

GOVERNMENT OF ASSAM
Public Works Department

**DPR for Bridge over River Brahmaputra
connecting Pan Bazar to North Guwahati**

Assam

**Social Impact Assessment
(SIA)**

**Guwahati -
North Guwahati Bridge**

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ABBREVIATIONS

Abbreviations	Full Form	Abbreviations	Full Form
AF	Affected Families	AMP	Annual Maintenance Plan
ACC	Artisan Credit Card		
AP	Annual Patta Land	PP	Periodic Patta land
BOQ	Bill of Quantities	NOC	No-objection Certificate
TH	Title Holders	NTH	Non-Title Holder
CE	Chief Engineer	ODR	Other District Roads
CD	Cross Drainage Works	PAF	Project Affected Family
CoI	Corridor of Impact	PAH	Project Affected Household
DLC	District Level Committee	PAP	Project Affected Population
FGD	Focus Group Discussions	PF	Protected Forest
GoI	Government of India	PIU	Project Implementation Unit
GoA	Government of Assam	PPP	Public Private Partnership
HQ	Head Quarters	PWD	Public Works Department
IC	Independent Consultant	R&R	Resettlement and Rehabilitation
IRC	Indian Roads Congress	RAP	Resettlement Action Plan
IS	Indian Standard	RF	Reserved Forest
LAO	Land Acquisition Officer	RHS	Right Hand Side
LHS	Left Hand Side	ROW	Right of Way
MDR	Major District Roads	NFHS	National Family Health Survey
NGO	Non-Governmental Organisations	OP	Operation Policy
PWD	Public Works Department	RAP	Resettlement Action Plan
RRO	Resettlement and Rehabilitation Officer	R&R	Resettlement and Rehabilitation
SC	Scheduled Caste	SIA	Social Impact Assessment
		SH	State Highways
AIDS	Annual Patta Land Acquired Immuno Deficiency Syndrome	NH	National Highway
SMC	Social Monitoring Cell		

CHAPTER 0 EXECUTIVE SUMMARY

0.1 INTRODUCTION

Guwahati the capital city of Assam is the 'Gateway to the North-East' and 'Logistic and Infrastructure Hub' for the region in true sense. The city is very important destination point in terms of India's, security and strategic point of view: main hub for the trade, commerce, tourism and transit with ASEAN and East Asian economies. The exponential growth over the years has created enormous pressure on land, infrastructure and transportation network of the city primarily on South Bank of the city. This necessitates expansion of the city to North Bank with proper bridge connectivity over river Brahmaputra.

The Hon'ble Finance Minister, Assam in his Budget Speech 2017-18 announced the construction of two bridges across river Brahmaputra, one connecting Pan Bazar to North Guwahati and another connecting Palashbari to Sualkuchi for which a Budget allocation of Rs. 100 crore was made for construction of these bridges.

The proposed bridges will result in time saving for commuters, reduction in atmospheric pollution, and reduction in accident rates, reduced fuel consumption, reduced vehicle operating costs and increase in the average speed of road vehicles. These projects will serve in a great way for development in social, economic, health, education and all other aspects of life of the people of Assam as well as the neighbouring states.

M/s SMEC India Pvt. Ltd. (wholly own subsidiary of SMEC Australia presently owned by Surbana Jurong) has been engaged to conduct Feasibility and Detailed Project Report for two bridges across river Brahmaputra.

0.2 THE PROJECT ROAD & AREA

Bridge at Bharalumukh : The project road will take off from a place nearby Pan bazar so that the AT road on the southern bank of Brahmaputra River will be connected with NH-31 on the northern bank of the river Brahmaputra through a six lane bridge over the river.

Table - 0.1: Project Road sections

Bridge and Approach Road	Existing Chainage North Guwahati		Design/Proposed Chainage		Length (Km)
	From	To	From	To	
South Bank Approach	KM 0.000	KM 1.300	0.0000	KM 1.300	
Bridge Length & Viaduct	KM 0.000	Km 2.700	KM 0.000	Km 2.700	2.700
Existing Road cum Approach Road	KM 2.700	KM 6.800	KM 2.700	KM 6.800	4.100
Total Length					6.800

0.3 BRIEF DESCRIPTION OF PROJECT

Table- 0.2: Project Description

Sl. No	Particulars	Proposed (Design)
Technical Features		
1.	Proposed Project	Consultancy Services for Preparation of Feasibility study & DPR for Two Bridges over River Brahmaputra connecting Pan bazar to North Guwahati
2.	State and District	State Assam District Kamrup and Kamrup Metropolitan
3.	Length	North Guwahati Total – 0.000 to 6.800 km Length of Bridge – 1.600 km
4.	Proposed Carriageway	6-lane dual Carriageway

Sl. No	Particulars	Proposed (Design)
Technical Features		
5.	Proposed Right of Way	80meter
6.	Total number of affected villages	Total – 5 Villages
7.	Junctions	3 Major
8.	ROB	1 (New ROB's proposed adjacent to all existing ROB's)
9.	Major Bridges	1 nos. (New for 6-lane),
10.	Minor Bridges	1 minor bridge
11.	Culverts	4 culverts
12.	Service Road	Service road of 4.100 Km length along the project roads.
13.	Truck Lay Bye	1 nos.
14.	Bus Bay	4 nos.
15.	Foot Path	Provided on either side of carriageway.
16.	Drainage	Road side drains have been proposed throughout the project stretch.
17.	Slope protection	River Bank Bridge approaches and high embankment greater than 3 metre has been protected by slope protection.
19.	Land Acquisition	Private land: 29.96 Ha (North Guwahati) Government Land: 7.9 Ha.
18.	Total Cost of the project	INR 1925 Crores
Environmental & Social Features		
1.	Forest Land Diversion	Nil
2.	River/Channel crossings	1 major
3.	Ponds	2 nos. of impacted ponds
4.	Terrain	Mostly plain and rolling terrain along section
5.	Quantity of waste generation	Municipal solid waste : About 0.19 tonnes/day from labor camps
6.	Existing trees within ROW of 80m	500
7.	Compensatory plantation	Three times the trees cut has been proposed as Compensatory Plantation. (Approx.5000 trees)
8.	Green belt development	As per IRC SP 21:2009 /MoRTH Code/Guidelines
9.	Cropping pattern	Kharif and Rabi crops are grown in North Guwahati. Paddy is the main crop in the project area.
10.	No. of project affected persons (PAFs) & (PAPs)	Total PAFs – 219 Total PAPs – 1095
12.	Resettlement Action Plan (RAP) Budget	Will be provided later after valuation of properties on ground.

0.4 PROPOSED IMPROVEMENTS

To cater to the future traffic, the project proposes to:

- A six lane road is proposed
- Both side service road including drain and berms has been proposed of width 10 meter either side for adjacent villagers use.
- 2 Rotaries has been proposed at South bank of Brahmaputra at (Rotary1. Near to bhut nath temple and Rotary 2. Nearer to lachhit barthukan statue.
- 1 South Bank bridge from Rotary 1 to Rotary 2 has been proposed.
- Design speed of 80 Kmph is on rolling,

- In addition the project would improve the geometric deficiencies through curve improvements and the improvement of the various intersections
- Flexible pavements are proposed for all throughout the road.
- Junction improvement at 4.100, 5.999 and 6.800
- 1 minor bridge has been proposed at km 5.600.
- 1.100 km Viaduct has been provided to meet the Approach road at from chainage 1.600 to 2.700 for landing purpose.
- 2 vehicular under passes has been proposed at Ch. 4.100 and 5.900.
- 1 ROB is proposed at km 6.650.
- Proper drainage, grade-separation, road furniture, utilities and amenities wherever required shall also be provided

0.5 SOCIAL IMPACT ASSESSMENT (SIA) STUDY IN THE PROJECT

The Social Impact Assessment study of the project road has been carried out as per terms of reference of PWD and guidelines given by the Govt. of India. The study methodology employs a simplistic approach in which the important receptors were identified. Based on the identification, secondary baseline data were collected and then analysed to predict the impacts and quantify them. A detailed Social Assessment has been carried out to identify nature and characteristics of losses to individuals and local communities because of the proposed project interventions. The report prepared which gives detailed impacts of the project. A Census survey of Project-Affected Persons (PAPs) was carried out along with the land resource survey of the project area. To establish impacts on people and community a resource mapping on strip map and consultation with individuals, communities and other stakeholders were done. Based on the findings of this survey and consultation with project-affected persons and other stakeholders a social impact assessment report is prepared.

0.6 Methodology

0.6.1 Approaches to Study

- The social assessment process generally commences with screening stage. At this stage, social analysis is made of the project area and steps are taken from the beginning so that plans / designs / alignments are finalised in such a way that to the extent possible, adverse impacts are avoided / reduced at the design stage itself to make these roads social and environment friendly. Wherever avoidance / reduction of the adverse social impact is not possible, those affected should be compensated, resettled and rehabilitated properly by adopting proper mitigation measures and the living condition of the people are improved. The key steps are:
 - Avoiding / reducing the adverse social impacts at the design stage, especially while finalising the alignments;
 - Mitigating the unavoidable adverse impacts at planning, construction and implementation phase; and
 - Compensating the affected people and common properties at replacement costs and by adopting appropriate rehabilitation and resettlement measures.
- Social Impact Assessment has been defined variously in different guidelines. For the study of this present project, the scope of work defined in the document (Term of Reference) prepared by the PWD, Government of Assam, has been taken into consideration. The major issues and items identified in the scope in brief are:
 - Study of Background information on project and related policy and legal issues;
 - Collection of data from secondary sources;
 - Reconnaissance survey of the project impact zone, and
 - Analysis of data and Screening exercise

0.7 POLICY, LEGAL AND ADMINISTRATIVE FRAMEWORK

0.7.1 Institutional Setting

The project has been initiated by GMDA and is being implemented by the PWD. The primary responsibility of the project rests with the PWD in providing encumbrance free ROW to the concessionaire who shall implement the project.

0.7.2 Policy, Legal and Administration Framework

The land acquisition for proposed "Construction of Bridge over river Brahmaputra connecting to Pan Bazar-North Guwahati". Brahmaputra Bridge starts from Pan-Bazar and ends at NH-31 South Guwahati. has been prepared considering the state Government legislation & Acts for land acquisition Rule 5 and Section 4(1) of the Assam Land (Requisition and Acquisition) Act, 1964(Act XV of 1964). And will go by provisions of Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Re-settlement Act, 2013 for providing all benefits like additional compensation, rehabilitation to displaced persons and protections to land owners etc.

0.8 PROJECT PROFILE

0.8.1 Right of Way

- (i) Existing ROW along project stretch is 15 m for few section and rest is green field.

0.8.2 Terrain & Land Use

The project road traverses mainly through plain terrain. However, few stretches of road traverses through rolling terrain.

0.8.3 Settlement Section

The project road traverses through 5 settlements within the Corridor of Impact. The ROW available near settlements is generally less than the required. Thus six lane with divided carriageway with paved shoulder as per the specifications, in the given land width will not be possible and hence requirement of additional land is imperative. This would result in physical displacement of families, loss of livelihood and impact on other resources. Thus, widening through the settlements will have considerable impact on people, property, and other resources. As acquisition of land and other property is substantive, to minimise the social impact, concentric widening may be possible solution in the urban areas.

The Rural and semi urban settlements would need provision of service roads, which will have high impact on people as well as property. However, provision of service roads and development of facility for pedestrian movement across the road with necessary safety measures are desirable. Provision of service roads and barricading through traffic from the local traffic will not only reduce congestion on the project road but also will facilitate smooth movement of traffic and reduce the cases of accident.

0.9 Project Affected Households (PAHs) & Project Affected Population (PAPs)

The details Socio-economic survey of project-affected households are 219 in North Guwahati and total project affected population in North Guwahati 1095 PAPs

0.10 Land Acquisition

Based on the survey conducted and information on ROW obtained so far, the land required for widening of the existing road and acquisition to provide a minimum 80 m wide PROW. This includes plantations, barren / fallow lands and lands under private ownership.

0.11 Public Consultation

The public consultations were carried out in villages along the project corridors. These consultations were taken up by social and Environment expert.

Preliminary interactions with the impacted persons were sought to elicit their perceptions and apprehensions of the project. Interactions with the locals were carried out to discuss their concerns specifically relating to safety, road widening, potential impacts to their properties and expected impacts. The concerns of most titleholders and also non-titleholders (shopkeepers, commercial and residential structures owners) were

regarding design of PROW, loss of structure, any design scope to reduce impact on their structures and compensation norms to project affected persons.

Public consultations were also conducted with villagers along the project roads with major focus on environmental aspects. As per the findings of the same, the water quality is quite good in the project area of Assam. However, water quality is deteriorating in Assam due to industrial activities in the area. Villagers/Locals are facing problem due to noise pollution and emission of dust due to vehicular movement on bad road quality.

Locals have appreciated the proposed development in the project area and suggested improvement in road quality to reduce the air and noise pollution in the vicinity of the highway. Suggestions have also come on provision of truck lay bye, bus bays, underpasses and pedestrian underpasses in some villages. Villagers have also demanded service roads in the built up areas and adequate compensation to the project affected persons.

The concerns raised by the villagers have been addressed in the project design. Mitigation measures shall be undertaken as per EMP to mitigate environmental impacts in the area. The compensation to project affected persons will be paid as per Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013.

The main purposes of public consultations are to know the community's reaction to the perceived impact of proposed project on the people at individual and settlement level. The issues of the most concern are related to rehabilitation and resettlements. It is also generally felt that most of the people are aware about the project. The other prime concern is road safety problems. The issues have been duly incorporated in project design.

0.12 POTENTIAL IMPACTS

0.12.1 Impact of Land Acquisition

Brief analysis of impacts of land acquisition can be subdivided into the following subheads.

0.12.2 Loss of Land

Initiation of the project will have direct impact on village communities and other neighbouring villages. The land to be acquired for the proposed project consists of agricultural land, coconut trees and betel nuts trees, community land under Village Panchayats, various structures of public interest, residential structures and residential plots, public utilities and others. Further, there would be change in the land use pattern, as land use will be diverted from agricultural land to road construction activity. Quite a number of families would lose settled agricultural land. The livelihood of these families in most cases depends on the produce of their land.

0.12.3 Loss of Farm Produce

The stretch has relatively prosperous Agricultural land on either side of the approach road for Bridge. Acquisition of land will result in loss of crops. As land will be acquired in a phased manner, the owners will be able to cultivate some part of their land till construction time permits. They will be allowed to harvest produce and cash compensation will be paid for crops acquired at a price fixed by the Government.

0.12.4 Loss of Residential and Commercial Structures

The project requires the demolition of residential houses and commercial properties. These will be acquired and compensation paid before the start of project.

0.12.5 Loss of Public Infrastructure

Construction of road would entail shifting of public infrastructure. These include schools, and places of culture, places of worships, some village roads, piped water lines etc. These will be relocated at new sites as per the community's requirement, subject to allotment of land by authorities before actual demolition begins.

0.12.6 Loss of Income

Those losing agricultural lands will lose income opportunity. However, this will be a permanent setback,

unless provided with adequate compensation amount and / or training facilities for new trades with sufficient seed capital.

0.12.7 Increase in Employment Opportunities

Commencement of Bridge project will benefit the community through generation of direct and indirect employment opportunities within the project areas due to construction activity, minor repairs and maintenance works. The project will require a good number of unskilled workers and they can form a cooperative, which will supply labourers to contractors whenever required. Up gradation of roads and community development programs in the project plan will benefit the communities at large.

0.13 MITIGATION AND ENHANCEMENT MEASURES

Most of the mitigation measures can be incorporated as good engineering practice during the design phase itself thus ensuring the mainstreaming of social concerns early in the project. Adherence to design drawing and specifications will reduce; to within acceptable levels, the adverse impacts during construction.

