



9. SOCIAL IMPACT ASSESSMENT

9.1 INTRODUCTION

The intensity of traffic on Indian roads in general and particularly on highways has increased into manifolds thus rendering inadequate existing road capacity to contain the increased volume of traffic. To cope up with this challenge the Ministry of Road Transport and Highways, Government of India has assigned National Highway Authority of India (NHAI) to take up the development of various National Highway corridors where the traffic intensity has increased significantly thereby necessitating capacity augmentation for safe and efficient movement of traffic.

In this regard, NHAI has been entrusted with the development, strengthening and upgradation of the existing two lane of Wardha- Butibori section of NH-361 into four lane configuration.

A considerable 60.000 km. long Wardha-Butibori section of NH-361 passes through two important districts namely Wardha and Nagpur of Maharashtra state. The project road starts at km. 28.800 and ends at Km. 85.374 and traverses through some major towns namely Pavnar, Seloo, Kelzar, Khadki and Butibori.

The proposed road improvement including widening, realignment and bypasses involves expropriation of land from the current owners or users. Improvement of the road project will have significant positive impacts, but they may simultaneously also bring negative impacts on nearby communities, if proper precaution is not taken during design and implementation stage of the project. Acquisition of land may cause social disruption and economic loss for project affected persons (PAPs) and their families. It is therefore important that disturbances and losses of PAPs due to project are minimized through proper planning. This Resettlement Action Plan details the processes to be undertaken for the proposed project to minimize its adverse social impacts.



9.2 NEED FOR SOCIAL IMPACT ASSESSMENT

The loss of private assets resulting in loss of income and displacement makes social impact assessment an important input in project design while initiating and implementing developmental interventions. An understanding of the issues related to social, economic and cultural factors of the affected people is critical in the formulation of an appropriate rehabilitation plan. A detailed social impact assessment (SIA) therefore needs to be carried out to make project design responsive to social development concerns. SIA also helps in enhancing the project benefits to poor and vulnerable people while minimizing or mitigating concerns, risks and adverse impacts.

9.3 OBJECTIVE OF THE STUDY

The main objective of the study is to ensure that the project addresses the adverse impacts on the livelihood of the people and that nobody is left worse off after implementing RAP and those affected have access to project benefits, during project construction as well as operation stage.

The report aims to highlight the social problems and suggests general and typical mitigation measures to alleviate social problems of the project-affected people such as loss of livelihood, displacement and loss of access to community facilities through widening of roads, bypasses, service roads, underpasses and other facilities. The specific objectives of the RAP are as follows:

- To carry out a socio-economic, cultural and political/institutional analysis to identify the project stakeholders and social issues associated with the project;
- To assess the extent of asset loss and undertake the census of potential project affected people;
- To develop a Resettlement Action Plan (RAP) in consultation with the affected people and project authorities;
- To identify likely occurrence of HIV/AIDS resulting from the influx of outside labourers and others and develop a strategy to reduce their incidence; and



- To develop a consultation framework for participatory planning and implementation of proposed mitigation plan.

9.4 SCOPE OF THE STUDY

The study began with the identification of social issues and stakeholders and communities, including socially and economically disadvantaged communities. The focus of SIA is on identifying local population likely to be affected by the project either directly or indirectly and undertake census survey. The scope of the study in particular included the following:

- Identifying key social issues associated with the proposed project and specifies the project's social development outcomes;
- Assessing potential social and economic impacts both during the construction phase and in the operation phase;
- Reviewing policies, regulations and other provisions that related to resettlement and rehabilitation of project affected people and other social issues;
- Social screening of various project components and likely impacts in terms of land taking (loss of houses, livelihood, etc.), and resultant involuntary resettlement and provide inputs (in terms of magnitude of impacts and likely costs for mitigation) in preparing appropriate mitigation plans;
- Screening the social development issues in the project area and its vicinity and design the social services that may be provided by the project in order to improve the quality of life and achieve the projects economic and social goals;
- Update the profile of the population and available infrastructure facilities for services in the project affected area;
- Based on the assessment of potential social and economic impacts establish criteria that will assist in the formulation of strategies; to the extent possible maximize project benefits to the local population and minimize adverse impacts of the project interventions on the affected communities;



- Inform, consult and carry out dialogues with the project stakeholders on matters relating to project design, objectives, and implementation and provide specific recommendations to avoid/minimize high social risks;
- Screen the social development issues in the project area and its vicinity and accordingly design the social services that may have to be provided by the project in order to improve the quality of life;
- Identify likely loss of community assets (e.g. school, community assets) including the religious structures and common property resources (e.g. forest, grazing land) the impacts of their loss on the local population;
- Assess the impact of influx of construction workers and others (both during civil works and operation of the project) on the incidence of HIV/AIDS and other diseases and develop a strategy to control them;
- Assess the capacity institutions and mechanisms for implementing social development aspects of the project implementation including the social safeguard plans and recommend capacity building measures; and,
- Develop monitoring and evaluation mechanism to assess the social development outcomes

9.5 METHODOLOGY

Approach and methodology mainly consist of quantitative and qualitative tools and techniques. The study was conducted in two phases.

9.5.1 PHASE – I: PRE SURVEY ACTIVITIES

9.5.1.1 COLLECTION AND REVIEW OF PROJECT LITERATURE

This phase intends to familiarize with the concerned and important stakeholders to identify and collect the available literature and to scope the activities. This involved two pronged approach (a) discussions with Project Implementing authorities and other concerned, b) collection of available relevant project literature. Consultations were held with concerned revenue officials to establish the ownership of land.



Literature review and consultations formed the basis for identification of key stakeholders.

9.5.1.2 RAPID RECONNAISSANCE SURVEY TO FAMILIARIZE FIELD ACTIVITIES

In addition to review and consultations, rapid preliminary field visits were conducted as part of ground truthing exercise. It provided the elementary idea about field research preparation and also helped for pilot testing of questionnaires and checklists.

9.5.1.3 SCOPING AND OTHER PRE-SURVEY ACTIVITIES

Both the review and rapid reconnaissance survey helped in finalizing the study instruments and inception report detailing the final methodology and work plan.

9.5.2 PHASE II: SURVEY ACTIVITIES

9.5.2.1 CENSUS AND SOCIO – ECONOMIC HOUSEHOLD SURVEY

The social team conducted a census study within 30 m on either side of the proposed central line of the project road. The database will be used later to identify structures coming within proposed ROW. The survey also includes comprehensive examination of people's assets, important cultural or religious sites, and common property resources. The process includes collecting details of owner or occupant of the structure, its type and usage and dimensions. A structured format was used to collect all the relevant information on project PAPs and their structures. The questionnaire is appended in Annexure 9.1.

The following methodology has been adopted to finalize the likely to be affected persons along the project area.

- Identification of project affected persons(PAPs) and families(PAFs)
- Census survey of affected families
- Socio-economic base line survey and
- Consultations



a) Identification of PAPs/PAFs

For agricultural land affected Title Holders' identification, the likely to be impacted land survey numbers which is derived from Land Plan is taken into consideration. In this process the Title Holders (THs) and Non-Title Holders (NTHs) of the project stretch are included in Resettlement action plan (RAP).

b) Census Survey

In order to identify and establish the legal entitlement of the property, a 100 percent census survey method was adopted. The door-to-door interview helps eliciting information on affected properties belonging to both title and non titleholders. The property identification exercise was undertaken within 60 meter width of proposed ROW. Prior to initiation of physical identification of the structures, detailed discussions were held with concerned officials to collect information on ownership of land and ROW. To carry out the census survey, an exhaustive interview schedule was prepared and tested for its smooth administration.

All the affected structures belonging to titleholders incorporated in resettlement action plan. Their location, size, geometry, type of construction of the structures, name of the owner(s), address, vulnerability etc. were also recorded. This survey is an important tool for preparing resettlement action plan. The following points of census survey include:

- Loss of immovable assets by type and degree of loss;
- Physical measurements of the affected assets/ structures including their replacement valuation;
- Categorisation and measurement of potential loss;
- Status of ownership
- Legal right on the likely to be affected assets

c) Socio- Economic Baseline Survey

The socio- economic survey of 25 % of PAFs is also conducted to attain a representative database. The aim of the baseline socio-economic survey is to determine distribution of socio-economic groups on the map, analysis of social



structure and income resources of the PAPs, inventories of the resources which the PAP use as well as the data on the system of economic production.

d) Consultations

The consultations are undertaken with various stakeholders at village levels for dissemination of information about the proposed alignments.

In identification stage the public consultations center on the mapping of the social issues related to the project stretch and thereby understand the concerns and aspirations of the people on the widening of the existing road. Public consultations have also facilitated to make a rapport with likely to be affected PAPs by the proposed bypass.

Public consultations assisted in finalizing various issues related to widening of the road with paved shoulder and the location of proposed bypass, possible realignments etc. Focused Group Discussions (FGDs) are also held with women and SC community and other vulnerable and non-vulnerable groups.

Though the stretch passes through number of villages in two districts, the settlement / land pattern as well as socio-economic profile across this whole stretch of 60 Kms has lot of uniformity. Even the issues that have emerged as a result of this consultative process are also quite common with minor variations. In addition to the Public Consultation the PAPs were also informed about the National as well as State Government Rehabilitation and Resettlement Policy (R&R Policy). Thus, the focus on the likely to be project affected people, dependents on PAPs, impact on livelihood and assess the quantum of likely to be losses were central theme of our consultation programmes.

9.5.2.2 QUALITATIVE SURVEY

Qualitative surveys are conducted for evaluation of both affected population and implementation capacities. The qualitative survey included focus group discussions and in depth interviews with various sections of people such as women, knowledgeable persons and community leaders to elicit their expectations and suggestions, which will support and provide additional information collected through quantitative survey.



9.5.2.3 ASSESSMENT OF LIVELIHOOD LOSSES

The study made an attempt to identify people losing their livelihood directly or indirectly. The consultative process paved the way to develop rehabilitation strategies that help for income generation and other remedial and restoration measures. The consultations were conducted with project affected people, villagers, knowledgeable persons and community leaders of the village.

9.5.2.4 REVIEW OF LEGAL POLICY PROVISIONS AND IMPLEMENTATION CAPACITY

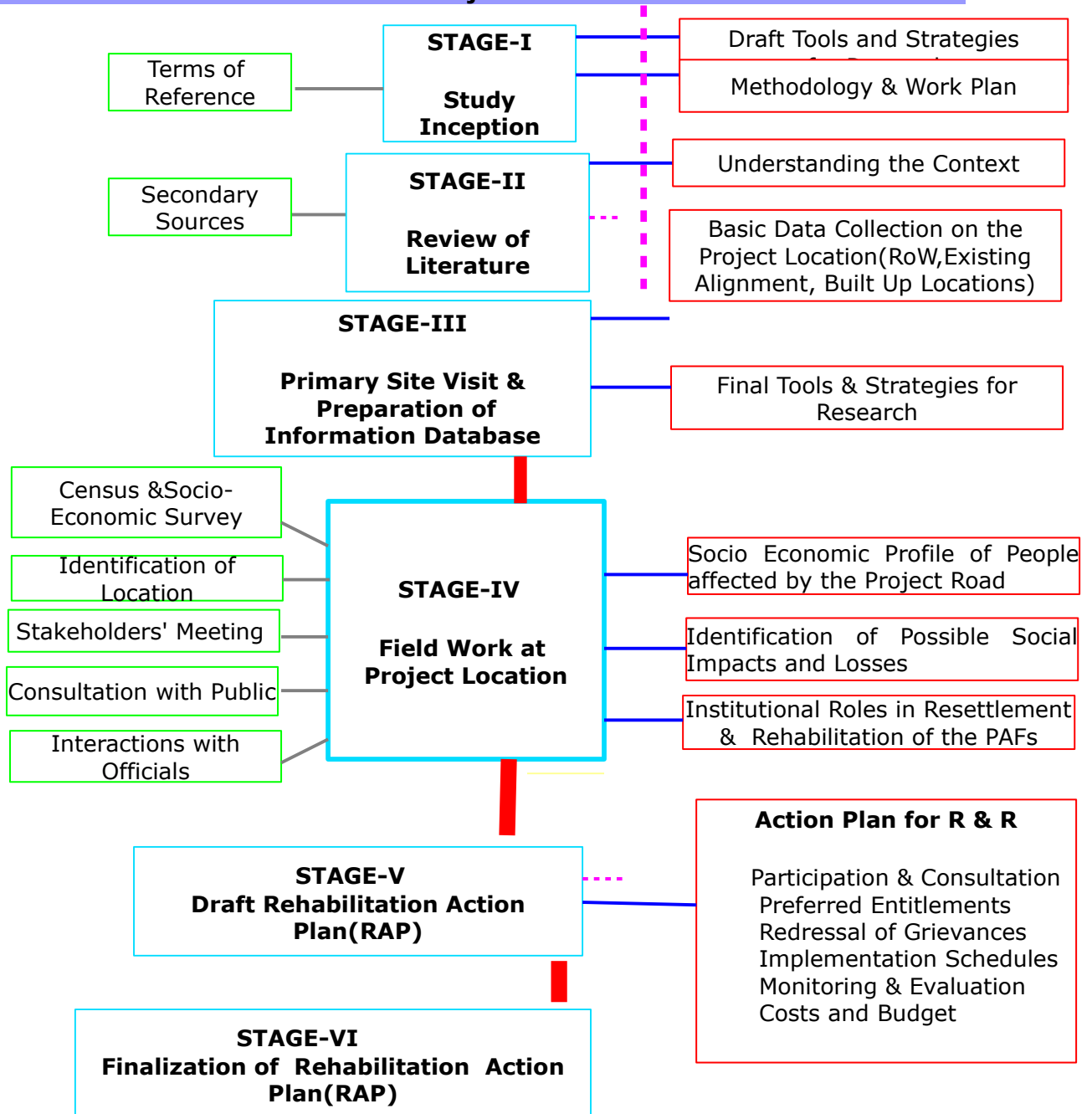
Relevant national and state legislation and regulations were reviewed. To study implementation arrangements and its capacity in delivering the R&R services, verification of these arrangements and in-depth interviews with authorities were conducted.

