

**MINISTRY OF ROAD TRANSPORT AND HIGHWAYS
NATIONAL HIGHWAY AND INFRASTRUCTURE DEVELOPMENT CORPORATION**

**PREPARATORY STUDY FOR NORTH EAST ROAD
NETWORK CONNECTIVITY IMPROVEMENT
PROJECT (PHASE-2)**

**WIDENING AND IMPROVEMENT OF NH-40
(SHILLONG – DAWKI)**

RESETTLEMENT ACTION PLAN

June 2017

**PREPARED BY:
ENVIRO INFRA SOLUTIONS PVT. LTD
301, 302, & 305, SHREE RAM BUSINESS CENTRE, PLOT NO.
INS-12, SECTOR-9, VASUNDHARA, GHAZIABAD – 201012**

Table of Contents

ABBREVIATIONS	
EXECUTIVE SUMMARY	(i)
Chapter 1 INTRODUCTION	1
1.1 Background	1
1.2 Project Location	1
1.3 Requirement and Objective of RAP Report	2
1.4 Issues Related to Indigenous People	2
Chapter 2 Description of the Project	3
2.1 The Project Background	3
2.2 Scope of Work	3
2.3 Minimization of Resettlement:	3
2.4 Project impacts and benefits	4
Chapter 3 Policy and Legal Framework	5
3.1 Summary of Acts and Policies	5
3.2 Key policies and Legislations	6
3.3 Key Gap between LARR 2013 and JICA guidelines	10
3.4 Applicability of LARR 2013 in the context of Meghalaya.	18
Chapter 4 SOCIO ECONOMIC PROFILE	19
4.1 Introduction	19
4.2 Socio Economic Profile of Meghalaya-East Khasi Hills and Jaintia Hills Districts	23
4.3 Social Profile of the Project Affected Households	27
Chapter 5 SOCIAL IMPACT OF THE PROJECT	40
5.1 Introduction	40
5.2 Impact of Affected Households and Structures	40

5.3 Impact on Land.....	41
5.4 Impact on trees and crops.....	42
5.5 Social Impacts	44
Chapter 6 STAKEHOLDER CONSULTATION	49
6.1 Overview	49
6.2 Method of Stakeholders consultation	49
6.3 1 st Round consultation with Communities:	49
6.4 2 nd Round Consultation with Communities.....	54
6.5 Supplemental Consultation Meetings.....	55
6.6 Information Disclosure.....	56
Chapter 7 RESETTLEMENT POLICY	58
7.1 Objective of Resettlement Policy Framework.....	58
7.2 Entitlement Matrix:	59
7.3 Methods of Assessing Replacement Cost	64
7.4 Grievance Redress Mechanism	64
Chapter 8 INSTITUTIONAL ARRANGEMENTS	67
8.1 Institutional arrangements	67
8.2 Monitoring and Evaluation.....	68
8.3 Non-Governmental Organization for Implementation of RP.....	69
Chapter 9 GENDER.....	71
9.1 Introduction	71
9.2 Project potential impact:.....	71
9.3 Improvement in Project Preparation and Implementation.....	72
9.4 Equity in Construction Activities.	72
9.5 Measures for Controlling STD and HIV/AIDS:.....	73
Chapter 10 INDIGENOUS PEOPLE.....	74

10.1 Introduction	74
10.2 Traditional Livelihoods in Meghalaya State and Project Districts	78
10.3 Public Consultation	83
10.4 Market, Distribution and Processing of Agricultural / Non – Agricultural Produces	87
10.5 Livelihood Frameworks	92
Chapter 11 REHABILITATION PLAN	98
11.1 Rehabilitation Plan	98
Chapter 12 RESETTLEMENT BUDGET	102
12.1 R&R Cost	102
12.2 Replacement Cost of Structures	102
12.3 Market Value of Trees	103
12.4 RP Implementation Cost	103
12.5 Replacement cost of CPR	103
12.6 R&R Budget	104
Chapter 13 RESETTLEMENT SCHEDULE	106
13.1 Introduction	106
13.2 Schedule for project implementation	106
13.3 Schedule for Resettlement Action Plan	106
13.4 R&R Implementation Schedule	106
 Appendices	
Appendix-1: Household Interview Survey -Form of Questionnaire	A1
Appendix-2: Signature of the Attendees on Stakeholders Consultation	A16
Appendix-3: Resettlement and Rehabilitation Monitoring Form	A28
Appendix-4: Terms of Reference of the RAP Supporting Agency	A30
Appendix-5: Terms of Reference of the External Monitoring Agency (EMA)	A34

List of Tables

Table 3.1-1: Acts / Policies / Notifications & their relevance to the project.....	5
Table 3.3-1: Key gap between JICA and Indian Regulations	11
Table 4.1-1: Demographic profile of Meghalaya	20
Table 4.1-2: Demographic profile of East Khasi Hills district.....	21
Table 4.1-3: Demographic profile of West Jaintia Hills district	23
Table 4.2-1: District wise population and percentage of SC and ST	23
Table 4.2-2: Poverty and Human Development scenario.....	24
Table 4.2-3: District wise Per Capita Income	24
Table 4.2-4: District wise HDI.....	24
Table 4.2-5: District wise Scheduled Tribes	25
Table 4.3-1: Summary of the Survey	28
Table 4.3-2: Details of PAHs	31
Table 4.3-3: Social category.....	34
Table 4.3-4: Ethnicity background.....	34
Table 4.3-5: Religion.....	35
Table 4.3-6: Education Level	35
Table 4.3-7: Occupation.....	36
Table 4.3-8: Total monthly household income of H/H from all sources (INR/month).....	36
Table 4.3-9: Number of employed members in a PAH.....	37
Table 4.3-10: Public amenities.....	37
Table 4.3-11: Ownership of Structure	38
Table 4.3-12: Land System	38
Table 4.3-13: Vulnerability	39
Table 4.3-14: Socio-economic status of villages in BP2 and BP5	39
Table 5.2-1: Impact of Affected Households and Structures	40

Table 5.2-2: Impact of Affected Households and Structures	40
Table 5.3-1: Affected Land	41
Table 5.3-2: Land System	42
Table 5.4-1: Affected Trees.....	43
Table 5.4-2: Affected Crops.....	43
Table 5.5-1 Sacred Groves in East Khasi Hills and Jaintia Hills	48
Table 5.5-2 List of Monoliths.....	49
Table 6.3-1: Details of 1st-round meetings	50
Table 6.3-2: Participation details of 1st round consultations	53
Table 6.3-3: Community Meetings and Focus Group Discussions (FGD)	53
Table 6.4-1: Details of 2 nd Round Meetings.....	54
Table 6.4-2: Participation details of 2 nd Round Meetings	55
Table 6.5-1: Details of All Meetings.....	55
Table 6.5-2: Participation Details of Supplemental Consultation Meetings	55
Table 7.2-1: Entitlement Matrix.....	60
Table 10.1-1: Tools and methods of data collection	77
Table 10.2-1: Land uses in the Area of Khasi Hills Autonomous District Council	79
Table 10.3-1: Village wise consultation profile	83
Table 10.3-2: Focus Group Discussion Findings	83
Table 12.2-1: Replacement Cost of Structures.....	102
Table 12.3-1: Market Value of Trees*	103
Table 12.6-1: R&R Budget	105
Table 13.4-1: Resettlement Schedule.....	109

List of Figures

Figure 4.1-1: Map of Meghalaya State.....	19
Figure 4.1-2: Map of East Khasi Hills District.....	21
Figure 4.1-3: Map of Jaintia Hills District (currently East/ West Jaintia Hills).....	22
Figure 4.2-1: Khasi Traditional Institutions Figure 4.2-2: Jaintia Traditional Institutions	26
Figure 4.2-3: Garo Traditional Institutions	27
Figure 4.3-1: Affected Villages.....	33
Figure 5.5-1: Location of Sacred Groves along NH40.....	47
Figure 6.6-1: 1 st Stakeholders/community Meetings.....	56
Figure 6.6-2: 2nd Stakeholders/community Meetings	57
Figure 7.4-1: Grievance Redress Mechanism	66
Figure 8.1-1: Institutional arrangements	67
Figure 10.2-1: Map Showing Land Uses in the Area of Khasi Hills Autonomous District Council	79
Figure 10.2-2: Area where shifting cultivation is practiced along NH40	80
Figure 10.2-3: Cases of Area where Quarry is practiced along NH40.....	82
Figure 10.3-1: Consultation Meetings/FGD	86

ABBREVIATIONS

BPL	:	Below Poverty Line
BSR	:	Basic Schedule of Rates
CA	:	Competent Authority
DDP	:	Desert Development Program
DPR	:	Detailed Project Report
FPIC	:	Government of India
GRM	:	Grievance Redress Mechanism
GRC	:	Grievance Redress Committee
IPP	:	Indigenous Peoples Plan
IRC	:	Indian Road Congress
JICA	:	Japan International Cooperation Agency
LARR	:	Land Acquisition, Rehabilitation, and Resettlement Act
LSC	:	Land Settlement Certificates
MAW	:	Minimum Agricultural Wage
MFP	:	Minor Forest Produce
NH	:	National Highway
NHIDCL	:	National Highway & Infrastructure Development Corporation Limited
NRRP	:	National Rehabilitation and Resettlement Policy
NEEDS	:	North East Educational and Development Society
OBC	:	Other Backward Class
PAF	:	Project Affected Family
PAH	:	Project Affected Households
PAP	:	Project Affected Person
PIU	:	Project Implementation Unit
PPP	:	Public Private Partnership
PWD	:	Public Works Department
RAP	:	Resettlement Action Plan
R&R	:	Resettlement and Rehabilitation
ROW	:	Right of Way
SC	:	Scheduled Caste
SIA	:	Social Impact assessment
ST	:	Scheduled Tribe

EXECUTIVE SUMMARY

The North East Connectivity Improvement Project is an initiative of the Government of India to better the quality and connection of roads in the North Eastern Region of the country, to strengthen the linkages of this region and to improve the economic situation of the region as a whole. Amongst many highways, the NH 40 connecting Shillong in East Khasi Hills District to Dawki in the West Jaintia Hills District was selected to benefit from this development project. GOI requested Government of Japan to provide assistance in carrying out the improvement of Shillong-Dawki section and the study has been implemented upon the request.

This document was prepared under the responsibility of NHIDCL supported by JICA during Preparatory Study for North East Road Network Connectivity Improvement Project (Phase 2) in order to report on the socio-economic status of the entire affected areas of the project. It will reflect the living conditions, health status, education and livelihood of the Project Affected Persons; the civic amenities available, the various sources income of the PAPs, the gender dimensions in the households/community, will be discussed in brief in this report based on the household survey conducted.

The socio-economic survey was conducted by a local NGO called North East Educational Development Society (NEEDS). Before the survey started, a number of meetings with stakeholders and communities were conducted for awareness. There are 418 households (or 402 HHs in case that BP5 is excluded from the Project) whose house, shop and/or land is affected by the project. The land acquisition process is thus discussed in this report stating the country existing laws, the guidelines of JICA and the need to consider the State of Meghalaya's various traditional/ customary laws and practices, involving the Autonomous District Councils and the traditional village leaders in the implementation plan. Meghalaya has its own peculiar land tenure system, for instance, a lot of lands especially in rural areas are collectively owned by clans and any project requiring land acquisition in such areas will need consent from the clan leaders residing in the area and not just the affected clan members. This is an arduous process especially if the clan has internal conflicts and disagreements. However on the plus side this system has helped preserve the lands of the clans, where even those members who may be landless are offered a small plot to build a house and farm.

Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013 (LARR 2013) has been applied and referred to in this report. The tentative budget is made based on the rules of LARR 2013. The authority implementing the project, the State Government, in the process of land acquisition can refer to this Act and also consider the traditional and customary laws of the State and the previous land acquisition processes followed.

In Accordance with LARR 2013, Social Impact Assessment (SIA) shall be conducted by an independent autonomous body as per section 4. SIA shall be reviewed by an Independent Expert Committee. Preliminary Notification for land acquisition will be issued by State Revenue Department as per section 11 of LARR 2013. Hearing of objection will be made as per section 15. As per section 16, administrator appointed by the State Government shall prepare resettlement plan. Rehabilitation and Resettlement Plan and compensation policy proposed in this report are intended to be incorporated into implementation procedure by Indian side including Social Impact Assessment, Social Impact Management Plan, and Rehabilitation and Resettlement Scheme.

The Grievance Redress Mechanism will be established. The implementation agency will provide all necessary help to PAP in presenting his/her case using the mechanism. The decision of the Grievance Redress Committee will not be binding on the PAP, and he/she is allowed to proceed to resolve the case in the high court.

The internal monitoring will be carried out by the PIU, PWD with assistance from RAP Implementation Agency. An External agency will be hired to undertake biannual monitoring and mid and end term evaluations.

The Project is located entirely in East Khasi Hills District and West Jaintia Hills District of Meghalaya State, inhabited by Khasi and Jaintia with a few Garo, deemed to be Scheduled Tribes in Constitution of India. Khasi and Garo will be considered as Indigenous Peoples (IPs) in the contexts of India as a whole, since they are registered as STs. However, the Project will be implemented only in the areas where Khasi and Garo are dominant, and their political and decision-making structures are based on their social and cultural/traditional contexts. Thus, it is deemed that preparation of IP's Paper under OP 4.10 is not necessary for the Project. On the other hand, requirements for considerations to IPs were satisfied for preparation of RAP, including FPIC, and IPP elements are incorporated in the RAP.

The NGO - Tynrai Foundation conducted the first round of extensive consultation at community / village level in the project area. Community level consultation (Focus Group Discussion and Interviews) were held with targeted beneficiaries and the primary stakeholders of the project in 6 villages across the 2 districts of project area. These consultations included women, youth, BPL House Holds, Self Help Group members, and the farmers. The consultation meetings also involved tribal and other customary village leaders, members of village councils. The consultations were free, in local language, and conducted with prior information disseminated through consultation team. The consultation indicated strong demand and broad community support for livelihood interventions.

During Focus Group Discussion and social assessment, the team has identified key social issues which have been elaborated in respective chapter. Based on identified key issues, a strategy was developed to implement livelihood program in project affected area. Along with livelihood strategy, gender strategy also was be framed.

Chapter 1 INTRODUCTION

1.1 Background

The trend of development in the Indian Economy is soaring, with an expected rate of 8 to 9 % every year. With brisk development comes the realization that plans for sustenance of the same must be instituted. Service and industry sectors are expected, therefore, to grow swiftly, and infrastructure in terms of roads and other forms of connectivity are and will continue to take substantial leaps. This is especially true to parts of the country that are remote from the mainland India and where road connectivity forms the key issue to any form of development. The North eastern region of the country is highly dependent on roads for transport of goods and people. Although roads play a significant role in the economic development of the region, yet the conditions of the roads are not good.

The State of Meghalaya, which has great potential for contributing to the country's current economic growth, being that the State is very rich in mineral resources. The State is however connected to the rest of the country only by land; the small airports available in Shillong and Tura are insignificant in their contributions towards the much needed connectivity of the State. Hence roads have and will continue to be the major link of this State with the rest of the country. However, the nature and weather of the State makes the effort very challenging- Meghalaya is famous for heavy rainfall mixed with the perilous terrain.

Recognizing the region's typical characteristics and challenges in achieving economic growth, the Government of India started the "Special Accelerated Road Development Program for North East" wherein national highways that connect North East with major cities of the country are being improved. The Government of Japan has been requested to provide Loan assistance in this road improvement plan.

The Shillong-Dawki road, which is a section of the NH-40 is one of the highways selected. It is located in the East Khasi Hills and West Jaintia Hills districts of Meghalaya.

1.2 Project Location

The section of NH 40 starts from Shillong up to Dawki, with a total stretch of 84 km on existing road basis. The first entry point of the study road is at the periphery of the main city and goes on to pass through various rural villages, inclusive of forests and agricultural fields; the most distinctive however are the deep gorges and precipices that are seen along a major section of the road. At present Shillong-Dawki section of NH-40 is in good condition with footpath on both side of the road and drainage system in places up to the area of Eastern Air Force Headquarters. The length is approximately 8 km from the starting point while this section is climbing the mountain slope to 1,800 m thereafter the width of road, without road furniture, is generally two lanes up to the 61 km post climbing down East Khasi Hills. The last 6-7 km section of NH-40 nearer Dawki is particularly narrow without appropriate road furniture, causing traffic congestion going out to Bangladesh and coming into India.

1.3 Requirement and Objective of RAP Report

The widening of roads and the construction of by passes in the entire road will necessitate land acquisition. LARR 2013 requires that any development project that results in land acquisition and displacement of people will need to prepare a Resettlement Action plan. The Government is also responsible for rehabilitation of the displaced people once the Right of Way (ROW) is ascertained.

This RAP report is an introductory document for R&R prepared under the responsibility of NHIDCL supported by JICA during Preparatory Study for North East Road Network Connectivity Improvement Project (Phase 2). It is based on preliminary designs and will assist the discussion between Government and NHIDCL over the Land acquisition and involuntary resettlement expected in this project; it will help ensure that the process of land acquisition, R&R is implemented in an efficient method keeping the guidelines for Environmental and Social considerations of JICA in focus.

1.4 Issues Related to Indigenous People

Meghalaya is predominantly inhabited by Scheduled Tribes. The majority of its population are from the major tribes of the Khasi, the Jaintia and the Garo. Besides the Khasi, Jaintia and Garo, the State has a host of other tribes that reside in the State and have ownership of land and legal residency. Such groups are: the Mizo, Hmar, (Mikir, Rabha.), Paitei, Meitei etc. All these groups are groups from neighboring states who migrated to Meghalaya and have settled here for countless years. These groups continue to follow their own customs and traditions.

The Project is also located entirely in the area inhabited by Khasi and Jaintia with a few Garo. Khasi and Garo will be considered as Indigenous Peoples (IPs) in the contexts of India as a whole, since they are registered as STs. However, the Project will be implemented only in the areas where Khasi and Garo are dominant, and their political and decision-making structures are based on their social and cultural/traditional contexts. Thus, it is deemed that preparation of IP's Paper under OP 4.10 is not necessary for the Project. On the other hand, requirements for considerations to IPs were satisfied for preparation of RAP, including FPIC, and IPP elements are incorporated in the RAP.

Besides the Scheduled Tribes, Meghalaya is also home, to a number of non-tribal groups such as the Assamese, Bengalis, and the Nepalese. These groups have no traditional connection with the major tribal groups of Meghalaya but in the case of the Assamese and Bengalis, there is a political and social connection, in that, Meghalaya was once a part of Assam; Hence, Meghalaya has a mixed population of a sizeable non-tribal groups, gives it a character of a small India. In recent times, the State is witnessing increasing migration from other States and neighboring countries such as Bangladesh. Being a transit State with porous borders, Meghalaya may see an increase in migration of non-tribal groups into the State.

Chapter 2 Description of the Project

2.1 The Project Background.

The North eastern region of India is always behind in terms of progressive development. Some of the region's issues are so deep seated, that the ramifications continue to produce negative effects on the development efforts of the region. Investments and ventures from outside are sparse due to the law and order situation in the region, and the existing resources of the region are under- utilized because of the poor linkage that the region has with the rest of the country.

The most efficient mode of transport in the North East of India is roads. The trade and commerce in the region hence, is wholly dependent on roads; yet the condition and size of the roads here are dismal, with flawed maintenance. The Government of India has acknowledged this challenge and has requested the Government of Japan to provide loan assistance to address this challenge thoroughly. The Shillong-Dawki (NH -40) road in Meghalaya amongst others was selected to benefit from this project.

The Shillong-Dawki road is a total length of 84km on existing road. The Vertical interval of the study road is very high, starting from approximately 1,525m, climbing up to 1800m and down to approximately 50m at the ending point. There are a few narrow sections located between deep valley and overhanging rocky slope. The old steel suspension bridge (L=135m) near the end of the study road is proving to be a bottle neck of the study road due to 1 lane bridge width.