0.14 R&R BUDGET

The tentative land cost and Rehabilitation & Resettlement Budget suggested is about INR 205 Crores. Detailed budget has been taken from in RAP.

0.15 CONCLUSIONS

.The proposed development will have overall positive impacts due to construction of new Bridge. The major impacts of project include land acquisition (agricultural and government land). Due consideration have been given to environmental and socio-economic issue during designing phase of the project. Some adverse environmental impacts have been identified which are likely to occur during construction phase. Those impacts will be temporary and short lived and can be mitigated effectively by implementing suggested mitigation measures. The project provides scope for environmental enhancement of the area. Green belt development along the roads has been incorporated in the project which will serve screen for air and noise pollution generated due to vehicular traffic, but at the same time it will also enhance the overall environmental quality of adjacent areas all along the project corridor. In order to ease the passage of locals and cattle from one side of project roads to other, sufficient numbers of underpasses have been provided for pedestrian and cattle movements as well as for local traffic. Service roads have been provided along the project road sections which will avoid accidents due to direct collision of traffic coming from approach roads to highways. Improvement in the existing culverts has been proposed to provide better cross drainage in the area. Based on the SIA study and surveys conducted for the Project, it can be safely concluded that associated potential adverse impacts can be mitigated to an acceptable level by adequate implementation of the measures as stated in the SIA Report. Adequate provisions shall be made in the project to cover the mitigation and monitoring requirements, and their associated costs as suggested in the budget. The proposed project shall improve Road efficiency and bring economic growth. With the above approach to design, construction and operation the project will be socially feasible

CHAPTER 1 INTRODUCTORY BACKGROUND

1.1 PROJECT BACKGROUND

Guwahati the capital city of Assam is the 'Gateway to the North-East' and 'Logistic and Infrastructure Hub' for the region in true sense. The city is very important destination point in terms of India's, security and strategic point of view: main hub for the trade, commerce, tourism and transit with ASEAN and East Asian economies. The exponential growth over the years has created enormous pressure on land, infrastructure and transportation network of the city primarily on South Bank of the city. This necessitates expansion of the city to North Bank with proper bridge connectivity over river Brahmaputra.

The aim of Detailed Project Report (DPR) for construction of bridges including approach road over river Brahmaputra for the purpose of firming up the Authority's requirements in respect of development of connectivity between the North Guwahati and South Guwahati. The Feasibility Study has been carried out with a view to analyse the present condition of the proposed project corridor, check the technical as well as financial viability of the project by examining the following:

- Construction of bridges by duly balancing the needs of minimizing environmental/ social impact and improving the traffic flow and road safety.
- Safety and level of service standard for the road users;
- Superior operation and maintenance standard enabling optimized operational efficiency of the project bridges;
- Minimal adverse impact on the local population due to bridge construction.
- Optimum usage of land available;
- Construction plan of Road Bridge in order to improve the financial viability and progressive growth to match the growing demand and ensuring the concurrent growth to improve quality of life in urban areas.
- Provide the Authority with a sound engineering solution scheme for the proposed bridges along with a realistic and firm Cost Estimate as per standard practice in order to negotiate the project for multilateral funding.

The project envisages the following advantages of having a well-developed network of highways:

- Savings of vehicle operating costs
- Faster, comfortable journeys
- Reduced fuel consumption
- Safer travel
- Benefits to trade especially in movement of perishable goods
- Reduce maintenance costs
- Safer travel
- All round development of area

1.2 PROJECT PROPONENT

Guwahati Metropolitan Development Authority (GMDA) had appointed SMEC India for providing consultancy Services for Preparation of Detailed Project Report for Brahmaputra Bridge, Which is now being implemented by Public Works Department (PWD). The scope also includes an Environmental and Social Impact assessment to establish the Environmental and Social Impacts of the project.

1.3 PROJECT ROAD DISCRIPTION

Public Works Department (PWD) has been entrusted for consultancy services for preparation of feasibility and DPR for bridge over River Brahmaputra connecting pan bazar to North Guwahati up to 6 lane with service road both side. The total design length of the project highway is 6.800 km.

The project Bridge and Approach road traverse across one (1) blocks in Kamrup district of Assam State Amingaon and in 5 villages.

Figure -1: Location of Project



1.4 EXISTING ROAD FEATURES

This project is prepared in green field and some section of has follow existing road.

1.5 PROJECT AREA

The entire project passes through two (2) districts of one states (Table 1-1) viz Kamrup and Kamrup Metropolitan.

Table- 1.1: Project Road

Name of the Project		District	Length(KM)
Brahmaputra Bridge Project		Kamrup Metropolitan	1.600
		Kamrup	4.100

The major settlements in the project stretch

Table- 1.2: Habitations of the corridor

S.no	Existing Chainage		Length(M)	Name of village
	From	To		
1	0.000	0.000	0.000	Guwahati Sahar
2	0.000	1.600	1.600	Brahmaputra River
3	1.600	2.340	0.740	North Guwahati

4	2.340	5.100	2.760	Abhayapur
5	5.100	5.900	0.800	Gouripur
6	5.900	5.920	0.020	Jhalla
7	5.920	6.800	0.880	Sila
Total length			6.800	

1.6 Alignment

- The existing project highway is a 2 lane undivided carriageway width, with a few stretches varying from 5.8m to 7m on existing Road from Bottling point to Gauripur Junction.
- The pavement width is 5m.
- 1.0m and 2.5m earthen shoulders exists
- 10.00% of the pavement condition is excellent followed by 10.00% good, 10.00% fair, 50.00% is poor and 20.00% very poor
- The existing pavement for the entire stretch is of bituminous surface.

Table- 1.3: Existing Cross Section details

Stretch	Carriageway Width (m)	Earthen shoulder width(m)
Existing Road	5	1-2.5

Source: Primary Road Inventory Survey- 2018

1.7 Right of way

- The right of way along the project stretch varies widely and about 14m to 16m.

1.8 Road inventory

- The road has 3 major intersection, 1 minor intersections 1 major, 3 minor bridges, 4 culverts, and 1 ROBs **The road inventory details are given in Feasibility Report.**

Table -1.4: Existing Road Inventory

Minor intersection	Major Intersections	Major bridges	Minor Bridges	Culverts	ROB
1	3	1	1	4	1

Source: Primary Road Inventory Survey- 2018

1.9 Traffic

As per the traffic analysis the total PCUs at the time of carrying out the Feasibility Study is 33917. Hence as per IRC SP 84-2014 under section 7.3 (ii)-b-If the daily traffic in PCU exceeds 30,000 at the time of feasibility study/bidding, the width of new bridge shall be as per Six- lane standards.

As per recommendations based on IRC Guidelines, by the year of opening (2022) the bridge traffic is of the order of 28285 PCUs (approximately equal to 30000 PCUs). This substantiates the requirement of a six lane bridge at the Pan Bazar site.

CHAPTER 2 SOCIAL ECONOMIC PROFILE OF THE PROJECT INFLUENCE ZONE

This chapter assess the nature, type and dimensions of the study area and describes the physical, biological, culture components along the Bridge and approach road. The baseline data on the socio economic components was generated by primary surveys conducted during project preparation, interactions at various levels with local people and other stakeholders.

2.1 INTRODUCTION

Assam, the gateway to North East India, is the largest state in the North –East with a geographical area of 78438 sq.km. The state has 33 districts, 67 Sub-Divisions, 219 blocks. At present Assam has 26 districts under Normal or General Areas covered under Part IX of the Constitution and 7 districts under the Sixth Schedule viz. (i) Bodoland Territorial Council (BTC) covering Kokrajhar, Chirang, Baksa and Udalguri districts and (ii) Hill Areas covering Karbi Anglong, West Karbi Angolng and Dima Hasao districts. As per Census of India 2011 the population of Assam is 3.11 crores with a density of 397 population per sq. Km. The rural and urban population is 85.92% and 14.08% respectively. Sex ratio is 954 female over per 1000 male population. Total cropped area as per 2008-09 record 41.05 lakh hectare, out of which Net area sown is 28.10 lakh hectare. Major crop is Paddy and major fruits grown in the state are banana, pineapple, papaya, orange, Assam lemon and jackfruit. Amongst plantation crops, tea commands the most important place in the state.

2.2 Socio-economic status of Project influence District

The entire project stretch of Brahmaputra Bridge and approach road passes through two district table 2.1 viz. Kamrup metropolitan and Kamrup

Table- 2.1: Project Area

Brahmaputra Bridge	State	Districts en-route	Taluks en-route
South Guwahati	Assam	Kamrup Metropolitan	Kamrup Metropolitan
North Guwahati		Kamrup	Amingaon

Source: Primary Road Inventory Survey- 2018

2.2.1 Kamrup Metropolitan District

The Present Assam was referred to as Kamrup in many of the ancient Indian literature. It was also known as pragjyotishpur due to the astrology (Jyotish Shashtra) practices that prevailed in this part of the country during that time. However, "Kamrup" became a more predominant name in the later part of the history. There is a famous story which says the reason behind the naming of this place "Kamrup":

Lord "Shiva" married Parvati, the daughter of Daksha, a very powerful king of that time. The King however, did not like his son-in-law for some reasons and hence did not invite him for the "Jagna" (the great sacrifice) ceremony which the king organised in a great fashion. Parvati being the daughter of the king could not resist from attending the ceremony and went there with the permission from her husband. As she reached the auspicious venue, "Daksha" did pass on derogatory comments on her husband and that too in front of a huge gathering. She became very annoyed and got disgusted at the discourtesy shown to her husband and sacrificed her life on the spot itself.

Overcome with grief at the death of Sati (Parvati), Shiva began a grim penance and wandered about the world carrying her dead body on his head. Shiva's 'dance of death' and penance alarmed all the gods because it threatened to destroy the world. In order to stop the frightful wanderings of Shiva, the supreme god, Vishnu, cut the dead body of Sati into fifty- one pieces with his great weapon, the "Shudarshan Chakra" (Discus). The pieces fell onto the earth in fifty one different places and wherever they fell, the ground was held to be sacred. One of the important organs of Sati fell on Nilachal hill in Guwahati and the place was thenceforth held sacred and it says that the famous Kamakhya Temple was originated from that "Sati's" organ only.

As Shiva continued to do penance, the other gods became afraid that he would thereby acquire universal power. They sent Kamadeva, the God of Love, to make Shiva fall in love again, and thereby break his penance. Kamadeva succeeded in his mission, but Shiva was so enraged at the result that he burnt Kamadeva into ashes by a fiery glance of his third eye. Kamadeva eventually regained his life and his original 'form' (Rupa) in Assam and the land where this took place become known as "Kamrup" ("Kamarupa").

Kamrup district occupies an area of 4,345 square kilometres (1,678 sq mi), comparatively equivalent to Australia's Kangaroo Island. Kamrup district has some territorial disputes with neighbouring West Khasi Hills district, Meghalaya, including that over the village of Langpih.

According to the 2011 census Kamrup district has a population of 1,517,202, roughly equal to the West African country of Gabon or the US state of Hawaii. This gives it a ranking of 327th in India (out of a total of 640).[7] The district has a population density of 436 inhabitants per square kilometre (1,130/sq mi) . Its population growth rate over the decade 2001-2011 was 15.67%. Kamrup has a sex ratio of 946 females for every 1000 males, and a literacy rate of 72.81%. The district has people belonging to various indigenous Assamese communities like Keots/Kaibarta, Bodo, Rabha, Tiwa/Lalung, Amri Karbi, Dom/Nadiyal, Koch-Rajbongshi etc. Kamrup District is divided into two parts Kamrup and Kamrup metropolitan,

Figure 2-1: Map Kamrup District

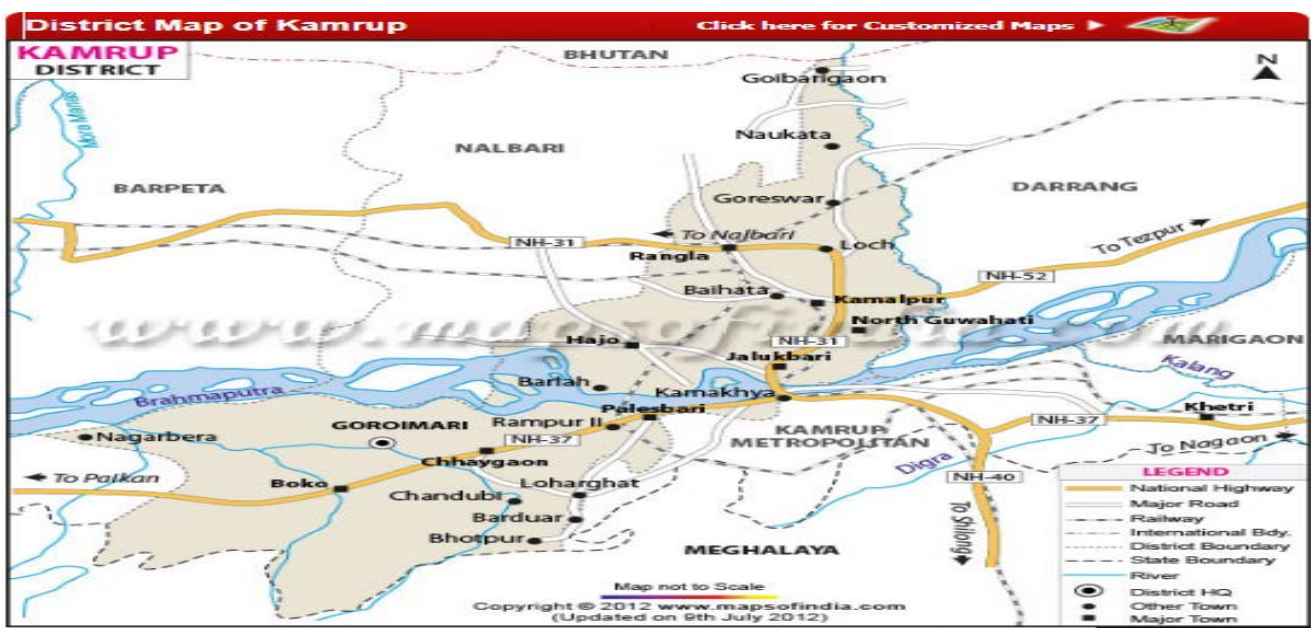


Table- 2.2: Socio-economic Kamrup District

Parameter s	Total	Male	Females	Rural	Urban	Rural Male	Rural Females	Urban Males	Urban Female s
Population	1,517,542	7,78,461	7,39,081	13,75,148	1,42,394	7,06,140	6,69,008	72,321	70,073
No. of Agriculture labourers	42,121	31,540	10,581	40,859	1,262	30,375	10,484	1,165	97
No. of Cultivators	1,49,738	1,34,767	14,971	1,48,155	1,583	1,33,225	14,930	1,542	41
Household industry workers	29,452	14,420	15,032	21,861	7,591	10,395	11,466	4,025	3,566
Working	1,99,933	1,66,13	33,797	1,68,845	31,088	1,39,45	29,393	26,68	4,404

population		6				2		4	
Main working population	4,21,244	3,46,863	74,381	3,79,720	41,524	3,13,447	66,273	33,416	8,108
Marginal workers	2,07,710	81,629	1,26,081	1,93,062	14,648	74,317	74,317	7,312	7,336
Non-working population	8,88,588	3,49,969	5,38,619	8,02,366	86,222	3,18,376	4,83,990	31,593	54,629

Source: Census of India 2011

Table- 2.3: Socio-economic Kamrup Metropolitan District

Parameter s	Total	Male	Female s	Rural	Urban	Rural Male	Rural Female s	Urban Males	Urban Female s
Population	12,53,938	6,47,585	6,06,353	2,16,927	1,037,011	1,11,062	1,05,865	5,36,523	5,00,488
No. of Agriculture labourers	8,259	5,843	2,416	5,783	2,476	3,860	1,923	1,983	493
No. of Cultivators	20,677	17,606	3,071	17,714	2,963	15,194	2,520	2,412	551
Household industry workers	7,973	5,355	2,618	2,106	5,867	1,205	901	4,150	1,717
Working population	3,75,613	1,15,319	4,13,154	62,916	3,12,697	24,852	64,318	90,467	3,48,836
Main working population	4,13,154	3,34,724	78,430	64,318	3,48,836	51,641	12,677	2,83,083	65,753
Marginal workers	9,357	5,376	3,981	4,013	5,344	2,035	1,978	3,341	2,003
Non-working population	7,63,006	2,71,972	4,91,034	1,29,159	6,33,847	48,146	81,013	2,23,826	4,10,021

Source: Census of India 2011

2.3 Project Impact Zone

The Bridge and approach road users and the population benefited / affected by the project are mainly the persons, who generally pass through or use the existing road / proposed alignment for their daily needs. The majority of the direct beneficiaries of the project reside in the vicinity of the road alignment, within approximately 5 km radius from the road alignment.