9.5.2.5 RESEARCH TOOLS AND INSTRUMENTS

Various social research tools are employed to ensure that all issues related to the study need to be adequately addressed so that a meaningful package of deliverables can be developed. The entire exercise was carried out through an appropriate mix of social research techniques including desk research through review of information, concerned government departments and project authorities. Structured and semi-structured interviews, group discussions with the affected people and relevant government agencies and community were undertaken. The study used various instruments to collect information for the different stakeholders involved in the project.

The above tasks are planned to flow in a manner that will complete the project in line with the NHAI. The proposed method is illustrated in the form of a task flow diagram and is shown in **Fig 9.1**. Each of the above tasks is briefly discussed in the above sections to demonstrate consultants' understanding of the project required.

Fig 9.1: Flow Chart of Stage-wise activities to be adopted for undertaking the Detail Project Report for Wardha- Butibori Section of NH-361 Project Road



--- : Line indicate the flow of inputs — : Line indicates the flow of outputs

9.6 APPROACH

The approach of the study is as follows:

- Primary data with the emphasis on observations and discussions.



- A household survey has been undertaken to collect information at family level.
- The relevant secondary information has been collected from Revenue Department, Census Report, Directorate of Economy & Statistics, Govt. of Maharashtra etc. to supplement the primary survey data.
- In addition, discussions were held with the community leaders, NGOs, government officials concerned with R&R.
- The important aspect of the study was also participatory appraisal with the involvement of the community to enable them to understand the process of R&R.
- Photographs were also taken to record the existing structures for identification.

9.7 BENEFITS OF THE PROJECT

The main objective of the project is to improve the performance of the National road transport network. All the road users including the affected persons (PAPs) will benefit from the proposed improvement through increased comfort and reduced travel time. The society will benefit economically from the saving in vehicle operating costs due to enhanced speed and better geometric. The project also will open up the areas adjacent to the project road to increased economic activity. The project is expected to bring quite a few benefits viz.

- result in lower transport costs for freight and passengers of motorized and non- motorized vehicles,
- improve road transport corridors and road network connectivity,
- improve management of road sector institutions,
- enhance maintenance of priority roads and rural prosperity,
- reduce risk of highway related diseases, and basic amenities to the village along the proposed highways,



- increase in the local employment opportunities is a significant and immediate economic benefit of the project,
- better connectivity, increase in traffic will result in an increased economic activity in the vicinity of the proposed works and
- local communities will have greater access to public infrastructure and increased mobility through enhanced transport facilities

9.8 STRUCTURE OF THE REPORT

The report is presented in the following chapters:

- Project and Methodology
- Project Stretch Profile
- Socio-Economic Profile of Project Influenced District
- Evaluation of Social Impact & Socio Economic Profile of Affected People
- Legal Policy Frame Work and Entitlement Matrix
- Stakeholders' Consultations
- R & R Budget

9.9 PROJECT STRETCH PROFILE

9.9.1 DESCRIPTION OF PROJECT STRETCH

National Highways Authority of India has awarded the assignment on Hybrid annuity mode to carry out detail project study for 4-laning of Wardha-Butibori section on NH-361 located in the state of Maharashtra. The main objective of the project is to rehabilitate and upgrade the existing highways into four lane configuration to meet the traffic needs for a long period.

The project corridor is important for various reasons. It connects major regions of Maharashtra state – Eastern Maharashtra and that is characterised by the presence



of numerous industries. Butibori houses a number of large and small scale industries which comes under MIDC. It is believed that by the development of this corridor, the economy of project districts will get boost and that may attract high level of investments. Apart from connectivity considerations, the development of this corridor has been perceived to be important towards achieving overall development in Maharashtra state.

The main objective of the consultancy service is to establish the technical, economical, and financial viability of the project and prepare details project reports of rehabilitation and upgradation of the existing highways into four lane configuration to meet the traffic needs for a long period.

9.9.2 EXISTING CHARACTERISTICS OF THE PROJECT ROAD

The Wardha-Butibori section of project highway starts at Km. 28.800 (Wardha) on NH-361 and ends at Km. 85.374 on NH-361 (Butibori). It traverses through Wardha and Nagpur districts in the state of Maharashtra and major towns namely Pavnar, Kelzar, Khadki, Seldoh and Butibori. The existing Wardha-Butibori section (NH-361) has 2 lane of 52.6 km, 4 lane of 2.1 km in discontinuous stretches.

The project road almost passes through plain terrain. A total number of 34 revenue villages including proposed bypass villages spread over in two project districts namely Wardha and Nagpur. As regard to district wise, the proposed project road traverse through 23 villages in Wardha and 11 villages in Nagpur respectively. The list of the villages along the project stretch is given in Table 9.9.1.

Table 9.9.1: Description of Butibori- Wardha Road of NH-361					
Status of Existing Road				Status of Proposed Road	
Sl. No.	Name of Road Section	Existing Chainage	Existing Length (Km.)	Design Chainage	Design Length (km)
1	Wardha-Butibori	28.800- 85.374	60.000	465.500-524.600	59.100

9.9.3 SCOPE OF SERVICES

The present project corridor is 2-lane with paved shoulders at built up locations or



major villages. As per the data obtained from PWD/ NHA, the existing RoW of entire project road excluding existing bypass (Wardha) varies from 25-30 meter and it is not enough to accommodate four laning road with configuration. For widening the existing road, bypasses and realignment, 60 meter RoW has been proposed which necessitates land acquisition.

As far as possible, the widening work to four lane with typical cross sections shall be carried out within the proposed right of way. However, bypasses proposals is considered, wherever in urban areas, widening to four lanes of the existing road is not possible.

A number of habitation is found on both left and right side of the road. It is also noticed that the traffic intensity in the road is very high. While finalizing the road alignment efforts have been made by adopting appropriate engineering designs, to minimize resettlement impacts. To minimize displacement and to reduce disruption of livelihoods, concentric widening in village sections and bypasses have been proposed. The field visits, extraction of information, interaction with people and road users helped in getting better planning and design inputs towards minimizing negative social impacts. The total design length of the corridor is 59.1 km.

Table 9.9.2: Salient Features of Wardha- Butibori Section of NH-361

Sl. No.	Particulars	Quantity
1	Total Length of proposed Road: Design Length (in km.)	59.100
2	Total volume of Land required for the proposed Road [as per 3(a) notification] (in Ha.)	170.50
3	Land required for Widening of the Existing Road with configuration (in Ha.)	84.07
4	Total Land required for proposed Bypasses (in Ha.)	83.86
5	Land required for proposed Toll Plaza (in Ha.)	2.57



Fig-9.9.1(a): Two Lane Carriageway with Earthen Shoulders



Fig-9.9.1 (b): Two Lane Carriageway with Paved Shoulders

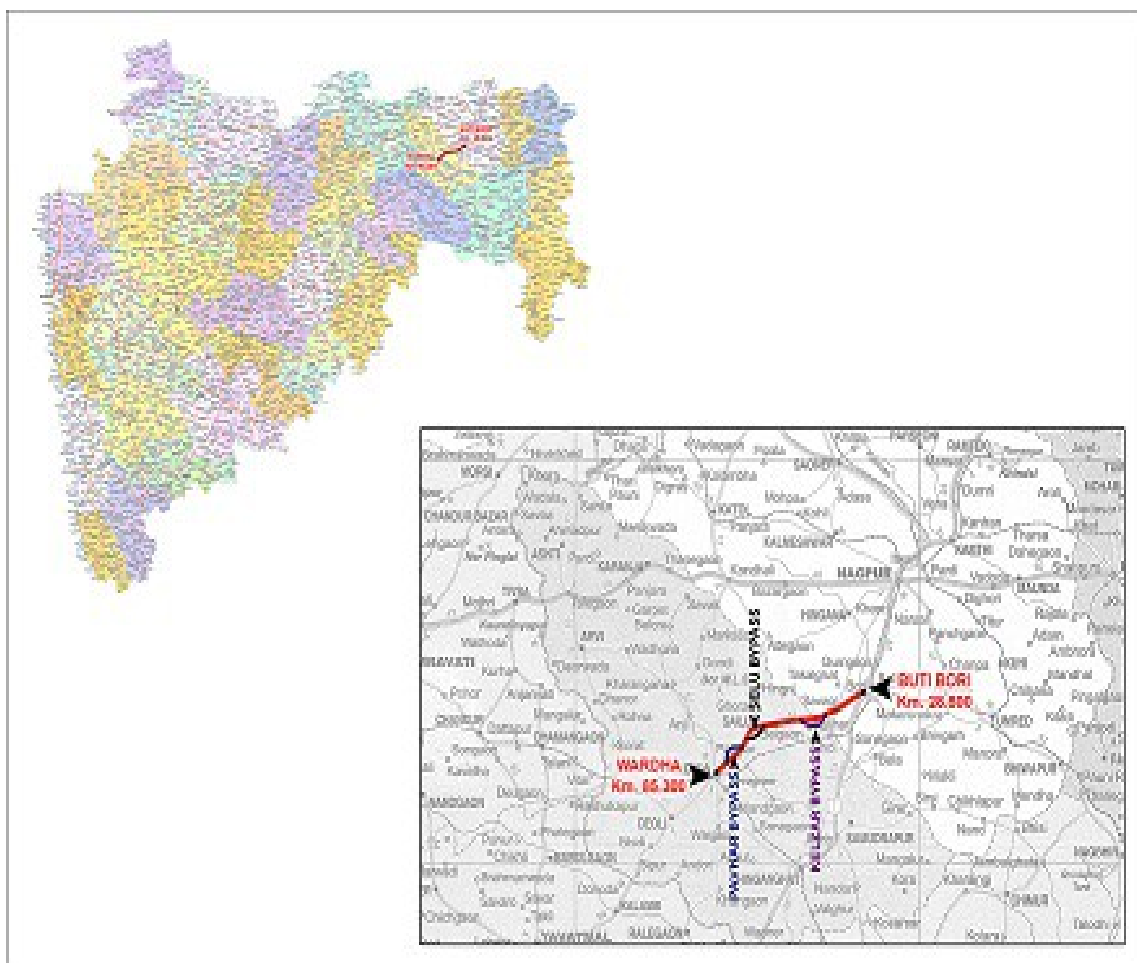


Fig: 9.9.2 -Location Map of the Project Stretch

Table 9.9.3: Existing Revenue Villages in Wardha- Butibori Section

Sl. No.	Village Name	Taluka	District
1	Salod *	Wardha	Wardha
2	Shympur *		
3	Sawangi (Meghe) *		
4	Sindhi *		
5	Umari		
6	Pipri		
7	Satoda		
8	Bhiwapur		
9	Pavnar		
10	Kanhapur		



11	Godhapur	Selu		
12	Yankapur(Ramna)			
13	Mohanapur +			
14	Selu +			
15	Belgaon +			
16	Dhanoli +			
17	Indapur			
18	Kotamba			
19	Kolhi			
20	Janglapur			
21	Mahabala			
22	Kelzar #			
23	Amagaon			
24	Khadki			
25	Seldoh	Hingna	Nagpur	
26	Wadgaon			
27	Haladgaon			
28	Sawangi			
29	Asola			
30	Dawalpeth			
31	Junapani			Nagpur Rural
32	Murzari			
33	Murarpur			
34	Rui khairi			

* Proposed Salod Bypass Village + Selu Bypass Villages #Kelzar Bypass Village

9.9.4 WIDENING OF THE ROAD

As per recent IRC guidelines, the ROW for four laning of national highways shall be 60 m. However, keeping in view the objective of NHA regarding the ROW, and expansion of the proposed four lane the survey work was carried out.

Based on the above observation a viable alignment options from social, environmentally and engineering point of view has been proposed for the project road widening. This alignment proposal has been worked out with coordination and inputs from all professionals keeping in view the cost and benefit of the project and for providing a possible durable solution for the larger goal.

