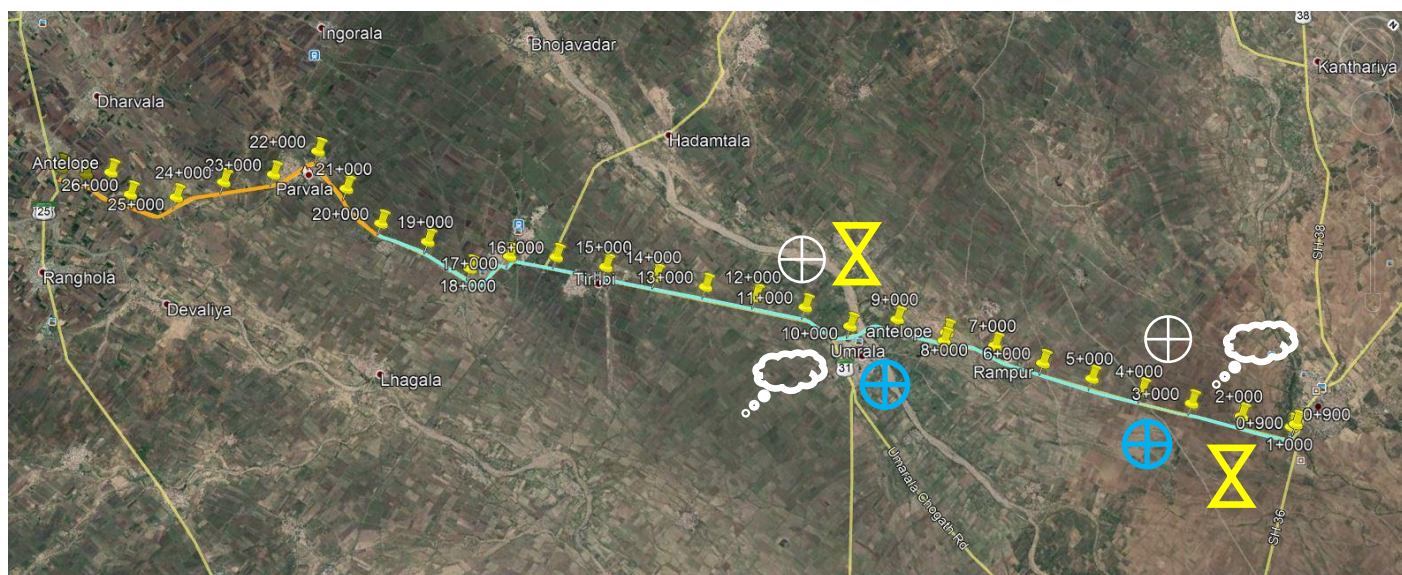
Mehsana Palanpur (Three Samples / Locations)



Mehsana Bypass (Two Samples / Locations)



Radhanpur Harij Chanasma (Three Samples / Locations)



Vallabhipur Ranghola (Two Samples / Locations)

Identified locations to monitor various Environmental Parameters

Legend			
Air		Surface Water	
Noise		Ground Water	
Soil Sample	10 no. of soil samples, from locations along the project road		

Abbreviations:

GSHP II – Second Gujarat State Highway Project, R&BD., GoG- Roads and Building Department, Govt. of Gujarat;

SH – State Highway; NH – National Highway; Ch. – Chainage

**Annexure VII: Copy of Formal Approval on NPF Obtained Radhanpur Chansma
SH During year 2010**



भारत सरकार
GOVERNMENT OF INDIA
पर्यावरण एवं वन मंत्रालय
MINISTRY OF ENVIRONMENT & FORESTS

क्षेत्रीय कार्यालय, पश्चिम क्षेत्र,
Regional Office, Western Region,
केन्द्रीय पर्यावरण भवन
Kendriya Parayavaran Bhavan,
लिंक रोड नं० ३/Link Road No. 3,
एरेरा कालोनी/Arera Colony,
भोपाल (मध्य प्रदेश)/Bhopal-462016 (M.P.)
दूरभाष /Phone: 2466525, 2463102, 2465496,
फैक्स /Fax: 0755-2463102
अणु डाक /E-mail: rccfbhopal@gmail.com.

No: 6-GJD003/2009-BHO/ 895,

Dt- 17-05-2010,

To,

The Principal Secretary,
Govt. of Gujarat,
Forest and Environment Department,
Sardar Patel Bhawan, Block No14/8,
Sachivalaya, Gandhinagar.

Sub: Diversion of 82.38 ha protected forest land for widening High Speed Corridor SH-55, Radhanpur-Harij-Mehsana road, from Km 0/0 to 83/2 in favour of (R & B Division in Patan District, Gujarat- Regarding

Ref: (1) This Office letter No. 6-GJD003/2009-BHO/525 dated 27/02/2009.
(2). Govt. of Gujarat letter No.FCA-1008(7-30) S.F. 187-F dated 08/03/2010.

Sir,

I am directed to invite reference to your letter No. FCA-1008(7-30)/S.F-187-F dated 19/01/2009 on subject cited seeking prior approval of the Central Government under Section -2 of Forest (Conservation) Act, 1980 as amended.

The Central Government vide this office letter (1) cited had agreed in-principle for diversion of 82.38 ha Protected forest land for the purpose mentioned, in the proposal subject to fulfilment of condition Nos. 3, 4 & 5 stipulated therein.

The State Government vide letter (2) referred above reported compliance on fulfilment of the said conditions.