In order to carry out SES and conduct FGDs for preparing Social Analysis, the project impact zone has been defined as 1. Direct impact involves the habitations existing along the project road and 2. Indirect impacted habitations will involve those within 1 km on either of the project road.

2.3.1 Socio-economic profiling

The majority of the potentially affected / benefited persons living in the project influence zone frequently travel down the existing roads or proposed alignment of the subprojects. Their purpose of visit brings them generally to the prominent market places by the roadside or transport boarding points either side of the road. Other beneficiaries also pass through the important junctions of the feeder roads connecting the project roads / proposed alignment. These junction points served as the clusters from where sample households and FGD meetings were selected. Besides, administrative offices, places of worship, community structures, such as Childline centre, in the major settlements within the project impact zone were also taken into considerations for holding FGD / Key Informant Interview (KII).

The project influence area (PIA) of Brahmaputra Bridge and its approach road covers parts of two districts – Kamrup Metropolitan and Kamruo District wise list of project influenced habitations falling under Direct and indirect influence zone is presented in Table 2-4

Table -2.4: Project Affected Villages falling Under Impact Zone

State	District	Project Affected Villages under Impact Zone
Assam	Kamrup Metropolitan	0
	Kamrup	5

2.4 BASELINE DATA

2.4.1 Scheduled Caste & Scheduled Tribe Population

The SC population of Kamrup Metropolitan, Kamrup are 101780 and 1,07,827 respectably and similarly ST Population of Kamrup Metropolitan and Kamrup is 75,121 and 1,82,038. SC&ST Population brief is given Below Table No. 2-7 and 2-8 respectively

Table-2.5: SC Details

District	SC Population								
	Total	Male	Female	Rural	Urban	Rural Males	Rural Females	Urban Males	Urban Females
Kamrup Metropolitan	1,01,789	52,106	49,683	33,499	68,290	17,181	16,318	34,925	33,365
Kamrup	1,07,827	55,237	52,590	88,975	18,852	45,829	43,146	9,408	9,444

Source: Census of India 2011

Table- 2.6: ST Details

District	ST Population								
	Total	Male	Female	Rural	Urban	Rural Males	Rural Females	Urban Males	Urban Females
Kamrup Metropolitan	75,121	37,902	37,219	29,574	45,547	14,731	14,843	23,171	22,376
Kamrup	1,82,038	92094	89944	180192	1846	91154	89038	940	906

Source: Census of India 2011

2.4.2 Literates

As 2011 Census, the states of Assam had Total literacy rate 73.18%. Similarly district levels the comparison between male and female. The Literacy rates of Project District are shown in Table 2.7.

Table- 2.7: No. of Literates

State / Districts	Total	Male	Female	Rural	Urban	Rural Male	Rural Female	Urban Males	Urban Females
Assam	19,177,	10,568,	8,609,	15,68,5	34,92,	87,06,	69,79,24	18,62,	16,30,

State / Districts	Total	Male	Female	Rural	Urban	Rural Male	Rural Female	Urban Males	Urban Females
	977	639	338	436	541	193	3	446	095
Kamrup Metropolitan	10,01,191	5,37,227	4,63,964	1,44,941	8,56,250	80,103	64,838	4,57,124	3,99,126
Kamrup	9,95,319	5,50,219	4,45,100	8,81,782	1,13,537	4,89,607	3,92,175	60,612	52,925

Source: Census of India 2011

2.4.3 Sex Ratio & Density/KM of Project Road

According to census of India highest sex ratio of Project corridor is 949, 936 of Kamrup and kamrup Metropolitan respectively and population growth rate is also very low i.e. 15.69 of kamrup District. The Project impact Area districts is presented in **Table 2.8**.

Table-2.8: State and District wise demographic Profile

State / Districts	Sex ratio	Density /KM ²	Population Growth
Assam	958	398	17.07
Kamrup Metropolitan	936	1313	18.34
Kamrup	949	489	15.69

Source: Census of India 2011

CHAPTER 3 PROPOSED IMPROVEMENTS AND IMPACT ASSESSMENT PROCESS

This Chapter describes the project and discusses the various improvement measures proposed as part of the project. The project Bridge and Approach Road under consideration of consultancy services of 6-laning of South Guwahati to North Guwahati section (km 0.000 to Km 6.800) of Bridge and Approach road aim to:

- Improve the horizontal and vertical alignment of the existing road and proposed road.
- Improve the existing speed of the traffic flow by removing all the bottlenecks at various important junctions.
- Increase the carrying capacity the existing traffic volume and enable it to cater to the future traffic.
- Improve accessibility of the existing highway.
- Provide highway amenities like lay-by, bus stop etc.

3.1 PROPOSED ROAD FEATURES

3.1.1 Alignment Proposal

- A six lane road is proposed from Ch. 0.000 to Ch.6.800 of bridge and approach road.
- 6 Typical Cross Sections for widening of the project road in urban and rural areas has been developed based on guidelines of IRC.

3.1.2 Pavement

Pavement types proposed with length

- Flexible pavements: 4.0 Km
- Bridge, ROB, VUP and Viaduct: 2.7 Km

3.1.3 Geometric Design Aspects

- Minor realignment and curve improvement sections number and details
- No realignment and curve improvement
- Embankment details

Table-3.1: Details of Embankments

Sl.No.	Chainage		Length	Filling Depth
	From	To		
1	0.000	2.700	2.700	Bridge
2	2.700	4.000	1.300	Filling
3	4.000	4.100	100	VUP
4	4.100	5.500	1.400	Filling
5	5.500	5.600	100	Minor Bridge
6	5.600	5.900	300	filling
7	5.900	6.000	100	VUP
8	6.000	6.600	600`	Filling
9	6.600	6.700	100	ROB
10	6.700	6.800	100	Filling and Junction end

3.1.4 Service roads

- The service road has been proposed throughout the project road. Its main motive is safety.

Table -Error! No text of specified style in document.: Summary of Proposed Horizontal Alignment

Sl. No.	Existing Chainage		Design Chainage		Length of Service Road (in m)	Width (m)	Side
	From	To	From	To			
1	1.600	5.900	1.600	5.900	4.300		Both Side

3.1.5 Underpasses

- 2 vehicular underpasses, are recommended in Project Road for safety point of view on both side.

Table -3.3: Vehicular Underpass Details

S. No.	Name of the Village/Place	VUP	
		Existing Chainage, km	Proposed Chainage, km
1	College Nagar Bottling Plant Junction	4.100	4.100
2	Gauripur Tenali	5.900	5.900

3.1.6 Proposed Right of Way

3.1.7 PROW Varies from 80 m Right of Way proposed.

3.1.8 Design of Intersections

There are 5 Major, 3 Minor, which shall be improved as at-grade junctions. All major and minor junctions have been studied thoroughly with respect to traffic volume and geometric. The important minor junctions leading to villages and major settlements have been identified and proper junction layouts (including road marking, and traffic signs) have been applied as per IRC-SP: 41-1994. Design of major junctions has been based on peak hour traffic data. List of major and minor Junctions is given below:

Table-3.4: Summary of Proposed Junctions

S. No.	Existing Chainage	Design Chainage	Category of Road	Type of Junction	Remarks
1	Rotry-1		SH	At Grade junction with service road	Near Bhoot Nath Temple
2	Rotry-2		SH	At Grade junction with service road	Near Lachit Barphukan statue
3	1.600		Village Road	T-Junction with Service Road	North Guwahati
4	2.340	2.340	MDR	T-Junction with Service Road	Abhoypur-Amingaon
5	3.600	3.600	Village Road	T-Junction with Service Road	Abhoypur-Bottling Plant
6	4.100	4.100	MDR	Major Junction	Bottling Plant
7	5.100	5.100	Village Road	T-Junction with Service Road	Rahadhala
8	5,600	5.600	Village Road	T-Junction	Way to Rangmahal

S. No.	Existing Chainage	Design Chainage	Category of Road	Type of Junction	Remarks
9	5.900	5.900	MDR	Major Junction	Gauripur Tenli
10	6.800	6.800	National Highway	Major Junction	Gauripur

- **Traffic Control and Road Safety Features**

Traffic control devices and road safety features, including Traffic Signs, Road Markings, Road lighting & Crash Barriers are proposed and designed as per relevant IRC codes and standards.

- **Design of Intersections**

All intersections have been studied thoroughly with respect to traffic volume and geometric. The important minor junctions leading to villages and major settlements have been identified and proper junction layouts (including road marking, and traffic signs) have been applied as per IRC-SP: 41-1994. Design of major junctions has been based on peak hour traffic data.

- **Traffic Control and Road Safety Features**

Traffic control devices and road safety features, including Traffic Signs, Road Markings, Road lighting

3.2 Social Assessment Process

The social impact assessment is a method of analysing what impact a government action (such as construction of New bridge and approach road) may have on the social aspects of the environment and involves forecasting outcomes if things changes. This is an important exercise in the project planning and designing. In the context of present project for the 6 laning with paved shoulders configuration and strengthening of Brahmaputra Bridge project the task preformed as part of TOR and methodology adopted includes.

- Reconnaissance and observation visited to the project stretch to
 - Understand the broad settlements pattern and the physical features along the highway
 - Identify the critical sections of the road stretch
 - Develop and understanding the general socio-economic profile and activity pattern along the COI.
- Collection of information from secondary resources including net scanning.
- Mapping out the society critical point on the strip plan and preparation of inventory of loss of assets in the RoW to make a preliminary assessment loss.
- Identification of key persons for the critical sections through informal discussions with the likely PAPs.
- Consultations with the likely PAPs as well as other key stakeholders including NGOs, district administration, local government etc. using focus group discussions, consultation meetings and other participatory tools for the assessment to
 - develop rapport with the stakeholders including likely PAPs
 - identify the key social issues
 - assess likely impact on land, livelihood, structures, social cohesion, safety of the road users
 - get people's view for various aspects of road design
- Group discussions with other members of the team including engineers, environmental experts, transport experts, economists etc.

- share the social concerns, issues and impact of the project on the socio-economic conditions of the people
 - Build consensus on the issues.
 - Develop options for addressing the technical, environmental and social concerns in the design.
 - Develop agreement on the option which minimize and mitigate the negative impacts of the project through appropriate design provisions, as well as technically and environmentally feasible.
- g. Development and field-testing of the tools developed for detailed investigations.
- h. Census and Socio-economic surveys of the project affected households including
- Survey of non-titleholders within RoW in two categories i.e. squatters and kiosks.
 - Survey of titleholders whose land is going to be acquired for the purpose of improvement in the geometric design, By-passes or other road strengthening measures.
- i. Analysis of census and socio-economic surveys for the purpose of preparation of resettlement action plan and working out the policy framework.

3.3 Corridor of impact

In context of present project construction of Brahmaputra Bridge and approach road as 6 lanes with paved shoulders configuration, the Corridor of Impact was the most important parameter in determining the number of PAPs. The requirement of the project demands that the entire corridor of impact should be free from any encroachment, human habitation and structure causing hindrances to traffic. Removing the encroachers and the squatters from the RoW does not guarantee that they would not reoccupy the area. Therefore, all estimations were limited to the CoI only and the project will not displace any person outside the corridor of impact, even if within the RoW.

During the entire phase of implementation of this project under PWD, if additional COI will be required anywhere in the project section as per design requirement, the compensation to the PAFs falling within the additional COI section will be made as per entitlement provision under this RAP only

3.4 Consultation Methodology

The public consultations were organized at two stages, i.e. at the feasibility stage and the final round of consultations at the DPR stage. The feasibility stage public consultations focused mainly on the mapping of the social issues related to the project stretch and were targeted to understand the concerns and aspirations of the people from the road project. The second round of public consultations were primarily centred around sharing of the proposed development plan and the broad R&R policy framework with the PAPs to get their views on the development proposals and the issues related to resettlement and rehabilitation.

In addition to the consultations with the PAPs, interactions and consultations were held with other stakeholders especially the Gram Pradhan, NGOs, district administration to elicit their views and mobilize support for the implementation phase. The consultations with the officials of district administration including land revenue conducted under the Chairmanship of District Magistrate helped in getting assurance from them in terms of all the cooperation and support for the implementation of the project as well as nomination of the Competent Authorities.

In light of the issues that have emerged during the consultation process, the following key principles were derived for the design considerations:

- minimization of the land acquisition
- minimization of the displacement and relocation

- provision of adequate road safety measures in the road design including service roads, safe movement across the highway, parking places and stops for the local public vehicles

3.5 Census survey and structure marking

The surveys were carried out keeping in view the requirements for the assessment of the category and quantum of losses, so that the entitlements can be evolved in a logical and scientific manner. The census and socio-economic survey (carried out jointly as 100% of the PAPs to be covered under the socio-economic surveys) has been carried out to ensure that each and every affected and displaced person is identified and his entitlements are worked out and the expenditure estimates are determined on the basis of the entitlements. The census and socio-economic survey has been carried out for the 100% of the non-titleholder PAPs as well as 100% titleholder structures. However, in case of acquisition for agricultural land, the extent of coverage of PAPs for the socio-economic survey varies between 50-60% in different villages due to two main reasons. 1. Absentee landlords or non-availability of the PAP during the survey and 2. The “4(1)” notification of land acquisition act 1964 for land acquisition has been under process and due to that the landlords have not given Weightage to on-going census survey in villages.

CHAPTER 4 CENSUS AND SOCIO-ECONOMIC RESULT

4.1 CENSUS AND SOCIO-ECONOMIC SURVEY

The objective of the census and socio-economic survey were prepare the list of the project affected households and prepare the socio-economic profile of the project affected persons for evolving the entitlement framework

The cut-off date for the project road will be the date of commencement of the Census Survey. The structures enlisted during the survey is the final one, any structures build up after the Census survey shall not be eligible for compensation and assistance. Hence it is closed the cut

–off date for project road is 18.04.2018

The study time frame can be broadly divided into two phases comprising of Phase I to include secondary data search, Reconnaissance survey, Social strip mapping; and Phase II to include census and socio-economic surveys for titleholders.

The analysis of the data has been presented in the following sections for the titleholders separately.

4.2 Survey of Project Affected families

4.2.1 Project Affected Structures

The surveys for the Persons have been carried out under the three categories namely residential commercial and Residential cum commercial and squatters. The total project affected families are identified in North Guwahati. i.e. 45, 113 and 30 respectively. The distribution of PAFs as per the district is given in Table 4.1 below.

Table- 4.1: Distribution of usage of structures

Sl. No	Category	Kamrup	Total
1	Residential	42	42
2	Commercial	78	78
3	Residential cum Commercial	28	28
	Total	148	148

Source: Primary survey (2018)

a. Location

The analysis of the data on the location of the PAFs in the entire project stretch reveals that they are located on either side of the carriageway with a higher number on the left hand side, as evident from Table 4.2 below.