2.2 Scope of Work

The proposed project work includes widening of existing single lane road into two-lane widening with asphalt paving on NH 40 from Shillong to Dawki in Meghalaya State. The widening of the road will be limited to the existing ROW, as much as possible. Within the major settlements with congested market places the improvement work will be extended with the construction of a Bypass.

The Project road is a length of 84km on existing road and 71.5 km after realignment based on the DPR. On completion, the road will improve the road connectivity within the State and bring economic development to the State. The responsible agency is the Ministry of Road Transport and Highways and the National Highway and Infrastructure Development Corporation Limited.

2.3 Minimization of Resettlement:

Sufficient consideration is in place for preparation to minimize any adverse impacts on the community in the project area while also considering the limitation of technical conditions and constraints.

The following key measures are taken to minimize resettlement in this project road.

- Accommodating road widening within available ROW.
- Saving cultural properties and community structures by adopting suitable measures.
- Restriction of improvement work within the existing formation width in major settlements.
- Alternate with a bypass in areas where huge settlements and markets are existing.

2.4 Project impacts and benefits

The project intends to improve and widen the Shillong –Dawki section of NH 40 and will have a direct impact on the social and economic condition of the people living in the project and the entire region; the State as a whole will benefit from the enhanced connectivity. While the impact is more positive, negative impacts of a social character is possible. The key benefits however would be:

- A robust and profitable trade and commerce will be established with support for local economic development.
- Tourism will be scaled up in terms of tourists satisfaction and hence revenue increased.
- Reduction of traffic congestion.
- Consumer savings and affordability (savings to lower-income households)
- Safety and ease of mobility of pedestrians.
- Energy conservation
- Air, noise, and water pollution reductions.
- Habitat protection

Chapter 3 Policy and Legal Framework

3.1 Summary of Acts and Policies

Development projects, such as those related to road improvement and widening are mandated to be consistent to the existing Acts and Policies of the respective National, State, Local governments and also the guidelines and policies of JICA. An outline of the various Acts and Policies that are in place in the country are as follows:

Table 3.1-1: Acts / Policies / Notifications & their relevance to the project

No	Acts/Policies/Notifications	Relevance to the project
1	The Right to Fair Compensation and Transparency in Land Acquisition Rehabilitation and Resettlement Act 2013 (LARR 2013)	This Act came into force on 1 st January 2014 and extends to the whole of India except the State of Jammu and Kashmir. In Meghalaya this Act was challenged on grounds that the State falls under the Sixth Schedule of the Constitution, hence Land in the State belongs to individuals and not the Government. Nevertheless, the provisions of this Act relating to land acquisition, compensation, rehabilitation and resettlement, shall apply when the appropriate Government acquire land for its own use, hold and control, including for public sector undertakings and for public purposes.
2	The United Khasi-Jaintia Hills Autonomous District Council (Management and Control of Forests) Act 1958.	This act extends to the whole of the Khasi-Jaintia Autonomous districts. ¹ The Act describes the type of forests that are available in Meghalaya, in terms of ownership and management. The Act provides for the maintenance, management and preservation of such forests.
3	The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006.	This Right recognizes and vests the forest rights and occupation in forest lands in forest dwelling Scheduled Tribes who have been residing in such forests prior to 13/12/2005 for generations but whose rights cannot be recorded, and other traditional forest dwellers who are in occupation of the forest land for at least 3 generations (i.e. 75 years), and up to a maximum of 4 hectares. Such lands are mostly inherited and are not transferable.
4	The National Tribal Policy 2006	Provides an environment conducive to the preservation of traditional and customary systems and regime of rights and concessions enjoyed by different Scheduled Tribe communities.
5	Right to Information Act 2005	Provides for citizens to have access to information under the control of the public authorities, in order to promote transparency and accountability in the working of every public authority.

¹ Sub-paragraph 20 of the Sixth Schedule to the Constitution of India.

6	Meghalaya transfer of Land (Regulation) Act, 1971.	It extends to the tribal areas within the State of Meghalaya. The Act provides that no land in Meghalaya shall be transferred by a tribal to a non-tribal or by a non-tribal to another non-tribal except with the previous sanction of the competent authority: Provided that the Government of Meghalaya is satisfied may, from time to time, by notification, prohibit any transfer of land with in such area or areas as may be specified in the notification and there upon the competent authority shall not sanction any such transfer of land under the provision of this Act, within such area or areas.
---	----------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

3.2 Key policies and Legislations

3.2.1 Right to fair compensation and Transparency in Land Acquisition, Rehabilitation, and Resettlement Act (LARR), 2013

The LARR 2013 was passed by the Parliament on September 5, 2013 and came into force on January 1, 2014.²

The objective of this Act is;

- to ensure, in consultation with institutions of local self-Governments and Gram Sabhas established under the Constitution, a humane, participative, informed and transparent process for land acquisition for industrialization, development of essential infrastructural facilities and urbanization with the least disturbance to the owners of the land and other affected families.
- To provide just and fair compensation to the families whose land has been acquired or affected by such acquisition.
- To make adequate provision for such affected persons and their rehabilitation and resettlement.
- To ensure that the cumulative outcome of compulsory acquisition should be that affected persons become partners in development leading to an improvement in their post acquisition social and economic status and for matters connected therewith or incidental thereto.

The LARR Act 2013 was amended by the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement (Amendment) Ordinance Bills thrice³ - once in 2014 and then twice subsequently in 2015;

² On December 31, 2014, President Pranab Mukherjee promulgated the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement *Ordinance*, 2014.

³ Article 123 of the Constitution of India 1949 provides the following provision of ordinance (i) If at any time, except when both Houses of Parliament are in session, the President is satisfied that circumstances exist which render it necessary for him to take

The Principal Act is now in operation with the lapse of the latest ordinance on 31 August 2015.

MORD order dated 28 August 2015 named as “Removal of Difficulties”, extended the provisions of compensation and rehabilitation & resettlement to the 13 enactments under Schedule IV.

MORD order dated 9 February 2016 defined the following; Limits for private purchase after which the provisions of R&R shall apply, as referred to in Section 46(i) of the Act and Multiplication Factor for determination of compensation under First Schedule

Both LA and R&R Provisions will apply when:

- i. Government acquires land for its own use, hold and control for strategic purposes and infrastructure development
- ii. Government acquires land with the ultimate purpose to transfer it for the use of private companies for stated public purpose (including PPP projects but other than state or national highway projects)
- iii. Government acquires land for immediate and declared use by private companies for public purpose

(Public purpose for ii. & iii above, once stated, cannot be changed. Land Acquisition under ii. & iii above can take place provided the project affected families give prior informed consent to the proposed acquisition.)

immediate action, he may promulgate such ordinances as the circumstances appear to him to require. (ii) An ordinance promulgated under this article shall have the same force and effect as an Act of Parliament, but every such ordinance.

(a) shall be laid before both Houses of Parliament and shall cease to operate at the expiration of six weeks from the reassembly of Parliament, or, if before the expiration of that period resolutions disapproving it are passed by both Houses, upon the passing of the second of those resolutions; and (b) may be withdrawn at any time by the President. Explanation: Where the Houses of Parliament are summoned to reassemble on different dates, the period of six weeks shall be reckoned from the later of those dates for the purposes of this clause.

(iii) If and so far as an ordinance under this article makes any provision which Parliament would not under this Constitution be competent to enact, it shall be void.

3.2.2 The United Khasi- Jaintia Hills Autonomous District Council (Management and Control of Forests) Act 1958.

The Act applies to the Khasi-Jaintia Autonomous Districts and provides for the preservation and management of the forests in the State based on the type of ownership, tradition/culture, and history attached to it. The forests under this Act are classified into 8 types and each type of forest is described for purpose of management and control. The Act also declares certain trees to be reserved trees and restriction of felling of certain trees without the previous sanction of Chief Forest Officer of the District Council or any Officer duly authorized by him in writing.

3.2.3 Meghalaya Transfer of Land (Regulation) Act, 1971.

The main purpose of this Act is to retain and preserve the land belonging to the Scheduled Tribes in the State. This Act helps the people in Meghalaya to be in control of their land.

The Act provides that no land in Meghalaya shall be transferred by a tribal to a non-tribal or by a non-tribal to another non-tribal except with the previous sanction of the competent authority: Provided that the Government of Meghalaya is satisfied may, from time to time, by notification, prohibit any transfer of land with in such area or areas as may be specified in the notification and there upon the competent authority shall not sanction any such transfer of land under the provision of this Act, within such area or areas.

3.2.4 National Tribal Policy 2006

The National Tribal Policy has the following objectives: Regulatory Protection:

- Providing an environment conducive to the preservation of traditional and customary systems and regime of rights and concessions enjoyed by different ST communities, and reconciliation of modes of socio-economic development with these;
- Preventing alienation of land owned by STs and restoring possession of wrongfully alienated lands;
- Protection and vesting of rights of STs on forest lands and other forest rights including ownership over minor forest produce (MFP), minerals and water bodies through appropriate legislations and conversion of all forest villages into revenue villages;
- Providing a legislative frame for rehabilitation and resettlement in order to minimise displacement, ensure that affected persons are partners in the growth in the zone of influence, provide for compensation of social and opportunity cost in addition to market value of the land and rights over common property resources - the concept of net present value (NPV);
- Empowerment of tribal communities to promote self-governance and self-rule as per the provisions and spirit of the Panchayats (Extension to the Scheduled Areas) Act, 1996.

- Protection of political right to ensure greater and active participation of tribes in political bodies at all levels.

The National Tribal Policy 2006 outlines several new and continuing initiatives for accelerating the pace of welfare and development of tribal areas in the country.

The policy itself will be updated periodically. To make it a living document, the Cabinet Committee on Tribal Affairs (CCTA) will be asked to review the policy every three years and redefine its objectives and guiding principles, if necessary, and accordingly recast the strategy to address any new challenges that may emerge.

3.2.5 Right to Information Act 2005

The basic objective of the Right to Information Act is to empower the citizens, promote transparency and accountability in the working of the Government. Right to Information Act 2005 mandates timely response to citizen requests for government information. It was enacted on 15th June 2005 and came into force on 12th October 2005. The Act extends to the whole of India except Jammu and Kashmir and is non-applicable to Intelligence and Security organizations.

3.2.6 JICA Guidelines for Environmental and Social Considerations

JICA's Involuntary Resettlement Policy is as follows;

<p>The key principle of JICA policies on involuntary resettlement is summarized below.</p> <ol style="list-style-type: none"> I. Involuntary resettlement and loss of means of livelihood are to be avoided when feasible by exploring all viable alternatives. II. When, population displacement is unavoidable, effective measures to minimize the impact and to compensate for losses should be taken. III. People who must be resettled involuntarily and people whose means of livelihood will be hindered or lost must be sufficiently compensated and supported, so that they can improve or at least restore their standard of living, income opportunities and production levels to pre-project levels. IV. Compensation must be based on the full replacement cost as much as possible. V. Compensation and other kinds of assistance must be provided prior to displacement. VI. For projects that entail large-scale involuntary resettlement, resettlement action plans must be prepared and made available to the public. It is desirable that the resettlement action plan include elements laid out in the World Bank Safeguard Policy, OP 4.12, Annex A. VII. In preparing a resettlement action plan, consultations must be held with the affected people and their communities based on sufficient information made available to them in advance. When consultations are held, explanations must be given in a form, manner, and language that are understandable to the affected people. VIII. Appropriate participation of affected people must be promoted in planning, implementation, and

monitoring of resettlement action plans.

- IX. Appropriate and accessible grievance mechanisms must be established for the affected people and their communities.

Above principles are complemented by World Bank OP 4.12, since it is stated in JICA Guideline that “JICA confirms that projects do not deviate significantly from the World Bank’s Safeguard Policies”.

Additional key principle based on World Bank OP 4.12 is as follows.

- X. Affected people are to be identified and recorded as early as possible in order to establish their eligibility through an initial baseline survey (including population census that serves as an eligibility cut-off date, asset inventory, and socioeconomic survey), preferably at the project identification stage, to prevent a subsequent influx of encroachers of others who wish to take advance of such benefits.
- XI. Eligibility of Benefits include, the PAPs who have formal legal rights to land (including customary and traditional land rights recognized under law), the PAPs who don't have formal legal rights to land at the time of census but have a claim to such land or assets and the PAPs who have no recognizable legal right to the land they are occupying.
- XII. Preference should be given to land-based resettlement strategies for displaced persons whose livelihoods are land-based.
- XIII. Provide support for the transition period between displacement and livelihood restoration.
- XIV. Particular attention must be paid to the needs of the vulnerable groups among those displaced, especially those below the poverty line, landless, elderly, women and children, ethnic minorities etc.

In addition to the above core principles on the JICA policy, it also laid emphasis on a detailed resettlement policy inclusive of all the above points; project specific resettlement plan; institutional framework for implementation; monitoring and evaluation mechanism; time schedule for implementation; and, detailed Financial Plan etc.

3.3 Key Gap between LARR 2013 and JICA guidelines

The Table 3.3-1 summarizes key deviations between the two sets of legal and policy frameworks i.e. JICA policies and the existing Indian policies relevant to this project. The recommendations for measures to plug the gaps are also given in the Table.

Table 3.3-1: Key gap between JICA and Indian Regulations

SL. No.	JICA Guidelines (2010)	Applicable Policy/Act (LARR2013)	Gaps Between JICA's Guidelines and LARR 2013	Proposed Gap Filling Measures
1	Involuntary resettlement should be avoided wherever possible.	Ensure minimum displacement of people, minimum disturbance to the infrastructure, ecology and minimum adverse impact on the individuals affected. (Chapter II, 8 (2))	No	
2	When Population displacement is unavoidable, effective measures to minimize impact and to compensate for losses should be taken.	Whenever the appropriate Government intends to acquire land for a public purpose, it will carry out a Social Impact Assessment study in consultation with affected people. (Chapter II, 4 (1)) A Rehabilitation and Resettlement Scheme shall be prepared including the particulars of the rehabilitation and resettlement entitlements of each landowner and landless whose livelihoods are primarily dependent on the lands being acquired and where resettlement of affected families is involved. (Chapter IV, 16 (2))		
3	People who must be settled involuntarily and people whose means of livelihood will be hindered or lost must be sufficiently compensated and supported, so that they can improve or at least restore their standard of living, income opportunities and production levels to pre project levels.	Adequate provisions for affected persons for their rehabilitation and resettlement and for ensuring that the cumulative outcome of compulsory acquisition should be that affected persons become partners in development leading to an improvement in their post-acquisition social and economic status and for matters connected therewith or incidental thereto. (Preface)	LARR silent on compensation rights of Non-Titleholders for loss of land (illegally occupied), structures. R&R benefits such as housing improvement, development benefits, loss of crops, trees transitional support etc to be provided only if residing/drawing livelihood for a continuous 3year period in the area, preceding declaration of 'affected area'.	Recognize claims of Non-Titleholders identified by census survey and irrespective of their residing period status and in respect of:- - Compensation for structures, trees - Structure transfer assistance - Structure reconstruction assistance - Shifting assistance for household owner

				- Tenant shifting allowance Assistance to be provided at par with similar R&R support extended to titleholder families
4	Compensation must be based on the full replacement cost as much as possible	<p>[Land]</p> <p>The Collector having determined the market value of the land to be acquired shall calculate the total amount of compensation to be paid to the land owner by including all assets attached to the land. (Chapter IV, 27)</p> <p>The market value calculated shall be multiplied by a factor to be specified in the First Schedule. (Chapter IV, 26 (2)) Factor by which the market value is to be multiplied in the case of rural areas is 1.00 (One) to 2.00 (Two) based on the distance of project from urban area (First Schedule, Serial No. 2)</p> <p>[Assets]</p> <p>The Collector in determining the market value of the building and other immovable property or assets attached to the land or building which are to be acquired. (Chapter IV, 29(i))</p> <p>[Land/ Property]</p> <p>In addition to the market value of the land as above provided, the Authority shall in every case award a solatium of one hundred per cent. over the total compensation amount. (Chapter VIII, 69(3))</p> <p>Thus, payment of compensation shall be four times market value of land, two times of immovable property.</p>	The multiplying factor and the 100 solatium with 12% interest will be near equivalent to replacement cost for land. For structure, tree and crops, valuation by appropriate authority will be near equivalent to replacement value, but is silent about depreciating.	Compensation to be provided at full replacement cost

5	Compensation and other kinds of assistance must be provided prior to displacement	Take possession of land after ensuring that full payment of compensation as well as rehabilitation and resettlement entitlements are paid or tendered to the entitled persons. (Chapter V, 28(1))	No	
6	For projects that entails large- scale involuntary resettlement, resettlement action plans must be prepared and made available to public.	Whenever the appropriate Government intends to acquire land for a public purpose, it shall consult the concerned panchayat. Municipality or Municipal Corporation, as the case may be, at village level or ward level, in the affected area and carry out a Social Impact Assessment study in consultation with them. (Chapter II, 4(1))	No	RAP to be prepared for this project.
7	In preparing a resettlement action plan, consultations must be held with the affected people and their communities based on sufficient information made available to them in advance.	<p>The appropriate Government shall ensure that a public hearing is held at the affected area, after giving adequate publicity about the date, time and venue for the public hearing, to ascertain the views of the affected families to be recorded and included in the Social Impact Assessment Report. (LARR 2013 chapter II, 5)</p> <p>The appropriate Government shall ensure that the Social Impact Assessment study report and the Social Impact Management Plan are prepared and made available in the local language to the Panchayat, Municipality or Municipal Corporation, as the case may be, and the offices of the District Collector, the Sub-Divisional Magistrate and the Tehsil, and shall be published in the affected areas' in such manner as may be prescribed, and uploaded on the website of the appropriate Government.</p> <p>(chapter II, 6 (1))</p>	No description is found about consultation at the stage of scoping.	Consultation shall be held twice both at the stage of scoping and draft final of SIA.