Therefore, the undersigned hereby conveys formal approval of the Central Government under Section-2 of Forest (Conservation) Act, 1980 for diversion of 82.38 ha protected forest land for widening High Speed Corridor SH-55, Radhanpur-Harij-Mehsana road, from Km 0/0 to 83/2 in favour of (R & B Division in Patan District, subject to the following terms and conditions:-

Contd...2

- 2 -

- 1.. The legal status of the forest land shall remain unchanged.
- 2.. Compensatory Afforestation shall be taken up over 165.00 ha of Degraded forest land, in Survey No.42/3, Village-Piprala,Taleq.-Santalpur, District Patan, at the cost of User Agency, within 2 years from the date of the transfer of forest land to the User Agency.
- 3.. All the funds received from the User Agency under the project shall be transferred to the Ad-hoc Compensatory Afforestation Fund Management & Planning Agency(CAMPA) in A/c No.CA 1583 of Corporation Bank, Block-11, CGO Complex, Phase-I, Lodi Road, New Delhi- 110003.
- 4.. In the interest of conservation, the user agency will take up plantations along the diverted area at their own cost. A plan for the same should be prepared in consultation with the Forest Department and commitment of the funds should be provided.
- 5.. All other conditions under different rules, regulations and guidelines including environmental clearance and the Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 shall be complied with before transfer of forest land.
- 6.. Prior necessary clearance shall be obtained under Environment Impact Assessment Notification 2006, if road is to be tarred/Black Topped..
- 7.. The forest land shall not be used for any purpose other than that is specified in the project proposal.
- 8.. Any other condition imposed by the State Government.

The transfer of forest land should be effected by the State Government only after compliance of condition. *ok*

Yours faithfully,

Pradeep Vasudeva
(Pradeep Vasudeva)

Dy Conservator of Forests(C) *ok*

Copy to :-

- 1.. The Dy. Secretary(FC), Ministry of Environment and Forests, Paryavaran Bhawan, CGO Complex, Lodi Road, New Delhi – 110003.
- 2.. The Chief Conservator of Forests and Nodal Officer, Govt. of Gujarat, Dr. Jivraj Mehta Bhawan, Block 14, Old Sachivalaya, Gandhinagar – 382010.
- 3.. The Dy. Conservator of Forests, Patan Forest Division, District Patan, Gujarat.
- 4.. The Executive Engineer, R & B Division Patan, District Patan, Gujarat..
- 5.. Order File.

Pradeep Vasudeva
(Pradeep Vasudeva)
Dy Conservator of Forests(C) *ok*

Final/Road 29

Annexure VIII: Copy of Acknowledgement Receipt Online Submission and Acceptance of Forest Proposals

From: monitoring-fc@nic.in <monitoring-fc@nic.in>

Sent: 26 October 2018 12:06

To: Environmental R & R Specialist (eo1-piu-rnd@gujarat.gov.in)

Cc: monitoring-fc@nic.in; monitoring-fc@nic.in

Subject: Email Alert From System Administrator of Online Submission and Monitoring of Forests Clearances Proposal (OSMFCP) Portal

A proposal seeking prior approval of Central Government under the Forest (Conservation) Act 1980, as per the details given below, has been examined by the Nodal Officer, Forest (conservation) Act, 1980, Government of Gujarat and has been found to be complete in all respect.

1. **Proposal No.** : **FP/GJ/ROAD/36645/2018**
2. **Proposal Name** : Strengthening and Rehabilitation of Existing 2 Lane Vallabhipur (km 0.900) to Ranghola (km 27+532) State Highway 39
3. **Category of the Proposal** : Road
4. **Date of Submission** : **25/10/2018**
5. **Name of the Applicant with Contact Details**
6. **Area Applied (ha.)** : **31.692**

Please provide duly signed hard copy of the above proposal along with all necessary enclosures to the office of the each concerned Divisional Forest Officer and the District Collector and upload a copy of the acknowledgement slip(s) (single pdf file) as per the format given below, obtained from each of the above authorities, on portal of this Ministry for further processing of the above proposal.

(System Administrator)

Acknowledgement Slip

This is to certify that hard copy of the proposal seeking prior approval of Central Government under the Forest (Conservation) Act 1980, as per details given below, along with all necessary enclosures has been received in the Office of the Gujarat on 25/10/2018.

1. **Proposal No.** : **FP/GJ/ROAD/36645/2018**
2. **Proposal Name** : Strengthening and Rehabilitation of Existing 2 Lane Vallabhipur (km 0.900) to Ranghola (km 27+532) State Highway 39
3. **Category of the Proposal** : Road
4. **Date of Submission** : **25/10/2018**
5. **Name of the User Agency with Contact Details**
 - Name** : R
 - Mobile No.** : 9727640000
 - State** : Gujarat
 - District** : Gandhinagar
 - Pin code** : 382010
6. **Area Applied (ha.)** : **31.692**

(System Administrator)

*** This is a system generated email, please do not reply. ***

Email Alert from System

This is to acknowledge that a proposal seeking prior approval of Central Government under the Forest (Conservation) Act 1980 as per the details given below has been successfully uploaded on the portal of the Ministry of Environment, Forests and Climate Change Government of India.

1. **Proposal No.** : FP/GJ/ROAD/35014/2018
2. **Proposal Name** : Upgradation and Widening of Mehsana to Palanpur State Highway 41 to 6 Lane plus
3. **Category of the Proposal** : Road
4. **Date of Submission** : 06/09/2018
5. **Name of the Applicant with Contact Details**
 - Name** : R
 - Mobile No.** : 9974028560
 - State** : Gujarat
 - District** : Gandhinagar
 - Pincode** : 382010
6. **Area Applied (ha.)** : 211.27

The proposal will be examined by the Nodal Officer, Forest (Conservation) Act, 1980 to assess its completeness.

(System Administrator)

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