Table -4.2: District-wise Distribution of PAFs as per location with respect to NH

Sl. No	Location	Number of PAFs on Either side of Project corridor	
		Kamrup	Total
1	L/S	160	160
2	R/S	59	59
	Total	219	219

Source: Primary survey (2018)

4.3 SOCIO-ECONOMIC CHARECTERSTICS PAFs and PAPs

The socio-economic characteristics of the titleholder PAFs has been analysed district-wise with respect to the following characteristics:

- Type of Family
- Project Affected Families

- Educational Status
- Sex Ratio
- Religious status
- Marital Status
- Occupational Pattern
- Income Categories
- Social Vulnerability

a. Type of Family

Table 4.3 below presents the distribution of households as per the type of family i.e. nuclear, joint and extended.

Table-4.3: Type of Family

Type of Family	Numbers
Nuclear	125
Joint	75
Extended	19
Total	219

Source: Primary survey (2018)

b. Project affected families

Table-4.4 below present the district-wise distribution of PAFs and PAPs as per the number of projects affected using the definition of family as per the R&R policy.

Table -4.4: Number of Project Affected Families

PAFs/PAPs	Number of PAFs/PAPs
Number of PAFs	219
Number of PAPs	1095

Source: Primary survey (2018)

4.2 EDUCATION STATUS

Table 4.5 below gives the distribution of total project affected population with respect to the educational status.

Table-4.5: Educational Status of the Affected Families

District	Education Level								Total
	Illiterate	Upto 5th	Upto 8th	9 th & 10th	11 th & 12th	Graduates	Master	Engineering	
Kamrup	5	17	54	86	35	20	1	1	219

Source: Primary survey (2018)

4.3 SEX RATIO

The sex ratio has been determined through Number of females divided by number of males and multiplied by 1000. I.e. $525/5701 * 1000 = 955$ females for 1000 males. Table 4.6 present the sex ratio of Kamrup districts, which is given below.

Table-4.6: Sex Ratio of Affected people

District	Total Population	Male	Female	Sex Ratio
Kamrup	1095	570	525	955

Source: Primary survey (2018)

4.4 RELIGIOUS STATUS

The district – wise Religious status of the affected families getting affected due to project is presented in Table 4.7

Table -4.7: Religious Status of project Affected Families

Religion	Numbers of PAF
Hindu	101
Muslim	118
Total	219

Source: Primary survey (2018)

4.5 OCCUPATIONAL PATTERN

The occupation pattern of the PAFs is given in the Table 4.8

Table -4.8: occupation of Project Affected families

Occupation	Number of Persons
Pensioner	15
Business	98
Service	30
Labour	1
Shopkeepers	50
Unemployed	20
Gaon Burah	1
Housewife	4
Total	219

Source: Primary survey (2018)

4.6 INCOME CATEGORY

The PAFs have been classified as per income slab given in table: 4.9 below.

Table-4.9: District-wise Distribution of PAPs as per income slabs

Annual income Slab	Number of Households
<=20000	2
20001-30000	1
30001-50000	14
50001-100000	77
>100000	125
Total	219

Source: Primary survey 2018

4.7 COMMON PROPERTY RESOURCES

Table -4.10: Common Property Details

S.No.	Common Property Resource (CPR) by type	Nos.
1	Temple	3
2	Graveyard	1
3	School	1

S.No.	Common Property Resource (CPR) by type	Nos.
4	Training Centre	1
5	Survey Khamal	1
6	Child line(NGO)	1
	Total	8

Source: Primary survey-2018

4.8 SOCIAL VUNERABILITY

Table 4-11 present the analysis of data with respect to social Vulnerability like, SC, ST, and WHH are covered.

Table -4.11: Social Vulnerability

Vulnerability	North Guwahati(No.)
WHH	6
SC	20
ST	33
OBC	7
Total	66

Source: Primary survey (2018)

4.9 Dwelling Structure

So far as the type of dwelling structures is concerned, (Table 4-12 this indicates some kind of economic well-being of the majority of the residents who can afford to build Pucca/ semi-Pucca type of houses.

Table-4.12: Type of Dwelling Structures

Sl. No	Type of Structures	Number
1	Kutchra	11
2	Pucca	117
3	Semi-Pucca	20
	Total	148

Source: Primary survey (2018)

CHAPTER 5 R&R PRINCIPALES, POLICY FRAMEWORK & ENTITLEMENT MATRIX

This chapter reviews the existing legislative set-up pertaining to the project at the National and state levels.

5.1 INTRODUCTION

This Resettlement plan document describes the principles and approach to be followed in minimising and mitigating negative social impacts by the projects. The guidelines are prepared for addressing the issues limited to Bridge and approach road project of Brahmaputra Bridge project for resettlement and rehabilitation of PAFs. The resettlement policy for this project has been developed considering the Right to Fair Compensation and Transparency in Land Acquisition and Resettlement and Rehabilitation Act. 2013 is also referred to finalise the land acquisition and entitlement framework for the PAFs.

5.2 RESETTLEMENT & REHABILITATION PRINCIPLES AND GUIDELINES

Public works Department (PWD), Government of Assam, finalized the “Resettlement Policy Framework (RPF)” and posted on PWD Website. The finalized “Resettlement Policy Framework (RPF)” shall apply to all project roads under PWD. This Resettlement Policy document describes the principles and approach to be followed in minimizing and mitigating negative social and economic impacts caused by the project Overall objective of this Framework is to guide the preparation and implementation of National Policy based on the following principles:

Take due care of Project Affected People (PAP).

- Take due precautions to minimize disturbance to human habitations, tribal areas and places of cultural significance.
- Involve affected people from inception stage to operation and maintenance.
- Consult affected people in issues of PROWs, land acquisition or loss of livelihood
- Encourage consultation with communities in identifying environmental and social implications of projects.
- Pay special attention to marginalized and vulnerable groups and secure their inclusion in overall public participation.
- Guarantee entitlements and compensation to affected people as per its RFCTLARRA 2013.
- Share information with local communities about environmental and social implications.

5.3 APPLICABLE LEAGAL AND POLICY FRAMEWORK

Applicable acts, notifications and policies relevant in the context of this project are discussed below. The project authority (PWD) will ensure that project activities implemented are consistent with the national, state, local regulatory/legal framework.

Table -5.1: Applicability of Policies and Acts

Sl.No.	Acts, Notifications and Policies	Relevance to this project	Applicability
1	Assam Land (Requisition and Acquisition) Act. 1964	Land required for the project shall be acquired as per the provisions of this act.	Applicable
2	Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act,2013	Compensation and Resettlement and Rehabilitation benefits will be applicable as per this Policy.	Applicable

5.4 RESETTLEMENT POLICY FRAMEWORK

This RPF for the Bridge and approach road has been prepared based on the findings of Social Survey Report (SSR) covering initial impact assessment and review of applicable legal and policy framework discussed above

The purpose of preparing a RPF is to:

- Bring commonality in resettlement and rehabilitation benefits under the project.
- Bring together and built upon the current good practices in terms of procedures to address more systematic and institutional issues.
- Establish institutional arrangements at project, state level (PWD) for the implementation of RAP.
- Establish mechanism for Redressal of grievances; and monitoring and evaluation, etc.

5.4.1 Abbreviations, terms and Definitions

Abbreviations

Following abbreviations have been used in the policy:

PAP	Project Affected Person
PAF	Project Affected Families
BPL	Below Poverty Line
SBEs	Small Business Enterprises
COI	Corridor of Impact
CPRs	Common Property Resources
EP	Entitled Person
Ha	Hectare
LAA	Land Acquisition Act
NGO	Non-Government Organisation
PWD	Public Works Department
PIU	Project Implementation Unit
RAP	Resettlement Action Plan
CRRO	Contract Resettlement and Rehabilitation Officer
PROW	Proposed Right of Way
R & R	Resettlement and Rehabilitation
SES	Socio-Economic Survey
SC	Scheduled Caste
ST	Scheduled Tribe
u/s	Under Section

Terms

Following terms has been used in the policy

Hectare	A unit for measuring land area. (Hectare equals 10000 Square Meters).
Corridor of Impact	Width of corridor required for the construction of road, service lane, drain, footpath, access, tree plantation and for safety zone
Development Block	A number of villages grouped together form a development Block.
Tehsil/Subdivision	A group of Blocks
Panchayat Samiti	Local Self-governing body at Block level is Panchayat Samiti.
District Collector /Magistrate	Administrative head of a District
Divisional Commissioner	Administrative head of a division comprising a number of districts.
Panchayat	Elected local self-governing body at village level
Poverty Line	A family whose annual income from all sources is less than a designated

	sum as fixed by the concerned State Govt., in which the project falls, will be considered to be below Poverty Line.
Pucca	Cement, bricks or concrete build structure
Semi-Pucca	Structures with tiles/ thatch roof/ brick cement wall
Kachha	Structures with stone/ mud wall/ thatch roof
Replacement Cost	Amount paid over and above compensation to enable PAP to buy land, house, or any such immovable productive asset.
Entitled Person	A person adversely impacted by the project and is entitled to some kind of assistance as per the project entitlement framework
Titleholder	A person who possess legal documents towards the claim for the Property
Grievance Redress Cell	A cell set up by the project authority headed by District Magistrate/or his representative to look in to grievances of a PAP

Definitions

Following definitions that will be applicable unless otherwise stated specifically.

- **Agricultural labourer:** means a person primarily resident in the affected area for a period of not less than five years immediately before the declaration of the affected area, who does not hold any land in the affected area but who earns his livelihood mainly by manual labour on agricultural land therein immediately before such declaration and who has been deprived of his livelihood;
- **Agricultural land:** Denotes land used or capable of being used for the purpose of agriculture or horticulture, dairy farming, poultry farming, pisciculture, sericulture, breeding of livestock or nursery growing medicinal herbs, raising of crops, grass or garden produce and land used by an agriculturist for the grazing of cattle, but does not include land used for cutting of wood only.
- **Below poverty line (BPL) or BPL family:** means below poverty line families as defined by the Planning Commission of India, from time to time and those included in the BPL list for the time being in force.
- **Corridor of impact (COI):** Refers to the minimum land width required for construction including embankments, facilities and features such as approach roads, drains, utility ducts and lines, fences, green belts, safety zone, working spaces etc. additional land width would be acquired/purchased or taken on temporary lease if the Corridor of Impact extends beyond the available Right of Way.
- **Cut-off date:** Refers to the date on which the census survey of PAPs starts in that road section/stretch. For entitlement purpose, the PAPs would be those who have been in possession of the immovable or movable property within the affected area/zone on or prior to cut off date.
- **Encroacher:** A person who has extended their building, agricultural lands, business premises or work places into public/government land without authority.
- **Entitled person (EP):** A person who is adversely impacted by the project and is entitled to assistance as per the project entitlement framework is considered to be an Entitled Person.
- **Holding:** means the total land held by a person as an occupant or tenant or as both;
- **Kiosk:** A kiosk is a booth/stall/cabin/cubicle made of wood or iron or any other building material which could be shifted to another location as a single unit without much damage and is used for carrying out petty business/ commercial activities and has been in operation/existence prior to cut off date.
- **Land acquisition" or "acquisition of land":** means acquisition of land under Assam Land (Requisition and Acquisition) Act, 1964 for the time being in force;

- **Landowner:** A person who is an allottee or a grantee of any land under any scheme of the Government under which such allotment or grant is to mature into ownership, who has mortgaged his land (or any portion thereof) or who has permanent rights and interest in land.
- **Marginal farmer:** Refers to a cultivator with an un-irrigated land holding upto one hectare or irrigated land holding upto half hectare.
- **Non-agricultural labourer:** means a person who is not an agricultural labourer but is primarily residing in the affected area for a period of not less than five years immediately before the declaration of the affected area and who does not hold any land under the affected area but who earns his livelihood mainly by manual labour or as a rural artisan immediately before such declaration and who has been deprived of earning his livelihood mainly by manual labour or as such artisan in the affected area;
- **Non-titleholder:** Affected persons/families/ households with no legal title to the land, structures and other assets adversely affected by the project. Non-titleholders include encroachers, squatters, etc.
- **Notification:** means a notification published in the Gazette of India.
- **Occupier:** means a member of a Scheduled Tribes community in possession of forest land prior to the 13th day of December, 2005;
- **Project affected family:** includes a person, his or her spouse, minor sons, unmarried daughters, minor brothers, unmarried sisters, father, mother and other relatives residing with him or her and dependent on him or her for their livelihood; and includes "nuclear family" consisting of a person, his or her spouse and minor children;
- **Project affected person (PAP):** Any tenure holder, tenant, Government lessee or owner of other property, or non-titleholder who on account of the project has been affected from such land including plot in the abadi or other property in the affected area will be considered as PAP.
- **Project displaced person (PDP):** Any tenure holder, tenant, Government lessee or owner of other property, or non-titleholder who on account of the project has been involuntarily displaced from such land including plot in the abadi or other property will be considered as PDP. A displaced will always be a PAP but all PAP may not be PDP.
- **Project affected household (PAH):** A household that may comprise of one family or several families.
- **Replacement cost:** A replacement cost/value of any land or other asset is the cost/value equivalent to or sufficient to replace/purchase the same land or other asset.
- **Small farmer:** Refers to a cultivator with an un-irrigated land holding up to two (2) hectares or with an irrigated land holding up to one (1) hectare.
- **Squatter:** A person who has settled on public/government land, land belonging to institutions, trust, etc. and or someone else's land illegally for residential, business and or other purposes and/or has been occupying land and building/asset without authority.
- **Tenant:** A person who holds / occupies land / structure of another person and is or (but for a special contract) would be liable to pay rent for that land / structure to other person and includes the predecessor and successor-in-interest of such person but does not include mortgage of the rights of a landowner or a person to whom holding has been transferred or an estate or holding has been let in farm for the recovery of an arrear of land revenue or of a sum recoverable as such an arrear or a person who takes from Government a lease of unoccupied land for the purpose of subletting it.
- **Titleholder:** A PAP/PAF/PAH who has legal title to land, structures and other assets in the affected zone.

- **Vulnerable group:** This includes Scheduled Caste, ST, family/household headed by women/ female, physically handicapped, , Vulnerable groups would also include those farmers who (after acquisition of land) become small/marginal farmers and also qualify for inclusion in BPL. For such cases, total land holding of the landowner in that particular revenue village will be considered in which land has been acquired.
- **Wage earner:** Wage earners are those whose livelihood would be affected due to the displacement of the employer. The person must be in continuous employment for at least six months prior to the cut-off date with the said employer and must have reliable documentary evidence to prove his/her employment.

5.5 ENTITLEMENT MATRIX

This entitlement matrix has been developed in accordance with the basic principles adopted in the RPF and analysis of initial identification of project impacts.

In case State Government through any Act or Gazette Notification or as approved by any authority of State Government (duly authorized for the purpose) as per their approved procedure has fixed a rate for compensation of land and is higher than the provisions under the project, the same may be adopted by the Competent Authority in determining the compensation for land.

Similarly, in case State Government through any Act or Gazette Notification or as approved by any authority of State Government (duly authorized for the purpose) as per their approved procedure has fixed a rate for resettlement and rehabilitation assistance and is higher than the provisions under the project, the same may be adopted by the Executing Authority.

The developed entitlement matrix is presented in Table below.