8	When consultation held, explanation must be given in a form, manner, and language that are understandable to the affected people	Same as above	No	
9	Appropriate participation of affected people must be promoted in planning, implementation, and monitoring of resettlement action plans	Same as above	No	
10	Appropriate and accessible grievance mechanism must be established for the affected people and their communities	<p>Any person interested in any land which has been notified, as being required or likely to be required for a public purpose, may within sixty days from the date of the publication of the preliminary notification, object to-</p> <p>(a) the area and suitability of land proposed to be acquired;</p> <p>(b) justification offered for public purpose;</p> <p>(c) the findings of the Social Impact Assessment response.</p> <p>(chapter II, 6 (1))</p>	No	GRM to be set up. Should be accessible to PAHs to be constituted at district level for issues around land acquisition R&R benefits. Similar body to exist at state level for monitoring and supervision R&R implementing NGO/consultant to have presence in each project affected district and facilitate and inform PAHs about GRM and its processes.
11	Affected people are to be identified and recorded as early as possible in order to establish their eligibility through an initial baseline survey (including population census that serves as an	<p>The Social Impact Assessment study shall, amongst other matters, include all the following, namely:</p> <p>(a) assessment as to whether the proposed acquisition serves public purpose;</p> <p>(b) estimation of affected families and the number of</p>	No	

	<p>eligibility cut-off date, asset inventory, and socio-economic survey), preferably at the project identification stage, to prevent a subsequent influx of encroachers of others who wish to take advantage of such benefit.</p>	<p>families among them likely to be displaced;</p> <p>(c) extent of lands, public and private, houses, settlements and other common properties likely to be affected by the proposed acquisition;</p> <p>(d) whether the extent of land proposed for acquisition is the absolute bare minimum;</p> <p>extent needed for the project</p> <p>(e).whether land acquisition at an alternate place has been considered and found not feasible;</p> <p>(f) study of social impacts of the project, and the nature and cost of addressing them and the impact of these costs on the overall costs of the project vis-a-vis the benefits of the project.</p> <p>(chapter II, 4 (2))</p>		
12	<p>Eligibility of benefits includes, the PAPs who have formal legal rights to land (including customary and traditional land rights recognized under law), the PAPs who do not have formal legal rights to land at the time of census but have a claim to such land or assets and the PAPs who have no recognizable legal right to the land they are occupying</p>	<p>'affected family" includes</p> <p>(i) a family whose land or other immovable property has been acquired;</p> <p>(ii) a family which does not own any land but a member or members of such family may be agricultural labourers, tenants including any form of tenancy or holding of usufruct right, sharecroppers or artisans or who may be working in the affected area for three years prior to the acquisition of the land, whose primary source of livelihood stand affected by the acquisition of land;</p>	<p>Yes, Non-titleholders if residing or drawing livelihood for a period less than 3years are not eligible for R&R benefits</p>	<p>All non-titleholders (as identified on date of census survey) will also be eligible for R&R benefits</p>

		<p>(iii) the Scheduled Tribes and other traditional forest dwellers who have lost any of their forest rights recognized under the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 due to acquisition of land,</p> <p>(iv) family whose primary source of livelihood for three years prior to the acquisition of the land is dependent on forests or water bodies and includes gatherers of forest produce, hunters, fisher-folk and boatmen and such livelihood is affected due to acquisition of land;</p> <p>(v) a member of the family who has been assigned land by the State Government or the Central Government under any of its schemes and such land is under acquisition;</p> <p>(vi) a family residing on any land in the urban areas for preceding three years or more prior to the acquisition of the land or whose primary source of livelihood for three years prior to the acquisition of the land is affected by the acquisition of such land.</p> <p>(Chapter III(c))</p>		
13	Preference should be given to land-based resettlement strategies for displaced persons whose livelihoods are land-based.	Land for Land - In the case of irrigation project, as far as possible and in lieu of compensation to be paid for land acquired, each affected family owning agricultural land in the affected area and whose land has been acquired or lost. (The second schedule, 2)	No	

14	Provide support for the transition period (between displacement and livelihood restoration)	Offer for Developed Land - In case the land is acquired for urbanization purposes, twenty per cent. of the developed land will be reserved and offered to land owning project affected families, in proportion to the area of their land acquired and at a price equal to the cost of acquisition and the cost of development. (The second schedule, 3)	Yes, no such benefits provision for non titleholder residing/drawing livelihood for a period less than 3 years	Transition benefits to be provided to non-titleholders (displaced and livelihoods impacted)who has been identified as per census survey
15	Particular attention must be paid to the needs of the vulnerable groups among those displaced, especially those below the poverty line, landless, elderly, women and children, ethnic minorities etc.	<p>In case of a project involving land acquisition on behalf of a Requiring Body which involves involuntary displacement of the Scheduled Castes or the Scheduled Tribes families, a Development Plan shall be prepared (chapter V section 41 (4))</p> <p>In case of land being acquired from the members of the Scheduled Castes or the Scheduled Tribes, at least one-third of the compensation amount due shall be paid to the affected families initially as first installment and the rest shall be paid after taking over of the possession of the land. (chapter V section 41 (6))</p> <p>The affected families of the Scheduled Tribes shall be resettled preferably in the same Scheduled Area in a compact block so that they can retain their ethnic, linguistic and cultural identity. (chapter V section 41 (7))</p>	No	Special R&R assistance to SC/ST community. Special attention to be made by the R&R implementing NGO, the vulnerable PAH/persons receive R&R support as made for them in the RAP.

Source- JICA study team

3.4 Applicability of LARR 2013 in the context of Meghalaya.

When the LARR 2013 was announced, Meghalaya along with others States in the country opposed the Act on grounds that Meghalaya is a tribal State as per the Schedule 6 of the Indian Constitution; The Autonomous District Councils in the State have control over the Land management in the State, however the State Government also holds control over the Land system in Meghalaya, the two has been working with each other to address developmental projects requiring Land . A Previous Road project in the State has indicated that Meghalaya has on many instances utilized the LARR 2013 provisions for Land Acquisition. The resettlement policy and entitlement proposed in this report will be adopted, keeping in mind that the LARR 2013 may also be applicable.

Chapter 4 SOCIO ECONOMIC PROFILE

4.1 Introduction

4.1.1 Meghalaya

Prior to 1970, this state was an integral part of undivided Assam. The capital city Shillong was the capital of the Assam. On 2nd April 1970, Meghalaya was created as an autonomous state. Meghalaya got the full-fledged state status on January 21st 1972. The state of Meghalaya is bound on the north by Goalpara, Kamrup, Nagoan and Karbi Anglong districts of Assam State, and on the east by the Districts of Cachar and North Cachar Hills, also of the State of Assam. On the south and west sides of the state is Bangladesh.

The total area of the State is 22,429 square kilometer. The State is now divided into eleven administrative districts. They are: (i) West Jaintia Hills District, (ii) East Jaintia Hills District, (iii) East Garo Hills District, (iv) West Garo Hills, (v) North Garo Hills District, (vi) South Garo Hills District, (vii) South West Garo Hills District, (viii) East Khasi Hills District, (ix) West Khasi Hills District, (x) South West Khasi Hills District and (xi) RiBhoi District. They are predominantly inhabited by the Khasi, the Jaintia and the Garo people. Shillong is the State capital and also the District Headquarters of East Khasi Hills district and is situated at an altitude of 1,496 meters above sea level. The demographic profile of Meghalaya is presented in Table 4.1-1.

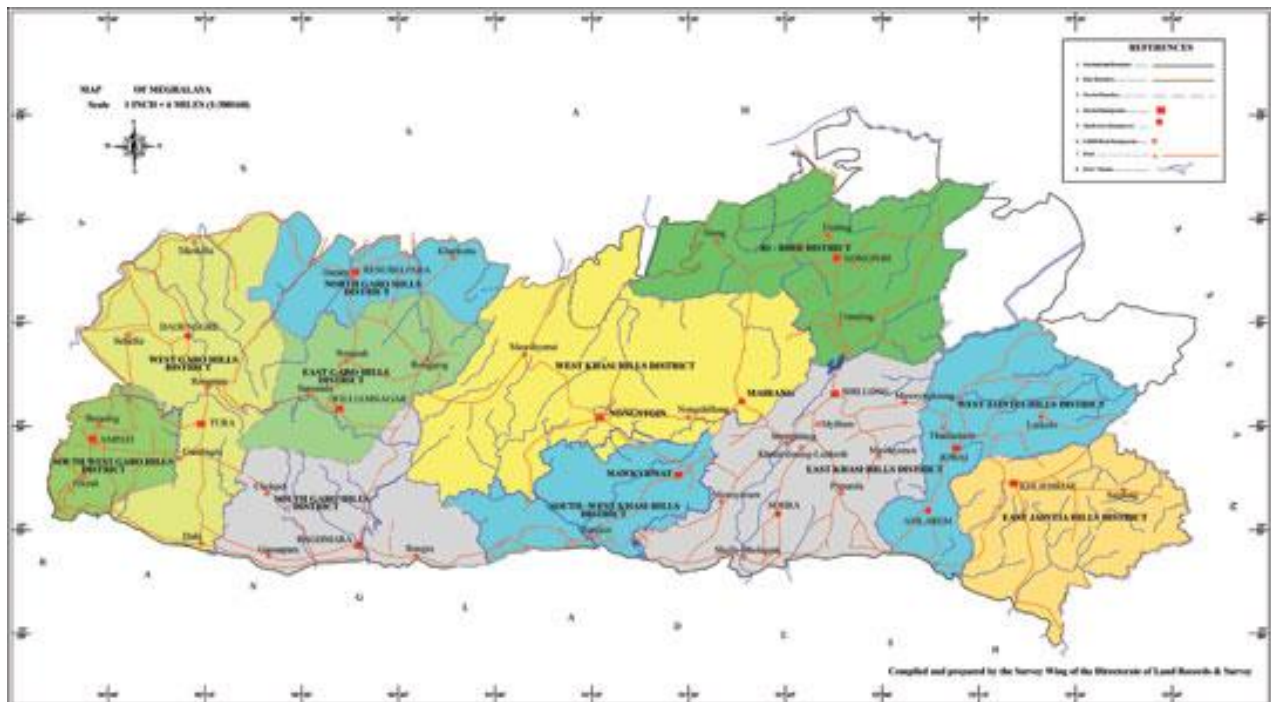


Figure 4.1-1: Map of Meghalaya State

Table 4.1-1: Demographic profile of Meghalaya

Description	Census 2011
Population	2,966,889
- Male	1,491,832
- Female	1,475,057
Population Growth (Decadal)	27.95%
Population density Persons/ sq km	132
Sex Ratio	989
Percentage of total population of India	0.24%
Literacy	74.43 %
- Male literacy	75.95 %
- Female literacy	72.89 %

Source: Census 2011

The Legislative Assembly of Meghalaya consists of 60 members, 29 from Khasi hills, 7 from Jaintia hills, and 24 from Garo hills. Meghalaya originally comprised of 2 districts and 3 sub divisions. In order to accelerate the pace of development and to bring administration closer to the people, the State has been reorganized into 11 Administrative Districts and 4 sub divisions; the whole State is covered by 39 community development blocks. There are 3 Autonomous District Councils in the State, the Jaintia Hills Autonomous District Council, the Khasi Hills Autonomous District Council and the Garo hills Autonomous District Council. All these ADCs are represented by members from the major tribes of the State and are elected on the basis of adult suffrage. These councils discharge their duties and functions assigned to them under the provisions of the Sixth Schedule of the Constitution of India.

The Meghalaya Language Act states that Khasi language may be used as the associate official language for all purposes in, the District, Sub-Divisions and Block level offices of the State Government located in the Districts of East Khasi. Hills, West Khasi Hills, Jaintia Hills and Ri Bhoi while English is the official language of the State. The Garo language may be used as the associate official language for all purposes in the districts, Sub-Divisions and Block Level Offices of East Garo Hills, West Garo Hills and South Garo Hills:

4.1.2 East Khasi Hills District:

East Khasi Hills District forms a central part of Meghalaya and covers a total geographical area of 2,748 sq. kms.. It lies approximately between 25°07" & 25°41" N Lat. and 91°21" & 92°09" E Long. The northern portion of the district is bounded by the plain of Ri-Bhoi District, the Jaintia Hills District to the east and the West Khasi Hills District to the west.

The East Khasi Hills District is mostly hilly with deep gorges and ravines on the southern portion. The most important physiographic features of the district is the Shillong Plateau combine with the river valley, then fall sharply in the southern portion forming deep gorges and ravine in Mawsynram and Shella-Bholaganj bordering Bangladesh.

The headquarters of the district, Shillong is connected by the NH 44 to Guwahati of 103 kms and Silchar by 240 kms. The nearest Rail head and airport are situated at Guwahati. There is an airstrip suitable for small aircrafts at Umroi which is 35 kms. from Shillong. The agricultural and other products are transported by trucks, jeeps and tractors. Shillong is well connected with other parts of the State by motorable road. Similarly, all the block headquarters in the district are also connected by roads. However, the villages in the interior areas are poorly connected and transport services are inadequate. The demographic profile of East Khasi Hills is presented in Table 4.1-2.

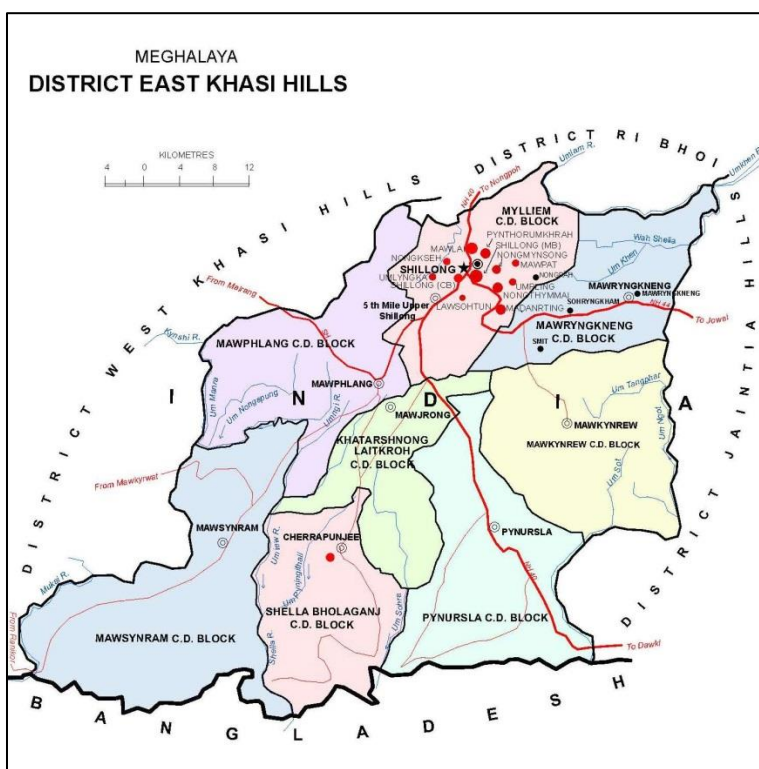


Figure 4.1-2: Map of East Khasi Hills District

Table 4.1-2: Demographic profile of East Khasi Hills district

Description	2011 Census
Population	825,922
- Male	410,749
- Female	415,173
Households	163,397
Population Density	301
Literacy	84.15 %
- Male Literacy	84.51%
- Female Literacy	83.81%
No of CD Blocks	8
No of Villages	975

Source: Census 2011

There are 8 Development Blocks in the East Khasi Hills District, viz

1	KhatarshnongLaitkroh	98 villages
2	Mawkynrew	71 Villages
3	Mawphlang	184 Villages
4	Mawryngkneng	64 Villages
5	Mawsynram	166 Villages
6	Mylliem	109 Villages
7	Pynursla	156 Villages
8	ShellaBholaganj	140 Villages

4.1.3 West Jaintia Hills District:

West Jaintia Hills District is one of the 11 (eleven) districts of the state of Meghalaya. With the bifurcation of the erstwhile Jaintia Hills District into East and West Jaintia Hills District, West Jaintia Hills District came into existence on 31st July 2012 with its Head Quarter at Jowai. Jowai is the host of all the heads of important governmental offices and establishments, educational institutions, hospitals, banking institutions, etc. The total area of the district is 1693 Sq.kms. The district comprises of 1(one) Civil Sub-Division Viz. Amlarem Civil Sub-Division and 3(three) Community and Rural Development Blocks viz. Amlarem C&RD Block, Laskein C&RD Block and Thadlaskein C&RD Block with boundaries with North Assam, South Bangladesh and East Jaintia Hills District, East Assam, and West – East Khasi Hills District. The district has a total population of 272,185, of which 135,052 are males and 137,133 are females. The density of Population is 160.69 per sq. km.

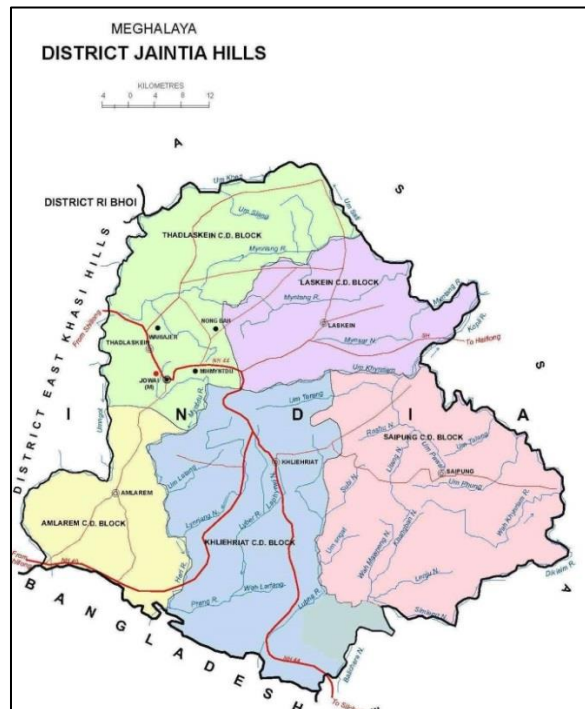


Figure 4.1-3: Map of Jaintia Hills District (currently East/ West Jaintia Hills)

Table 4.1-3: Demographic profile of West Jaintia Hills district

Description	2011 Census
Population	272,185
- Male	135,052
- Female	137,133
Households	45,272
Population Density	160
Literacy	63.12 %
- Male Literacy	58.51%
- Female Literacy	67.61. %
No of CD Blocks	3
No of Villages	331

Source: Census 2011

(extracted data of CD Blocks currently belongs to West Jaintia Hills)

4.2 Socio Economic Profile of Meghalaya-East Khasi Hills and Jaintia Hills Districts

4.2.1 Project District population and percentage of SC and ST

Following Table 4.2-1 presents project district Scheduled Tribe and Schedule Cast population and percentage.

Table 4.2-1: District wise population and percentage of SC and ST

State / district name	ST	SC	Others	Total	% ST	% SC	% others
Meghalaya	2,555,861	17,355	393,673	2,966,889	86.15	0.58	13.27
East Khasi Hills	661,158	5,642	159,122	825,922	80.05	0.68	19.27
Wesr Jaintia Hills	257,941	844	13,400	272,185	94.77	0.31	4.92

Source: Census 2011

(extracted data of CD Blocks currently belongs to West Jaintia Hills)

4.2.2 Poverty and Human Development scenario

Following Table 4.2-2 presents project district poverty and human development scenario.

Table 4.2-2: Poverty and Human Development scenario

District name	Total HH	BPL HH	BPL %	Rank in no. of BPL HH
East Khasi Hills	1,09,115	50,997	46.74	5
Jaintia Hills	49,771	19,663	39.51	7

Source: BPL Census, 2002

4.2.3 Project District per Capita Income

Following Table 4.2-3 presents project districts per capita income

Table 4.2-3: District wise Per Capita Income

Year	East Khasi Hills	Jaintia Hills
1999 - 2000	21,084	19,932
2003 - 2004	25,659	23,246
2007 - 2008	31,202	26,015

Source: Directorate of Economics & Statistics, Meghalaya

4.2.4 Human Development Index

Following Table 4.2-4 presents project district HDI.

Table 4.2-4: District wise HDI

State / District	Infant Mortality Rate	Literacy	Combined GER	NSDP Per Capita per current prise (₹)	HDI	HDI Rank
Meghalaya	52.28	63.31	62.87	17595	0.585	26*
East Khasi Hills	34.51	74.74	63.10	24793	0.676	1
Jaintia Hills	77.34	53.00	43.31	20405	0.469	5

*rank in country

4.2.5 Scheduled Tribe in Project Districts

80.05% of population in East Khasi Hills are Scheduled Tribes, of which 90.60% are Khasi or its ethno-historically related tribes. 95.97% of population in Jaintia Hills are Scheduled Tribes, of which 89.18% are Khasi, Jaintia or its ethno-historically close tribes.

Table 4.2-5: District wise Scheduled Tribes

State / District	All Schedule Tribes	Garo	Hajong	Khasi, Jaintia, Synteng, Pnar, War, Bhoi, Lyngngam	Koch	Any Kuki Tribes	Mikir	Raba, Rava	Other ST
Meghalaya	2,555,861	821,026	38,576	1,411,775	22,716	14,275	19,289	32,662	195,542
East Khasi Hills	661,158	23,481	3,244	599,025	445	2,810	3,339	410	28,304
Jaintia Hills	376,099	488	20	335422	3	8807	1026	23	30,310

(1) Khasi/ Jaintia Tribe

The term Khasi is applied to the group of matrilineal and Mon-Khmer speaking people who contemporarily inhabit the Khasi Hills and Jaintia Hills districts of Meghalaya State. It is generally considered by many Khasi sociologists that the Khasi Tribe consists of seven sub-tribes, hence the title '*Children of the Seven Huts*': Khyntiam, Pnar, Bhoi, War, Maram, Lyngngam and Diko. The Khyntiam (or Nongphlang) inhabit the uplands of the East Khasi Hills District; the Pnar or Syntengs live in the uplands of the Jaintia Hills. The Bhoi live in the lower hills to the north and north-east of the Khasi Hills and Jaintia Hills towards the Brahmaputra valley. The War, usually divided into War-Jaintia in the south of the Jaintia Hills and War-Khasi in the south of the Khasi Hills, live on the steep southern slopes leading to Bangladesh. The Marams inhabit the uplands of the West Khasi Hills Districts. The Lyngngam people who inhabit the western parts of the Khasi Hills bordering the Garo Hills display linguistic and cultural characteristics which show influences from both the Khasis to their east and the Garo people to the west.