The choice of widening option depends to large extent on site constraint and



construction methodology. It has been endeavor of consultant to propose widening option keeping in view the following key factors:

- i) Minimum impact on residential and commercial property abutting the corridor;
- ii) Land use and availability of land;
- iii) Optimum utilization of existing pavement and ROW at location of curve improvement;
- iv) Minimum impact on the environment.
- v) Minimizing interference with religious structures such as Temples, Mosques, Grave Yards
- vi) Minimizing interference with historical monuments and
- vii) Least disturbance to traffic during construction

9.9.5 PROPOSED BYPASSES/ALTERNATIVE ALIGNMENT

The project road passes through some congested built-up locations of NH-361 which make through traffic very slow and dangerous. In this connection, three bypasses of length 13.950 km. is proposed. The details of proposed bypass location is given below.

Table-9.9.4: Location of Proposed Bypass						
Sl. No.	Section	Existing Chainage		Proposed Bypass Village	Proposed Length in Km.	Lane Configuration
		From	To			
1	Wardha-Butibori	85.300	78.200 (On Wardha Bypass)	Salod	7.3	4 lane divided Carriageway
2		58.669	62.400	Selu	3.700	4 lane divided Carriageway
3		50.000	53.000	Kelzar	2.950	4 lane divided Carriageway
Total					13.950	

9.9.6 LAND USE PATTERN

The land use pattern along the road is of mixed type with agricultural, barren, industries and minor/major built-up location. Major part of the alignment passes through social forest land and built-up locations.

9.9.7 SOURCES OF IRRIGATION AND CROPPING PATTERN

The major sources of irrigation are wells and tube-wells in the study area. Besides this, very limited area is irrigated through small canal ponds. During Kharif, the groundnut crop is produced in irrigated areas. Maize also requires irrigation. Generally other crops are sown at the commencement of the rainy season. Bajra, Groundnut, Maize and Cotton are sown by broadcasting the seeds. Fertilizer is applied before sowing of groundnut and cotton.

The crops are found predominantly cotton, wheat, cummin and ground nut. The crops found along the stretch are either rainfed or dependent on water from irrigation tanks.

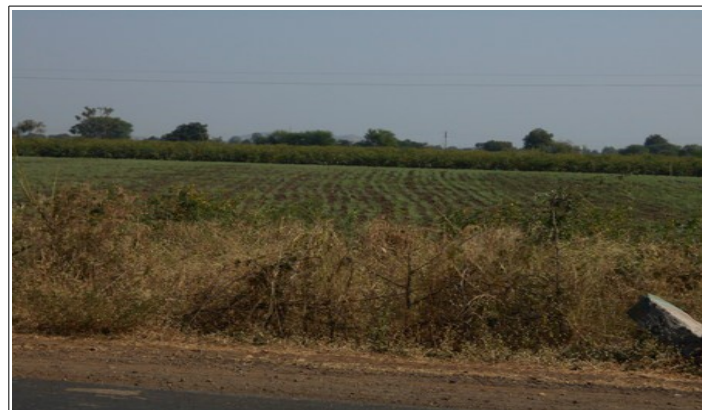


Fig: 9.9.3 Cropping Pattern

During Rabi, the mustard and gram is sown from September to October in unirrigated land, while in the irrigated land, barley, gram and mustard are sown in October-November and wheat in November-December.

9.9.8 FOREST LAND



Government of Maharashtra declared the road side area or roads under PWD of the study districts scheduled to be protected forests”. Hence, the entire stretch of 54 Km of the RoW is falling within the Protected Social Forestry. However, the roadside avenue plantation only seems to have tree/shrub/herb species, other than the avenue plantation, the forest area is negligible.

9.9.9 MAJOR ROAD JUNCTIONS

There are 7 major junctions and 8 minor junctions in Wardha-Butibori section of project road. Apart from these, there are local gravel and earthen roads leading to cluster of houses in villages and semi-urban stretches. The major junctions along the project stretch, with State Highways, district roads given below in Table –9.5.

Table 9.9.5: List of Major Junctions along the Project Corridor				
Sl. No.	Location (Km.)	Type of Junction	Name of Road	Leads to
1	72.750	+	Arvi	Wardha city
2	60.000	T	Ghorad	-
3	46.000	Y	-	Sindi
4	28.800	T	Nagpur	Hyderabad

9.9.10 EXISTING RIGHT OF WAY AND ENCROACHMENT

As per the data obtained from the NHAI, the average Right of Way (ROW) all along the project corridor is around 25- 30 m. But when it comes to the revenue maps obtained from the local *Taluk* or Village Panchayats a variation is seen with in the Right of Way. However, the Land Acquisition Plans are prepared to have uniform ROW of 60 m in accordance with the NHAI guidelines.

The existing project stretch of NH-361 is of 2 lane carriageway with 7.0 meter width. Earthen shoulder is observed on either side of the carriageway with varying width of 1.0m to 2.5m. In some built-up locations, paved shoulder is also noticed.

During the census survey it was noticed that about 16 scattered habitations fall in Wardha-Butibori section will have an impact by widening of the road. Most of the road sided land in built-up location is occupied by both encroachers and squatters.

It is general tendency that road side government land is usually occupied for commercial and residential purposes. It may be driven by reason of landlessness,

poverty or may be the sheer attraction of business opportunity. Also, the practice of using government land for socio-cultural and religious purpose is quite evident.



Fig 9.9.4: - Encroached Existing RoW

Census of all the structures lying within 60m is undertaken to assess the project impact on the population for displacement, resettlement and rehabilitation. Bypasses have been proposed to avoid the impact on involuntary resettlement along the congested settlements. The structures to be acquired within the proposed RoW belong to titleholders, tenants as well as encroachers, squatters and informal settlers.

9.9.11 RELIGIOUS STRUCTURES ALONG THE PROJECT STRETCH

During survey 21 religious structures adjacent to the existing road were identified. The religious structures consist of road sided temples, shrines and dargha. Of 21 religious structures, 5 shrines of very small structures which do not have much religious importance were noticed. Almost all religious structures along the carriageway might be affected completely as these structures were observed within a distance of 5-10 m from the edge of the shoulder.



Fig 9.9.5 : Religious Structures



9.9.12 HIV/AIDS AND OTHER HEALTH RISKS

Maharashtra is the High prevalence HIV/AIDS state in India. On account of strong influence of social and cultural norms in the project villages, illegal sexual practice is a taboo but it cannot be denied totally. According to the unconfirmed information there are some vulnerable hot spots exist on Wardha-Butibori road. Since, Butibori is close to Nagpur city and that houses a cluster of industries hence a number of trucks and vehicles ply between Butibori and Nagpur. A number of notified and denotified brothels are found in Nagpur city. It is expected that the widening of existing highway will produce long distance traffic and the number of *dhabas*, line hotels, tea stalls and eateries etc. This might bring these type of communicable diseases into this region. Also, during construction activities, especially near the construction camps and other sensitive locations, there may be risks of such communicable diseases. For the prevention of HIV/AIDS among truckers and local community, a comprehensive plan of action needs to be developed for such fatal diseases and will be proposed to put into practice during the implementation of resettlement action plan.

9.10. SOCIO ECONOMIC PROFILE OF PROJECT INFLUENCED DISTRICT

9.10.1 OVERALL APPROACH

The district through which the project road passes are considered to be the primary project influence area. The Wardha-Butibori section of NH-361 facilitate most important traffic movement for the various important cities of the state. Therefore, the influence area of the project corridor, for the purpose of socio economic study is considered with prime importance. The primary purpose of Socio-economic analysis is to provide an overview of the State's socioeconomic setup and the relative status of the Project influence area within the state. Data to be considered include demographic aspects, macro economic indicators and sectoral production of agriculture and allied activities, manufacturing, mining and service sectors including infrastructure. The profile provides the present scenario, the past performance and the prospective growth of the economy, population and urbanization. The profile depicts the spatial distribution of economic activities and provides basic inputs for estimating future growth in Transport demand, on the basis of prospective economic growth rates and transport demand elasticity. Secondary data available with different state government departments have been collected and analyzed for preparation of



socio-economic profile.

9.10.2 GENERAL FEATURES

The project stretch passes through the state of Maharashtra, which is western state of Indian Peninsula. Maharashtra is the second largest state in the country both in terms of population and geographical area. It covers an area of 307,731 square kilometers i.e., 9.84 percent of total geographical area of India. The Maharashtra state has 35 districts which are divided into six revenue divisions viz. Konkan, Pune, Nashik, Aurangabad, Amravati and Nagpur for administrative purposes.

9.10.3 MAHARASHTRA AT A GLANCE

According to the 2011 Census, the State has a total population of 112,372,972 which accounts for 9.3 percent of the total population of the nation. Out of this, 42.58 % is rural and 57.42 % is urban population respectively. It shows that the level of urbanization in the state is very high and is much higher than that of the national average level of urbanization of 31%. The population density of 308 persons per sq. km. in the state is lower than the national average of 382 person per sq. km. The project influence area of 4 districts is spread over 21706 sq. km. with a population of 14854156 (24.60 %) according to 2011 census.

The decadal growth rate of population between 2001-2011 was pegged at 15.99. The Scheduled Caste and Scheduled Tribe population constitute 10.2 per cent and 8.8 per cent, respectively. The Sex ratio, i.e. number of females per 1000 males, for the State is 925 as compared to 940 at India level.

Census 2011 reveals that sex ratio of the state has slightly increased from 922 in 2001 to 925 in 2011, whereas, at the National level, the same was 933 in 2001 which increased to 940 in 2011 and the state stands at 22nd position in India.

Progress on Human Development Index is often depicted as a benchmark of a state's progress of key development indicators. As per India Human Development Report, 2011 Human Development Index of India is 0.467 and State ranks 5th in the country with Human Development Index of 0.572. Table No.3.1 presents the demographic profile of Maharashtra state. As per Census 2011, the population density i.e persons live per sq.km. in the state is 365 which is lower than that of India (382).



The literacy rate in Maharashtra has seen upward trend and is 79.31 percent as per 2011 population census. Of that, male literacy stands at 89.82 percent while female literacy is at 75.48 percent. In actual numbers, total literates in Maharashtra stands at 82,512,225 of which rural literates were 41,703,097 and urban literates were 40,809,128. The demographic and socio economic characteristics of the Project Influence Area (PIA) are as shown in Table-9.10.1 and Table-9.10.2 below.

Table 9.10.1: Demographic Profile of Maharashtra State

DESCRIPTION	TOTAL		
	Total	Rural	Urban
Total Population	112,372,972	61,545,441	50,827,531
Total Population (%)	100	54.77	45.23
Total Population (Male)	58,361,397	31,593,580	26,767,817
Total Population (Female)	54,011,575	29,951,861	24,059,714
Population Growth (%)	15.99	10.34	23.67
Sex Ratio	925	948	899
Child Population (0-6 Years)	12,848,375	7,445,853	5,402,522
Child Sex Ratio (0-6 Years)	883	880	888
Total Literacy Rate (%)	82.91	77.09	89.84
Literacy Rate (%) - Male	89.82	86.39	93.79
Literacy Rate (%) - Female	75.48	67.38	85.44
Literate (Total)	82,512,225	41,703,097	40,809,128

Source: Census Record, 2011

9.10.4 ECONOMY PROFILE OF MAHARASHTRA STATE

Favourable economic policies in the 1970s led to Maharashtra becoming India's leading industrial state in the last quarter of 20th century. Over 41% of the S&P CNX 500 conglomerates have corporate offices in Maharashtra.

The first revised estimates of Gross State Domestic Products (GSDP) for 2012-13 at current prices is Rs. 13,23,768 crore, which is 12.6 per cent higher than that of 2011-12. GSDP for 2012-13 at constant (2004-05) prices is estimated at Rs. 8,25,832 crore, as against Rs. 7,77,791 crore during 2011-12. The State economy is expected to grow at 6.2 per cent during 2012-13 as against growth of 4.8 per cent during 2011-12.

Agricultural production has slumped further in 2012-13 as compared to 2011-12.



Total food grains production has declined by 11.9 per cent with kharif declining by 8.8 per cent and rabi declining by 18.2 per cent. Oil seeds production has increased by 13 per cent and that of sugarcane (harvested) has decreased by 13.3 per cent. Cotton production has also decreased by 0.4 per cent. Thus, during 2012-13, the growth of Agriculture has further plunged to (-)2.5 per cent as compared to (-)1.3 per cent during 2011-12, thereby pulling down the growth of Agriculture & allied activities sector to (-)1.0 per cent, inspite of six per cent and 1.5 per cent growth in Forestry and Fishing sectors respectively.