Table -5.2: Entitlement Matrix

Sl. No.	Category	Type of Loss	Entitlements	Details
1	Private Property	Loss of Land (Agricultural, Homestead, commercial or otherwise)	a. Land will be acquired as per Assam Land (Requisition & Acquisition) Act. 1964 and payment of compensation as per RFCTLARR Act. 2013.	<p>Higher of (i) market value as per Indian Stamp Act, 1899 for the registration of sale deed or agreements to sell, in the area where land is situated; or (ii) average sale price for similar type of land, situated in the nearest village or nearest vicinity area, ascertained from the highest 50% of sale deeds of the preceding 3 years;</p> <p>Market value to be multiplied by factor 1.5 (one and half times) for land within the radial distance of 10 km from the urban area and 2 (Two times) if the radial distance of the land beyond 10 Km from the urban area.</p> <p>Plus 100 % solatium and 12% interest from date of preliminary notification to award.</p>
2	Private Property	Loss of residential structure	In addition to compensation for land and assistance above under sl. No.1	

Sl. No.	Category	Type of Loss	Entitlements	Details
			<ul style="list-style-type: none"> a. Replacement value of the structure and other assets as per current PWD scheduled rates with 100% solatium. b. Right to salvage material. c. All physically displaced families will receive one time subsistence allowance of Rs. 36000.00. d. All physically displaced families will receive one time shifting assistance of Rs. 50000.00 e. All physically displaced families will receive one time resettlement allowance of Rs. 50000.00 f. For partially affected structure, additional 25% of structure value will be given. 	
3.	Private Property	Loss of commercial Structure	<p>. In addition to compensation for land and assistance above under sl. No.1</p> <ul style="list-style-type: none"> a. Replacement value of the structure and other assets as per current PWD scheduled rates with 100% solatium. b. Right to salvage material. c. All physically displaced families will receive one time subsistence allowance of Rs. 36000.00. d. All physically displaced families will receive one time shifting assistance of Rs. 50000.00 e. All physically displaced families will receive one time resettlement 	

Sl. No.	Category	Type of Loss		Entitlements	Details
				allowance of Rs. 50000.00 f. Each affected family having petty shop shall get one time financial assistance of Rs. 25000.00 for construction of petty shop	
4.	Private Property	Impact to Tenants	Tenant: Residential	a. One month notice to vacate the rental premises b. Rental allowance at Rs. 2000/- per month in rural area and Rs. 3000/- per month in urban areas for six month. c. Shifting assistance of Rs. 10,000/-	
			Tenant: Commercial	a. One month notice to vacate the rental premises b. Rental allowance at Rs. 2000/- per month in rural area and Rs. 3000/- per month in urban areas for six month. c. Shifting assistance of Rs. 10,000/- d. Commercial tenants will receive one time grant of Rs. 25000/- for loss of trade/self employment.	
			Tenant: Agricultural	In case of agricultural tenants advance notice to harvest crops or compensation for lost crop at market value of the yield determined by the Agricultural Department.	
5.	Illegal use of RoW	Impact to Non Title Holder	Encroachers	a. Replacement cost of the affected structure calculated at current PWD scheduled rates without depreciation.	

Sl. No.	Category	Type of Loss	Entitlements	Details
			<ul style="list-style-type: none"> b. Right to salvage material. b. Advance notice for harvesting crop. 	
		Squatters (Residential/Commercial)	<ul style="list-style-type: none"> a. Replacement cost of the affected structure calculated at current PWD scheduled rates without depreciation. b. Right to salvage material. c. Shifting allowance of Rs.10,000/- d. Transitional allowance of Rs.12000/- for vulnerable (SC/ ST/ Woman headed / Physically Challenged) 	
		Mobile vendor/Kiosk	<ul style="list-style-type: none"> a. Shifting allowance of Rs.10,000/- 	
6.	Loss of Livelihood	Employees of shops, agricultural labourers, sharecroppers etc.	<ul style="list-style-type: none"> a. Subsistence allowance equivalent to minimum agricultural wages for 3 month. b. Income restoration training programs to eligible Affected household. c. Preferential consideration for project employment during construction. 	
7.	Impacts on Vulnerable	Vulnerable displaced families (SCs/STs/Women Headed Households/Differently abled families)	<ul style="list-style-type: none"> a. One time lump sum assistance of Rs. 25000/- will be paid above and over the other assistance to vulnerable household. b. Income restoration training programs to eligible Affected household. c. Preferential consideration for project employment during construction. 	This will be restricted to title holders only.
8.	Common Property Resources	Community Assets	<ul style="list-style-type: none"> a. Reconstruction of affected assets. 	
9.	Any other impact not yet identified, whether loss of asset or livelihood			Unforeseen impacts will be documented and mitigated based on the principles agreed upon in this policy framework.

5.6 COMPENSATION FOR TREES/CROPS

Compensation for trees will be based on their market value. Loss of timber trees will be compensated at their replacement cost while the compensation for the loss of fruit bearing trees will be calculated as annual produce value calculated for the number of years (as per standard procedure followed by concerned department) depending on the nature of trees/crops.

5.7 DIRECT PURCHASE OF LAND

Provision of direct purchase of land from landowners in case of sub-project where additional land requirement is very less (minimal) may also be considered. However, resettlement and rehabilitation benefits available to affected persons whose land would be acquired under the statute shall also be available to those affected persons whose land would be acquired through direct purchase.

CHAPTER 6 PUBLIC INFORMATION & CONSULTATION

6.1 INTRODUCTION

Till very recent, the Transport sector involving road, Bridge projects was being looked at as a field of engineering only. Due to the lessons learnt and the problems faced in implementation in the development projects in general, and Transport sector in particular, over the years, public consultations have acquired a very important role in the planning process for development projects. Globally, the practice of involving the communities in the planning process has been recognized as an effective tool for mitigating the negative impacts due to the projects and ensuring timely completion of the projects.

In context of the Bridge projects, which are primarily linear in nature, the issue of involving people in the planning and designing process has a much more significance, as the nature and extent of impact on the social, economic and cultural fabric of the society spread across a larger and a highly varied group of the society.

As a part of the project preparation and to ensure that the community support is obtained and the project supports the felt needs of the people; public consultations were carried out as an integral component. A continuous involvement of the stakeholders and the affected community was obtained. The feedback in the consultation sessions has led to substantial inputs for the project preparation – including, influencing designs. Consultations involve soliciting people's views on proposed actions and engaging them in a dialogue. It is a two-way information flow, from project authorities to people and, from people to project authorities. While decision making authority would be retained by the project authority, interaction with people and eliciting feedback allows affected populations to influence the decision making process by raising issues that should be considered in designing, mitigation, monitoring and management plans and the analysis of alternatives.

The public consultations for the planning and designing of Bridge and approach road projects are essential from the angle of both, the designers as well as the people who are going to be affected. From the people's perspective, the process is critical in order to:

- provide adequate time to the people so that they can prepare themselves mentally for the likely impact of the project on their social and economic life;
- inform them of the likely impact on their lives and the government policies and efforts that would be made to minimize the impact;
- ensure their cooperation in the implementation stage;

And from the designer perspective, to

- establish rapport with the project affected persons and other stakeholders establish rapport with the project effected persons and other stakeholders critical to the success of the project;
- build an environment where people understand and appreciate the need and importance of the project;
- learn from the people about the issues in terms of the regional linkages, road safety, and other social dimensions of the region/ area that need to be considered while designing the project;
- facilitate the partnership and ownership of the community through their involvement in the decision making process; and
- Understand and incorporate the views of the people in the designing process in order to minimize the future resistance and delays.

Public participation was undertaken to make explicit the social factors that will affect the development impacts of planned Bridge project and mediate project results. Through public participation, stakeholders and key social issues were identified and strategy was formulated. It included socio-cultural analysis and design of social strategy, institutional analysis and specifically addressed the issue of how poor and vulnerable groups may benefit from the project.

6.2 METHODOLOGY FRAMEWORK

As a part of the public consultation, an effort has been made to gradually build a relationship with the key stakeholders through a planned consultative process. The purpose of public consultations at various stages of the RAP preparation was two-fold, first, to create awareness amongst the likely project affected persons and key stakeholders about the project, its intent and the likely benefits, and second, to facilitate the process of social learning for the members of the engineering team.

The consultations were carried out as an integrated exercise with the engineering and environment experts and were designed to:

- help the engineering and environmental experts to understand the local socio-economic perspective;
- evolve a common understanding of the social, environmental and engineering issues amongst the team members;
- identify and develop a common vision for the issues which are common from the social, engineering, and environmental perspective;
- provide input to the other members of the team and integration of the social concerns for the design considerations; and
- help the design team to appreciate the need for making adequate provisions related to the management of corridor during the implementation and post implementation scenario with respect to the safety of the population in the surrounding areas, smooth and safe movement of the local level traffic and the people, provision of parking areas for the long route as well as halt points for the vehicles catering to the local/ regional needs, etc so that the negative social impact could be mitigated through design interventions.

The key elements of the public consultation process have been:

- identification of socially critical sections in the project stretch through reconnaissance survey and observation of the activity pattern at the identified critical sections;
- identification of key persons, who would act as resource persons at various stages of the project, through informal discussions with the local people in these sections;
- sharing about the project and its significance for the nation and region with the key persons, responding to their questions and apprehensions to gain their confidence;
- initial interactions in small groups using key persons as facilitators from amongst the project affected persons to understand the local level issues;

6.2 PUBLIC CONSULTATION PROCESS

Consultation process was carried out at two different levels, viz.

- District, and
- Local or Village

District Level consultations were conducted to solicit public and PAPs inputs. Participants in District level consultations included District Magistrate, representatives of District level officials of Revenue departments, NGOs, PAPs and PAP representatives apart from PWD /PIU staff and consultants.

The objectives of district level consultations were:

- To expand awareness of the project among the public, local government, peoples' representatives and non- government organisations.
- To identify social and environmental sensitivities and other concerns in affected districts that should be considered during project design and planning.

- To review potential impacts of the project to date; measure taken to avoid, identified in social and environmental assessments reduce or mitigate adverse impacts and minimise displacement; and provisions of project's
- To explain principles and procedures proposed for land acquisition, resettlement and relocation; and the compensation and assistance that will be provided to project affected persons, households and groups who may lose land or assets or suffer other losses.
- To introduce house-to-house surveys, asset verification, Photography, and village level consultations along project roads.
- Assure that local-level inputs are considered in project preparation

Local Level Consultations: The objectives of local level consultations were to inform the affected persons about the project, R&R policy of GOI, to incorporate their views in the design and mitigation measures as suggested by them. For organizing the local level consultations, Consultation team was framed-up which includes one Socio-Economic Analyst specialized in qualitative data collection, two women community organizers, two investigators and one moderator. Group discussions were carried out based on semi-structured guidelines. Efforts were made to cover all those villages having major problems viz., relocation of religious structures or big market or residential area getting affected, etc. Both small and big habitations were covered in order to get representation of all the segments of affected population. More than one-group discussions were held in every affected village. The size of group was restricted to 20 to 25 so that everybody gets the chance to express their views on the project. Apart from above Separate group meetings were also organised for women participation in affected villages.

The Local Level public consultations were carried out at Sila, Abahyapur, Gouripur and North Guwahati during date from 10/04/2018 to 17.04/2018. The issues related to resettlement were also discussed during these consultations and the outcomes of the consultations carried out at various stages presented in Table 6.1& 6.2

6.3 KEY ISSUES

- Majority of PAPs agreed that given the road condition and traffic volume, widening and strengthening is necessary.
- majority of the project affected persons in the stretch are poor non-titleholders and their concern was that whether the government would do something for their welfare as they do not have any alternative source for their livelihood;
- when would they be required to shift and where will they go as they do not have any alternative, their concern was that if they are relocated to places away from the highway, they would lose opportunities for small business what they get now as a result of the highway;
- Compensation was the major issue in every discussion. Most of the PAPs feared of low compensation because of past experience. However, consultants informed them about the procedure of calculating compensation and were also informed about R&R assistances to meet the replacement value. Cash compensation is more preferred by the PAPs.

6.4 Consultations during Design

Consultations were carried out at the design stages to identify:

- Location specific social and social issues to be addressed through designs;
- Socio-economic profile of community along the project route;
- Extent of likely social impact due to the project;
- Expectations and reservations of people towards project; and
- Resettlement and rehabilitation options

Table -6.1: Public Consultations issues

Sl.No	Location	Existing Km Chainage	Date	Participants	Issue Raise/Discussed	Suggestion from Participants	Mitigation Measures
1.	Gauripur	3.850	10/04/2018	Gauripur Total participants are 10	<p>The Project Background, Social, traffic safety issue and benefit from the project were explained to the Stakeholders</p> <p>The Main Issue of Public in Village Gauripur was:</p> <ul style="list-style-type: none"> • Relocation of one roadside temple. • Proposed Widening options • Effect of Noise and Dust • Pollution during construction and after construction. • Safety of Local traffic and pedestrian in Built-up Zone • Road crossing problem. • Lack of safe drinking water facility • How many meters the road will be extend from centerline? • Is there any preferences given by the governments to the encroachers who have built their shops for several years and paying taxes to the government? • If governments will give 	<ul style="list-style-type: none"> • Provision of Drainage in Built-up Section to eliminate the issue of road side water-logging • Proper Improvement of Road Junction for Aim hospital • For Safety of Local traffic and pedestrian in Built-up Zone, footpath should be provided. • Adequate provision for minimizing the Dust and Noise Pollution during construction • There should be underpass for road crossing • Adequate compensation should be provided to the project affected persons. • Should give sufficient time to shift to a new place • Alternate source of income for the priest should be ensured • If government land is 	<ul style="list-style-type: none"> • Concentric widening in Built-up section has been agreed with provision of Covered roadside RCC Drain and footpath for pedestrians. • Proper EMP shall be finalize to minimize Dust and noise Pollution • During Construction work in Built-up Zone. • Proper traffic signage shall be provided for speed limits. • Proper improvement of Major Cross Junction included in design for minimizing the Traffic congestion as well to minimize the Noise, Dust and air pollution in Built-up Section. • Proper implementation of Rehabilitation package for affected families.

					<p>shop in case of shop to the squatters</p> <ul style="list-style-type: none"> • Protect the temple by acquiring more agricultural land on the other side. If the temple destroyed then where the priest will get the income, is there any provision of the government to decide for the livelihood of the priest. • What will be the valuation of structure according to governments if it is acquired? • When the road construction will be started. • The payments will be market price or government rate. • Whether governments will provide any job facility to demolished structure. • What will be preferences given by the government to the SC, ST & Women headed if there houses or shop destroyed. 	<p>available then no private land should be taken for road construction</p> <ul style="list-style-type: none"> • Proper compensation to affected persons 	
2.	Ganesh Store and Gauripur	4.800	11/04/2018	Local Residents, Villagers and public representative of Abhyapur Total	<p>The Project Background, Environmental, Social, traffic safety issue and benefit from the project were explained to the Stakeholders</p> <ul style="list-style-type: none"> • Mostly Resettlement issues 	<p>The main suggestion of participants was:</p> <ul style="list-style-type: none"> • Peoples also demanded for proper traffic signage for speed limits for minimizing the accident. 	<ul style="list-style-type: none"> • Proper traffic signage shall be provided for speed limits. • Concentric widening in Built-up section has been agreed except for location

				<p>participants are 17</p> <p>has been discussed during meeting and people are worried about their relocation.</p> <ul style="list-style-type: none"> • Compensation related issues has been discussed. • People are worried about their restoration of income after demolition of their Shops and commercial structures. • Main issue was compensation and restoration of livelihood of affected families. • Any income restoration provision for squatters. 	<ul style="list-style-type: none"> • Widening and strengthening work on both side of in Built-up Section so that one side people do not feel discriminated. • Provision for Bus Stop 2 No. (Up & Down). • Underpass for crossing road • Parking facility. • Compensation should be at market rate. • Provide a complex for settle their livelihood. • Provisions of Land for construction of new house. • Provide houses, who has lost houses after demolish of existing houses. 	<p>with deficient alignment.</p> <ul style="list-style-type: none"> • Proper implementation of Rehabilitation package for affected families.
3.	North Guwahati and Majgaon	1.900	17/04/2018	<p>Local people of North Guwahati Total participants are 32</p> <p>The Project Background, Environmental, Social, traffic safety issue and benefit from the project were explained to the Stakeholders</p> <p>The Main Issue of North Guwahati was:</p> <ul style="list-style-type: none"> • Road crossing problem for women and children. • Proposed Widening options • Compensation related issues 	<ul style="list-style-type: none"> • Safe drinking facility to local public. • Toilet facility • Community hall for local people. • Provide Houses for affected families. • Land for land has been suggested by local people. • Compensation should be at market rate. 	<ul style="list-style-type: none"> • During Construction work in Built-up Zone. • Proper traffic signage shall be provided for speed limits. • Proper improvement of Major Cross Junction included in design for minimizing the Traffic congestion as well to minimize the Noise, Dust and air pollution in Built-up Section.