The Jaintia tribe is in fact a sub tribe of the Khasis; With time, The Jaintias was befitted as a major tribe, because of their dominance in population and because of their inhabitation in a major part of the Khasi Hills and the whole of Jaintia hills area of the State. They are also known as "Pnar", they speak the Jaintia language which is different from the Khasi language.

Language: The Khasi language is believed to be one of the very few surviving dialects of the Monkumer family of languages in India.. The Khasi language was essentially oral until the arrival of Christian missionaries. Particularly significant in this regard was a Welsh evangelist, Thomas Jones, who transcribed the Khasi language into the Roman script. While the main language for communication is in Khasi, the sub tribes have dialects of their own, and usually communicate in Khasi only when they are communicating with another sub tribe and with the major tribe, referred to as the "khyntiam".

Religion: The Khasi people form the majority of the population of the eastern part of Meghalaya, and are the state's largest community. Though the majority of the 85.00 % Khasi populace have embraced Christianity, a substantial minority of the Khasi people still follow and practice their age old indigenous religion, which is known as "Ka Niam Khasi" and it is their belief that the rooster (U Syiar Khraw Jutang) is sacrificed as a substitute for man, it being thought that the rooster "bears the sins of men and

by its sacrifice, man will obtain redemption. A small number of Khasis, as a result of inter-community marriages, are also Muslims. There is also a very small number of Khasi Hindus inhabiting the Jaintia Hills of Meghalaya, a result of hundreds of years of exposure to the plains of Bengal and Assam.

Culture: The Khasis follow the matrilineal system of society. Here, the lineage of the tribe is traced through the woman. The children take the name of the mother and their children continue to do the same. Ancestral property is passed down to the youngest daughter (*kaKhatduh*), and to the daughter elder to the *Khatduh*, if the *Khatduh* dies or marries a non Khasi/takes the name of her husband. Although the woman in this society is secured with the ancestral property, it is the man, usually the eldest brother, or the maternal uncle who decides on the management of the property. The husband is the bread earner and holds the final decisions in matters of his immediate family, and also in his Mother's family as the maternal uncle. The Khasis follow the matri local type of residence, where the man stays in the woman's house after marriage.

Khasi and Jaintia Traditional Institutions is shown in Figure 4.2-1 and Figure 4.2-2 respectively.

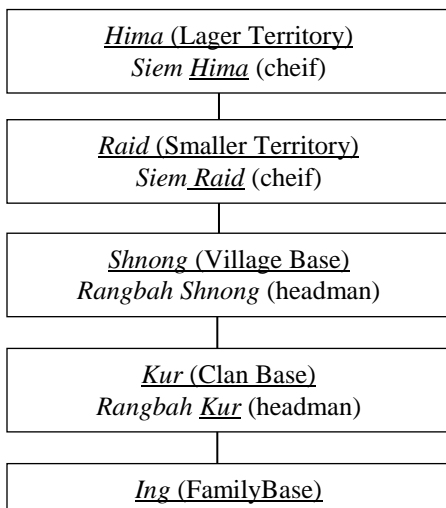


Figure 4.2-1: Khasi Traditional Institutions

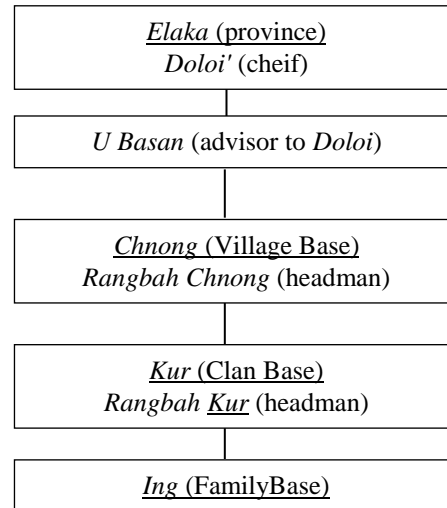


Figure 4.2-2: Jaintia Traditional Institutions

Source: B. K. Tiwari 'Institutional Arrangements for Preservation and Management of Community Forests of North-East India'

(2) Garo Tribe

In RAP survey, it was observed that a few Garo people could be affected by the Project. The Garo, of Tibeto-Burman origin, address themselves as *A'chik* or *Mande*. The Garo is matrilineal society, where the land can be only inherited through the women of the families. The traditional Garo religion includes the belief of supernatural spirits called *mite*. They believed that these spirits lived in the jungle and caused diseases. They also believed in important gods that overlooked the growth of the crops. Today, majority of the population have been converted to Christianity.

Garo Traditional Institutions is shown in Figure 3.

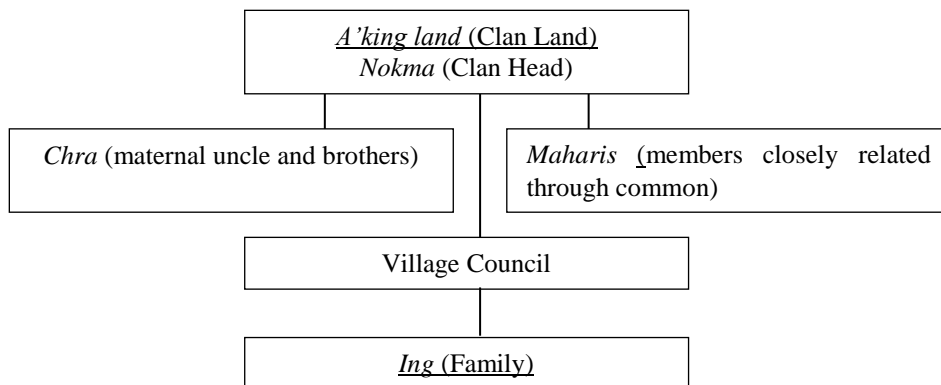


Figure 4.2-3: Garo Traditional Institutions

Source: B. K. Tiwari 'Institutional Arrangements for Preservation and Management of Community Forests of North-East India'

4.3 Social Profile of the Project Affected Households

4.3.1 Methodology of survey on PAHs

A socio economic profile of the PAH along the project road was conducted to gather insights over the people prevailing living conditions- social, economic and health. The survey is a method that helps the project understand the likely impact that the project may have on the people/community, living in the affected area. The North East Educational Development Society (NEEDS) a local NGO was contracted to undertake the survey.

The field Surveyors were trained before starting the survey; the interview questionnaire used for the survey was discussed in detail to avoid any misunderstanding in the field. The questionnaire/survey form used in the survey is shown in appendix.

- a) The survey utilized the standard interview schedule which was reviewed to fit the local situation. The interview was used to gather first hand information on the affected communities in the affected areas specifically the PAHs.
- b) Secondary information was gathered through literature and discussions with key informants in the project area such as the Local leaders, women groups, youth groups and PAPs.
- c) The field Surveyors was trained before starting the survey; the interview questionnaire used for the survey was discussed in detail to avoid any misunderstanding in the field. The questionnaire/survey form used in the survey is attached in Appendix A.
- d) The Survey was conducted based on the alignment provided, after identifying the affected houses along the project area.
- e) Probable affected houses were counted, along with other affected structures such as shops, workshops (brick making units, fabrication units etc), community hall/schools/religious structure etc.
- f) After the village *dorbar* consent, the survey was conducted by visiting the houses and interviewing the PAPs at their homes. The North East Educational and Development Society

(NEEDS) organized community meetings and met with headmen individually to apprise about the project and to seek support and cooperation for the survey. Prior to the survey the team paid frequent visits to the entire stretch of the project road to familiarize and identify affected areas, people and structures.

- g) The field survey team consisted of 7 surveyors, who were divided into 2 groups. The survey had been conducted for approximately 30 days from June to July, 2016 to cover PAHs along the alignment. Some survey in widening section 5 and BP 6&7, after BP 6&7 were conducted from October to November 2016 after consensus was obtained.
- h) The primary data collected was submitted for tabulation and analysis by the social expert.
- i) The Tree Counting was conducted by using Square Grid Method. The ROW according to the provided Map is determined and the Total Distance X Average Nos. of Trees is calculated to get the Total Tree Count.

Table 4.3-1: Summary of the Survey

Villages under the Project	Affected Villages	Affected Villages (excluding BP5)	Comments
Total villages under the project*	27	24	
Total HH with their Structures Affected	Affected HHs		Comments
Houses	307	291	
Shops	45	45	
Workshops	4	4	
Structures	1	1	
Total	313	297	44 HHs with both houses and shops affected
Other businesses	Affected HHs		Comments
Agricultural/open field	46	46	
Stone and sand quarry	14	14	
Betel nut Plantation owners	75	75	
Total PAHs	135	135	
Overall Total of PAHs	418	402	30 HHs with both structures and agricultural field.

* Pomlum village in Myllem Block, located at section of Riwma Bypass (Bypass No.2) overlapped with NH44E (Ch 7+700 to Ch 9+100), is excluded from the above since the section will be excluded from the Project component.

Source: JICA Study Team

Some issues on alignment status are as described below.

(1) Widening 1 (101 Area)

- Since the section is in defense area, agreement between NHIDCL and MOD will be required for land transfer. NHIDCL is attempting to obtain an official letter from MoD for certifying their “No Objection” against land transfer.
- The land will NOT be acquired under the LARR 2013, BUT will be transferred by MOD to NHIDCL (=NOT land acquisition).

- Approximately 7 house structures for canteen staff were observed in this section.
- Resettlement of 7 households will be done under the MOD's responsibility.
- When MOD request NHIDCL's financing for resettlement, payment will be given by NHIDCL based on the agreement above (should be clearly mentioned in the Agreement).
- Resettlement should be conducted, in line with JICA GL, and results should be monitored

(2) Widening 2 (Air Force Area)

- Since there are no affected residential/ commercial structures in this section, census is not planned to be conducted. However, approval from Eastern Air Command will be required for land acquisition.
- NHIDCL is attempting to obtain an official letter from Eastern Air Command (EAC) for certifying their "No Objection" against land transfer

(3) Bypass 2 (Banium)

- Due to objection against the originally proposed alignment from local residents, census has not been done in this section.
- Re-alignment for avoiding all house structures and one football ground was agreed with local residents through consultation meeting on 19 May, 2017.

(4) Bypass 5 (Urksew)

- Due to objection against the proposed alignment from local residents, census has not been done in this section.
- It has been proposed by DC, East Khasi Hills to go with existing alignment since the Sordor/Headmen are not agreed to go with proposed alignment of Bypass No. 5.
- The issue of Bypass No.5 needs further examination.

(5) Bypass 6&7 (Dawki)

- After census has been done in this section, some objections arose against the proposed alignment which affects Primary Health Center (PHC), compound of church and school ground, Border outpost of Border Security Force.
- Concerned local residents agreed on the proposed alignment and relocation of the PHC through public consultation meetings and accepted Joint Inspection on 20th May, 2017.
- NHIDCL is planning to reach agreement with Border Security Force (BSF) under Ministry of Home Affairs regarding the proposed alignment as well.

4.3.2 Affected Households

(1) Affected Households and PAPs

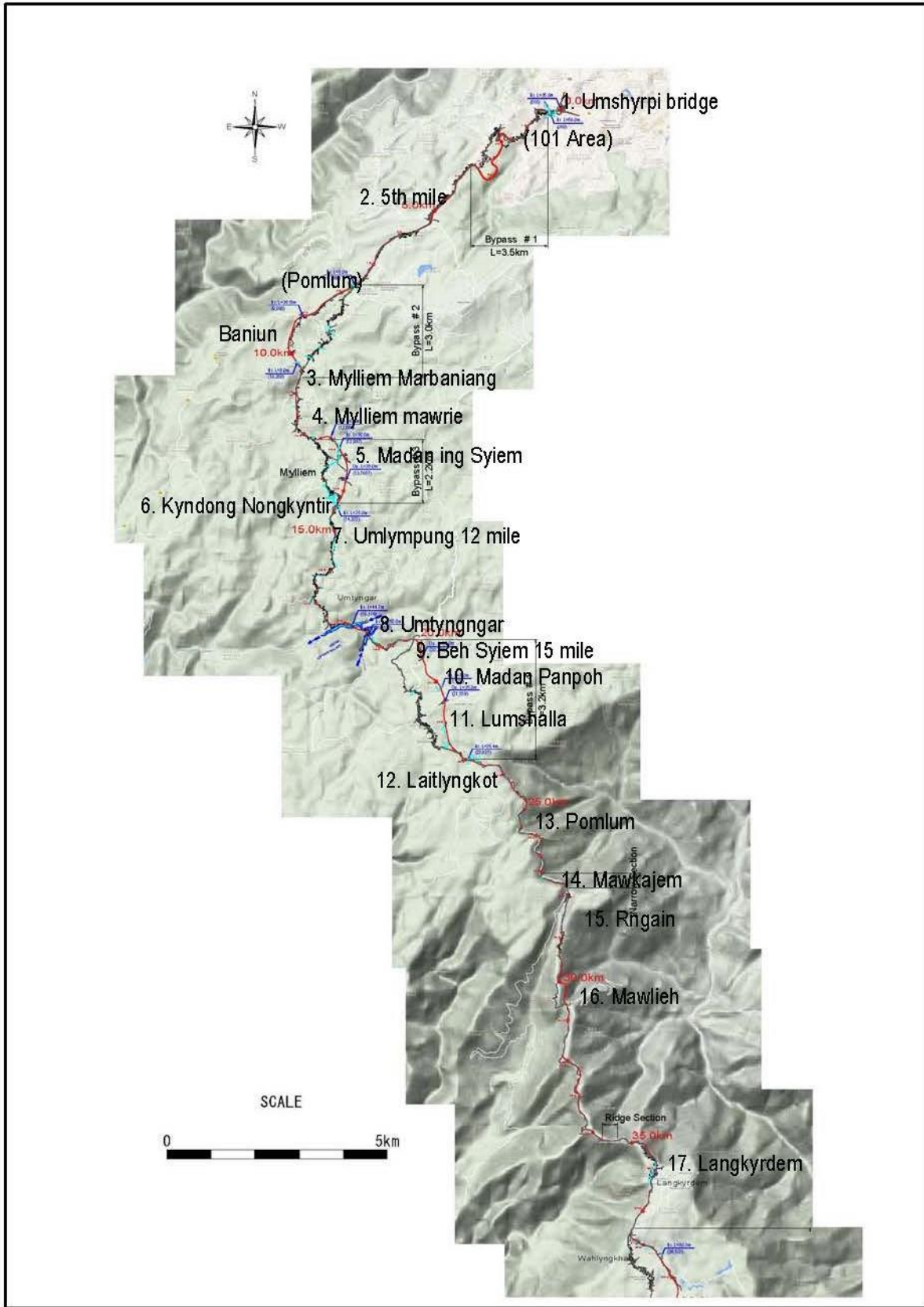
Altogether 402 HHs out of total 418 PAHs (total 402 HHs in case that BP5 is excluded from the Project) were interviewed as part of the household survey. Table 4.3-2 will indicate that there are 307 affected houses, 45 shops, 4 workshops, 1 other structures, 46 Agriculture fields, 14 stone quarry, 75 betel nut plantations. Number of population in surveyed 402 HHs were 2,057 while population in interviewed 291 HHs whose house structure would be affected were 1,343.

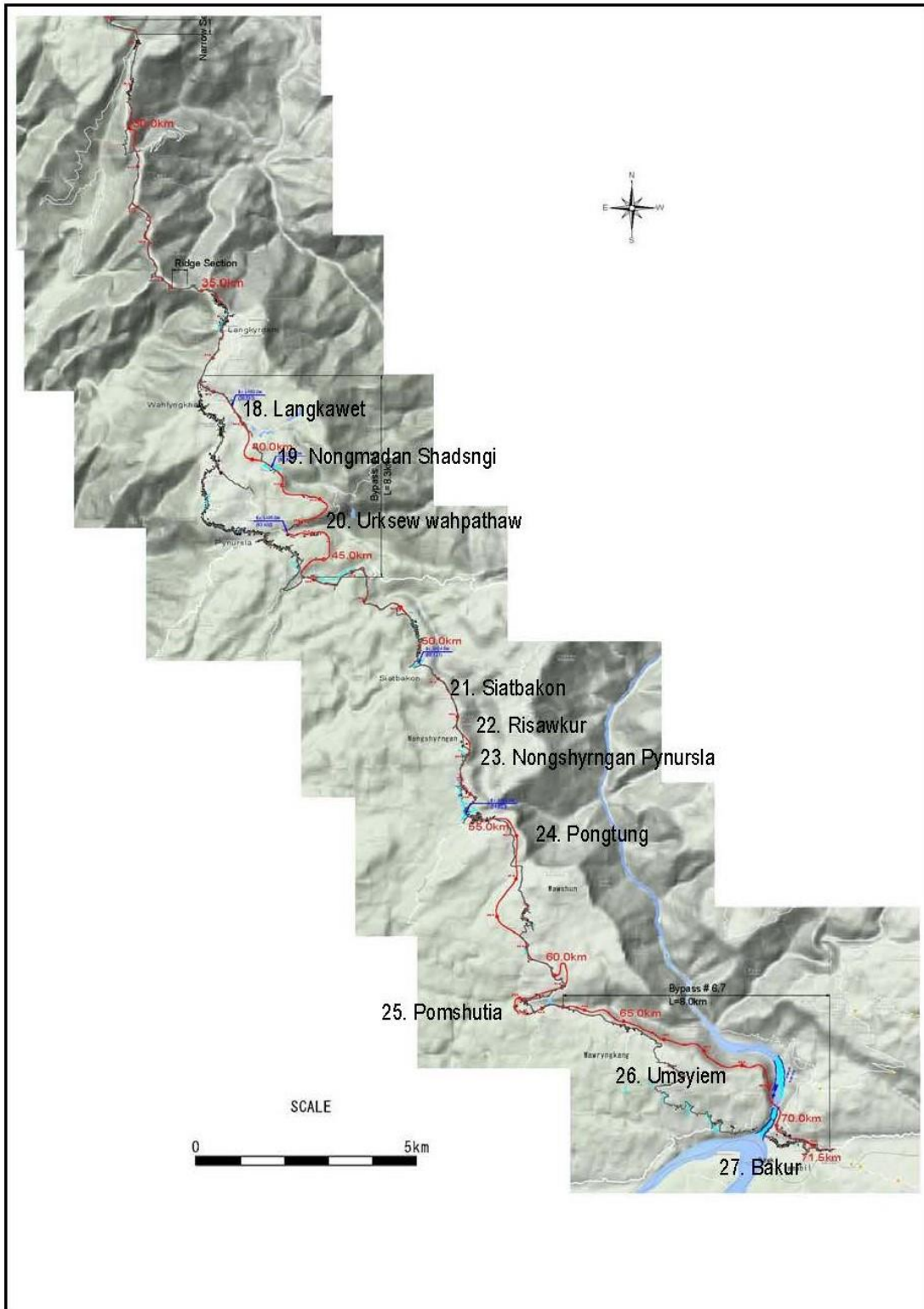
Table 4.3-2: Details of PAHs

District	Block	Section	Sl no	Villages Name	PAHs											Sub-total (Census conducted)	PAPs		
					Structure affected					Land affected					Total PAHs			(both structure /land affected)	
					HHs with house affected (number of house structure)	Shop	Workshop	Other Structure	Sub-total	(both house/ shop affected)	Agri-culture fields	Stone quarry	Betel nut Plantations	Sub-total					
East Khasi Hills	Mylliem	Widening 1	1	Umshyrpi bridge	11 (3)	-	-	-	11		-	-	-	-	11		11	48	
				101 Area															
		Widening 2	2	5 th mile	7	7	-	-	7	(7)	-	-	-	-	7		7	38	
		BP 2		Pomlum															
		Widening 3	3	Mylliem Marbaniang	1	2	1		4		8	6		14	18		18	57	
			4	Mylliem mawrie	1	-	-	-	1		1	-	-	1	1	(1)	1	4	
	BP 3	5	Madan ing Syiem	22 (19)	3	1	-	22	(4)	3	-	-	3	22	(3)	22	111		
		6	Kydong Nongkyntir	40	3	2	-	40	(5)	2	8	-	10	40	(10)	40	168		
	Khatarshnong Laitkroh	Widening 4	7	Umlympung 12 mile	20	3		20	(3)	-	-	-	-	20		20	95		
			8	Umtynngar	14	4	-	14	(4)	2	-	-	2	14	(2)	14	74		
		BP 4	9	Beh Syiem 15 mile	6	1	-	7		6	-	-	6	7	(6)	7	36		
			10	Madan Panpoh	1	-	-	1		1	-	-	1	1	(1)	1	9		
			11	Lumshalla	1	-	-	1		1	-	-	1	1	(1)	1	4		
			12	Laitlyngkot	3	1	-	3	(1)	-	-	-	-	3		3	17		
	Pynursla	Widening 5	13	Pomlum (Pynursla)	8	2	-	8	(2)	-	-	-	-	8		8	46		
			14	Mawkajem	6	2	-	6	(2)	-	-	-	-	6		6	30		
			15	Rngain	-	2	-	2						-	2		2	7	
			16	Langkyrdem	4	-	-	4		-	-	-	-	4		4	24		
		BP 5	17	Langkawet	1	-	-	1		-	-	-	-	1		-			
			18	Nongmadan Shadsngi	1	-	-	1		-	-	-	-	1		-			
			19	Urksew wahpathaw	14	-	-	14		-	-	-	-	14		-			
		Widening 6	20	Siatbakon	33	11	-	33	(11)	5	-	-	5	35	(3)	35	169		
			21	Risawkur	4	-	-	4		3	-	-	3	7		7	29		
			22	Nongshyrngan Pynursla	22	-	-	22		2	-	-	2	22	(2)	22	85		
	23		Pongtung	35	4	-	35	(4)	2	-	-	2	36	(1)	36	160			
	24		Pomshutia	24	-	-	24	(1)	-	-	-	-	24		24	97			
25	Wahkdait		-	-	-	-					53	53	53		53	448			
BP 6&7	26	Umsyiem	-	-	-	-		-	-	16	16	16		16	104				
	27	Bakur	28	-	-	28		10	-	6	16	44		44	197				
West Jaintia Hills	Amlarem	after BP 6&7	27	Bakur	28	-	-	28		10	-	6	16	44		44	197		
				TOTAL	307 (296)	45	4	1	313	44	46	14	75	135	418	30	402	2,057	

101 Area belongs to defense area, which subject to land transfer from Ministry of Road Transport and Highways to Ministry of Defense.
 Pomlum village in Myllyem Block, located at section of Bypass No.2 overlapped with NH44E (Ch 7+700 to Ch 9+100) will be out of the Project.
 Survey has not been done in three villages in Bypass No.5, highlighted in pink.