High inflation during 2012-13 with lower industrial outputs along with the structural bottlenecks have affected the Manufacturing sector. During 2012-13, the production remained stagnant resulting in almost zero growth in the Manufacturing sector. 'Electricity, Gas & Water supply' grew by 10.5 per cent. Construction activities have slowed down during 2012-13 and hence growth of this sector was 8.6 per cent as compared to 11.5 per cent in 2011-12. The 'Mining & Quarrying' sector registered growth of 1.4 per cent. All these factors restricted the growth of the Industry sector at 2.7 per cent.

The first revised estimates of State Income i.e. Net State Domestic Product (NSDP) at current prices is Rs.11,96,754 crore in 2012-13, as compared to Rs. 10,64,689 crore in 2011-12 showing an increase of 12.4 per cent. The State Income at constant (2004-05) prices in 2012-13 is estimated at Rs. 7,39,040 crore, as compared to Rs. 6,98,086 crore in 2011-12 showing an increase of 5.9 per cent.

The Gross State Domestic Product (GSDP) at current prices for 2012-13 is estimated at Rs. 13,23,768 crore and contributes 14.1 per cent to the GDP. Industry and Services sector both together contribute 89.1 per cent to the State's income while the contribution of Agriculture & Allied Activities sector is 10.9 per cent.

The State has 231 lakh ha. of land under cultivation and area under forest is 52.1 lakh ha. Many irrigation projects are being implemented to improve irrigation. A watershed mission has been launched to ensure that soil and water conservation measures are implemented speedily in the unirrigated area.

Animal husbandry is an important agriculture related activity. The State's share in livestock and poultry population in India is about seven per cent and 10 per cent respectively.



Maharashtra is the most industrialised State and has maintained leading position in the industrial sector in India. It is pioneer in Small Scale Industries and continues to attract industrial investments from both, domestic as well as foreign institutions. It has become a leading automobile production hub and a major IT growth centre and has largest number of special export promotion zones.

Since August, 1991 to March, 2012 in all 4,246 Foreign Direct Investment (FDI) projects amounting to Rs. 97,799 crore were approved, of which 45 per cent were commissioned and 10 per cent are under execution, with a share of investment of 51 per cent and eight per cent respectively.

At the end of March, 2013 the total road length maintained by PWD and ZP (excluding local bodies) was 2.43 lakh km. More than 99 per cent villages were connected by all-weather roads or fair weather roads and 278 villages did not have road connectivity.

The total number of vehicles on road in the State as on 1st January, 2014 was 228 lakh (i.e. 20,504 vehicles per lakh population and 94 vehicles per km road length).

Maharashtra is the wealthiest state in India, contributing 15% of the country's industrial output and over 40% of national revenue with 13.3% of India's GDP (2006-2007 figures). Mumbai, the capital of Maharashtra and the financial capital of India, houses the headquarters of almost all major financial institutions, insurance companies and mutual funds. India's main stock exchanges & capital market and commodity exchanges are located in Mumbai. Almost 46% of the GSDP is contributed by industry.

The Revenue receipts have increased at a compound annual growth rate (CAGR) of 11.1 per cent during XI FYP. Total revenue receipts for 2013-14(RE) are Rs. 1,58,410 crore showing increase of 10.8 per cent over the previous year.

Annual Plan outlay for 2013-14 is of Rs. 49,000 crore, of which general district plan is of Rs. 5,200 crore. Out of total plan, an outlay of Rs. 4,998 crore is provided for SCSP and Rs. 3,817 crore for TSP. During 2013-14, maximum outlay of Rs. 21,312 crore was approved for Social & Community Services followed by Rs. 9,548 crore for Irrigation & Flood Control sector.



The land utilisation statistics for 2011-12 depicts that out of the total 307.58 lakh ha geographical area of the State, the gross cropped area was 231.06 lakh ha while the net area sown was 173.86 lakh ha. The area under forest was 52.11 lakh ha, land not available for cultivation was 31.79 lakh ha, other uncultivated land was 24.13 lakh ha and fallow land was 25.70 lakh ha. During the period of five years from 2007-08 to 2011-12, land put to non-agricultural uses has increased by 1.6 per cent.

Agricultural Census 2010-11 depicts that there were 1.37 crore total operational holdings in the State, of which 78.6 per cent operational holdings belonged to marginal farmers with land holding less than or equal to two ha. The proportion of operational holdings of SC and ST was 7.5 per cent and 6.3 per cent and their area of operational holdings was 6.6 per cent and 7.9 per cent respectively. The average size of land holding of SC and ST was 1.27 ha and 1.80 ha respectively.

The State has undertaken various major, medium and minor irrigation projects to tap maximum irrigation potential in the State. By the end of June, 2012, the total irrigation potential created was 49.26 lakh ha., of which, 27.19 lakh ha. was from major irrigation projects, 8.67 lakh ha. was from medium irrigation projects and remaining 13.40 lakh ha. was from minor irrigation projects (State sector). Due to insufficient rainfall in 2012-13, the State faced a severe drought situation. Live storage of water, being very less, was required to be reserved for drinking purpose, due to which there was a decrease in total irrigation potential utilised during 2012-13 as compared to the previous year. The irrigated area in command area under the jurisdiction of Water Resources Department, GoM decreased from 32.52 lakh ha. in 2011-12 to 24.48 lakh ha. in 2012-13.

The Per Capita Income, a gauge for measuring the standard of living, is one of the dimensions of Human Development. Per Capita State Income (i.e. Per Capita NSDP) at current prices is estimated at Rs. 1,03,991 as compared to Per Capita National Income of Rs. 67,839 in 2012-13. In the current series, the per capita income of the State is increasing at an average rate of 13.8 per cent. Amongst the major states, Maharashtra has the second highest per capita income in the country.

The state has 226.1 lakh hectares of land under cultivation and area under forest is 52.1 lakh hectares. Number of irrigation projects are being implemented to improve irrigation. A watershed mission has been launched to ensure soil and water conservation measures are implemented speedily in the unirrigated area.



The poverty estimate provided by the planning commission of India, reveal that the poverty ratio in the state during 2004-05 is 30.7 per cent as against All-India average of 27.5 per cent Though the results at various points of time show decline in poverty ratios, the number of persons living below poverty line is gradually increasing since 1973-74 and increased by 12.2 lakh persons in 2004-05 as compared to 1993-94. The detail socio-economic indicators of Maharashtra state is presented in Table 9.10.2.

Table 9.10.2: Socio Economic Indicators of Maharashtra State

Sl.No	Socio-Economic Indicators	Year	Unit
1	Geographical Area	2011	3.08 (lakh sq.km)
2	Population	2011	1123.73 lakh
3	Density of population	2011	365 (per sq.km.)
4	Percentage of urban population to total population	2011	45.23%
5	Percentage of State population to all India population	2011	9.29%
6	Decennial growth rate of population	2001-11	15.99%
7	Sex Ratio (Female ratio per 1000 Males)	2011	925
8	Scheduled castes and scheduled tribes to total state population.	2001	19.05%
9	Percentage of Main Workers to Total Population	2001	35.87%
10	Agriculture workers to Total workers	2001	54.96%
11	Per capita Income at current prices* (Base year 2004-05)	2010-11	Rs.87686
12	Human development Index	2011	0.572
13	Per capita revenue receipts of state	2010-10	Rs.8661
14	Net area shown per cultivator	2008-09	1.5 Hectare
15	Net area shown to total geographical area	2008-09	56.6 Hectare
16	Employed persons (Rural) #	2009-10	49%
17	Employed persons (Urban) #	2009-10	38%
18	Labour Force Participation Rate(Rural)	2009-10	49.1%
19	Labour Force Participation Rate (Urban)	2009-10	39.2%
20	Employment in establishment	2005	10853 per lakh Pop.
21	Women employment to total employment in organised sector	2009-10	16.8%



22	Unemployed persons (Rural) @	2009-10	0.6% of total labour
23	Unemployed persons (Urban) @	2009-10	3.2% of total labour force
24	Total Road length per hundred sq.km. ^	2008	73 Km.
25	Crime Against Women	2009	15737

Source: Directorate of Economics and Statistics, GoM, 2011-12

* =Provision # = Based on National Survey 66th round, Central Sample

@ = Based on National Survey 66th round (2009-10) Central Sample

^ = Excluding road constructed under the Jawahar Rojgar yojana & Pradhan Mantri Gram Sadak yojana.

9.10.5 DELINEATION OF PROJECT INFLUENCE AREA (PIA)

The 60 km. long project road traverse through two districts of Maharashtra state namely Wardha and Nagpur. The project road mostly carries intra state traffic than inter state traffic. For Socio-Economic analysis, identifying areas directly served by the project road, delineates the "broad" and "immediate" picture of influence areas.

The both project district has a population of 5949727 i.e. (5.29%) of state population, according to 2011 census. Among the PIA districts, Nagpur district has highest population of 4,653,570 and Wardha district with 1,296,157. The demographic picture of project districts is presented in Table- 9.10.3.

Table 9.10.3: Demographic Profile of Project Influenced District - 2011 Census

District	Population			Proportion to Maharashtra's Population (%)	% Urban pop. to Total population	Population Density (Person/sq.km)
	Total	Rural	Urban			
Wardha	1,296,157	875284	420873	1.15	32.47	206
Nagpur	4,653,570	1474811	3178759	4.14	68.31	470

Human Development Index (HDI) means increased capabilities of people that enable them to access larger opportunities in life. In the context of HDI in PIA districts, Nagpur tops the position. In Gender Empowerment Measure (GEM), Nagpur district scales the height of success among all the project districts. GEM measures whether women and men are able to actively participate in economic and political life and in



decision making. While GDI focuses on expansion of capabilities, GEM is concerned with the use of those capabilities to take advantage of the opportunities in life. While political freedoms, participating in community and physical security are important parameters for measuring the value and position of women in the society.

9.10.6 PER CAPITA INCOME

The per capita income of project influenced districts is the estimates of domestic product at district level are compiled by the 'Income Originating Approach', the method used for calculating the State Domestic Product. District domestic product estimates, therefore, have all the inherent limitations of the State Domestic Product estimates. As such, wherever the basic data is available, the methodology used at the State level has been followed for preparation of estimates at district level. The district level data in respect of agriculture and allied activities sector is mostly available, but the data for other sectors is very inadequate.

In the PIA districts, the per capita income of Nagpur district is highest with Rs. 1,11,860. The district domestic product estimates are presented in Table 9.10.4

Table 9.10.4: The Per Capita District Income (2012-13)

Sl. No.	District	Per Capita District Income (in Rs.)
1	Wardha	76223
2	Nagpur	111860
	Average	94041.5

Source: Directorate of Economics and Statistics, 2013-14, GoM

9.10.7 GROSS & NET DOMESTIC PRODUCT IN PIA DISTRICTS

According to Gross/Net District Domestic Product & Per Capita Net District Income for 2012-13 at current prices, Nagpur district is high with a robust growth in comparison to Wardha district and which stands at Rs. 62291 and Rs. 56191 respectively.

Table 9.10.5: Gross/ Net Project Districts Domestic Product					
Sl. No	District	At Current Price (Rs. In Crore)			
		GDDP		NDDP	
		2011-12**	2012-13*	2011-12**	2012-13*
1	Wardha	10257	11844	9444	10870



2	Nagpur	54586	62291	49360	56191
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Source: Directorate of Economics and Statistics, GoM, 2013-14

* = First Revised Estimates ** = Second Revised Estimates

9.10.8 LAND USE PATTERN

In Wardha- Butibori section, the land use of the Project highway is characterized by agricultural lands, ponds, canal system, rolling terrain. Cotton and Soyabean is widely cultivated in the major part of the land and some part of land is used for sugarcane crop. The built up area is characterized by residential structures, commercial units, hospitals, schools, Panchayat offices, Kiosks & fuel stations etc. and these were close to the project road at many locations.

With regard to land use pattern, a major track of land is used for agricultural purpose followed by barren/Open land and built-up land. Most of the barren lands are abandoned agricultural lands. The project is almost encumbrance free except built up locations where some small commercial units and residential structures are found within existing RoW.

9.10.9 LAND PRICE

The land price, under the prevailing market value, varies significantly from place to place. The market price of agricultural land varies from Rs. 50 to 60 lakh per hectare in non -habitated area and on the road side junction it ranges from Rs. 70 lakh to 1 crore per hectare.

9.11 SOCIAL IMPACT ASSESSMENT

9.11.1 MAGNITUDE OF IMPACTS

This chapter contains the intensity and magnitude of losses due to the widening and improvement of Wardha-Butibori section of NH-361 project road. The impacts of the present project include loss of land (agriculture, residential and commercial); structure (residential, commercial, community, government & religious); income and livelihood (Title holder, encroacher and squatter), and common properties (Bus Stop, School, College, Pond and other government buildings etc.). Census of all the structures lying within 60 meter width has been undertaken to assess the project



impact on the population for displacement, resettlement and rehabilitation. Bypasses have been proposed to avoid the impact on involuntary resettlement along the most congested settlements.