6.5 CONSULTATION SESSIONS

Consultations were done using various tools including, interviews with government officials, questionnaire-based information with stakeholders etc. The public consultation carried out at the Screening, Feasibility and Social Assessment stages of the project has been summarised.

The extent or the likely level of adverse impacts was one of the major criteria in deciding locations for public consultation sessions. A listing of the various consultation sessions conducted at different locations along the entire project corridor is presented. These community consultations were held during various times of the design period and were attended by the Consultant's Environmental and Social experts and local populace.

6.4 CONTINUED CONSULTATION

As part of the continued consultation program, the following actions are proposed:

- The NGO involved in implementation of the RAP will organise public meetings, and will appraise the communities about the progress in the implementation of R&R as required.
- The functions of Grievance Redressal Committees (GRCs) through which the project road traverses should be explained to the PAPs. The representatives of the PAPs will be associated with the committee.
- The resettlement sites, other amenities and facilities to be made available to the PAPs will be disclosed to them in consultation sessions.
- The NGO will organise public meetings to inform the community about the entitlements and provisions under the project. Regular update of the progress of resettlement component of the project (summary version of the report submitted by the NGO) will be placed for public display at PIU office.
- All monitoring and evaluation reports of the R&R components of the project will be disclosed in the same manner as suggested in this report.

Table -6.2: Addressal of General Issues and Concerns under the Project

Issue / Concern	Addressal under the project
Enhancement of communities properties	<ul style="list-style-type: none"> • Every effort should be made to minimise displacement of community properties
Implementation of land acquisition plan	<ul style="list-style-type: none"> • Land acquisition plan would be done as per LA act 1964
Resettlement of residential people	<ul style="list-style-type: none"> • The project Displaced families should be resettled in the village government land.
Relocation of religious properties	<ul style="list-style-type: none"> • Relocation of religious properties would be done in close consultation with community.
Since non-titleholders would be assisted in the project; what are the mechanism to check further influx of illegal users ROW Division of compensation to all eligible families	<ul style="list-style-type: none"> • The informal dwellers would have some proof that they are residing on or before cut-off-date.
Loss of Livelihood and income restoration option	<ul style="list-style-type: none"> • The PAPs will be compensated as per RFCTLARRA, 2013 • RAP to detail out the assistance programme to the needy
Assistance to vulnerable groups	<ul style="list-style-type: none"> • Special provisions have been made in the entitlement framework for assisting vulnerable groups to improve their quality of life.
Employment of locals during construction	<ul style="list-style-type: none"> • Locals will be given preference for employment during the project implementation

Photographs of Consultation



Public Consultation at Gauripur Ganesh Store Km 4+850



Public Consultation at Gauripur Ganesh Store Km 4+850



Public Consultation at Rahadhala Km 4. 800



Focus Group Consultation with Woman's at Rahadhala



Public Consultation at Abhayapur



Discussion with Local Public and Revenue Officials



Public Consultation With Project Affected Family At Abhayapur



Focus Group Discussion With women At Abhayapur



Consultation with Ganesh Store Owner and Railway Retired officer



Public Consultation with Project Affected Families



Public Consultation Bottling point at Ch. 4.000



Consultation with Project affected family



Consultation with Project affected family at Abhyapur



Public consultation with Local People at Abhyapur



**Consultation with local people and Revenue officials
at Majgaon**



**Consultation with local people and Revenue officials
at Majgaon**

CHAPTER 7 LAND ACQUISITION

7.1 INTRODUCTION

This chapter assesses the nature, type and magnitude of the potential social impacts likely along the project corridor. For the assessment of impacts, the baseline information based on the field visits and the primary surveys were carried out. The description of the impacts on the individual components has been structured as per the discussion in Chapter 7: Project profile of this report.

This section identifies and assesses the probable impacts on different social issues due to the proposed development. After studying the existing scenario, reviewing the process and related statutory norms, the major impacts can be identified and shall be mitigated in the forthcoming phases. Most of the impacts though shall be perceived during construction and operation phase.

7.2 LAND ACQUISITION PLANNING FOR PROJECT

Based on outcome of the Feasibility Study, Social and Environmental Screening Exercise, the proposed alignment was finalized and geometric design of highway was completed accordingly. Initially, the numbers of affected villages were identified as per the alignment. All the village Revenue maps were collected from the local revenue offices. The village Revenue maps were thoroughly reviewed and verified in the field. ROB location the stacking of alignment was done by survey expert at site with the help of pegs and reference pillars. The stacked alignment was then transferred on Village revenue maps with respect to ground survey by land acquisition team and rechecked for correctness. The Land Acquisition Plan (LAP) was prepared accordingly. Based on the identified land plots by land acquisition team, local revenue officials were consulted to collect the names of owners of each plot. The details are available under the LA Plan prepared for the purpose of this project as a separate document.

7.3 IMPACT ON STRUCTURES

Based on socio-economic survey, a total of 148 private structures lie within 80 meters of either side of the existing centerline of road – both Brahmaputra Bridge and approach road. The structures are residential, commercial or residential cum commercial in their nature.

7.4 TYPE OF LAND BEING ACQUIRED FOR THE PROJECT

The land being acquired for the project are of various types such as Residential (24B-01K-10L), Agricultural (198B-04K-13L) and Commercial/Industry (04B-02K-17L) The total land is to be acquired for the project (227B-04K-0L (Approx. 30 Ha).. The Area is presented in the **Table 7.1**

Table-7.1: Type of the Land Being Acquired for the project

Sl.No	Village wise Land Acquisition	Area in (B-K-L)
1	Abhyapur	121B-0K-18L
2	Gouripur	46B-3K-14L
3	Sila	14B-2K-2L
4	North Guwahati	45B-2 K-6L
	Total land Required	227B-04K-0L

B-Beega, K-Katha, L-Lessa(1-Beega=5 katha, 1 Katha=20 lessa)(1 Beega=1340m²(14,440 Sq feet), 1 Lessa=144 Sq feet(13.4 m²)

7.5 IMPACT OF LAND ACQUISITION

The analysis of the impact of land acquisition can be categorized into following subheads:

- Loss of Land (Private and Government)
- Loss of farm produces (standing crops)
- Loss of Structures

7.5.1 Loss of Farm Produce

The stretch has relatively prosperous Agricultural land on either side of the highway. Acquisition of land will result in loss of crops. As land will be acquired in a phased manner, the owners will be able to cultivate some part of their land till construction time permits. They will be allowed to harvest produce and cash compensation will be paid for crops acquired at a price fixed by the Government.

7.5.2 Loss of Residential Houses

The project requires the demolition of residential houses and commercial properties. These will be acquired and compensation paid before the start of project.

7.5.3 Loss of Income

Those losing agricultural lands will lose income opportunity. However, this will be a permanent setback, unless provided with adequate compensation amount and / or training facilities for new trades with sufficient seed capital.

7.5.4 Increase in Employment Opportunities

Commencement of road project will benefit the community through generation of direct and indirect employment within the project areas due to construction activity, minor repairs and maintenance works. The project will require a good number of unskilled workers and they can form a cooperative, which will supply labourers to contractors whenever required. Up gradation of roads and community development programs in the project plan will benefit the communities at large.

CHAPTER 8 MITIGATION & ENHANCEMENT MEASURES

8.1 INTRODUCTION

Most of the mitigation measures can be incorporated as good engineering practice during the design phase itself thus ensuring the mainstreaming of social concerns early in the project. Adherence to design drawing and specifications will reduce; to within acceptable levels, the adverse impacts during construction.

8.2 MITIGATION MEASURES PROPOSED

The following considerations may be kept in view at the design stage:

- Construction and Up gradation of approach roads to the highway
- Up gradation of the existing road
- Ambulance service to transport serious cases to district hospital in case of accidents

8.2.1 General

- Concentric widening to be followed along with an ROW of 80m, in the towns and heavily built areas.
- Wherever possible, displacement shall be reduced or avoided altogether by sensitive design of civil works (e.g. alternative designs or modification to the design).

8.2.2 Land Acquisition- Mitigation Measures

Based on the survey conducted and information on ROW obtained so far, the land required for widening of the existing road and acquisition to provide 80m wide ROW including for the project shall include agricultural, barren / fallow lands governmental and other lands under private ownership. Due to the ribbon development almost all throughout the area, care shall be taken to minimise land acquisition. In order to mitigate the ensuing negative impacts of the land acquisition a Resettlement and Rehabilitation (R&R) policy shall be prepared based on the National R&R policy. The salient features of the mitigation measures are:

- Where displacement is unavoidable, those displaced will have their living standard improved.
- PAPs will be compensated, at replacement cost, for assets lost. Adequate social and physical infrastructure will be provided.
- PAPs and lost community would be encouraged to participate in the implementation of RAP.

8.3 ENHANCEMENT OPPORTUNITIES

Enhancements specifically refer to these positive actions to be taken up during the implementation of the project for the benefit of the road users and the communities living close to project road alignment. The following enhancement opportunities have been explored as part of the detailed project report:

- Bus bay and Truck lay-by
- Wayside amenities
- Introduction of ambulance services to transport serious accident cases

The enhancements shall be carried out with the following objectives:

- To enhance the appeal of the project road considers to the users;
- To enhance visual quality along the highway; and
- To generate goodwill amongst the local community towards the project, by the enhancement of common property resources

8.4 PROPOSED ACTION PLAN

The proposed action plan for social assessment would include the following:

- A Census and Socio-Economic survey of the Project Affected Persons based on the Corridor of Impact and alignments provided by the design engineers.
- Analysis of the Primary and secondary data.
- Preparation of the Social impact Assessment (SIA).

8.5 IMPLEMENTATION OF RAP

The implementation of Resettlement Action Plan (RAP) is primarily envisaged, as a participatory exercise where the consulting NGO is responsible for the implementation of RAP is expected to play a role of secondary stakeholder or in other words the implementing agency would be a partner in the whole exercise.

The role of the implementing NGO would be to mitigate the adverse effects of the project, both, from the PWD perspective, to ensure timely completion of the road construction, and, from the perspective of affected people, to ensure that their rehabilitation process is taken up in a right spirit with a comprehensive livelihood system and these people are able to take advantages of the options available. The prime responsibility of the implementing agency is to ensure that each and every eligible project affected person receive appropriate and due entitlement within the overall framework of R&R policy and entitlement matrix and the PAPs have improved (or at least restored) their previous standard of living by the end of the RAP implementation process.

8.5.1 Stages of RAP Implementation: A Methodological Framework

The objective of the project is to strengthen the existing road infrastructure aimed at economic and social development of the region. One of the key activities in the project cycle is the implementation of Resettlement Action Plan with an objective of minimising the adverse impact of the project implementation on the lives of people living in the project area. The R&R policy envisages that the project-affected families (PAFs) are to be resettled and rehabilitated so that the adverse impact due to proposed improvement of the road gets minimised. The stepwise methodology for implementation of the RAP has been shown through a flow chart

8.5.1.1 Training and Capacity Building of Project Staff

As a first step, it is essential to build the capacity of our staff i.e. Team Leader, Supervisors, Engineers, Village level workers etc. The aspects of training to be imparted would include social impact assessment survey, conducting focus group discussions, community participation, PRA/RRA, relocation of common property resources etc.

8.5.1.2 Focus Group Discussion, Awareness Campaign and Dissemination of Information

In order to make the RAP implementation process transparent as per NDB (National Development Bank) and PWD guidelines, a series of FGDs/ meetings etc. would be organised with all stakeholders for dissemination of information regarding rehabilitation process and entitlement framework. The RAP policy will be printed in Hindi language as well as English and the same will be distributed to the PAFs in order to make the process transparent

8.5.1.3 Rehabilitation of Affected Families and Restoration of Income and Livelihood

Rehabilitation of all the PAFs is one of the critical tasks of the project implementation process in order to help the communities derive the maximum benefits out of the project without losing their livelihoods and the least impact on socio-cultural aspects of their lives. It includes livelihood analysis, preparation and implementation of a comprehensive livelihood support plan and development of a comprehensive livelihood support system. This process must result in improved or at least restored living standards, earning capacity or improve the quality of life of the people affected by the project. Accordingly, rehabilitation will be conceived and shall be implemented as a development programme with particular attention to the needs of women headed households and vulnerable groups.

The effort of the NGO shall be to improve the PAPs economic productive capacity and building up a permanent capacity for self-development. One of the key strategies could be to facilitate the process of forming Self-Help Groups through community mobilisation efforts within the overall framework of the project. This could be done through a set of livelihood analysis on the basis of different indicators like backward and forward linkages, raw material, resources, credit, marketing linkages etc. The process will also take care of the convergence of other state and central government programmes for income generation etc.

Organising the economic activities would be according to the skills possessed by the affected families and in case such options are not economically viable, the corresponding skill up gradation support for the economic activities would be facilitated. The PAP will be free to choose to act as individuals or as informal groups like SHGs for accessing credit, Milk Producer Groups (MPGs), Agriculture Commodities (like vegetable, pulse, wheat) Processing Groups etc. or as co-operatives, with their overall operating efficiency and viability of the livelihood options chosen by them.

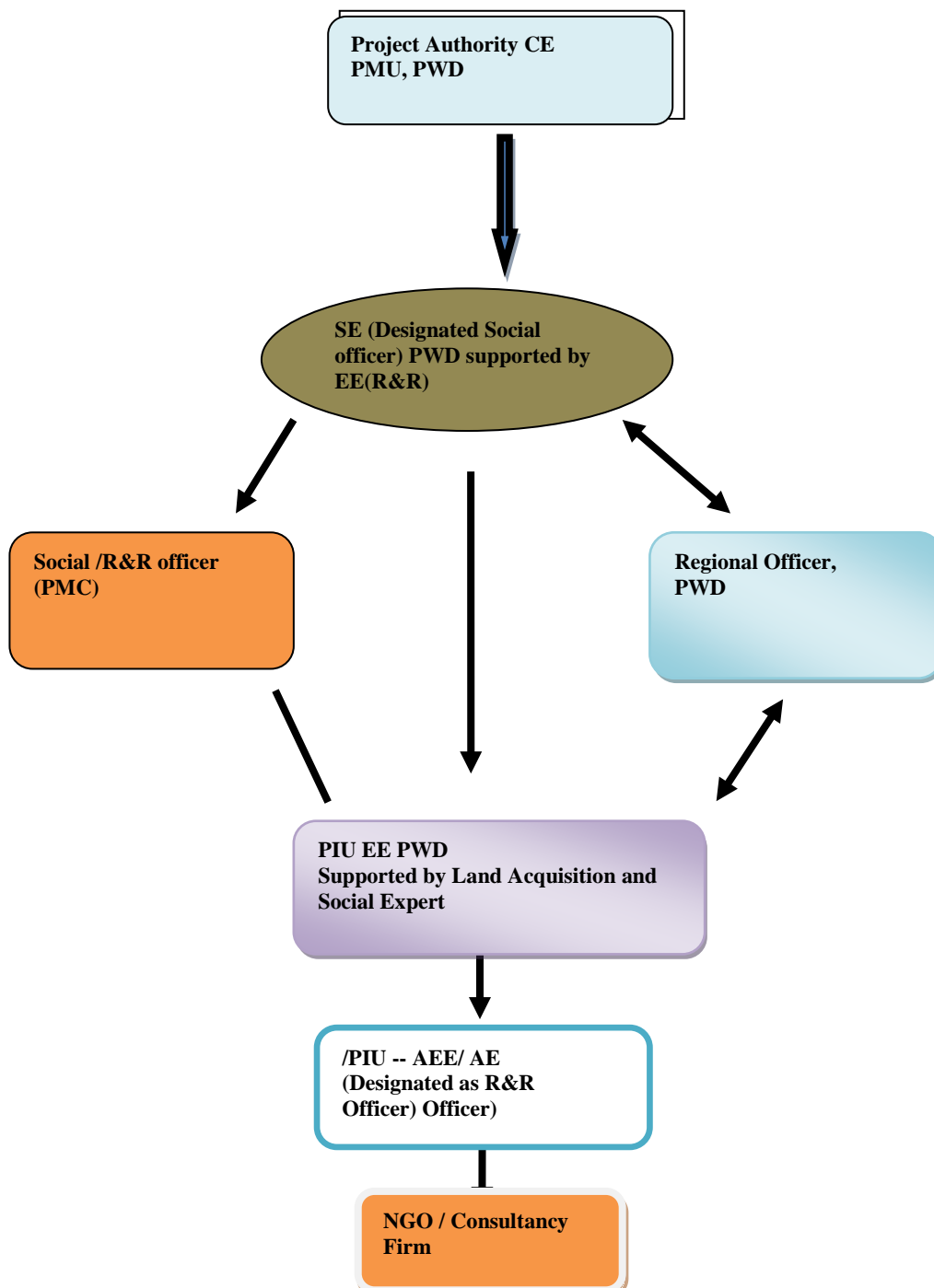
In context of the socio-economic profile of the region, their existing activity base and the skills, efforts should also be made to ensure that the groups are resettled in a manner so that their backward and forward linkages in the activities performed by them are maintained and they are provided support in improving their income through support of other government sponsored programs also.