Source: JICA Study Team





Source: JICA Study Team

Figure 4.3-1: Affected Villages

(2) Gender distribution

The total number of PAPs surveyed is 2,057, of which males are 49.3% and females are 50.7%.

(3) Social category

The social category of the surveyed 402 HHs is shown for each block in the table below. As aforementioned in the district background, majority of the PAPs belong to the Scheduled Tribe 96.5%, 1.0% belong to the Scheduled caste.

Table 4.3-3: Social category

District	Block	ST	SC	OBC	Others	Total
East Khasi Hills	Myllem	89	1	0	9	99
	Khatarshnong Laitkroh	44	2	0	0	46
	Pynursla	211	1	0	1	213
West Jaintia Hills	Amlarem	44	0	0	0	44
Total		388 (96.5%)	4 (1.0%)	0 (0.0%)	10 (2.5%)	402

Source: JICA Study Team

(4) Ethnicity background

The ethnic background of the surveyed 402 HHs is shown for each block in the table below. The table show that majority of people in the East Khasi hills are from the Major Khasi tribe. PAHs along the project road are mostly Khasi 85.1%, 11.0% are from the Jaintia Tribe, and 0.2% are Bengalis, 1.7% for Nepalese and 0.5% for Garo respectively.

Table 4.3-4: Ethnicity background

District	Block	Khasi	Jaintia	Garo	Nepali	Bengali	Others	Total
East Khasi Hills	Myllem	87	0	0	6	0	6	99
	Khatarshnong Laitkroh	44	0	1	1	0	0	46
	Pynursla	211	0	1	0	1	0	213
West Jaintia Hills	Amlarem	0	44	0	0	0	0	44
Total		342 (85.1%)	44 (11.0%)	2 (0.5%)	7 (1.7%)	1 (0.2%)	6 (1.5%)	402

Source: JICA Study Team

(5) Religion:

The religious breakdown of the surveyed 402 HHs is shown block-wise in the table below. A majority of 74.6% of the PAPs are Christians, followed by 20.2% of the PAPs who follow the indigenous religion known as the Niam Khasi. 3.0% are Hindus and 2.2 % are Buddhists.

Table 4.3-5: Religion

District	Block	Christian	Buddhist	Hindu	Muslim	Others	Total
East Khasi Hills	Mylliem	83	0	12	0	4	99
	Khatarshnong Laitkroh	13	6	0	0	27	46
	Pynursla	160	3	0	0	50	213
West Jaintia Hills	Amlarem	44	0	0	0	0	44
Total		300 (74.6%)	9 (2.2%)	12 (3.0%)	0 (0.0%)	81 (20.2%)	402

Source: JICA Study Team

(6) Education Level of PAPs:

Education Level of PAPs is as shown in below.

23.6% of the PAPs have had no education at all. About a quarter, 28.6%, have had lower primary education, 6.7% have had upper primary, 28.4% have had lower secondary and 6.7% have had upper secondary. Only 1.5% of the PAPs have completed college or graduate school. Understanding the level of education of PAPs helps the project to determine the kind of implementation.

Table 4.3-6: Education Level

Distri ct	Block	No Education	Lower Primary	Complete Upper Primary	Lower Secondary	Complete Upper Secondary	Not complet-ed college	Graduate or Higher	No response	Total
East Khasi Hills	Mylliem	16	11	4	42	13	3	4	6	99
	Khatarsh nong Laitkroh	21	14	2	8	1	0	0	0	46
	Pynursla	51	72	21	45	13	3	2	6	213
West Jaintia Hills	Amlarem	7	18	0	19	0	0	0	0	44
Total		95 (23.6%)	115 (28.6%)	27 (6.7%)	114 (28.4%)	27 (6.7%)	6 (1.5%)	6 (1.5%)	12 (3.0%)	402

Source: JICA Study Team

(7) Occupation

The Table 4.3-7 below indicates that majority of the PAPs are self-employed – 53.2%. As mentioned men and women in the project area are more incline to earn livelihood through self-employment such running a shop (tea, grocery, vegetables etc), manage a sand or stone quarry, private transport for tourists etc. 27.1% earn through agriculture, growing vegetables in their own garden or a bigger land attached to their homes. 4.0% are in government services and 3.2% are unskilled laborers.

Table 4.3-7: Occupation

Dist.	Block	Agriculture/ Allied Agriculture	Dairy	Household /cottage Industry	Self Employed	Skilled Profession	Unskilled Labor	Private Service	Gov. Service	Other/ No response	Total
East Khasi Hills	Myllichem	9	0	2	65	2	1	0	11	9	99
	Khatarshnong Laitkroh	11	1	2	22	1	3	0	1	5	46
	Pynursla	70	1	2	103	0	9	3	4	21	213
West Jaintia Hills	Amlarem	19	0	0	24	0	0	0	0	1	44
Total		109 (27.1%)	2 (0.5%)	4 (1.5%)	214 (53.2%)	3 (0.8%)	13 (3.2%)	3 (0.8%)	16 (4.0%)	36 (8.9%)	402

Source: JICA Study Team

(8) Total monthly household income of H/H from all sources :

Table 4.3-8 below indicates the total monthly income of the PAH. 12.7 % of the PAPs have a monthly income that falls within Rs 7,001-9000/- followed by those earning between Rs 5,001 to 7,000. Only 0.7% earn a monthly income that is below Rs 1000/-, while 17.4% have a total monthly income that is above Rs 21,000/-.

Table 4.3-8: Total monthly household income of H/H from all sources (INR/month)

Dist.t	Block	Below 1000	1001 - 3000	3001 - 5000	5001 - 7000	7001 - 9000	9001 - 11000	11000 - 13000	13001 - 15000	15001 - 17000	17001 - 19000	19001 - 21000	above 21000	No res- ponse	Total
East Khasi Hills	Myllichem	0	0	5	11	14	8	7	8	7	0	8	24	7	99
	Khatarshnong Laitkroh	0	1	14	8	9	4	2	2	1	0	1	4	0	46
	Pynursla	3	3	22	26	24	20	6	7	11	20	26	32	13	213
West Jaintia Hills	Amlarem	0	0	5	4	4	9	5	5	1	1	0	10	0	44
Total		3 (0.7%)	4 (1.0%)	46 (11.4%)	49 (12.2%)	51 (12.7%)	41 (10.2%)	20 (5.0%)	22 (5.5%)	20 (5.0%)	21 (5.2%)	35 (8.7%)	70 (17.4%)	20 (5.0%)	402

Source: JICA Study Team

(9) Number of employed members in a PAH.

Out of 2,057 PAPs, 39.3% are employed and 11.1% are unemployed, while 11.3% are involved in housework.

Table 4.3-9: Number of employed members in a PAH

District	Block	Employed	Unemployed	Housework	Students	unknown	Total
East Khasi Hills	Myllem	160	51	47	168	0	426
	Khatarshnong Laitkroh	87	35	17	96	0	235
	Pynursla	479	130	133	434	23	1,199
West Jaintia Hills	Amlarem	84	13	35	66	0	197
Total		809 (39.3%)	229 (11.1%)	232 (11.3%)	764 (37.1%)	23 (1.1%)	2,057

Source: JICA Study Team

(10) Public amenities:

Table 4.3-10 indicates that 86.8 % of PAHs are connected to power supply. However it is learnt that the supply of power is not regular and people continue keep traditional lanterns to light their homes. Hence, a large number of people continue to use firewood to cook their food.

Toilets are available with 85.8% of the affected people.

Table 4.3-10: Public amenities

Public infra	Available	Not available	No response
Electricity	86.8%	1.7%	11.5%
Toilets	85.8%	4.5%	9.7%
House condition	-	-	-

Source: JICA Study Team

(11) Cooking fuel

People in remote Meghalaya, and in reference to this area where the project will be implemented, continue to use firewood and charcoal as a source of fuel for cooking and also for heating. Firewood is still used as fuel for cooking. There are few people using gas for cooking fuel.

Shops that sell tea and local food are also more inclined to use charcoal or firewood as cooking fuel. One of the common reasons for this trend, is the inconsistent supply of power supply in the area and the belief that food and tea tastes much better when cooked slowly over firewood or charcoal.

(12) Water source

The community along the project area does not have a total house connection of water supply. Only A few PAHs have the luxury of -direct to house water connection. The almost PAHs have to depend on other alternatives of water supply which is mostly private supply stored in a tank within their compound (water is bought from private suppliers , or the PAPs themselves collect the water from the source- river, rock/hillocks.) Less than 20% the PAPs collect water from stand post (the community main source through the hand pump or the community tap.)

(13) Livestock

About 30% of the PAPs own or rear livestock, which includes cows, pigs, poultry sheep and goats. It is apparent that almost half the number of PAPs are continuing with traditional practices of rearing livestock at home. The main animal reared by the PAP is the pig, the poultry, and cattle. These animals are reared both for income generation purpose and also for own consumption. Livestock farming of the PAPs is not very feasible, due to lack of space, capital and time, yet it continues because beside for own consumption, livestock farming is a way of life to the tribal group in the State of Meghalaya.

(14) Health

Diseases such as diarrhea cold and flu seem to be the most common that people in the project area gets affected from. A few had suffered from Leukemia. Both Government and private Hospitals are accessed by the PAPs, depending upon the severity of the disease. Local traditional practitioners on various counts are the primary referral where people feel convenient to go to because of availability and flexibility.

(15) Ownership of houses/ Land ownership:

The ownership of houses/shops indicates 81.1% are self-owned and 13.4% are staying on rent. Majority is 37.8% HHs of private land out of 402 HHs, followed by 34.3% of village council pass.

Table 4.3-11: Ownership of Structure

District	Block	Owned	Rented	No response	Total
East Khasi Hills	Myllem	52	27	3	82
	Khatarshnong Laitkroh	39	5	1	45
	Pynursla	124	3	12	136
West Jaintia Hills	Amlarem	24	4	0	28
Total		236 (81.1%)	39 (13.4%)	16 (5.5%)	291

Source: JICA Study Team

Table 4.3-12: Land System

District	Block	Private Land with Land Settlement Certificates	Periodic Patta	Home Site	Village Council Pass	Gov. Land (defence/cantonment)	Others	No response	Total
East Khasi Hills	Myllem	48	15	1	5	11	1	18	99
	Khatarshnong Laitkroh	24	2	14	0	0	5	1	46
	Pynursla	56	14	7	118	0	7	11	213
West Jaintia Hills	Amlarem	24	2	0	15	0	0	3	44
Total		152 (37.8%)	33 (8.2%)	22 (5.5%)	138 (34.3%)	11 (2.8%)	13 (3.2%)	33 (8.2%)	402

Source: JICA Study Team

(16). Vulnerability:

17.9% of HHs are headed by a female. 21.6% of HH are headed by the persons over 55 years old. 13.2% are BPL.

Table 4.3-13: Vulnerability

District	Block	Female HH	HH above 55	Minority	Below Poverty Line	Total Vulnerable	Total HHs
East Khasi Hills	Mylliem	36	20	6	5	54	99
	Khatarshnong Laitkroh	3	11	1	15	26	46
	Pynursla	28	42	1	28	85	213
West Jaintia Hills	Amlarem	5	14	0	5	21	44
Total		72 (17.9%)	87 (21.6%)	8 (2.0%)	53 (13.2%)	171 (46.3%)	402

Source: JICA Study Team

4.3.3 Socio-economic status of villages in BP2 and BP5

Northern half of Riwmawnew Bypass (Bypass No.2) , the section overlapped with NH44E (Ch 7+700 to Ch 9+100) , will be excluded from the Project component. Pynursla Bypass (Bypass No.5) might be excluded from the Project component as the alignment has been not yet agreed with local residents.

Outline of socio-economic status of Pomlum located in Bypass No. 2, and Langkawet, Nongmadan Shadsngi, Urksew Wahpathaw located in Bypass No.2 is as shown below.

Table 4.3-14: Socio-economic status of villages in BP2 and BP5

District	Block	Village	Location	Scheduled Cast	Scheduled Tribe	Literacy	Work Population	Work		
								Agriculture	HH industry	Other
East Khasi Hills	Mylliem	Pomlum	BP2	0.6%	91.5%	80.5%	34.5%	18.4%	2.7%	78.9%
	Pynursla	Langkawet	BP5	0.0%	100.0%	68.2%	31.0%	69.0%	0.0%	31.0%
		Nongmadan Shadsngi	BP5	0.0%	100.0%	89.0%	37.3%	10.9%	0.6%	76.7%
		Urksew Wahpathaw	BP5	0.1%	99.8%	88.1%	32.7%	15.6%	2.7%	76.8%

Chapter 5 SOCIAL IMPACT OF THE PROJECT

5.1 Introduction

The project aims at contributing to the economic development of the people. With economic development and better roads the impact on the people might be both positive and negative. Positive because people's standard of living will be raised through connectivity and better opportunities in business trade and commerce, yet the negative impact can also surface in terms of vulnerability of the community in being exposed to highway activities, lifestyle change and inability to adjust positively to the entire change. Health of the community may also be affected during the construction period, given that the work will carry on for many years.

Identification of adverse impacts, and developing an approach in reducing such impacts should be done from the initial stage of the project (preparation and planning); this will help shape the project into one that is efficient and socially sustainable.

5.2 Impact of Affected Households and Structures

HHs whose residential or commercial structures, and/or lands can be touched by proposed ROW, are regarded as PAHs in this RAP report. Summary of ROW is as shown below though the PAHs were identified on the ground based on DPR drawings indicating detailed ROW.

Table 5.2-1: Impact of Affected Households and Structures

Two-laning including bypasses	ROW (m)
General sections	30
Hilly sections with sharp curves	24
Built-up sections	20
High slope sections	As much as required

Source: JICA Study Team

The Project shall impact houses of 307 households. Out of surveyed 291 households, 81.1% are self-owned and 13.4% households are rented.

Table 5.2-2: Impact of Affected Households and Structures

SI No	Affected structures	No.	No. without BP 5	description
1	Houses	307	291	Houses of PAHs
2	Shops	45	45	Tea shops, eateries, grocery
3	Workshops	4	4	Block making , iron /steel units
4	Other Structures	1	1	Bus stands, church –school compounds/walls

Source: JICA Study Team

5.3 Impact on Land

The Project road is a length of 84km on existing road and 71.5 km after realignment based on the DPR.

Besides requirement of Land for widening and improvement work, the project will require additional land area for disposing surplus soil and setting up labour camps, construction machineries and the like, and this will take place in different junctions of the entire stretch of the project road. Site required for disposing surplus soil is estimated to be 52.8ha (38.88ha without Bypass No.5) considering volume of surplus soil will be 6,965,465m³ (4,354,568m³ without Bypass No.5).

It is essential therefore that the implementation plan includes the planning for identifying the land/area for the above activities, and also to settle the fundamentals of permission, rent arrangements/understanding with owners or acquisition of the required land as per rules. Though identification and compensation for the disposing site of surplus soil and site for labour camps is under the responsibility of contractor and the survey is not covered in this report, equivalent compensation policy shall apply to the land acquisition.

Land use of the site of this project is as shown below.

Table 5.3-1: Affected Land

Village name	Type of land	Number of structure	Affected land Unit (m²)	
1	Umshyrpi bridge	Residential Area	3	700
2	5th mile	Residential/ commercial Area	7	315
3	Myllem Marbaniang	Stone quarry	6	1,250
		Residential/ commercial Area	4	1,200
		Agriculture field	-	1,800
		Fruits Garden	-	250
4	Myllem mawrie	Residential Area	-	800
5	Madaning Syiem	Residential/ commercial Area	19	1,140
6	Kyndong Nongkyntir	Agriculture field	-	1,800
		Sand quarry	5	8,750
		Forest	1	50
		Residential/ commercial Area	28	13,930
		Petrol Pump	1	100
7	Umlympung 12 mile	Residential Area	20	3,910
8	Umtynngar	Residential Area	14	5,250
9	Beh Syiem 15 mile	Residential Area	7	30,250
10	Madan Panpoh	Residential Area	1	2,200
11	Lumshalla	Residential Area	-	-
12	Laitlyngkot	Residential Area	3	123,000
13	Pomlum (Pynursla)	Residential Area	8	650
14	Mawkajem	Residential Area	6	430
15	Rngain	Commercial Area	2	270
16	Langkyrdem	Residential Area	4	500
17	Langkawet	Residential Area	Under	
		Agriculture field	survey	
18	Nongmadan Shadsngi	Residential Area	Under	
		Agriculture field	survey	
19	Urksew wahpathaw	Residential Area	Under	
		Agriculture field	survey	
20	Siatbakon	Residential/ commercial Area	32	4,840

Village name		Type of land	Number of structure	Affected land Unit (m ²)
21	Risawkur	Residential Area	4	6,050
		Open space	-	8,650
22	Nongshyrngan Pynursla	Residential Area	4	3,120
		Open space	-	400
23	Pongtung	Forest	1	600
		Residential/ commercial Area	31	3,270
24	Pomshutia	Forest	1	175
		Agriculture field	1	175
		Residential/ commercial Area	21	370
25	Whakdait	Plantation	-	180,330
26	Umsyiem	Plantation	-	148,530
27	Bakur	Residential Area	21	5,710
		Plantation		19,500
		Agricultural Land		11,700

Majority is 37.8% HHs of private land out of 402 HHs, followed by 34.3% of village council pass.