9.11.2 PROJECT IMPACTS

As per the data obtained from PWD and Revenue offices, the available average exiting RoW varies from 30-35 meter. The proposed cross sections indicate that about 60 meter land is required to accommodate various features of proposed road. The social assessment of the impact was conducted within 30m on either side of the road from the proposed centreline. During the survey it was found that the settlements comprise of residential & commercial structures including (shops, dhaba, kiosks, godowns, industries), temples, small religious shrines and squatters etc.

9.11.2.1 EXTENT OF LAND ACQUISITION

The 59.1 kilometer design length of the project corridor requires both private and government land constituting 195.31 hectare. With regard to upgradation and widening of the existing Wardha-Butibori section of NH- 361 road, a total 170.5 hectares of private land is required. Of the total land, approx.84.07 hectares needs to be acquired for the improvement of existing road. A major extent of 83.86 ha. will be acquired for construction of Salod, Sello and Kelzar bypass. The scope of land acquisition in the project road sections includes a) a minimum 60m RoW is required as per MoRTH Guideline b) bypass is proposed to avoid the impact on the properties and livelihood c) provisions on road side amenities. The project impacts are due to mainly widening of the road and bypasses development. Table 9.11.1 presents the detail account of land to be acquired for the project road.

Table 9.11.1: Requirement of Private Land for Proposed Alignment		
Sl. No.	Project Component	Total Required Land (Ha.)
1	Improvement of the Existing Road	84.07
2	For Construction of Bypasses	83.86
3	For construction of Toll Plaza Location	2.57
Total		170.50



9.11.2.2 STATUS OF PRIVATE LAND

A significant 170.50 ha. private land comprising both agricultural and non agricultural need to be acquired for the proposed project. As 3 (A) activities are underway hence the type and classification of land and exact number of land holders can not be ascertained at this stage.

A considerable length of 59.1 kilo metre proposed project stretch passes through four Taluka namely Wardha, Selu, Hingana and Nagpur Rural of Maharashtra state. A large tract of land constituting 81.56 ha. to be acquired in Wardha taluka for construction of bypass as well as improvement of the road. Similarly, 62.62 ha., 15.02 and 11.30 ha of land is required from Selu, Hingana and Rural Nagpur taluka respectively. Table 9.11.2 presents the break up of land has to be acquired in respective taluka as per requirement.

Table 9.11.2: Taluka wise Project Impact		
Sl. No.	Taluka	Total Required Land (Ha.)
1	Wardha	81.56
2	Selu	62.62
3	Hingana	15.02
4	Nagpur Rural	11.30
Total		170.50

Source: Land Records, Revenue Dept., Wardha & Nagpur Dist and 3(a) Notification

9.11.2.3 LAND REQUIRED FOR PROPOSED BYPASSES

The proposed bypass would pass through nine villages namely Salod, Shyampur, Swangi, Sindhi, Mohanpur, Selu, Dhanoli, Belgaon and Kelzar respectively. For construction of three bypasses 83.86 hectares of private land is required. A large tract of 49.23 ha. land is required for Salod Bypass followed by Selu bypass with 25.87 ha. and Kelzar bypass with 8.76 ha. respectively.

Table 9.11.3: Project Impacts in Proposed Bypass Village



Sl. No.	Name of the Bypass	Name of the Village	Total Land to be acquired (Ha.)
1	Salod	Salod	21.53
2		Shympur	3.92
3		Swangi	13.66
4		Sindhi	10.12
5	Seloo	Mohanapur	6.21
6		Selu	8.33
7		Dhanoli	1.78
8		Belgaon	9.56
9	Kelzar	Kelzar	8.76
Total			83.86

Source: Land Records, Revenue Dept., Wardha & Nagpur Dist and 3(a) Notification

9.11.2.4 IDENTIFICATION OF STRUCTURES

Census of all the structures lying within 60m has been undertaken to assess the project impact on the population for displacement, resettlement and rehabilitation. Bypass has been proposed to avoid the large scale demolition of properties and involuntary resettlement of the people. The structures to be acquired within the proposed RoW belong to titleholders, encroachers as well as squatters and informal settlers. The total number of structures within proposed RoW to be impacted is around 369.

Of the total likely to be affected structures, private properties comprising Residential, Commercial and Res-cum-Commercial account for a significant 320 (86.72%) followed by government structures 7.59 percent and religious structures 5.69 percent respectively. The structures under various categories e.g Private, Government and Religious is shown in Table 9.11.4.

Table 9.11.4: Impact on Structures Along the Project Road			
Sl. No.	Affected Structures	Total	Percentage (%)
1	Private	320	86.72
2	Government	28	7.59
3	Religious	21	5.69
Total		369	100.00

9.11.2.5 LIKELY TO BE AFFECTED STRUCTURES

The structures to be acquired within the existing RoW belong to encroachers and squatters as well as informal settlers. A large chunk of them are squatters. Most squatters are small business owners and vendors. They form an important vulnerable group for resettlement and income restoration perspective. In realignment area, some titleholder structures may get affected.

There are 369 number of structures identified within the existing RoW in entire project road. Of which some may get affected completely. Some titleholders properties which fall beyond the existing RoW may also be acquired for the development of the project road. The detailed account of structures with usage and required dimension will be presented in subsequent report.



Fig. 9.11.1: Structures are noticed within RoW

9.11.2.6 OWNERSHIP OF THE STRUCTURE

The impact on private structures would affect the life and livelihood of the people. The impacted private structures comprises of Residential, Commercial, mixed structures e.g Res-cum-Commercial and Compound Wall etc; as well public utilities, public and semi public assets, well, pond etc are likely to be affected. The religious structure such as Temple, Mosque may be affected due to the proposed road. The impacted government Properties include Bus stop, School and Offices etc.

9.11.2.7 TYPOLOGY OF LIKELY TO BE AFFECTED STRUCTURE

The data collected under identification exercises showed that the number of affected

households including the commercial structures households along the road is 369. However, the affected structures are categorised as Pucca, Semi Pucca and Kutcha.

Out of the total structures that are affected by the road widening a majority of them are found to be Pucca Structures(48.78%). The type of structures affected along the project is shown in Table No 9.11.5.

Table 9.11.5: Typology of Structures along the Project Road			
Sl. No.	Type	Total Affected Structures	
		No.	%
Typology of Private Structures			
1	Pucca	131	35.50
2	Semi Pucca	25	6.78
3	Kutcha/Others	164	44.44
Typology of Religious Structure			
1	Pucca	21	5.69
Typology of Government Structure			
1	Pucca- Govt. Offices	19	5.15
2	Pucca- Bus Stand	9	2.44
	Total	369	100.00

9.11.2.8 LIKELY LOSS OF GOVERNMENT STRUCTURES

According to survey analysis, nine bus stand and 19 govt. offices are likely to be affected due to the widening of the road. The definition of public property is defined as properties belong to village and local government and which serves greater cause of the village residents.

9.11.2.9 IMPACT ON RELIGIOUS PROPERTY

During survey 21 religious structures adjacent to the project road were identified. The religious structures consist of six temples belonging to Hindu community and one mosque. With engineering technique and plan we try to protect large, important religious structures either from relocation or demolition. As per the data, all religious structure will get affected completely. Most of the religious structures have been observed within a distance of 5-10 m from the edge of the paved shoulder. Proper



provision must be considered for relocating these structures before the implementation of the project to avoid land acquisition conflict and communal problems.

9.11.3 PROJECT IMPACTED PAPs

The acquisition of private land and the affected structures by the project are indicators of impact on the social environment. To estimate the exact number of impacted persons at this stage is not possible. However, the exact figure of likely to be affected persons will be ascertained after the finalisation of alignment and completion of census survey. This would give clear picture of the magnitude of impact in the project area. Generally, the impact of project is evaluated on magnitude of land loss and other immovable assets/ structures.

Here, the impacted persons is calculated on the basis of affected structures in project road. The affected persons can be derived by multiplying the average members of household in the project influence districts into likely to be affected structures. The district average of the family size is considered as the base. According to the estimation, 3235 project-affected persons of 674 households are likely to be impacted directly or indirectly by the widening of the project road.

9.12 LEGAL POLICY FRAME WORK & ENTITLEMENT MATRIX

9.12.1 INTRODUCTION

This chapter contains the resettlement plan for the potential social impact anticipated due to the proposed project. In this regard, a compatible Rehabilitation and Resettlement Policy has to be developed based on NHAI, Government of India and State Government Policy and accordingly a full resettlement action plan (RAP) will be prepared for the project in the subsequent stages of project preparation.

All strategic interventions on human development, spread across all social issues, need directives of policies and legal support to operationalise the appropriate actions. These policies and legislations help to overcome the constraints and support administrator, implementor, community and individual in delivery of justice. This chapter includes the World Bank as well as National policies and Acts applicable to the proposed Project are detailed under in subsequent stages:



9.12.2 OBJECTIVES OF RESETTLEMENT POLICY

This RAP is project specific resettlement plan and has been prepared in the line of Government Policy. The RAP is based on the general findings of the census and socio economic survey, field visits, and meetings with various project affected persons in the project area. The primary objective of the RAP is to identify impacts and to chalk out plan to mitigate various losses in Wardha- Butibori Section of NH-361 Project Road. The specific objectives are as follows:

- To minimize displacement and to promote least displacing alternatives
- To ensure adequate rehabilitation package and expeditious implementation of rehabilitation process with the active participation
- To provide better living conditions and making concerted effort for providing sustainable income to affected families
- Develop harmonious relationship between requiring body and affected families

The RAP outlines the details of the project, description of the project location, the magnitude of impacts based on the census, and spells out the necessary implementation procedures for resettlement and rehabilitation of the entire project affected families including the entitlement matrix as well as the legal framework and policies.

9.12.3 POLICY FRAMEWORK

The policy framework and entitlement for the Program are based on national laws: *The Land Acquisition & Rehabilitation and Resettlement Act-2013* Asian Development Bank *Policy on Involuntary Resettlement*, OP 4.12. The following section deals with these policies with a comparison and subsequently deals with the entitlements and eligibility for compensation and other resettlement entitlements.

Through the proposed R&R entitlement policy and framework is committed to ensure that the livelihoods of project-affected persons are at least restored to pre-project levels, with the opportunity to improve on living standards where possible. The policy addresses the following adverse impacts associated with road construction and upgrading activities:



-
- Loss of land and other privately-owned assets
 - Adverse impacts on subsistence/livelihood or income-earning capacity
 - Collective adverse impacts on groups (e.g., through the loss of business resources and assets)

To mitigate unforeseen effects on roadside communities and promote general upliftment, rehabilitation and support measures will be extended to include households of the defined vulnerable social categories who may be adversely affected by road construction.

9.12.4 NATIONAL HIGHWAYS ACT- 1956

The National Highways Act 1956 (NH Act) is commonly used for acquisition of land for public purpose. The act is applicable throughout India and the policy provides a broad guideline of procedure of land acquisition. It is used at the State level made to suit local requirements. Expropriation of land under different stage are carried out under the National Highways Act 1956. The Act deals with compulsory acquisition of private land for public purpose.

The procedure of NH Act under this act is summarized below:

9.12.4.1 INTENTION & DECLARATION

- When a National Highways require a land, an application is required to be made by it to the revenue authority;
- The application should be accompanied with a copy of the plan showing survey nos., purpose of acquisition and the reason for the particular site to be chosen and the provision made for the cost of the acquisition;
- After the government has been fully satisfied about the purpose, the least area needed, and other relevant facts as provided under land acquisition rules, it will issue a notification under Section 3A of the act that the particular land is required for public purpose;
- The Competent Authority will hold an inquiry under Section 3-B of the



Act;

- After notification the owner is prohibited from selling his property or disposing it off and prevented from carrying out any works of improvements for which no compensation will be paid if executed without prior permission from the collector.

9.12.4.2 OBJECTION AND CONFIRMATION

Objections are invited from all persons interested in the land within 21 days from the date of notification under Section 3-A.

The objections will be valid on one or more of the following grounds:

- That the purpose for which the land is proposed for acquisition is not a public purpose.
- That the land is not or less suitable than another piece of land for the said purpose.
- That the area under acquisition is excessive.
- That the acquisition will destroy or impair historical or artistic monuments or will desecrate religious buildings, graveyards and the like.
- The CA after hearing the objections will submit his report to the Central government, who will finally declare the land for acquisition under Section 3-D of the Act.
- After notification the collector proceeds with the claim. He has the site marked out, measured and a plan of the same made vide Section 3-E.

9.12.4.3 CLAIM AND AWARD

- The collector will issue notices under Section 3-G to all persons interested in the acquisition to file their claim reports;
- The collector is not to be a party to the proceedings, is to possess an



expert knowledge on valuation, and offers a fair price to an owner and checks that the public funds are not wasted;

- The claim filed should contain the names of the claimants and co-shares, if any rents or profits for last three years and a valuation report of the land from an architect or an engineer;
- In determining the compensation the market value of the land is determined at the date of notification. The rise and fall in the value during the period of transaction and notification is taken into consideration;

Compensation is also payable when:

1. Part of the property is proposed for acquisition in such a manner that the remainder depreciates in value.
2. When the land notified for acquisition has standing crops or trees.
3. If the person interested has to change his place of residence or business then the excess rent payable for the new premises is also considered for compensation.