CHAPTER 9 INSTITUTIONAL FRAMEWORK & GRIVENCE REDRESSAL MECHINASIM

9.1 INTRODUCTION

The institutional mechanism for the effective implementation of the project in general and R&R activities in particular is envisaged on partnership model whereby each and every agency/ institution proposed at various levels supplement and complement each other efforts. The key elements in designing these institutional mechanisms are transparency in operation, collaboration/ sharing of responsibilities with clearly defined roles, involvement of key stakeholders and vertical and horizontal linkages amongst various institutions/ agencies, as given below

Figure 9.1: Institutional Arrangement for RAP Implementation



9.2 PROJECT LEVEL INSTITUTIONAL ARRANGEMENTS

A Project Implementation Unit (PMU) comprising officials at project level will be constituted headed by the Chief Engineer designated as Project Director. The PMU will be responsible for the project execution including RAP implementation. There will be a designated or appointed Resettlement & Rehabilitation Officer (RRO) at respective PIUs who will be responsible only for the implementation of RAP at site. No other roles and responsibilities will be assigned to RRO other than resettlement and rehabilitation. RRO will assist Project Director at PIU and RRS at Central Level in all matters related to resettlement and rehabilitation.

The roles and responsibilities of the Resettlement and Rehabilitation Officer are as under:

- Ensure RAP implementation with assistance from implementation agency as per the time line agreed upon.
- Interact with RAP implementation agency on a regular basis.
- Undertake field visits with implementation agency from time to time.
- Facilitate necessary help needed at site with regard to LA and R&R issues to implantation agency.
- Co-ordinate and district administration and other departments in matters related to implementation of R&R.
- Ensure distribution of Resettlement and Rehabilitation Policy to PAPs.
- Ensure and attend meetings organised by implementation agency on related to awareness and dissemination of information on resettlement and rehabilitation policy and entitlements.
- Ensure inclusion PAPs who could not be enumerated during census but have documentary evidence to be included in the list of EPs.
- Ensure timely preparation of micro-plan from RAP implementation agency and approval from Head Office.
- Ensure preparation of identity cards and distribution of the same to EPs.
- Ensure disbursement of resettlement and rehabilitation assistance in a transparent manner.
- Participate in meetings related to resettlement and rehabilitation issues.
- Facilitate in opening of joint account of EPs.
- Prepare monthly progress report related to physical and financial progress of implementation of RAP & submit to Head Office.
- Ensure release of compensation and assistance before taking over the possession of land for start of construction work
- Assist and facilitate aggrieved PAPs (for compensation and assistance) by bringing their cases to GRC,
- Facilitate in opening of joint account of PAPs,
- Generate awareness about the alternative economic livelihood and enable PAPs to make informed choice,
- Consultations with PAPs regarding the choice of resettlement (i.e. self or assisted), development of resettlement site, participation of women, etc.
- Identify training needs of PAPs for income generation and institutions for imparting training,
- Consultations with local people and Panchayati Raj Institutions with regard to relocation, rehabilitation, reconstruction of affected CPRs as well as availability of new facilities under the project,
- Participate in various meetings,
- Submit monthly progress report, and
- Any other activities that may be required for the implementation of RAP.

9.3 COORDINATION WITH OTHER AGENCIES AND ORGINASATIONS

R&R Cell will establish important networking relationships with many departments and organizations. The Revenue Department has an influencing role in Land Acquisition proceedings, and initiation of resettlement process. Unless the compensation process is prompt and efficient, implementation process will get delayed. R&R Cell will coordinate with the Project Land Acquisition Officer to expedite the land acquisition process.

Income restoration will be sole responsibility of the project authority. NGO will facilitate linkages to be established with the government poverty alleviation programs to restore the income of PAPs. Restoration of community assets such as hand pumps, bore wells, drainage facilities will require help from Jal Nigam. Where schools are affected, coordination will be required from the District Offices of Education Department.

Considering the above PWD will extensively work on developing lateral linkages for mobilization of resources to benefit the PAPs and to achieve the desired results expected from implementation of RAP.

9.4 ROLE OF OTHER AGENCIES

Various government department and public agencies, particularly the Revenue Department, Rural Development and Financial Institutions, have an important role in implementing the RAP. The Revenue Department is responsible for providing land records, acquiring land and other properties and handing them over to the proper authorities. The District Rural Development Agency (DRDA) will extend the RD and other developmental schemes to include the PAPs. The representative of these departments/agencies will be in contact with the R&R Cell, which will facilitate the integration of the various agencies, involved in the R&R process.

9.5 GRIEVANCE REDRESSAL MECHANISM (GRM)

The RAP Provides for a mechanism to ensure that the benefits are effectively transferred to the beneficiaries. However, need also exists for an efficient grievance redressal mechanism which will assist the APs in resolving queries and complaints. Land Acquisition will take place according to Assam Land (Requisition and Acquisition) Act, 1964. Compensation and entitlements will be paid according to provisions of the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013 and for providing all benefits like additional compensation, rehabilitation to displaced persons and protection to land owners etc. Any disputes or grievances will be addressed through the grievance redressal mechanism proposed here. Detailed Investigation will be undertaken which may involve field investigation with the concerned APs. The GRCs are expected to resolve the grievances of the eligible persons within a stipulated time. The decision of the GRCs is binding, unless vacated by court of law.

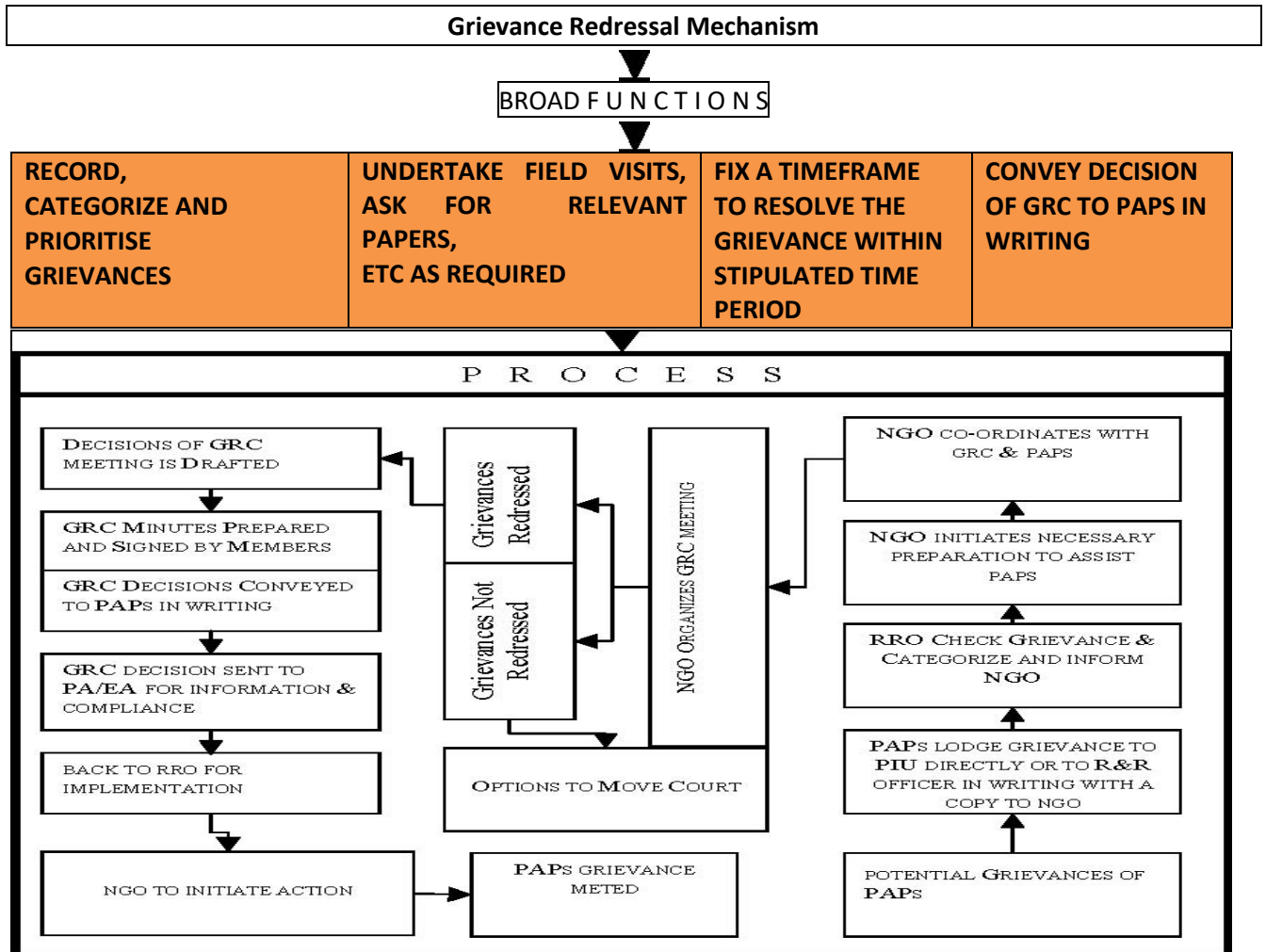
The GRC will be constituted by the Project Authority with the aim to settle as many disputes as possible through consultations. There will be one GRC for each PIU. The GRC will comprise five members headed by a retired Magistrate not below the rank of SDM. Other members of the GRC will include a retired PWD Officer (not below the rank of Executive Engineer), RRO, representative of PAPs and Sarpanch (Elected Head of Village) of the concerned village. Grievances of EPs in writing will be brought to GRC for redressal by the RAP implementation agency. The RAP implementation agency will provide all necessary help to PAPs in presenting his/her case before the GRC. The GRC will respond to the grievance within 15 days. The GRC will normally meet once in a month but may meet more frequently, if the situation so demands. A time period of 45 days will be available for redressing the grievance of EPs. The decision of the GRC will not be binding to EPs. This means the decision of the GRC does not debar EPs taking recourse to court of law, if he/she so desires. Broad functions of GRC are as under:

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

- Inform EPs through implementation agency about the status of their case and their decision to EPs and Project Authority for compliance.

The GRC will be constituted within 3 months by an executive order from competent authority (centre/ state) from the date of mobilization of RAP implementation agency. The RRO will persuade the matter with assistance from implementation agency in identifying the suitable persons from the nearby area for the constitution of GRC. Secretarial assistance will be provided by the PIU as and when required.

Figure 9.2: Grievance Redressal Mechanism



9.7 INFORMATION CAMPAIGN

Attention of the PAPS will be invited to the proposed redressal system for a quick, inexpensive and amicable settlement of claims for enhanced compensation. They will also be advised to get their records of rights updated. All possible efforts will be put forth to motivate the affected landowners and structure owners for a voluntary and amicable settlement of their claims outside the court.

Most of the issues will be settled out of court as far as possible. Hand-outs will be distributed among all the affected persons highlighting the prospects of amicable settlement of dispute in question, outside the court, speedy and at lesser expense along with the timetable of inquiries and spots inspections of the committee. Besides, public announcements will be made in affected areas. Press notes will be released in local newspapers to aid publicity.

CHAPTER 10 GENDER DEVELOPMENT PLAN

10.1 GENERAL

Towards mainstreaming gender equality, gender development plan prepared as part of the RAP Proposed measures that promote and ensure participation of the women in the project. The sharing of the project benefits, employment generation due to project and livelihood support for women are the key areas of focus in this chapter.

10.2 INSTITUTIONAL ARRANGEMENTS IN THE STATE TO ADDRESS GENDER ISSUES

The department has the mandate to ensure proper care of the uncared, protection of the most vulnerable sections of the society and creation of an environment which is conducive to the all-round development

10.3 PARTICIPATION OF WOMEN IN PROJECT

The Gender-related Development Index (GDI) value for India is very low and the socio-economic profile of the project area shows much lower socio-economic standing for women. It is imperative to bring the issue of women's development in the process of socio-economic uplift within the scope of the RAP for sub-project. For this a conscious effort should be made towards integrating the issue in the project.

10.4 IMPACT OF DEVELOPMENTAL ACTIVITIES ON WOMEN

Women as a vulnerable group has been addressed in the RAP but to give R&R a proper shape this group should be considered with special emphasis as they constitute half the society's population and they are found to be the worst affected in most of the developmental projects in our country.

Women are involved in the project anyway. However, most of the times, they are on the negatively impacted side. Following is the account of the ways women are affected and/or involved in the project

- Women constitute about 0.85 % of the PAPs.
- The RAP reveals that 11 women headed households (TH & NTH) are affected by the project.
- Women face hardship and continue to suffer in silence during the transition period till the time the families are able to regain the previous living standard. The duration of this process is often lengthened, due to delays in payment of compensation, rehabilitation assistance and implementing the R&R, reconstructing the livelihood systems. Longer the transition period, more are the miseries.

As per the R&R Policy as well as looking into the need of the day, women are required to be involved in the process of sustainable development. They have to be integrated in the project as full-fledged participants taking part in all the stages of the project starting from planning through implementation and even in the post-project stages. Only then the process of development is going to help this section.

10.4.1 Women Involvement in Development Process through Empowerment

The development experience of at least two decades shows that it is equally necessary to consult women and offer them choices in enabling them to make informed choices and decide for their own development.

Participation of women has been envisaged specifically in the following areas:

- In the pre-planning and planning stages participation from women could be sought through allowing them taking part in the consultation process. For this, the local level agencies of implementation, i.e. the NGOs have an important role to play.
- Each field team of the NGO shall include at least one women investigator/facilitator
- Compensation for land and assets lost being same for all the affected or displaced families, special care should be taken by the NGOs for women group while implementing the process of acquisition and compensation as well.