Table 5.3-2: Land System

District	Block	Private Land with Land Settlement Certificates	Periodic Patta	Home Site	Village Council Pass	Gov.Land (defense/ cantonment)	Others	No response	Total
East Khasi Hills	Mylliem	48	15	1	5	11	1	18	99
	Khatarshnong Laitkroh	24	2	14	0	0	5	1	46
	Pynursla	56	14	7	118	0	7	11	213
West Jaintia Hills	Amlarem	24	2	0	15	0	0	3	44
Total		152 (37.8%)	33 (8.2%)	22 (5.5%)	138 (34.3%)	11 (2.8%)	13 (3.2%)	33 (8.2%)	402

Source: JICA Study Team

5.4 Impact on trees and crops.

The entire stretch of the project road has a large number of trees, vegetable, and paddy fields. The State Government Agriculture Department, Horticulture Department with their fields of vegetables, flowers and fruits and Tea, are all located along the project road. Since the ROW is not yet finalized the surety that these areas will be affected is yet to be final. However, every measure will be taken that vegetation, trees, crops are preserved and minimal damage is done.

Towards the end of the project road, starting from Wahlynkhat to Dawki, a series of Arecanut plantation is seen along the project area. Arecanut trees are a major source of income for the people in this area. The widening and improvement plan will be affecting these trees and the land. Approaches to restore the loss of the trees is vital to reduce the adverse impact of the project.

Affected Trees is as shown in Table 5.4-1 and crops is as shown in Table 5.4-2.

Table 5.4-1: Affected Trees

Village name	Type	Number
1 Umshyrpi bridge	-	0
2 5th mile	-	0
3 Myllem Marbaniang	Small tree	1,475
	Medium tree	15
	Fruit	5
4 Myllem mawrie	Plum tree	6
5 Madaning Syiem	-	0
6 Kyndong Nongkyntir	Small tree	16
	Fruit	48
7 Umlympung 12 mile	-	0
8 Umtynngar	Plum tree	7
	Fruit	4
9 Beh Syiem 15 mile	-	0
10 Madan Panpoh	-	0
11 Lumshalla	Fruit	20
12 Laitlyngkot	-	0
13 Pomlum (Pynursla)	-	0
14 Mawkajem	-	0
15 Rngain	-	0
16 Langkyrdem	-	0
17 Langkawet	Under Survey	
18 Nongmadan Shadsngi	Under Survey	
19 Urksew wahpathaw	Under Survey	
20 Siatbakon	Small tree	10
21 Risawkur	Pine tree	3
22 Nongshyrngan Pynursla	Small tree	10
23 Pongtung	Fruit	10
24 Pomshutia	N/A	
25 Wahkdait	Small tree	17,401
	Medium tree	4,406
26 Umsyiem	Small tree	8,334
	Medium tree	1,361
27 Bakur	Betel nut	700

Source: JICA Study Team

Table 5.4-2: Affected Crops

Village name	Type	Number
1 Umshyrpi bridge	-	0
2 5th mile	-	0
3 Myllem Marbaniang	-	0
4 Myllem mawrie	-	0
5 Madaning Syiem	-	0
6 Kyndong Nongkyntir	Paddy	50,000
	Vegetable	120,000
7 Umlympung 12 mile	N/A	
8 Umtynngar	Crop	20,000
9 Beh Syiem 15 mile	-	0
10 Madan Panpoh	-	0

	Village name	Type	Number
11	Lumshalla	Crop	20,000
12	Laitlyngkot	-	0
13	Pomlum (Pynursla)	-	0
14	Mawkajem	-	0
15	Rngain	-	0
16	Langkyrdem	-	0
17	Langkawet	Under Survey	
18	Nongmadan Shadsngi	Under Survey	
19	Urksew wahpathaw	Under Survey	
20	Siatbakon	Pumpkin	20,000
		Vegetable	120,000
21	Risawkur	Crop	108,000
22	Nongshyrngan Pynursla	Crop	20,000
23	Pongtung	Crop	120,000
24	Pomshutia	Crop	-
25	Wahkdait	Betel nut	6,370,000
26	Umsyiem	Betel nut	4,050,000
27	Bakur	Betel nut	1,982,000

Source: JICA Study Team

5.5 Social Impacts

5.5.1 Involuntary Resettlement

As per the preliminary ROW design, the project will affect structures of 313 households (307 with houses, 45 with shops, 4 with workshops and 1 with other structures, where some households are overlapped). The public structures of school and church, resort etc, shall be only partially affected in terms of land and not in terms of building. The total number of people with their structures affected is approximately 1,500 though some of the households will not be subject to eternal resettlement.

5.5.2 Land Use

The project will lead to significant-scale change in land use especially on bypass sections. Moreover, development of resettlement site to accommodate relocated households and construction of spoil bank is likely to cause changes in land use pattern, potentially affecting existing agricultural and plantation activities.

For sections where NH40 passes through community forest*, jhum area and plantation, engineering work should be scheduled in a way that minimizes disruption of access to such areas by local people. At the same time, proper management of effluent and soil erosion shall be carried out to avoid negative impact on such resources.

*“Community forest” means the forest which belongs to single village/council or several group of villages/councils and can be categorized into three types; a) village forest, b) protected forest or “Adong”, the forest to be more protected than usual village forest and c) sacred forest, the forest protected based on peoples’ belief. Sacred forest would not be affected by this Project as described in 5.5.10.

5.5.3 Local Economy and Livelihood.

One of the major outcome from the project will be the increased business ventures and opportunities that the area will be exposed to. In terms of tourism, social events and increased trade and commerce with neighboring villages and the State as a whole. The people along the project road especially towards the end, are very enterprising and it is expected that the project will be taken advantage of very positively.

While the project overall will have significant positive impacts on the local and regional economy, the better transport network may put some groups at risk at least in the short and medium-term.

5.5.4 General, Regional/City Plans

The project will create new opportunities for village and district-level development planning. In particular, the construction of spoil bank will create large area of flat land where such surface is a scarce commodity. The development of spoil bank, therefore, should be coordinated with the village/district's development plan so that the land will benefit the community. Similarly, development of resettlement site should be well coordinated with village development plan to ensure proper supply of basic utilities and integration of new sites with the existing village area.

5.5.5 Social Institutions and local decision making institutions

Meghalaya is a state predominantly inhabited by the Scheduled Tribe. The traditional leaders/Headmen, the *Durbar Shnong* and chieftains, must be involved in decision making process of the project from the Planning stage. Their support and influence can help make the project be executed smoothly with reduced impediments. The activities of RAP and R&R should be built on existing social institutions; the local people are the best guide and have the expertise to guide the project based on their traditions and cultures. To minimize potential disturbance and avoid the risk of conflicts, however, the resettlement will be planned within the village where relocation takes place.

5.5.6 Social infrastructure and services

The Shillong-Dawki road is the connecting road not only to the people along the area, but is also the connecting road that is being used every day by people from Shillong who attend work/Office in various blocks and sub divisions. The road also serves as the connecting link for school and college going children in the periphery of the Shillong (BP 1 and 2) who attend school in the main part of Shillong. The construction period will affect the aforementioned activities greatly; hence preparations must be made before implementation period to minimize the adverse effect. Discussions and assistance can be taken with District Authorities and link with the traffic police. Any construction activity that may require road blockade, the community must be made aware at least 24 hours in advance.

Noise pollution will be at the highest especially for those who reside in the junctions where all the machinery are kept. Noise Guards should be erected to minimize sound and also to reduce air pollution in the homes of the local residents.

5.5.7 Unequal Distribution of Benefit and Damage and Local Conflicts of Interest

Roadside location offers critical advantages for local businesses (tea stalls, restaurant, petty shops). Resettlement from roadside to inner part of the village may significantly undermine the viability of these businesses, and therefore, business owners to be affected may be worse off compared with farmers to be relocated. Likewise, allocation of plot in resettlement site may become a source of conflicts among affected households who wish to be relocated to more advantageous plots. Sound arbitration and conflict resolution mechanism by local leaders should be in place for smooth implementation of RAP and R&R activity.

5.5.8 Water Usage, Water Rights, and Communal Rights

The Khasi tribal community which inhabit the major segment of NH 40 from Shillong to Dawki falling within East Khasi Hills District and in certain segments of NH 40 falling within West Jaintia Hills District, particularly in proposed Bypass 6&7, are inhabited by the Pnars or Jaintia tribes. Both the communities have maintained a close symbiotic relationship with the environment since time immemorial and whose ethno-cultural traits have been greatly influenced by the natural surroundings. Like any other tribal group, Khasis and Jaintias have a very close affinity to nature. Forest which is an important component of nature is intricately linked to the daily life of both the tribes.

Water sources, which are mostly located within forest and vegetation, since the tree and all varieties of forest cover act as catchment for recharging the aquifers and replenishing ground water level as sources of water supply to water sources including natural springs and small rivulets, traditional systems of conserving and sustaining all such sources have been practised for generations by both the tribes. This tradition continues even today.

Communal Rights: Over 93% of forest area within Meghalaya fall under the jurisdiction of the Autonomous District Councils and governed by The United Khasi-Jaintia Hills Autonomous District(Management and Control of Forests)Act, 1958.

In this act too as per provision Section 3 – Classification of forest (b) (iii) there is a specific categorization/type – Law –adong and Law-shnong which defines : *These are village forests hitherto reserved by the villagers themselves for conserving water, etc for the use of the villages and managed by the Sirdars or headmen with the help of village durbar.*

Further under category Green Block – b(v) – *These are forests belonging to an individual family or clan or just clans and raj lands declared as Green Block by Government for aesthetic beauty and water supply of the town of Shillong and its suburbs and also forests that may be so declared by rules under this Act.*

5.5.9 Cultural and Historical Heritage

No sites of cultural or historical significance have been identified along the project road except some monoliths which may be relocated in consultation with local people.

5.5.10 Religious and sensitive Facilities

Access to religious structure, such as Church, temple, mosque may be rendered difficult because of the construction. People should not be stopped from attending their religious duties because of the construction. Majority of the people in the project area are Christians, they will go to church every Sunday and other weekdays when necessary. Access to these places must be temporarily built for this matter.

Sacred Groves

Sacred forests are an integral part of the Khasi culture and beliefs. Sacred forests are found in various parts of the State, wherein clans, traditional heads/dorbar, declare a section of their forests as sacred and revered as a place of sanctity. People who visit these forests are warned not to misuse or abuse the forest creatures and vegetation. The sacred grove in Mawphlang is one such grove and is located near the Project road, a few Kms away from Pomlum village. It is one of the largest and oldest sacred groves in the State. The Mawphlang Sacred grove will not be affected by this project.



Source: JICA Study Team

Figure 5.5-1: Location of Sacred Groves along NH40


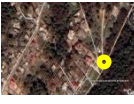









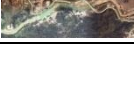




Table 5.5-1 Sacred Groves in East Khasi Hills and Jaintia Hills

Name	Location	Area (Ha)	Name	Location	Area (Ha)
District - East Khasi Hills			District - Jaintia Hills		
Diengkain	Wmwai	400.0	Blai Law	Raliang	50.0
Diengliengbah	Rngiksheh	0.50	Dpepat Myndihati	Sutnga	15.0
Ingkhrum	Cherrapunji	0.25	Ka Pun Lyngdoh	Raliang	15.0
Ingkhrum	Cherrapunji	0.25	Khlaw Blai	Dien Shynrum	15.0
Kharai Law Lyngdoh	Nongkhieng	150.0	Khlaw Byrsan	Raliang	50.0
Khlaw Ram Jadong	Mawsmi	50.0	Khloo Lyndoh	Jowai	15.0
Kynsang	Mawlong	150.0	Khloo Paiu Ram Pyrthai	Jowai	150.0
Law Adong	Mawsmi	400	Law Kyntang	Shanpung	400.0
Law Adong Laitryngkew	Laitryngkew	20.00	Lawianlong	Jowai	12.0
Law Adong, Khlieh Shnong	Cherrapunji	90.0	Lumtiniang Mokaiaiw	Syndai	25.0
Law Blei Beh	Mawsmi	120.0	Mokhain	Jowai	45.0
Law Dymmiew	Sohrarim	200	Poh Lyndoh	Shanpung	30.0
Law Kyntang, Khlieh Shnong	Cherrapunji	90.0	Poh Moorang	Raliang	20.0
Law Lieng	Sohrarim	20.0	Poh Puja Ko Patti	Raliang	4.0
Law Lyngdoh	Mawphlong	75.0	Trepale Jowai	Jowai	70.0
Law Lyngdoh Lyting Lyngdoh	Lyntilew	100.00			
Law Lyngdoh Mawshun	Mawshun	100.00			
Law Lyngdoh, Smit	Nongkrem	6.0			
Law Mawsaptur	Sohrarim	50.0			
Law Nongshim	Mawmihtied	5.0			
Law Suidnoh	Lait-Ryngew	80.0			
Law-ar-Liang	Lait-Ryngew	25.0			
Lawthymmal	Cherrapunji	2.00			
Law-u-Niang	Lait-Ryngew	10.0			
Lum Diengjri	Khada Snoing	25.0			
Lum Shillong	Laitkor	7.0			
Madan Jadu	Lait-Ryngew	5.0			
Maw Kyrngah	Wmwai	1200.00			
Mawlong Syiem	Mawsmi	120.0			
Mawlot	Phyllut	20.0			
Raid Shabong Law Adong	Wahpathew-urksew in Pynursla	700.0			
Niangdoh	Wahlong	0.0			
Mawmang	Khada Snoing	15.0			
Mawryot	Wahlong	40.0			
Mawsawa	Mawmluh	50.0			
Mawthoh	Wmwai	30.0			
Nongbri	Pyndeng-Nongbri	5.0			
Pohsurok	Cherrapunji	0.50			
Pom Shandy	Mawsmi	80.0			
Rangbaksaw	Cherrapunji	1			
Rilaw Khaiti	Wahlong	35			
Swer	Lum Swer	12			
Umkatait	Dieng Ksiar	100			
Umthri	Nongduh	80			
Umtong	Wmwai	400			
Wahkhem	Khadar Blang	10			
Wanning Sawkpoh	Shngimawlein	7			
Lum Shyllong	Laitkor	7			
Rijaw	Wahlong	35			
Diengliengbah	Rngiksheh	0.50			

Monoliths

Monolith are traditional structures and are sacred to the Khasis especially those who still follow the indigenous religion. In the view of land use, ROW and securement of slope, 5 Monoliths out of 8 Monoliths placed along the planning roads are difficult to avoid. It was confirmed whether it could be relocated or not.

Table 5.5-2 List of Monoliths

Sl. No.	Distance from Starting Point (0.00 Km)	Side from Existing Road from Shillong	Distance from the Center Point of the existing Road	Altitude	Latitude	Longitude	Photographs of Monolith	Monolith location on Satellite Image	GPS Datum	Remarks	within ROW or not	If yes, feasibility of relocation/ protection
1	4.88km	R.H.S	14 to 15 meter	1739 m	25°33' 6.27" N	91°50' 35.87" E			WGS 84	These monoliths are either memorial where the ashes of the dead person are deposited in cairns.	Outside of ROW	Avoid
2	5.79 km	R.H.S	6 meter	1783 m	25°32' 46.72" N	91°50' 14.87" E			As above	As above	Within ROW	May be in carriage way. Located in land of State government. Details were already confirmed and consulted by Block Development Officer.
3	6.06 km	R.H.S	10 meter	1789 m	25°32' 44.99" N	91°50' 5.18" E			As above	As above	Within ROW	May be in carriage way. Located in land of State government. Details were already confirmed and consulted by Block Development Officer
4	8.14 km	L.H.S	7 meter	1768 m	25°32' 00.00" N	91°49' 13.80" E			As above	As above	Within ROW	Section excluded from NH40. May be shifted in consultation with local villages. Section excluded from NH40.
5	17.88 km	R.H.S	8 meter	1691 m	25°27' 57.01" N	91°49' 18.70" E			As above	As above	Within ROW	Relocation will be done in consultation with the local people as Monolith does not belong to any specific clan.
6	18.11km	R.H.S	Median	1687m	25°27' 56.70" N	91°49' 25.70" E			As above	As above	Outside of ROW	Avoid
7	21.52km	-	-	1839m	25°27' 0.40"N	91°50' 45.68"E			As above	As above	Within ROW	May be under flyover. Relocation were already confirmed by land owner and Block Development Officer. Consensus and ritual ceremony will be examined by religious group.
8	53.75 km	L.H.S	8 meter	830 m	25°15' 29.48" N	91°56' 54.93" E			As above	As above	Within ROW	Relocation will be done in consultation with the local people as Monolith does not belong to any specific clans.

5.5.11 Poor people

People from BPL or poor people in general must be considered when making R&R activity and R AP. It is noted that poor people are less exposed big development project and hence may feel intimidated and unable to voice concern, grievances and suggestions. Measures can be taken to ensure the poor are included and their grievances heard and redressed.

5.5.12 Indigenous people and ethnic minorities

Meghalaya is a State predominantly inhabited by the Tribal People. Majority of Meghalayans are Scheduled Tribe as per Constitution of India. The project area also have majority of the PAPs as Khasi, with few Garo and Bengali. Exclusion of Scheduled Tribe in this project does not arise. However other elements of indigenous people preservation need to be held, such as inclusion in decision making process, and grievance redress.

Chapter 6 STAKEHOLDER CONSULTATION

6.1 Overview

The involvement of the communities in the project area is significant for the project implementation in terms of transparent and democratic decision-making. People's participation from the planning stage is hence a vital ingredient for a project that is efficient and effective. This project has ensured that communities along the project area are involved from the beginning, stakeholders meeting were held at key venues of the project road.

The purpose of the stakeholder consultation was to inform people about the project, listen and consider their issues and suggestions. Potential project affected persons, local community, relevant departments attended these consultations.

6.2 Method of Stakeholders consultation

The people were informed through phone and official letters from a local NGO, the North East Educational and Development Society (NEEDS). All participants were given a platform to raise questions and give suggestions. The consultations used the local language which is *Khasi*, the brochure which contains information about the project was translated and presented in *Khasi*

The key subjects discussed in these consultations include:

- Information about the project – including the socio economic survey.
- Possibility of resettlement, resettlement policy-assistance, compensation, schedule and grievance mechanism.

While most stakeholders have no objections to the project implementation and the survey, there were a few who raised objections and refused to cooperate. Towards the end of the survey, one village, village Siatbakhon with over 60 affected households, decided to cooperate and allowed the survey to take place, this was an impediment to the flow of the survey, wherein analysis and tabulations had to be postponed till the survey was completed in this village.

6.3 1st Round consultation with Communities:

The North East Educational and Development Society (NEEDS) visited the villages under the project to inform about the project and seek support and consent for the survey. The details of all the meetings are summarized in Table 6.3-1.