Matters which are not taken into consideration for the purpose of land acquisition are:

- i. The degree of urgency which has led to the acquisition.
- ii. Any disinclination of the person interested to part with the land.
- iii. Any increase in the land value likely to accrue from the use to which it will be put when acquired.
- iv. After necessary inquiries the collector declares his award showing true area of the land, total amount of compensation payable and apportionment of compensation if there are more than one owners or claimants.
- v. The collector has to make the award under section 11 within a period of two years from the date of notification.



9.12.4.4 REFERENCE TO ARBITRATOR

- Any person interested, to whom the award is not satisfactory, can submit a written application to the Arbitrator.
- This application should be made within six weeks from the date of declaration of the award.

9.12.4.5 APPORTIONMENT

In apparent of the compensation each of the claimants are entitled to the value of his interest, which he has lost, by compulsory acquisition. Thus it is required to value a variety of interest, rights and claims in the land in terms of money.

9.12.5 THE RIGHT TO FAIR COMPENSATION AND TRANSPARENCY IN LARR ACT,2013

The salient features of the Act include:

- The Act seeks to amend the Land Acquisition Act, 1894. The 1894 Act was repealed and a new comprehensive legislation was brought in Parliament. It states that the legislation should be enacted expeditiously.
- This said act under section 105, requires that all the acts mentioned under schedule IV (including NH Act 1956) shall be amended within one year from the date of commencement of this act.
- The bill notes that the use of the word 'may' dilutes specific provisions and provides undue discretion to the implementing agency. It recommends that 'may' should be replaced by 'shall' in all clauses except ones where the intent is to provide flexibility.
- In order to protect agricultural land from getting acquired, it states that the Bill should include a provision that makes it mandatory for the Collector to submit a report stating that wasteland or barren land was not available for a particular project. Also, the government should make a list of unutilised land.
- The Committee also makes several suggestions for development of wasteland. It also recommends that the government should do long



term planning regarding the total area of agricultural land required to meet food grain requirements. Also, a strong law is required to protect prime agricultural land in similar manner as forest land. There should also be measures to guard against excessive acquisition of land which is at time more than the land required for the project.

- The Committee recommends that in cases where award of compensation is pending, solatium and the rehabilitation and resettlement package should be provided retrospectively.
- The Committee recommends that all the benefits provided under the Land Acquisition and Rehabilitation and Resettlement legislation should be doubled at every stage in case of second and subsequent displacement of a family/person.
- As per the Act, 30 days time period from the date of publication of the notification has been provided for the affected person to object to the acquisition of land. The Committee feels that the period is not sufficient and recommends that it be increased to 60 days.
- The Committee is of the opinion that fixing some percentage of the land to be acquired by the appropriate government and private body for a particular project of public purpose is very contradictory and impractical. Also, the definition of “public purpose” as per the 1894 Act should be retained.
- There should be discretion in deciding whether a Social Impact Study is necessary if the number of families is below the threshold level.
- The Committee recommends that the highest price of sale deed as indicated in the sale deeds of the last three years plus 50 per cent of the highest price should be the criteria for assessing and determining the market value of the land. For tribal areas, the Committee recommends that the highest price of a sale deed of the adjoining non-tribal blocks/village for the last three years plus 50 per cent should be the criteria.
- The Committee is against the provision that allows the Collector, before determining the market value of the land, to ascertain the intended land use category.



- The Committee states that issue of shares and debentures as part of the compensation is not practical. Therefore, issue of shares and debentures should be over and above the admissible compensation. Further, it should be left to the acquiring body to issue shares and debentures over and above the admissible compensation to the affected person/family whose land is acquired.
- The Committee pointed out certain contradictions in the Land Acquisition Bill and the Rehabilitation and Resettlement Bill with regard to compensation with shares and debentures.
- The Committee recommends that emergency powers of the government may be restricted to acquisition of minimum area of land for the purpose of defence or national security or in case of natural calamities.
- The Committee suggests that the Acquisition Compensation Disputes Settlement Authority should consist of at least three members, including the Chairperson. Also, the retirement age should be reduced to 65 years from 67 years.
- The Committee proposes that the rate of interest should be increased from nine per cent to 15 per cent per annum and compound interest should be paid wherever applicable.
- The date of commencement of this Act is 1st January 2014.

9.12.6 SCHEDULED CASTE AND SCHEDULED TRIBES ORDERS (AMENDMENT) ACT, 2002

The Act provides for the inclusion in the lists of Scheduled Tribes (ST), of certain tribes or tribal communities or parts of or groups within tribes or tribal communities, equivalent names or synonyms of such tribes or communities, removal of area restrictions and bifurcation and clubbing of entries; imposition of area restriction in respect of certain castes in the lists of Scheduled Castes (SC) and the exclusion of certain castes and tribes from the lists of SCs and STs.

9.12.7 RESETTLEMENT POLICY AND LAND ACQUISITION FRAMEWORK

The guidelines are prepared for addressing the issues limited to this project for resettlement and rehabilitation of the PAPs. This policy has been developed based on



the National Highways Act 1956 and The Right to Fair Compensation and Transparency in LA RR Act, 2013.

9.12.8 R&R BENEFITS FOR PROJECT AFFECTED FAMILIES

The resettlement and rehabilitation (R&R) benefits shall be extended to all the Project Affected Families (PAF) whether belonging to below poverty line (BPL) or non-BPL. The details are provided in the entitlement matrix. For tribal the following provisions will be adhered.

Each Project Affected Family of ST category shall be given preference in allotment of land.

Tribal PAFs will be re-settled close to their natural habitat in a compact block so that they can retain their ethnic/linguistic and cultural identity

The Tribal Land Alienated in violation of the laws and regulations in force on the subject would be treated as null and void and-the R&R benefits would be available only to the original tribal land owner.

9.12.9. COMPARISON OF VARIOUS PROVISIONS UNDER LARR ACT-2013 AND NRR-2007

Table:9.11.1 COMPARISON BETWEEN LARR ACT-2013 AND NRR-2007	
THE LAND ACQUISITION, REHABILITATION AND RESETTLEMENT ACT,2013	REHABILITATION & RESETTLEMENT POLICY 2007
1. LAND ACQUISITION	
In case of land acquisition the amount of compensation to be determined is that of the value of the land as decided by the Collector +100 percent Solatium+12 percent additional market value from the date of notification to taking over the possession or award whichever is higher. Market value of land as mentioned under section 26 of LARRA Act-2013 needs to be multiplied by the radial factor (based on the distance of project from urban area as notified by the appropriate government- e.g multiplication of 2 in Rural	Each affected family owning agriculture land in the affected area and whose entire land has been acquired or lost, or who has, as a consequences of the acquisition or loss of land, been reduced to the status of a marginal farmer shall be allotted, in the name of each person included in the records of rights with regard to the affected family, agricultural land or cultivable waste land to an extent of actual and loss by the affected family



Table:9.11.1 COMPARISON BETWEEN LARR ACT-2013 AND NRR-2007

area and Multiplication of 1 in Urban area) plus value of assets attached to land or building (mentioned in Section 29 of LARRA Act-2013) Plus Solatium (solatium includes 100% market value multiplied by 2 plus value of assets in Rural area and multiplied by 1 in urban area)

Example: Rural Area: If the Market value of land is Rs. 200, the final award will be Rs.200 x2 +Solatium(100 % of Market Value x 2) =400+400=800 or 4 times of Market Value I.e Rs.200x4=Rs.800

Urban Area: If the Market value of land is Rs. 500, the final award will be Rs.500 x1 +Solatium (100 % of Market Value x 1) =500+500=1000 or 2 times of Market Value i.e Rs.500x2=Rs.1000.

subject to a ceiling of one hectare of irrigated land or two hectares of urirrigated land or cultivable waste land, if Government land available in the resettlement area.

2. PROVISION OF HOUSING UNITS IN CASE OF DISPLACEMENT

If a house is lost in rural areas, a constructed house shall be provided as per the **Indira Awas Yojana** specifications. **If a house is lost in urban areas, a constructed house shall be provided, which will be not less than 50 sq mts in plinth area.**

The benefits listed above shall also be extended to any affected family which is without homestead land and which has been residing in the area continuously for a period of not less than three years preceding the date of notification of the affected area which has been involuntarily displaced from such area:

Provided that any such family in urban areas which opts not to take the house offered, shall get a one-

Any affected family owning house and whose house has been acquired or lost, shall be allotted land for house, without requiring him to pay the price for such land, to the extent of two hundred and fifty square metre of land in rural areas or, as the case may be, one hundred and fifty square metre of land in urban areas to each nuclear family within the affected family, subject to the actual area acquired or lost.

Each below poverty line affected family which is without homestead land and which has been residing in the affected area continuously for a period of not less



Table:9.11.1 COMPARISON BETWEEN LARR ACT-2013 AND NPRR-2007

time financial assistance for house construction, which shall not be less than one lakh fifty thousand rupees:

Provided further that if any affected family in rural areas so prefers, the equivalent cost of the house may be offered in lieu of the constructed house:

Provided also that no family affected by acquisition shall be given more than one house under the provisions of this Act.

Explanation- The houses in urban areas may, if necessary, be provided in multi-storied building complexes

than three years preceding the date of declaration of the aggregated area and which has been involuntarily displaced from such area, shall be provided with **a house having at least one hundred square metre carpet area in rural areas or, as the case may be, fifty square metre carpet area in urban areas, in the resettlement area.**

3. CHOICE OF ANNUITY OR EMPLOYMENT

The appropriate Government shall ensure that the affected families are provided with the following options:

(a) where jobs are created through the project, **mandatory employment at a rate not lower than the minimum wages** provided for in any other law for the time being in force, to at least one member per affected family in the project or arrange for a job in such other project as may be required; or

(b) one time **payment of five lakhs rupees** per affected family; or

(c) annuity policies that shall pay not **less than two thousand rupees per month per family for twenty years**, with appropriate indexation to the Consumer Price Index for Agriculture Labourers.

The project authority shall, at their cost, arrange for annuity policies that will pay a pension for life to the vulnerable affected persons as specified in clause (v) of subsection (2) of section 21, such amount as may be prescribed by the appropriate Government **subject to a minimum of five hundred rupees per month.**

4. SUBSISTENCE GRANTS



Table:9.11.1 COMPARISON BETWEEN LARR ACT-2013 AND NPRR-2007

<p>The appropriate Government shall ensure that the affected families are provided with the following options:</p> <p>Given monthly subsistence allowance equivalent to three thousand rupees per month for a period of one year from the date of award. In addition to this amount, the scheduled castes and the scheduled Tribes displaced from Scheduled Areas shall receive an amount equivalent to fifty thousand rupees.</p>	<p>In case of project involving land acquisition on behalf of a requiring body, each affected family which is involuntarily displaced shall get a monthly subsistence allowance equivalent to 25 days minimum agricultural wages per month for a period of one year from the date of displacement.</p>
<p>5. TRANSPORTATION COST</p>	
<p>The appropriate Government shall ensure that the affected families are provided with the following options:</p> <p>Each affected family which is displaced shall get a one time financial assistance of fifty thousand rupees as transportation cost for shifting of the family, building materials, belongings and cattle.</p>	<p>Each affected family which is displaced shall get a one time financial assistance of such amount as the appropriate Government may prescribe subject to a minimum of ten thousand rupees as transportation cost for shifting of the family, building materials, belongings and cattle.</p>
<p>6. CATTLE SHED/ PETTY SHOPS COST</p>	
<p>Each affected family having cattle or having a petty shop shall get one-time financial assistance of such amount as the appropriate Government may, by notification, specify subject to a minimum of twenty-five thousand rupees for construction of cattle shed or petty shop as the case may be.</p>	<p>Each displaced affected family having cattle shall get one-time financial assistance of such amount as the appropriate Government may prescribe subject to a minimum of fifteen thousand rupees for construction of cattle shed.</p>
<p>7. ONE TIME GRANTS TO ARTISAN, SMALL TRADERS AND OTHERS</p>	
<p>Each affected family of an artisan, small trader or self-employed person or an affected family which owned non-agricultural land or commercial, industrial or institutional structure in the affected</p>	<p>One time grants to artisan, small traders and others:</p> <p>Each affected person who is a rural</p>