- It is imperative that the PIU ensures that the women are consulted and invited to participate in group based activities, to gain access and control over the resource as a part of the RAP, Additionally,
- The Monitoring team(s) shall constitute – 33% women.
- The Evaluation team shall constitute – 33% women.
- From the contractor's side – Woman inspector of works will be there.
- The NGOs should make sure that women are actually taking part in issuance of identity cards, opening accounts in the bank, receiving compensation amounts by cheques in their name or not, etc. This will further widen the perspective of participation by the women in the project implementation.
- Under the entitlement framework there is a number of provisions kept for compensation and assistances towards the losses incurred upon the impacted women headed households by the project. On the other, some provisions, mostly those of the assistances, have been created towards reducing the probable hardship to be experienced by them in the process side by side creating scope for their sustainable socio-economic development.
- The assistances to be provided to women as a vulnerable group is creating alternative livelihood for them to ensure their sustainable socio-economic upliftment.
- The implementing agencies should provide trainings for upgrading the skill in the alternative livelihoods and assist throughout till the beneficiaries start up with production and business.
- Women's participation should be initiated through Self-Help Group formation in each of the villages affected by the project. These groups can then be linked to various special development schemes of the State and Central Government.
- For monitoring and evaluation, there should be scope for women's participation. Monitoring of project inputs concerning benefit to women should involve their participation that will make the process more transparent to them.
- Women should be encouraged to evaluate the project outputs from their point of view and their useful suggestions should be noted for taking necessary actions for further modifications in the project creating better and congenial situation for increasing participation from women. All these done in a participatory way may bring fruit to this vulnerable group in an expected way.

All assistance would be paid in a joint account in the name of both the spouses; except in the case of women headed households and women wage earners.

10.5 INVOLVEMENT OF WOMEN IN CONSTRUCTION ACTIVITIES

The construction works for widening and strengthening the project corridor will start after the R&R activities are over and the RoW is clear of any encroachment and land is temporarily acquired for borrow areas and construction camps. The construction contractors will set up their construction camps on identified locations where labour force required for the construction activities will be provided with temporary residential accommodation and other necessary infrastructure facilities.

The labour force required for the construction activities will be mostly of high-skill nature since a lot of machine work will be there in the construction of the highway. In addition, there will be requirement of unskilled labour where women will certainly contribute. Apart from this, women as family members of the skilled and semi-skilled labourers, will also stay in the construction camps and will be indirectly involved during the construction phase. The families of labourers will include their children also.

The construction contractors are expected to bring along their labour force. Thus, in most cases the labourers, both male and female, will be migratory labourers. But, the involvement of local labour force, especially for unskilled activities, cannot be fully ruled out. Moreover, the RAP suggests the provision of creation of man-days for local affected people. Hence, there will be involvement of local women also in the local labour force.

Foreseeing the involvement of women, both direct and indirect in the construction activities, certain measures are required to be taken towards welfare and well-being of women and children in particular during the construction phase.

10.5.1 Specific Provisions in the Construction Camp for Women

The provisions mentioned under this section will specifically help all the women and children living in the construction camp.

10.5.2 Temporary Housing

During the construction the families of labourers/workers should be provided with residential accommodation suitable to nuclear families.

10.5.3 Health Centre

Health problems of the workers should be taken care of by providing basic health care facilities through health centres temporarily set up for the construction camp. The health centre should have at least a doctor, nurses, GD staff, medicines and minimum medical facilities to tackle first-aid requirements or minor accidental cases, linkage with nearest higher order hospital to refer patients of major illnesses or critical cases. The health centre should have MCW (Mother and Child Welfare) units for treating mothers and children in the camp. Apart from this, the health centre should provide with regular vaccinations required for children.

10.5.4 Day Crèche Facility

It is expected that among the women workers there will be mothers with infants and small children. Provision of a day crèche may solve the problems of such women who can leave behind their children in such a crèche and work for the day in the construction activities.

The crèche should be provided with at least a trained ICDS (Integrated Child Development Scheme) worker with to look after the children. The ICDS worker, preferably woman, may take care of the children in a better way and can manage to provide nutritional food (as prescribed in ICDS and provided free of cost by the government) to them. In cases of emergency she, as being trained, can tackle the health problems of the children and can organise treatment linking the nearest health centre.

10.5.5 Proper scheduling for Construction work

Owing to the demand of a fast construction work it is expected that a 24 hour-long work-schedule would be in operation. Women, especially the mothers with infants should to be exempted from night shifts as far as possible. If unavoidable, crèche facilities in the construction camps must be extended to them in the night shifts too.

10.5.6 Educational Facilities

The construction workers are mainly mobile groups of people. They are found to move from one place to another taking along their families with them. Thus, there is a need for educating their children at the place of their work. For this at least primary schools are required to be planned in the construction camps. Wherever feasible, day crèche facilities could be extended with primary educational facilities.

10.5.7 Special Measures for Controlling STD/AIDS

Solitary adult males usually dominate the labour force of construction camps. They play a significant role in spreading sexually transmitted diseases. In the construction camps as well as in the neighbouring areas they are found to indulge in physical relations with different women. This unhealthy sexual behaviour gives rise to STDs and AIDS. While it is difficult to stop such activities,

It is wiser to make provisions for means of controlling the spread of such diseases. Awareness camps for the target people, both in the construction camp and neighbouring villages as well, and supply of condoms at concession rate to the male workers may help to large extent in this respect.

10.5.8 Control on Child Labour

Minors i.e., persons below the age of 15 years should be restricted from getting involved in the constructional activities. Measures should be taken to ensure that no child labourer is engaged in the activities.

Exploitation of young unmarried women is very common in these kinds of camps. A strong vigilance mechanism should be created to check this and ensure ceasing of such exploitation.

10.5.9 Engaging woman Inspector of Works

Contractors should engage a woman Inspector of Works not below the rank of a Senior Engineer to inspect the construction camps and any other component of work with respect to gender issues. She would assist the Resident Engineer (RE) in all aspects of gender and child-labour related activities. She would have a full-time tenure throughout the entire construction period. Her duties should include the preparation of monthly and quarterly reports and submit them to the RE with a copy to the PWD as well as PIU.

CHAPTER 11 R&R BUDGET

11.1 INTRODUCTION

A consolidated overview of the budget is provided and the cost estimates given below shall be viewed accordingly. The cost estimates for land and structures based on data collected during the survey and contingency provisions have been made to take into account variations from this data.

The compensation amount for the acquisition of land and structures will be determined by the competent Authority appointed under RFCTLARR Act, 2013. Over and above, the PAF will be entitled for R&R assistance as per the entitlement framework given entitlement matrix.

The budget is indicative of outlay for the different expenditure categories and calculated at the 2014-15 price index. These costs will be updated and adjusted to the inflation rate as the project continuous and in respect of more specific information such as extra number of PAPs during the implementation, unit cost will be updated if the findings of the district level committee on the market value assessment justify it.

Some of the features of this cost estimates are outlined below:

- The private agriculture land will be compensated at replacement value worked out based on the method given in the entitlement matrix.
- The residential land will be compensated at replacement value worked out based on the methods given in the entitlement framework.
- Structures falling in PROW will be compensated according to market rates/Circle rates

11.2 COST OF LAND AND OTHED REPLACEMENT VALUE

The project requires tentative land about Approx. 30 Hectare of total land for construction of road, for junction improvement, Curve improvements, lanes taking into the account of revenue rate, market rate and stake holder's estimation, the market value of the land has been assumed during the primary survey. The cost of land, which includes compensation amount, solatium of 100% and 12% interest on Land acquisition estimated to be INR 205 Crores for North Guwahati and south Guwahati

11.3 COMPENSATION FOR STRUCTURES

For the loss of building structures, like commercial, residential and residential Cum Commercial, the titleholder will be compensated at replacement cost. A government approved value has assessed the replacement cost.

It is premature here to estimate the cost of structures at this stage when census of the properties in land acquisition area is in progress however; compensation for the structures has been calculated during the structure identification survey in the project area. The Replacement cost for the structure will be based on the updated Basic Schedule of Rates.

11.4 OTHER ASSISTANCE TO THE AFFECTED FAMILIES AND VULNERABLE GROUP

In addition to replacement value of the land and structures, the provision for other assistance has been made. The national Land acquisition is carried out as per the provisions of the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013, the Assam Land (Requisition & Acquisition) Act, 1964

11.5 BUDGET

The tentative land cost and Rehabilitation & Resettlement Budget suggested is about INR 205 Crores. Detailed budget will provided in RAP.

Market value of land as provided under sub-section (1) of section 26						
A						
Description of land	Area of Land			Rate per Bigha	Amount (INR.)	
	B	K	L			
1	Compensation for Land for Gauripur Village					
a	Loss of agricultural land(KP)	41	1	5	@ INR. 1557000.00	64226250.00
	Loss of agricultural land(AP)	1	0	0	@ INR. 1557000.00	1557000.00
	Residential (KP)	2	3	19	@ INR. 2129600.00	5941584.00
	Residential (AP)	1	3	0	@ INR. 2129600.00	3407360.00
	Industrial/Trade(KP)	0	0	10	@ INR. 2462000.00	246200.00
	Total	46	3	14		75378394.00
b	Deduction Conversion Premium of AP. Land, if any (per Bigha@ INR 40,00,20.00)					116.00
	Total INR.(a-b)					75378278.00
2	Factor by which the market value is to be multiplied as provided under sub-section(2) of section 26 , as notified by the state govt.					X1.5
3	Total of market value of land determined under sub-section [(1) x(2)]					113067417.00
4	Value of assets attached to land or building as provided under section 29(House, Trees, wells/Tanks, crops)					112473964.00
	Total of (3)+(4)					225541381.00
5	Solatum as provided under sub-section (1) of section 30@100% of (3)+(4)					225541381.00
6	Total Compensation of part 1(3)+(4)+(5)					451082762.00
7	5% cost of establishment charges (as per GOA's Notification No. RLA. 300/2013/Pt-IV/4 dtd. 18/05/15)					22554138.10
8	1% cost of contingency charges (as per GOA's Notification No. RLA. 300/2013/Pt-IV/4 dtd. 18/05/15)					4510827.62
9a	Grand Total (A)					478284994.72
B						
Description of land	Area of Land			Rate per Bigha	Amount (INR.)	
	B	K	L			
1	Compensation for Land for Sila Village					
a	Loss of agricultural land(KP)	7	2	18	@ INR. 1210000.00	9171800.00
	Loss of agricultural land(AP)	3	2	5	@ INR. 1210000.00	4174500.00
	Residential (KP)	1	1	2	@ INR. 1774000.00	2164280.00
	Residential (AP)	0	2	12	@ INR. 1774000.00	922480.00
	Industrial/Trade(KP)	1	3	5	@ INR. 2662000.00	4392300.00
	Total	14	2	2		20825360.00
b	Deduction Conversion Premium of AP. Land, if any (per Bigha@ INR 40,00,20.00)					100.20
	Total INR.(a-b)					20825259.80
2	Factor by which the market value is to be multiplied as provided under sub-section(2) of section 26 , as notified by the state govt.					X 1.5
3	Total of market value of land determined under sub-section [(1) x(2)]					31237889.70
4	Value of assets attached to land or building as provided under section 29(House, Trees, wells/Tanks, crops)					42948331.00
	Total of (3)+(4)					74186220.70

5	Solatium as provided under sub-section (1) of section 30@100% of (3)+(4)				74186220.70	
6	Total Compensation of part 1(3)+(4)+(5)				148372441.40	
7	5% cost of establishment charges (as per GOA's Notification No. RLA. 300/2013/Pt-IV/4 dtd. 18/05/15)				7418622.07	
8	1% cost of contingency charges (as per GOA's Notification No. RLA. 300/2013/Pt-IV/4 dtd. 18/05/15)				1483724.41	
9b	Grand Total (B)				157515203.00	
C						
Description of land		Area of Land			Rate per Bigha	Amount (INR.)
		B	K	L		
1	Compensation for Land for Abhhoipur Village					
a	Loss of agricultural land(KP)	106	1	14	@ INR. 847000.00	90069980.00
	Loss of agricultural land(AP)	7	1	11	@ INR. 847000.00	6191570.00
	Residential (KP)	1	1	7	@ INR. 1210000.00	3363800.00
	Industrial/Trade(KP)	0	1	7	@ INR. 1694000.00	457380.00
	Total	116	3	10		100082583.00
b	Deduction Conversion Premium of AP. Land, if any (per Bigha@ INR 40,00,20.00)					146.20
	Total INR.(a-b)					100082583.80
2	Factor by which the market value is to be multiplied as provided under sub-section(2) of section 26 , as notified by the state govt.					X 1.5
3	Total of market value of land determined under sub-section [(1) x(2)]					150123875.70
4	Value of assets attached to land or building as provided under section 29(House, Trees, wells/Tanks, crops)					92672873.00
	Total of (3)+(4)					242796748.70
5	Solatium as provided under sub-section (1) of section 30@100% of (3)+(4)				242796748.70	
6	Total Compensation of part 1(3)+(4)+(5)				485593497.40	
7	5% cost of establishment charges (as per GOA's Notification No. RLA. 300/2013/Pt-IV/4 dtd. 18/05/15)				24279674.87	
8	1% cost of contingency charges (as per GOA's Notification No. RLA. 300/2013/Pt-IV/4 dtd. 18/05/15)				4855934.97	
9a	Grand Total(C)				515007978.44	
D						
Description of land		Area of Land			Rate per Bigha	Amount (INR.)
		B	K	L		
1	Compensation for Land for Uttar Guwahati Village					
a	Loss of agricultural land	27	3	5	@ INR. 1210000.00	33456500.00
	Residential	17	3	19	@ INR. 1501000.00	26702790.00
	Total	45	2	4		60159290.00
b	Deduction Conversion Premium of AP. Land, if any (per Bigha@ INR 20.00)					
	Total INR.(a-b)					60159290.00
2	Factor by which the market value is to be multiplied as provided under sub-section(2) of section 26 , as notified by the state govt.					X 1
3	Total of market value of land determined under sub-section [(1) x(2)]					60159290.00
4	Value of assets attached to land or building as provided under section 29(House, Trees, wells/Tanks, crops)					47076635.00
	Total of (3)+(4)					107235925.00
5	Solatium as provided under sub-section (1) of section 30@100% of (3)+(4)				107235925.00	
6	Total Compensation of part 1(3)+(4)+(5)				214471850.00	

7	5% cost of establishment charges (as per GOA's Notification No. RLA. 300/2013/Pt-IV/4 dtd. 18/05/15)			10723592.50		
8	1% cost of contingency charges (as per GOA's Notification No. RLA. 300/2013/Pt-IV/4 dtd. 18/05/15)			2144718.50		
9b	Grand Total(D)			227573361.00		
E						
	Description of land	Area of Land			Rate per Bigha	Amount (INR.)
		B	K	L		
1	Compensation for Land for South Guwahati Village					
1	Value of assets attached to land or building as provided under section 29(House, Trees, wells/Tanks, crops)				7888531.00	
5	Solatum as provided under sub-section (1) of section 30@100% of (1)				7888531.00	
6	Total Compensation of part 1(3)+(4)+(5)				15777062.00	
7	5% cost of establishment charges (as per GOA's Notification No. RLA. 300/2013/Pt-IV/4 dtd. 18/05/15)			788853.10		
8	1% cost of contingency charges (as per GOA's Notification No. RLA. 300/2013/Pt-IV/4 dtd. 18/05/15)			157770.62		
9b	Grand Total(E)			16723685.72		
	Grand Total for four Villages(A+B+C+D+E)				1395105222.000	

CHAPTER 13 CONCLUSIONS

The report on social impact assessment has primarily tried to focus on the relevant legislations, potential impacts due to the proposed project and to propose mitigation measures at different phases of the project. Based on the findings during the study some measures have to be considered from the inception of the project, which will reduce the detrimental effects of project appreciably.

- Alternative alignments such as eccentric or concentric widening, realignment etc have been explored in order to find a suitable alignment that has minimum adverse impact on social aspects.
- The alignment for widening has been designed considering minimum land acquisition.
- The proposed widening tried to avoid schools, places of worships, public utilities and other common resources.
- An amicable solution with regard to shifting of religious structures (if required) shall be explored in consultation with community leaders, religious leaders and other prominent persons in the local area during implementation.
- It will be ensured that the likely affected common properties used by local people are suitably rehabilitated before the start of civil construction work and budgetary provision for the same has been made in the project estimates.

With the above approach to design, construction and operation the project will be socially feasible.