Table 6.3-1: Details of 1st-round meetings

Block	Date	Venue	No of participants	Observations
Mylliem	11 Jun. 2016	Sanmer Secondary School	34	Village council members were very receptive and welcomed the project. As they were apprehensive on how the PAP will respond, community meeting and FGD would be held for consensus building.
Khatarshnong Laitkroh (1)	16 Jun. 2016	PWD IB, Laitlyngkot	25	The village leaders present in the meeting unanimously agreed and welcomed the project. However, the village authority itself cannot decide on this matter, the opinion of the village people especially those affected is required and a meeting with them is essential. Consultation with PAHs was held on 25 June.
Khatarshnong Laitkroh (2)	25 Jun. 2016	Community hall	65	Information about the project was received with many queries which were clarified. PAPs supported the project and the survey to be conducted. Comparison of alternatives and justification of the proposed alignment were carefully explained.
Pynursla (north) (1)	10 Jun. 2016	PWD IB, Pynursla	7	A few traditional heads who attended the meeting informed the team that a state study was conducted a few years back indicating a different alignment. They suggested the team organize another meeting wherein potential project affected households can also be invited to discuss the project. Consultations were consciously held after 9 July, 12 and 19 August.
Pynursla (north) (2)	9 Jul. 2016	Community hall	30	Issues were raised: >Raid Nongkhlieng and Raid Shabong (community lands that are affected) are the two raids whose boundary remains uncertain to this day. >There was opinion that the people had already agreed to the alignment put forward by the government for a proposed bypass in 2009. Majority of the people present emphasized that the 2009

Block	Date	Venue	No of participants	Observations
				<p>alignment should be followed.</p> <p>>Community suggested that this issue be resolved and made it clear that they are not against the construction of roads but that the outstanding issues should be resolved first.</p> <p>It was agreed by the implementing agency that consultation meeting will be continuously held for find solution.</p>
Pynursla (north) (3)	12 Aug. 2016	Urksew Community Hall	26	<p>The following opinions were expressed from participants.</p> <p>>Community must be aware of survey before it starts.</p> <p>>Owners of affected land should be consulted.</p> <p>>Major part of the affected land belongs to 2 clans, the boundary issue between is yet to be resolved.</p> <p>>Members of Clan Shabong requested for a meeting with their leader who was not present.</p> <p>Meeting with all the clans in the BP5 affected area set for the 19th of Aug, at PWD IB.</p>
Pynursla (north) (4)	19 Aug. 2016	PWD IB Pynursla	37	<p>Presentation of the project, alignment, affected areas, benefits was made.</p> <p>All the clan leaders were present.</p> <p>Except for one clan, all the other clans supported the project and the new alignment.</p> <p>Resolution was made - status quo, request for concerned authority to have dialogue with Clan Shabong.</p> <p>It was agreed by the implementing agency that consultation meeting will be continuously held for finding solution.</p>
Pynursla (middle) (1)	9 Jul. 2016	Community Hall	50	<p>Local elders appreciated the meeting since this was the first time their consent, support and feedback was respected over a project.</p> <p>However a number of issues from previous road projects of the government, related to the non-payment of</p>

Block	Date	Venue	No of participants	Observations
				<p>compensation, is pending. The people ask that these issues be resolved first, before the current project starts.</p> <p>It was explained by the implementing agency that compensation of the Project will be made in accordance with LARR 2013 and JICA GL.</p>
Pynursla (middle) (2)	13 Jul. 2016	Community Hall	23	<p>PAPs were briefed about the project, presentation on alignments, activities that will take place, affected land and the process of surveys to be conducted.</p> <p>PAPs agreed to the survey and raised questions about the compensation and issues of rehabilitation. They suggest the team sit with them again to discuss in detail. Clarified that FGDs will be held and they are also free to call anytime to clarify doubts.</p> <p>It was agreed by the implementing agency that community meeting. FGD will be continuously held</p>
Pynursla (south)	15 Jul. 2016	Community Hall	45	<p>Villagers requested repair and maintenance of the existing road.</p> <p>It was agreed by the implementing agency that repair and maintenance of the existing road will be considered.</p>
Pynursla (BP6) / Amlarem	19 Aug. 2016	Wahkdait Community Hall	45	<p>Traditional leaders and land owners were present.</p> <p>>Questions on compensation, duration of project, workers etc. were raised and clarified.</p> <p>>All leaders agreed to the survey to be conducted.</p> <p>>Final consensus will depend on 2 criteria- (i) Existing road is improved and maintained, (ii). Compensation package is agreed on with affected persons, both of which would be satisfied.</p> <p>It was explained by the implementing agency that improvement of existing road will be considered and compensation package is to be prepared in accordance with LARR 2013/ JICA GL and agreed on with affected persons.</p>

Table 6.3-2: Participation details of 1st round consultations

CD Block/ Villages	Date	Total no. of participants	Representation		
			Govt.	Dorbar	PAP
Mylliem	11 Jun. 2016	34	3	31	
Khatarshnong Laitkroh (1)	16 Jun. 2016	21	3	18	
Khatarshnong Laitkroh (2)	25 Jun. 2016	65			65
Pynursla (north) (1)	10 Jun. 2016	7	2	5	
Pynursla (north)(2)	9 Jul. 2016	23			23
Pynursla (north)(3)	16 Aug. 2016	26		26	
Pynursla (north)(4)	19 Aug. 2016	37	1	36	
Pynursla (middle) (1)	9 Jul. 2016	50		2	48
Pynursla (middle) (2)	13 Jul. 2016	23		1	22
Pynursla (south)	15 Jul. 2016	45		45	
Pynursla (BP6) / Amlarem	19 Aug. 2016	45		5	40

Source: JICA Study Team

For the purpose of promoting information dissemination and community participation, several community meeting were held after block-level consultations. Brief description about the project, highlighting importance of consultations with likely project affected persons, local community, and other stakeholders were provided. Design concepts (e.g. minimize surplus soil, install proper slope protection) with preliminary alignments were also informed and explained. Expected benefits and likely anticipated adverse impacts as well as resettlement policy framework as per JICA Guidelines for Environmental and Social Considerations were conveyed. The consultations were held in local language (Khasi) with assistance from a local person who helped in interpretation as well as preparation of transcripts. The proceedings of the consultations were audio recorded as part of documentation process.

In addition to the above consultation meetings, several community meetings were held to focus on community-specific issues and to build consensus on the Project. While Bypass No.4 was accepted by concerned community at this stage, Bypass No.3 required further explanation/ discussion in 2nd consultation meeting. It was finally decided after 2nd consultation meeting that the alignment of Bypass No.2 shall avoid all residential structures and a football ground.

Table 6.3-3: Community Meetings and Focus Group Discussions (FGD)

S. No	Focus Group	Date	No of attendees	Area Coverage
1.	DORBAR & VILLAGE ELDERS	20/06/2016	6	Umlympung Village (12Miles) to Laitlyngkot Village
2.	Soilyna Huts, Myllem Marbaniang up to the end of Bypass 3, i.e. Myllem Kyndong Nongkyntir.	21/06/2016	6	Expansion 3 to end of Bypass 3
3.	Expansion 2, i.e. 4Miles up to the midpoint of Bypass 2.	23/06/2016	7	Expansion 2 to Banuin
4.	Bypass 2 i.e. Banuin Village.	24/06/2016	7	Banuin Village

Source: JICA Study Team

6.4 2nd Round Consultation with Communities

The second round consultation with communities was to share the result of the socio economic survey and to discuss with PAPs on the comprehensive composition of resettlement and compensation.

Table 6.4-1: Details of 2nd Round Meetings

Block	Date	Venue	No of participants	Observations
Mylliem/ Khatarshnong Laitkroh/ Pynursla/ Amlarem	5 Nov, 2016	Sanmer secondary School	149	Concern for impact on paddy fields at BP was presented. Explained the impact can be minimized by using box culvert and ensuring irrigation. Also concern on business at detoured villages was presented. NHIDCL agreed that they will build temporary structure for business within ROW of new bypass. Primary health center will be directed affected at Dawki. It will be rebuilt whose cost will be borne by NHIDCL and old structure will be demolished only after operation of new building. Explained livelihood support available for affected persons.
Pynursla/ Amlarem	12 Dec, 2016	Wahkdait Community Hall	91	Explained existing road will be repaired at the section of BP6&7. Answering to question about compensation policy, it was explained that it will follow LARR 2013 and also JICA guideline in case that the project is funded by JICA. Answering to question about dumping on roadside, it was explained that appropriate locations would be selected not to disturb residents. Answering to determination of PAHs, it was explained that it would be done through joint inspection by Deputy Commissioner and preparation of land owners. The economic benefits to the area was highlighted including tourism potential with a new bridge at Dawki. Attendees expressed their keenness that the project is started at the earliest.

Source: JICA Study Team

Table 6.4-2: Participation details of 2nd Round Meetings

CD Block/ Villages	Date	Total no of participants	Representation		
			Govt	Dorbar	PAP
Myllem/ Khatarshnong Laitkroh/ Pynursla/ Amlarem	2016/11/5	149	3	14	132
Pynursla/ Amlarem	2016/12/5	91		7	83

Source: JICA Study Team

6.5 Supplemental Consultation Meetings

For solving concerns regarding alignments, some re-alignment was re-examined. Accordingly, supplemental meetings were held for Bypass No.2 and No. 5.

Table 6.5-1: Details of All Meetings

Village	Date	Venue	No of participants	Observations
Myllem/ Baniam	19/5/17	Office chamber of the Deputy Commissioner, East Khasi Hills, Shillong	10	Regarding Bypass No. 2, the realigned route was proposed by NHIDCL/DPR consultants slightly to Right Hand Side for minimizing impact on HHs and lands. The matter of BP-II has been elaborated to the DC/EE PWD NH/Local Headman/Local Villagers and it has been decided to safeguard the proposed football ground. Accordingly the consultant has been asked to shift the alignment slightly towards right of the proposed alignment. The consultant has agreed to modify the alignment. Hence the issue of Bypass No.2 is resolved.
Pynursla/ Wahlyngkhat, Uksew	19/5/17	Office chamber of the Deputy Commissioner, East Khasi Hills, Shillong	17	Regarding Bypass No. 5, it has been proposed by DC, East Khasi Hills to go with existing alignment. since the Sordor/Headmen are not agreed to go with proposed alignment of Bypass No. 5. The issue of Bypass No.5 needs further examination.

Source: JICA Study Team

Table 6.5-2: Participation Details of Supplemental Consultation Meetings

CD Block/ Villages	Date	Total no of participants	Representation		
			Govt	Dorbar	PAP
Myllem/ Baniam	19/5/2017	10	4	1	5
Pynursla/ Wahlyngkhat, Uksew	19/5/2017	17	4	3	10

6.6 Information Disclosure

The Socio Economic report will be posted in the websites of the NHIDCL and JICA. The same will be shared with the community, especially the local leaders/traditional heads and the PAHs.



Umjapung 12th mile- PAPA



Laitlyngkot- Traditional leaders



Urksew - Traditional leaders



12th mile PAPs and Traditional leaders



Consultation with Traditional Heads of clans in Pynursla



Figure 6.6-1: 1st Stakeholders/community Meetings



2nd Stakeholder Meetings at Sanmer secondary School



2nd Stakeholder Meetings at Wahkdait

Figure 6.6-2: 2nd Stakeholders/community Meetings

Chapter 7 RESETTLEMENT POLICY

7.1 Objective of Resettlement Policy Framework

The resettlement policy of the project is prepared according to the principles of the R& R policy of the GOI in line with the requirements of JICA guidelines and policies; the ADB safeguard policy 2009 is also referred to, based on the experience of previous RAP prepared by ADB in the State. Meghalaya follows a strict Land system management through its State Act- Meghalaya transfer of Land Regulation Act 1971, which was amended in 2010 (Meghalaya Transfer of Land Regulation Act 2010) and received assent by the President in 2012. The act however does not have specific rules on land acquisition which needed when big development projects are implemented.

In appreciating this verity, the policy framework for this project can realize the following:

- The resettlement policy of similar projects in Meghalaya – (a).Road upgradation (Shillong-Nongstoin- Tura) Project, 2 laning of Shillong Nongstoin NG 44 and Nongstoin-Tura road under phase A of SARDP-NE. (b). Jorabad-Shillong NH 40 road project (4 laning of Jorabad Shillong section) under the SARDP-NE.
- Strengthen the capacity of the various institutions relevant to the project especially those implementing the project from the Government side, in terms of comprehension and practical execution of RAP and livelihood restoration.
- Collate all the successful RAPs of similar projects in the State and build upon the State previous experiences and learnings.
- Establish a grievance redressal Mechanism that will ensure that the issues of project affected people are heard and addressed, resulting in a fair and justified RAP.

The policy framework stresses on the following key values:

- The affected Community is involved from the initial phase; through community and stakeholder meetings, FGDs, that informs the people about the project and their views are noted. Information about compensation, land acquisition, loss of livelihood is shared in the preparation stage.
- The consent of the community, especially the PAPs is compulsory for initiation of the survey and the project at large.
- Inclusion is accentuate with the involvement of vulnerable and marginalized groups such as women, minority groups and others wherever present.
- When displacement is inevitable, people affected will be assisted in measures that will better their current status of living without having to bear any cost. The socio economic conditions of the PAPs must improve after project implementation.
- Involuntary settlement should be avoided or minimized as far as possible. Caution to affect any Religious and traditional structures , habitations, sanctuaries will be taken, through alternate routes, if not possible, all customary measures adopted by the community to remove such structures will be respected and assisted at the relevant cost.
- Relocation site could be found, with assistance from community if available, basically within the community where the household belongs. If not available, assistance shall be made through District Collector under the responsibility of Implementation Agency.
- Payment of compensation and assistance to PAPs will be ensured before the civil work of the project starts.

- All land acquisition will be carried out after issuance of notifications for harvesting of crops.
- Child labour will not be involved .
- Though identification, compensation and acquisition for the disposing site of surplus soil and site for labour camps is under the responsibility of contractor and the survey is not covered in this report, equivalent compensation policy shall apply to the land acquisition.
- Women workers will be provided with gender friendly facilities on project site, and be paid equal wages for equal volume of work.
- Health Education focusing on HIV, STIs at the project sites, labour camps, will be compulsory when the civil work starts.

7.2 Entitlement Matrix:

The Entitlement Matrix has been developed in accordance with the principles adopted and analysis of initial identification of project impacts. The Entitlement Matrix recognizes and lists various types of losses associated with the project and provides the basic tools and guidelines for preparation of compensation and resettlement packages.

Table 7.2-1: Entitlement Matrix

Category of loss	Type of loss	Occupant of property	Unit of Entitlement	Entitlement	Details of Entitlement
A. Land	1. Agricultural Land	Titleholder/ Periodic Patta Holder/Temporary Village Pass Holder	Household	Compensation at Replacement Cost or land plus Assistance	<p>a) Cash compensation for the land at replacement cost, which will be determined by District Collector, or land for land if available. Periodic Patta Holder/Temporary Village Pass Holder shall be treated equally with titleholder. Disbursement of the compensation shall be made for each HH.</p> <p>b) If the compensation amount is less than the replacement cost mentioned above, the difference amount will be paid as Assistance.</p> <p>c) If the residual land is unviable for agriculture, PAPs shall have the following three options:</p> <ul style="list-style-type: none"> • Compensation for affected land and continue on the remaining unaffected plot of land; or • If eligible person surrenders the residual plot, then compensation and assistance given for the entire plot of land; or • Replacement land, if so wished by eligible persons, subject to availability of land that is at least equally productive. <p>d) Resettlement allowance of Rs. 50,000/- will be provided irrespective of the size of land.</p> <p>e) In case of severance of cultivable land, an additional grant of 10% shall be paid over and above the amount paid for land acquisition.</p>
		Community	Community	Assistance or Compensation at Replacement Cost	<p>a) The compensation method shall be determined through decision-making mechanism of each community (i.e. <i>Dorbar</i>), preferably could be community development program based on needs of PAPs.</p> <p>b) If preferred, cash compensation for the land at replacement cost, which will be determined by District Collector. How to use or distribute the cash shall be determined through decision-making mechanism of each community.</p> <p>c) If the compensation amount is less than the replacement cost mentioned above, the difference amount will be paid as Assistance.</p>
	2. Non-Agricultural land (Homestead, Commercial and others)	Titleholder/ Periodic Patta Holder/ Temporary Village pass Holder	Household	Compensation at Replacement Cost or land plus Assistance	<p>a) Cash compensation for the land at replacement cost, which will be determined by District Collector, or land for land if available. Periodic Patta Holder/Temporary Village Pass Holder shall be treated equally with titleholder. Disbursement of the compensation shall be made for each HH.</p> <p>b) If the compensation amount is less than the replacement cost mentioned above, the difference amount will be paid as Assistance</p> <p>c) Resettlement allowance of Rs. 50,000/- will be provided irrespective of the size of land.</p>
		Community	Community	Assistance or Compensation at Replacement	<p>a) The compensation method shall be determined through decision-making mechanism of each community (i.e. <i>Dorbar</i>), preferably could be community development program based on needs of PAPs.</p>

Category of loss	Type of loss	Occupant of property	Unit of Entitlement	Entitlement	Details of Entitlement
				Cost	<p>b) If preferred, cash compensation for the land at replacement cost, which will be determined by District Collector. How to use or distribute the cash shall be determined through decision-making mechanism of each community.</p> <p>c) If the compensation amount is less than the replacement cost mentioned above, the difference amount will be paid as Assistance.</p>
B Crop /Plant /Trees	3. Loss of Crops	Owner/ occupant	Household	Compensation	<p>a) Revenue Department or Special Committee to determine the current cost. Disbursement of the compensation shall be made for each HH.</p> <p>b) Four (4) months notice to harvest standing crops shall be given. However, if notice cannot be given then compensation for these crops shall be paid at market value</p> <p>c) Subsistence Grant equivalent to Rs. 3000/- (MAW; Minimum Agriculture Wage) per month for 6 months.</p>
		Community	Community	Same as above	<p>a) Four (4) months notice to harvest standing crops shall be given. However, if notice cannot be given then compensation for these crops shall be paid at market value</p> <p>b) Revenue Department or Special Committee to determine the current cost. How to use or distribute the cash shall be determined through decision-making mechanism of each community.</p>
	4. Loss of Plants/trees	Owner/ occupant	Household	Compensation	Revenue Department or Special Committee to determine the current cost. For perennial fruit bearing trees such as pineapples, jackfruits, Arecanut etc, average productivity of such trees will be taken as 20 years. Disbursement of the compensation shall be made for each HH.
		Community	Community	Same as above	Revenue Department or Special Committee to determine the current cost. For perennial fruit bearing trees such as pineapples, jackfruits, Arecanut etc, average productivity of such trees will be taken as 20 years. How to use or distribute the cash shall be determined through decision-making mechanism of each community
	5. Loss of Cattle shed, poultry shed or any other shed for domestic animals	Owner/ Occupant	Household	Compensation	Rs.600 per m ² for thatched roof and Rs. 1000 per m ² for GCI sheet roof (to be paid as per revised/latest available updated basic schedule of rates for buildings). In case of non-revision, 10%premium per year will be added to the latest rate available. Disbursement of compensation shall be made for each HH.

Category of loss	Type of loss	Occupant of property	Unit of Entitlement	Entitlement	Details of Entitlement
	6. Loss of Residence/ Commercial unit	Tenant (No matter whether the concerned HH is titleholder or non titleholder of the land, compensation for structure shall be equivalent.)	Household	Assistance	<ul style="list-style-type: none"> a) Replacement cost of structure at least Basic Schedule of Rates (BSR) without depreciation. Relocation site could be found, with assistance from community if available, basically within the community where the household belongs. If not available, assistance shall be made through District Collector under the responsibility of Implementation Agency. b) Two (2) months' notice for removal of structure c) Right to salvage materials from the demolished structure d) In case of partially affected structures and the remaining structure continues to be viable, in such case an additional assistance equivalent 25% of replacement cost will be paid towards repair/restoration of structure e) For the displaced eligible persons whose remaining structure is unviable, the following shall be payable; Subsistence grant of Rs.3,000/- per month for a period of twelve (12) months from the date of displacement f) One time resettlement allowance of Rs.50,000/- g) Transportation cost of Rs. 50,000.00 for shifting family, building materials, domesticated animals etc. h) Lumpsum Assistance of Rs.7,500/- for re-establishing other basic facilities such as electricity connection, water supply pipeline i) All fees, taxes and other registration charges incurred for the replacement structure
	7. Loss of Kiosk	Owner/ Occupant	Household	Assistance	<ul style="list-style-type: none"> a) Lump sum shifting allowance of Rs.7500/-. Disbursement of the compensation shall be made for each HH. b) Right to salvage materials from the existing structure
D. Employment /Livelihood	8. Loss of employment	Wage earner	Household	Assistance	<ul style="list-style-type: none"> a) Economic Rehabilitation Grant equivalent to twenty-five (25) days of Minimum Agricultural Wages (MAW) per month for a period of three months. b) Priority work opportunities in the project construction work c) Rs.20,000/- towards vocational/skill improvement as per choice.
	9. Loss of livelihood (losing commercial unit. losing agricultural land and with balance land below MEH)	Titleholder/Periodic Patta holder/ Village Pass holder	Household	Assistance	<ul style="list-style-type: none"> a) Priority work opportunities in the project construction works. b) Rs. 20,000/- towards vocational skill improvement as per choice. The amount will cover daily stipend equivalent to MAW for the duration of training and shall also cover costs towards boarding, lodging, transportation, etc.