Table:9.11.1 COMPARISON BETWEEN LARR ACT-2013 AND NRR-2007

<p>area, and which has been involuntarily displaced from the affected area due to land acquisition, shall get one-time financial assistance of such amount as the appropriate Government may, by notification, specify subject to a minimum of twenty-five thousand rupees.</p>	<p>artisan, small trader or self-employed person and who has been displaced shall get one-time financial assistance of such amount as the appropriate Government may prescribe subject to a minimum of twenty-five thousand rupees for construction of working shed or shop.</p>
8. ONE TIME RESETTLEMENT ALLOWANCE	
<p>Each affected family shall be given a one-time "Resettlement Allowance" of fifty thousand rupees only.</p>	Not Mentioned/Silent
9. STAMP DUTY REGISTRATION	
<p>(1). The stamp duty and other fees payable for registration of the land or house allotted to the affected families shall be borne by the Requiring Body.</p> <p>(2). The land for house allotted to the affected families shall be free from all encumbrances.</p> <p>(3). The land or house allotted may be in the joint names of wife and husband of the affected family.</p>	<p>In case of project involving land acquisition on behalf of a requiring body, the stamp duty and other fees payable for registration of the land or house allotted to the affected families shall be borne by the requiring body.</p>
10. PROVISION OF INFRASTRUCTURAL AMENITIES	
<p>1. Roads within the resettled villages and an all weather road link to the nearest pucca road, passages and easement rights for all the resettled families be adequately arranged.</p> <p>2. Proper drainage as well as sanitation plans executed before physical resettlement.</p> <p>3. One or more assured sources of safe drinking water for each family as per the norms prescribed by the Government of India.</p> <p>4. Provision of Drinking water for cattle.</p>	



Table:9.11.1 COMPARISON BETWEEN LARR ACT-2013 AND NPRR-2007

5. Grazing land as per proportion acceptable in the State.
6. A reasonable number of Fair price Shops
7. Panchayat Ghars, as appropriate.
8. Village level Post Offices, as appropriate, which facilities for opening saving accounts.
9. Appropriate seed-cum-fertilizer storage facility if needed.
10. Efforts must be made to provide basic irrigation facilities to the agricultural land allocated to the resettled families if not from the irrigation project, then by developing a cooperative or under some Government scheme or special assistance.
11. All new villages established for resettlement of the displaced persons shall be provided with suitable transport facilities which must include public transport facilities through local bus services with the nearby growth centres/ urban localities.
12. Burial or cremation ground, depending on the caste communities at the site and their practices.
13. Facilities for sanitation, including individual toilet points.
14. Individual single electric connections (or connection through non-conventional sources of energy like solar energy), for each household and for public lighting.
15. Anganwadi's providing child and mother supplemental nutritional services.
16. School as per the provisions of the right of children to Free and Compulsory Education Act, 2009 (35 of 2009);
17. Sub-health centre within two kilometres range.
18. Primary Health Centre as prescribed by the Government of India.
19. Playground for children.
20. One community centre for every hundred families.
21. Places of worship and chowpal/tree platform for every fifty families for community assembly, of numbers and dimensions consonant with the affected area.
22. Separate land must be earmarked for traditional tribal institutions.



Table:9.11.1 COMPARISON BETWEEN LARR ACT-2013 AND NPRR-2007

23. The forest dweller families must be provided, where possible, with their traditional rights on non-timber forest produce and common property resources, if available close to the new place of settlement and, in case any such family can continue their access or entry to such forest or common property in the area close to the place of eviction, they must continue to enjoy their earlier rights to the aforesaid sources of livelihood.

24. Appropriate security arrangements must be provided for the settlement, if needed.

25. Veterinary service centre as per norms.

11.SPECIAL PROVISIONS FOR SCHEDULED CASTE AND SCHEDULED TRIBES

(1) In case of a project involving land acquisition on behalf of a Requiring Body which involves involuntary displacement of the Scheduled castes or the Scheduled Tribes families, a Development plan shall be prepared, in such form as may be prescribed, laying down the details of procedure for settling land rights due but not settled and restoring titles of tribals on alienated land by undertaking a special drive together with land acquisition.

(2) The Development Plan shall also contain a programme for development of alternate fuel, fodder and non-timber forest produce resources on non-forest lands within a period of five years sufficient to meet the requirements of tribal communities as well as the Scheduled castes.

(3) The concerned Gram Sabha or the Panchayats at the appropriate level in the Scheduled Areas under the Fifth Schedule to the Constitution or , as the case may be, Councils in the Sixth Scheduled Areas shall be consulted in all cases of land acquisition in such areas, including acquisition in case of urgency, before issue of a notification under this Act, or any other Central Act or a State Act for the time being in force as per the Provisions of the Panchayats (Extension to the Scheduled Areas) Act, 1996 (40 of 1996) and other relevant laws.

(4) In case of land being acquired from members of the Scheduled Castes or the Scheduled Tribes, at least one-third of the compensation amount due shall be paid to the affected families at the outset as first instalment and the rest shall precede the taking over of the possession of the land.

In case of a project involving land acquisition on behalf of a Requiring Body which involves involuntary displacement of two hundred or more Scheduled Tribes families, a Tribal Development plan shall be prepared, in such form as may be prescribed, laying down the detailed procedure for settling land rights due but not settled and restoring titles of tribals on alienated land by undertaking a special drive together with land acquisition. The plan shall also contain a programme for development of alternate fuel, fodder and non-timber forest produce (NTFP) resources on non-forest lands within a period of five years sufficient to meet requirements of tribal communities who are denied access to forests.

The concerned gram Sabha or the Panchayats at the appropriate level in the Scheduled Areas under Schedule V of the Constitution or as the case may be, Councils in the Schedule Vi Areas shall be consulted in all cases of land acquisition in such areas including land acquisition in cases of urgency, before issue of a notification under the Land Acquisition Act, 1894 or any other Act of the Union or a State for the time being in force under which land acquisition is undertaken, and the consultation shall be in accordance with the provisions of the panchayats.

Further, in cases of involuntary



Table:9.11.1 COMPARISON BETWEEN LARR ACT-2013 AND NRR-2007

<p>(5) The Scheduled Tribes affected families shall be resettled preferably in the same Scheduled Area in a compact block, so that they can retain their ethnic, linguistic and cultural identity.</p> <p>(6) The resettlement areas predominately inhabited by the Scheduled castes and the Scheduled Tribes shall get land, to such extent as may be decided by the appropriate Government, free of cost for community and social gatherings.</p> <p>(7) In case of a project involving land acquisition on behalf of a Requiring body, the affected families belonging to the Scheduled Castes and the Scheduled Tribes resettled out of the district of acquisition will get twenty-five percent. Higher monetary benefits under Rehabilitation and Resettlement Scheme.</p> <p>(8) Any alienation of tribal lands or lands belonging to members of the Scheduled Castes in disregard of the laws and regulations for the time being in force shall be treated as null and avoid; and in the case of acquisition of such lands, the rehabilitation and resettlement benefits shall be available to the original tribal land owners or land owners belonging to the Scheduled Castes.</p> <p>(9) The affected Scheduled Tribes, other traditional forest dwellers and the Scheduled castes families having fishing rights in a river or pond or dam in the affected area shall be given fishing rights in the reservoir area of the irrigation or hydel projects.</p> <p>(10) Where the affected Scheduled Castes and Scheduled Tribes are relocated outside of the district then they shall be paid an additional twenty-five percent. Rehabilitation and Resettlement benefits to which they are entitled in monetary terms along with a one-time entitlement of fifty thousand rupees.</p>	<p>displacement of two hundred or more Scheduled Tribes families from the Scheduled Areas, the concerned Tribes families from the Scheduled Areas, the concerned Tribes Advisory Councils (TACs) may also be consulted.</p> <p>Each affected family of ST followed by SC categories shall be given preference in allotment of land-for-land, if Government land is available in the resettlement area.</p> <p>In the case of land being acquired from members of the ST, at least one-third of the compensation amount due shall be paid to the affected families at the outset as first installment and the rest at the time of taking over the possession of the land.</p> <p>In case of a project involving land acquisition on behalf of a requiring body, each ST affected family shall get an additional one-time financial assistance equivalent to five hundred days minimum agricultural wages for loss of customary rights or usages of forest produce.</p> <p>The ST affected families will be resettled as far as possible, in the same Scheduled Area in a compact block, so that they can retain their ethnic, linguistic and cultural identity. Exception would be allowed only in rare cases where the requiring body in case of a project involving land acquisition, or the State Government in other cases of involuntary displacement, is unable to offer such land due to reasons beyond its control.</p> <p>The resettlement areas predominantly inhabited by the Scheduled Tribes shall get land free of cost for community and religious gatherings to the extent decided by the appropriate Government.</p> <p>In case of a project involving land acquisition on behalf of a requiring body, the scheduled Tribes affected families resettled out of the district will get twenty-five per cent, higher rehabilitation and resettlement benefits in monetary</p>
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Table:9.11.1 COMPARISON BETWEEN LARR ACT-2013 AND NPRR-2007

	<p>terms.</p> <p>Any alienation of tribal lands in violation of the laws and regulations for the time being in force shall be treated as null and void. In the case of acquisition of such lands, the rehabilitation and resettlement benefits would be available to the original tribal land -owners.</p> <p>In the case of irrigation or hydel projects, the affected scheduled Tribes, other traditional forest dwellers and the Scheduled castes families having fishing rights in a river or pond or dam in the affected area shall be given fishing rights in the reservoir area of the irrigation or hydel projects.</p> <p>The scheduled Tribes and Scheduled Castes affected families enjoying reservation benefits in the affected area shall be entitled to get the reservation benefits at the resettlement area(s).</p> <p>The affected Scheduled Tribes families, who were in possession of forest lands in the affected area prior to the 13th day of December, 2005, shall also be eligible for the rehabilitation and resettlement benefits under this policy.</p>
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9.12.10 PRINCIPLES AND POLICIES ADOPTED FOR THE PROJECT

The core involuntary resettlement principles for this project are: (I) land acquisition, and other involuntary resettlement impacts will be avoided or minimized exploring all viable alternative sub-project designs; (ii) where unavoidable, time-bound resettlement action plan (RAP) will be prepared and PAPs will be assisted in improving or at least regaining their pre-project standard of living;(iii) Consultation with PAPs on compensation, disclosure of resettlement information to PAPs , and participation of in planning and implementing sub-projects will be ensured; (iv) vulnerable groups will be provided special assistance (v) payment of compensation to PAPs for acquired assets at replacement rates; (vi) payment of compensation and resettlement assistance prior to the construction contractor taking physical acquisition of the land and prior to the commencement of any construction activities;



(vii) Provision of income restoration and rehabilitation; and (VIII) establishment of appropriate grievance redress mechanisms.

9.12.11 ENTITLEMENT MATRIX

The broad entitlement matrix comprising the R & R compensation and assistance is presented below. The titleholder PAPs will receive compensation for land and assets, as decided by the competent authority.

The titleholders are entitled to receive compensation for land/assets at replacement cost, R & R assistance and allowances for fees or other charges. They should be given advance notice to harvest non-perennial crops, or compensation for lost standing crops. They will have the right to salvage material from existing structures.

The LARR-2013, represents a significant milestone in the development of a systematic approach to address resettlement issues in India and closes significantly the gap between Indian national policies and operational policy of the World Bank. The National Highways Act, 1956 gives directives for the acquisition of land in the public interest and provides benefits only to titleholders.

Based on these, the following core involuntary resettlement principles are applicable:

- Avoid or minimize land acquisition and involuntary resettlement impacts by exploring all viable alternative designs;
- Where displacement is unavoidable, prepare time-bound RAP for PAPs so that they are not worse off than the present socio-economic condition after the implementation of the project. In other words, assist affected persons in improving their former living standards and income earning capacity with additional assistance to vulnerable groups;
- Ensure wide range of meaningful consultations with stakeholders including likely PAPs on compensation, disclosure of resettlement information, participation of PAPs in planning and implementation of the resettlement program in order to suitably accommodate their inputs and make rehabilitation and resettlement plan more participatory and broad based;
- Facilitate harmonious relationship between the Executing Authority and



PAPs through mutual co-operation and interaction;

- Ensure payment of compensation and resettlement assistance prior to taking over the possession of land and commencement of any construction activities;
- Provision of rehabilitation assistance for loss of livelihood/income;
- Establishment of institutional arrangements such as grievance redress mechanism, NGO.

Eligibility of different categories of PAFs will be as per the Entitlement Matrix shown in the section below.

Table: 9.11.2 ELIGIBILITY FOR COMPENSATION/ASSISTANCE

Sl. No.	Eligibility
1	The unit of entitlement will be the family.
2	Titleholder PAFs will be eligible for compensation as well as assistance.
3	In case a PAFs could not be enumerated during census, but has reliable evidence to prove his/her presence before the cut-off date in the affected zone shall be included in the list of PAPs after proper verification by the grievance redress committee.
4	PAFs from vulnerable group will be entitled for additional assistance as specified in the Entitlement Matrix.
5	PAFs belonging to BPL category will be identified at the time of disbursement of Compensation. They will get benefits as detailed in Entitlement Matrix.
6	PAFs will be entitled to take away or salvage the dismantled materials free of cost without delaying the project activities.
7	If a notice for eviction has been served on a person/family before the cut-off date and the case is pending in a court of law, then the eligibility of PAP will be considered in accordance with the legal status determined by the court and the PAP will be eligible for compensation/assistance in accordance with the RAP provisions.

Table 9.11.3: ENTITLEMENT MATRIX

Sl. No.	Category	Unit of Entitlement	Details	
			Entitlement	Entitlement as per Policy
Loss of Land and structures - (Titleholder/customary/usufruct right holders)				
1	Loss of Agricultur	Titleholder	Compensation at replacement cost or actual market value	<ul style="list-style-type: none"> • Direct purchase at negotiated price



Sl. No.	Category	Unit of Entitlement	Details	
			Entitlement	Entitlement as per Policy
	al Land		or as decided by the Competent Authority	<p>(or) compensation for land at replacement value</p> <ul style="list-style-type: none"> • If the residual plot (s) is (are) not viable, the affected person becomes a marginal farmer any of the following two options are to be given to PAP, subject to his/her acceptance: <ul style="list-style-type: none"> • The PAP remains on the plot, and the compensation and assistance paid to the tune of required amount of land to be acquired • Compensation and assistance are to be provided for the entire plot including residual part, if the owner of such land wishes that his/her residual plot should also be acquired NHAI will acquire the residual plot and pay the compensation for it. • Reimbursement of registration and stamp duty charges
2.	Total loss of homestead/ commercial land and structure	Titleholder	<p>Compensation at replacement cost</p> <p>Special Provision for Vulnerable</p>	<ul style="list-style-type: none"> • Direct purchase at negotiated price (or) compensation for land at replacement value • Compensation for loss of affected structural area will be paid at the replacement cost to be calculated as per



Sl. No.	Category	Unit of Entitlement	Details	
			Entitlement	Entitlement as per Policy
				<p>latest prevailing basic schedules of rates (BSR) without depreciation.</p> <ul style="list-style-type: none"> • Shifting assistance of Rs 50000 • Right to salvage material from the demolished structure and frontage, etc • Reimbursement of registration and stamp duty Charges • For vulnerable groups losing residential/commercial structures and do not have any other housing units within limit of the local bodies, shall be given preference to allot a house under any housing scheme at cost under IAY/RAY
Livelihood Losses				
3	Income/Livelihood Losses	Titleholders losing income through business	Rehabilitation Assistance	<ul style="list-style-type: none"> • Subsistence grant of Rs. 3000 per month for one year from the date of Award. • One Time grant for artisans, small traders Rs. 25000
		Titleholders losing income through agriculture	Rehabilitation Assistance	<ul style="list-style-type: none"> • Title holders losing their primary source of income due to displacement will be provided one time grant of Rs. 500000 • One Time Resettlement Allowance Rs. 50000



Sl. No.	Category	Unit of Entitlement	Details	
			Entitlement	Entitlement as per Policy
				<ul style="list-style-type: none"> • One Time grant for artisans, small traders Rs. 25000 • Employment opportunity for PAPs in the subproject works, if available and if so desired by them.
Loss of Trees and Crops				
4	Loss of Trees	a) Land holders b) Sharecropper c) Lease holders	Compensation at Market value to be computed with assistance of horticulture department	<ul style="list-style-type: none"> • Advance notice to PAPs to harvest fruits and remove trees • For fruit bearing trees compensation at average fruit production for next 15 years to be computed at current market value • For timber trees compensation at market cost based on kind of trees
	Loss of Standing Crops at the time of acquisition, if any	a) Land holders b) Sharecropper c) Lease holders	Compensation at Market value to be Computed with assistance of agriculture department	<ul style="list-style-type: none"> • Advance notice to PAPs to harvest crops • In case of damage to standing crops, cash compensation at current market cost to be calculated of mature crops based on the current production.
Other Impacts				
5	Cattle		Special Assistance	<ul style="list-style-type: none"> • Affected Families



Sl. No.	Category	Unit of Entitlement	Details	
			Entitlement	Entitlement as per Policy
	Shed			having Cattle Shed or petty shop shall be given Rs. 25000 for the construction of cattle shed/shop

9.13 STAKEHOLDERS' CONSULTATION

9.13.1 INTRODUCTION

Consultative procedures has been a critical but important front in the entire social assessment process. Public consultations in social impact assessment facilitates to make a rapport with the villagers in the project villages and provide basic inputs. In this regard, the social assessment ensures the involvement of local communities through participatory planning through structured consultations would endorse and integrate important resettlement issues in the project cycle.

For the purpose of stakeholder's consultation a team of social experts visited the total stretch of Wardha-Buibori section. In the process of information dissemination, collecting relevant data and to acquaint with social requirements of the project, government officials, key informants & knowledgeable person and other stakeholders were consulted. The preliminary consultation meetings were conducted in 8 villages. As the magnitude of impacts are more in proposed bypass villages so primary importance was given these villages.

The consultations were undertaken with various stakeholders at village levels for sharing the information about the alignments and widening of existing two lane into four laning configuration. Prior intimation was given to the villagers and the local public representatives e.g Sarpanch/Gram Mukhia of the respective village to participate in the consultations. The village wise issues and concern were discussed and suggestions made by the participants were recorded. The range of discussion includes perception, attitude, benefit, problem, suggestions recommendation and solution on social, economic, engineering viability of the project.



In addition to bypass village level consultations, four preliminary meetings with villagers, road users, shopkeepers, dwellers and other knowledgeable persons were also conducted along the road sided village. The location for these meetings were selected in such a way that a large section of the nearby habitations could participate in these meetings.

Almost all stakeholders' meeting were conducted in respective village Office. The public representative or eminent person of the respective village presided the meeting with Ararvee Associate representatives. Mr. Sobhan Patnaik, Mr. Gandla Ravi Theja and Mr. Pavan Kumar participated in the meeting. The other participants were revenue official, village elders, road side residents and probable impacted families.

9.13.2 ISSUES DISCUSSED

- The social team explained the need and technical details of the Wardha- Butibori road to the participants in terms of its length, characteristics of the paved shoulder and need of bypass/ realignment, the proposed improvements in terms of safety improvements and road side amenities etc.
- For a better understanding about the road the social team also explained in detail the proposed cross sections of the road and need of geometric correction.
- The land requirements for the improvements and the probable impacts to the road side people was also discussed.
- The project's efforts at minimizing land acquisition and promoting safety measures were also discussed.
- Special attention for the weaker section of the society in general and women in particular were also discussed.
- The broad principles and R & R mechanisms as per LARR Act-2013 was also presented in detail.

The main objectives of undertaking these consultations were:

- Dissemination of information on the proposed alignments



- To make affected persons aware of the project impacts and broad provisions of the R&R policy.
- Dissemination of information to build awareness among likely to be affected people and inform them about the objective of the project.
- Discuss about the training requirements to enhance their skills & restore the livelihood.

9.14 REHABILITATION & RESETTLEMENT BUDGET

9.14.1 COST AND BUDGET

The budget is an indicative of outlays for the different expenditure categories. These costs will be updated and adjusted to the inflation rate as the project continues and in respect of more specific information such as additional number of project affected people during the implementation, unit cost will be updated if the findings of the district level committee on market value assessment justify it.

The estimated budget for resettlement action plan for the project which include land acquisition cost, structures cost and contingency is prepared as per the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act-2013. The resettlement cost estimate for this project includes eligible compensation as per entitlement matrix and support cost for RAP implementation. Contingency provisions of about 1% of the total cost of R & R component is considered in the budget mainly to meet the inflation and also to meet the cost of additional land acquisition if required. The valuation of losses has been considered on the basis of consultation with the revenue officials as well as with the project affected population. Some of the major items of this R&R cost estimate are outlined below and the R&R budget is presented in Table 9.13.1.

- Compensation for Land
- Compensation for structures and other immovable assets at their replacement cost
- RAP implementation cost

9.14.1.1 COMPENSATION FOR LAND

The total private land need to be acquired for the proposed project is 170.50.



hectares especially for widening of existing road and development of bypasses and realignment. The agricultural land price has been calculated on the basis of highest of circle Rate in the respective village.

The valuation of losses has been considered on the basis of consultation with the revenue officials as well as project affected people. While the information obtained from the revenue offices has been treated as actual transaction rate for compensation and the information obtained from the affected people or villagers is treated as the existing non official market value. The detail land account is appended in Annexure 9.13.1

According to LARRA Act-2013, the market value of land as mentioned under section 26 of act needs to be multiplied by the radial factor (based on the distance of project from urban area as notified by the appropriate government- e.g multiplication of 2 in Rural area and Multiplication of 1 in Urban area) plus value of assets attached to land or building (mentioned in Section 29 of LARRA Act-2013) Plus Solatium (solatium includes 100% market value multiplied by 2 plus value of assets in Rural area and multiplied by 1 plus value of assets in urban area).

Table 9.13.1 Private Land Rate in Wardha- Butibori Section

Sl. No.	Village	To be acquired Private Land (in Ha.)	Private Land Rate (in Rs.)	R & R Compensation (Rs.)
1	Salod	21.53	322944460.74	1291777842.96
2	Shyampur	3.92	27021770.68	108087082.71
3	Sawanghi (Meghe)	13.66	158264735.91	633058943.64
4	Sindhi	10.12	151361146.71	605444586.84
5	Umari	5.38	19697563.01	78790252.05
6	Pipri	7.17	95013169.79	380052679.16
7	Satoda	3.75	56227025.25	224908101
8	Bhiwapur	0.93	9070803.24	36283212.966



31	Junapani	3.92	65911264.19	263645056.75
32	Murzari	0.03	709762.15	2839048.60
33	Murarpur	3.27	55518059.23	222072236.93
34	Rui Khairi	3.44	86057897.48	344231589.90
TOTAL		170.50	2077624513.44	8310498053.76

Source: www.igrmaharashtra.gov.in and 3 (a) notification

Since the proposed alignment passes through almost rural areas hence the compensation for the respective land is derived as per circle rate and four times of the same is considered as per new act. According to circle rate, the total amount of private land stands at Rs. 2077624513.44 and four times of the same is Rs. 8310498053.76 needs to be compensated.

9.14.1.2 Compensation for Structures

The replacement cost of structure is estimated based upon the *Basic Schedule Rate (BSR)* of the structure, Roads and Buildings Department, Government of Maharashtra. The existing structures are either permanent or semi-permanent. As per data a total number of 369 structures including 320 private structures are estimated for the social budget. Maximum numbers of the private structures which are likely to be impacted are Kutcha (44.44%) followed by pucca (35.50%) and Semi Pucca (6.78 %). However, kutcha structures in nature and as per the material used for construction are highest with 164 numbers of the total structures. Apart from private structures; religious and govt. structures are also considered for R & R compensation. The solatium 100 percent of the BSR rate of private structures is included for final compensation. The estimated budget calculation sheet is appended in Annexure 9.13.1.

Table 9.13.2: Impact on Structures in Section-II Road

Sl. No.	Typology	No.	Unit Rate (Rs.)	Total Amount (Rs.)	R & R Compensation (Rs.)
(A) Impact on Private Structure					



1	Pucca	131	1,50,000	19650000	39300000
2	Semi Pucca	25	1,00,000	2500000	5000000
3	Kutcha	164	60,000	9840000	19680000
TOTAL		320		31990000	63980000
(B) Impact on Religious Structure					
1	Pucca	21	50,000	1050000	1050000
TOTAL		21		10,500,00	1050000
(C) Impact on Government Structure					
1	Pucca Building	19	1,00,000	19,00,000	19,000,00
2	Pucca- Bus Stop	9	50,000	4,50,000	4,50,000
TOTAL		28		23,50,000	23,50,000

A total of Rs. 8461934584.30 has been estimated for implementation of Resettlement Action Plan. The NHA guidelines recommend that the compensation for the lost land and structures be paid through the competent authority. For structures valuation, the concerned government department may be requested to assess the value. The details of estimated budget is presented in Table 9.13.3 below.

Table 9.13.3: Estimated Cost and R & R Budget

Sl. No	Item	Unit	Quantity	Total Land / Structure Value (Rs.)	R & R Compensation (Rs.)
A. R & R Compensation for Land					
1	Compensation for Private Land	Hectare	170.548	2077624513.44	8310498053.76
B. R & R Compensation for Structures					
1	Compensation for Private Structures	Number	320	31990000	63980000
2	Compensation for Religious Structures	Number	21	500000	1050000
3	Compensation for Govt. Structures	Number	28	23,50,000	2350000
Total					67380000
C. Expenditure for Project Implementation					
1	Hiring of NGO for Resettlement Plan Implementation	Number	1	200000	200000



2	Printing of Policy and ID Card	Number		50000	50000
3	Updating of Survey Data			25000	25000
				Total	275000
				Sub Total (A+ B+ C)	8378153053.76
D. Contingency					
1	Contingency at 1 % of the Sub Total				83781530.54
				GRAND TOTAL (A+B+C)	8461934584.30

For loss of structures, all PAPs will be compensated for their affected structures at replacement cost, for which provision has been kept in the Entitlement Matrix. All the squatters with structures and only vulnerable encroachers will be eligible for assistance for loss of their structures.