Category of loss	Type of loss	Occupant of property	Unit of Entitlement	Entitlement	Details of Entitlement
E. Other	10. Additional support to vulnerable groups	Titleholder/Periodic Patta/Village Pass holder	Household	Assistance	One time additional financial assistance of Rs.25000/- as Economic Rehabilitation Grant towards income generation. Disbursement of the compensation shall be made for each HH.
	11. Loss of common property Resource	Village	Village	Enhancement of community resources	Replacement /Restoration or augmentation of existing infrastructure and provision of additional infrastructure facilities based on identified need in consultations with community.
	12. Loss of Access	Village	Village	Alternate access	Provision of access path(s), steps, footpaths at identified locations in consultations with community
	13. Temporary and unforeseen impacts.	Affected entity	Household	Mitigation measures in line with principles of resettlement policy framework	Unforeseen and temporary impacts during construction will be documented and dealt with on case by case basis through the GRM in accordance with the principles laid down in the resettlement policy framework

7.3 Methods of Assessing Replacement Cost

The methods for assessing replacement cost is discussed as follows

The value of compensation is determined by the District Collector, considering the Country Act, policies of JICA and the State Act where necessary and also the recent sales and acquisition in similar land and projects. Estimating the market rate may prove difficult especially since the State is only recently experienced in land acquisition on highways. For provisional estimate of RAP budget the official rate plus the premium for rural land and 100% Solarium has been used as per LARR 2013, which means that the value of compensation is four times the Official rate.

The official rate in India is usually lower than the current rate. Similarly in Meghalaya there have been instances where PAPs were unhappy with the rate stated by the Government. The ultimate authority to decide on the compensation lies on the DC; however the PIU has the influence to confirm whether the four times the official rate is adequate enough. It is vital, that thorough exercises are conducted with the stakeholders wherein the replacement cost can be agreed upon. The gap between the amount determined by DC and the actual replacement cost will be paid as assistance.

The Basic Schedule Rate (BSR) is the tool that will determine the replacement value of buildings/houses/immovable assets. The BSR recognized is the one applicable during the year on which the compensation is paid, without depreciation. If the structure is considered unsafe the entire structure can be rendered affected and compensation paid accordingly. For plants and trees the compensation will also be paid as per the BSR of that year when compensation is paid.

7.4 Grievance Redress Mechanism

In order to provide an accessible mechanism to the affected people, community and any stakeholder(s) to raise their issues and grievances as well as concerns, a GRM will be established within the project ambit. The fundamental objectives of GRM are to resolve any land acquisition disputes in consultation with the aggrieved party to facilitate smooth implementation of the project. Another important objective is to democratize the development process at the local level and to establish accountability to the stakeholders.

The scope of GRM :

- Consider only those grievances that has linkages to or bearing on the project
- Review, consider and resolve grievances related to land acquisition aspects of the project received by the different forums devised for GRM;
- Resolve grievances within a specified period set out in the document;
- Arrive at decisions through consensus. Any decision made by the GRM must be within the purview of project framework and entitlements;
- Require a minimum three (3) members to form the quorum for the meeting at various levels.
- The frequency of meeting may increase or decrease depending on the number grievances received;
- If needed, may undertake field visits to verify and review the issues, dispute or other relevant matters.

The following is the structure of the GRM:

- Village/block level- involves physical verification, certification on grievances related to inaccurate measurements, damage to structures, crops etc during construction. The RAP supporting NGO under the implementing agency, as the focal point of GRM, will carry out the verification and certification. Village councils/Dorbar/headmen will also support the implementing agency, in the presence of the aggrieved PAP.
- Time taken for the above process should be for 7 – 10 days counting from the day the grievance is received.
- A District Level Committee Grievance Redress Committee (GRC) will be formed by the project authority and will comprise of Project Director, Official from NHIDCL, PWD, Deputy Commissioner of East Khasi Hills and West Jaintia Hills, Officer from KHADC/JHADC and the implementing agency. PAPs should give their grievances in writing to the GRC; the Implementing agency will guide and assist the aggrieved PAP in his/her case. GRC will respond to the grievance in 7 days.
- The GRC should meet once in 15 days or more , depending on availability of cases/ issues.
- Grievances submitted to the GRC will be redressed within 30 days from the day the grievance was received.
- GRC may not deal with any matters pending in the court of law, however that does not stop the aggrieved party to approach the Court, if he/she is not satisfied with the decision of the GRC.

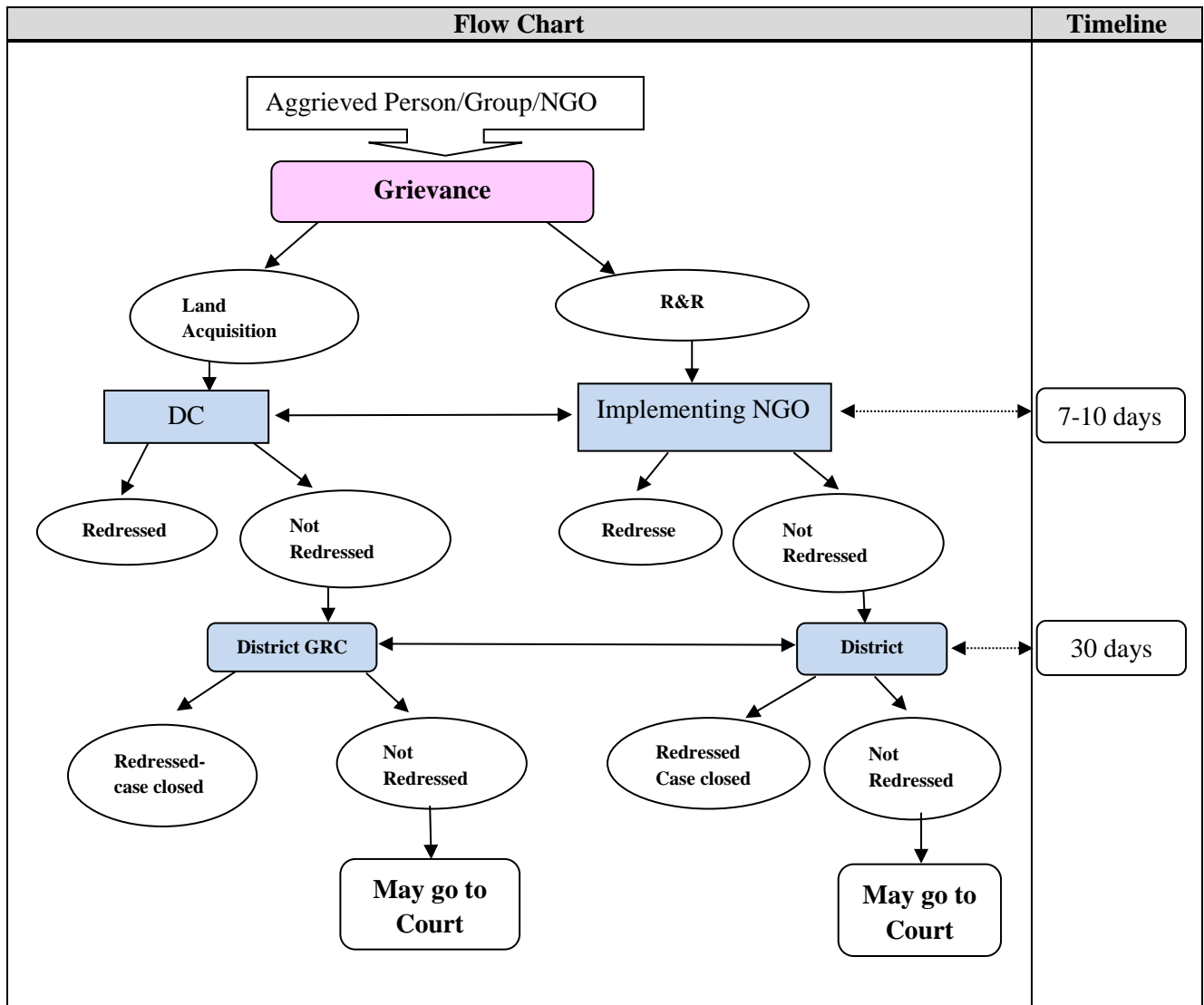


Figure 7.4-1: Grievance Redress Mechanism

Chapter 8 INSTITUTIONAL ARRANGEMENTS

8.1 Institutional arrangements

As per Indian Regulations, the resettlement and rehabilitation activities must be executed by the State Government. Since the State of Meghalaya falls under the 6th Schedule of the Indian Constitution, the Autonomous District Councils established in the State play a major role in administration and governance. Hence, it is only expected that the ADC, in this case the Khasi Hills and Jaintia Hills Autonomous District Council, the traditional heads/headmen are involved in the R&R activities, for they have a major role to play in Land acquisition and land management. Besides, it is recommended that a project implementation unit (PIU) can be set up in the District, and an Expert from NHIDCL will with the relevant Officers at the district and the State level to ensure that the RAP implementation is moving in line with JICA guidelines for environment and social considerations.

The PIU will need to be strengthened with the inclusion of relevant departments and will receive capacity building in R&R and RAP implementation. RAP supporting agency, for which indigenous NGO can be most appropriate, will be required for supporting PIU to ensure RAP implementation.

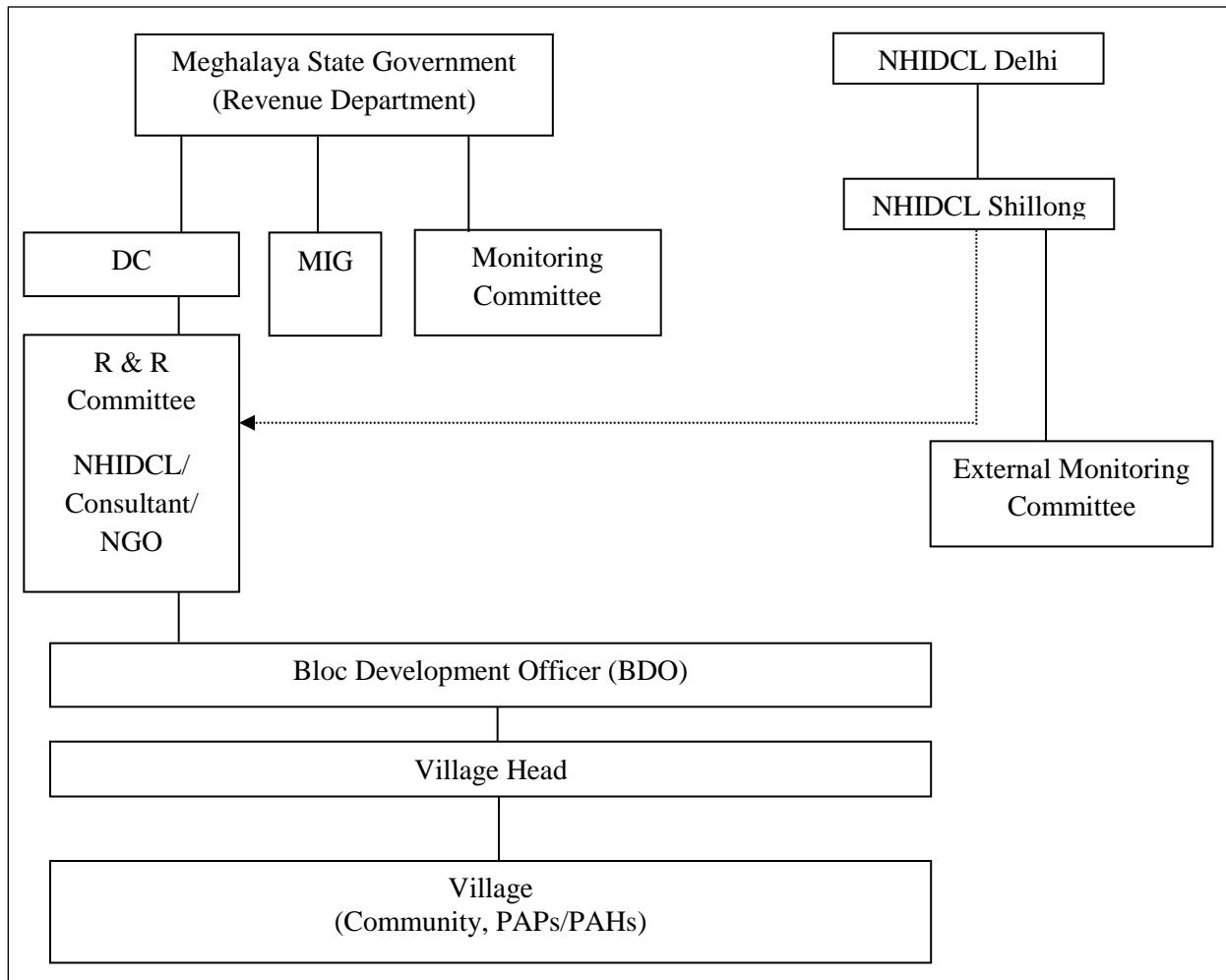


Figure 8.1-1: Institutional arrangements

8.2 Monitoring and Evaluation.

Monitoring and evaluation are critical for building a strong, evidence base documentation surrounding the project; it is a tool for identifying and documenting successful programmes and approaches and tracking progress toward common indicators across related projects. Monitoring and evaluation forms the basis of strengthening understanding around the many multi-layered factors underlying a project. This project all the more needs to apply strong monitoring mechanisms since it is a project which deals with infrastructure development and involuntary settlement. RAP implementation issues can be resolved effectively when the project has a system of check and balances thereby resulting in good management.

Evaluation allows the project to go through periodic assessments to examine impacts and sustainability; it especially assist the project in realizing its achievement index, and review its current approach and strategies to better the outcome of the project. Monitoring and evaluation are tools that are indispensable in the RAP implementation for it ensures the performance and fulfillment of the project objectives.

For monitoring of livelihood rehabilitation of PAHs, data on relocation site of PAHs shall be traced using identification number in coordination with DC. The data shall be handed over to Monitoring NGO so that the NGO can monitor their rehabilitation progress.

8.2.1 Monitoring and Evaluation Activities:

The project can adopt two types of monitoring, the internal monitoring and the external monitoring and evaluation.

Internal Monitoring:

It will be carried out by the PIU, PWD with assistance from the RAP implementation Agency. The PIU and PWD will also engage and external agency (third party) to undertake monitoring at different stages of the project, preferably biannually and evaluation at the mid- and end – term . The monitoring and evaluation will be desk review of documentation and field based accompanied with focus group discussions with the community, stakeholders and the implementation team.

The objectives of internal monitoring is

- (i) To measure progress against the RAP implementation plan;
- (ii) To Confirm if all entitlements agreed upon are delivered to PAPs;
- (iii) To Identify critical issues that stall the project, or that are hurting the people, and suggest corrective actions;
- (iv) To Monitor the efficiency of the GRM; and
- (v) To Appraise the satisfaction of PAPs over the activities and implantation of the project.

Key activities include:

- i. Liaison with district collector to collate up-to-date information on land acquisition progress such as agreement signing, compensation disbursement, RAP funds milestones and disbursement, land areas under construction, land areas reinstated and the like;
- ii. Review of grievance register and basic analysis of grievance types, numbers, and closures;
- iii. Field visits to review corrective actions and verify complaints made.
- iv. FGDs with PAPs and key informants and community stakeholders in general
- v. Report preparation.

External Monitoring:

Independent consultants can be External Monitoring Agency. Terms of Reference of the External Monitoring Agency is shown in Appendix 5. The fundamental objective of external monitoring is as follows:

- To assess the overall compliance of RAP in the project.
- To assess the extent of the livelihood restoration effort of affected communities; whether their quality of life is enhanced.
- To authenticate the measures taken for restoration of livelihood of affected communities .

The key activities for external monitoring include:

- i. Review internal monitoring procedures, documentation and reporting, to ascertain whether these are conducted in compliance with RAP;
- ii. Identify any non compliance or any unresolved/pending issue from the existing monitoring records;
- iii. Review grievance records for evidence of significant non-compliance or recurrent poor performance in resettlement implementation;
- iv. Discussion with NGO, DC, PIU and other entities involved in land acquisition, compensation disbursement and livelihood restoration to review progress and analyze challenges;
- v. Survey affected households and enterprises to gauge the extent to which project affected people's standards of living and livelihood have been restored or enhanced as a result of the project;
- vi. Assess the overall compliance with RAP requirements and JICA Guidelines; and
- vii. Prepare a summary compliance report for NHIDCL on the progress of RAP implementation, also stating all critical issues and the corrective actions required.

8.3 Non-Governmental Organization for Implementation of RP.

A Non-Governmental Organization can be one of the stakeholders in the entire project cycle with primary responsibility of facilitating the implementation of RAP and help NHIDCL in mitigating the adverse impacts of the project. This necessarily requires the selected NGO to only work with PAPs but also interface between the local communities of the project area and the NHIDCL. Simultaneously the NGO will function as a link between the NHIDCL, the Government, the District Administration and relevant government agencies and Autonomous District Councils. The NGOs will be responsible for the development of a comprehensive livelihood system and facilitate PAPs to take advantage of the options available.

The scope of work of the NGO is discussed briefly as follows:

- Develop rapport with the Project authority, project staff as well as with the District Administration/DC. This will be achieved through regular meetings and attending reviews carried out by the Project.
- Assist in ensuring compliance with the safety, health and hygiene norms; gender mainstreaming and actions proposed for HIV/AIDS and Child labour awareness/prevention campaign, .

- Report to the project office at district/State level on a monthly basis. The report should include physical and financial progress both in terms of quantitative and qualitative reporting.
- The report should prominently feature the problems and issues addressed and tackled with the PAPs and the solutions found. The report should have a separate chapter covering the gender issues, their problems and what has been done (within the framework of the RAP) to ensure their participation in decision making as well as the options made available for them to access economic opportunities, marketing and credit. The report should clearly include the number of field units made by the NGO's staff and the outcome of consultation with the people.
- The NGO shall ensure that PAF's representatives are nominated in the Grievance Redress Committee (GRC) and also a suitable person from its own staff to be a member of the GRC. Give awareness on the availability of GRC and the grievance redress procedures.
- Undertake a public information campaign at the commencement of the project as well as continuing through project implementation to inform the affected communities of
 - i. The need for land acquisition
 - ii. The reasons and need for eviction of displaced households; and
 - iii. The likely consequences of the project on the community's livelihood
 - iv. Proposed mitigation measures.

Thus the NGOs shall establish rapport with the PAPs, consult them, and provide them information about the respective entitlements as proposed under the RAP besides assisting the project in all aspects related to implementation.

Chapter 9 GENDER

9.1 Introduction

The women in Meghalaya may fare differently from the women in other patriarchal societies, in that their community bestows in them the custodianship of ancestral property and the lineage of the clan passing through them. Much of the land in the project area is own by women by virtue of inheritance; however it should also be mentioned here that the decision to sell the land will fall entirely in the decision of the Clan, which is govern by the male elders (maternal uncle /brothers). The misconception that a Khasi woman is the owner of land/property should be clarified with the fact that the majority in a Khasi community do not own enough land to hand down to other daughters in the family, while the youngest is the one who inherits the custodianship, the others are usually left without land.

The man in a matrilineal society is not insignificant at all, he is the decision maker and the provider. This study shows that men and women make joint decisions in the immediate family matters; the women rarely has a voice once outside the home; Traditional managing bodies like the dorbar, the village executive council, the traditional head of the village, the clan, are all headed by men and the executive members have a majority of men.

It is thus imperative, that development efforts or projects need to realize this vulnerable factor of women, (even in a matrilineal society)and ensure that they are involved and consulted in the key activities of the project.

9.2 Project potential impact:

To ensure that the community benefit fully from investments in large development projects, special consideration should be given to any sector which promotes and/or facilitates the participation of women, the upgrading of their skills and the development of their productive potential. A failure to consult women early in project preparation can result in non-use of facilities and to women being by-passed in later stages.

Khasi women in the project area are mostly involved in agricultural work, house work and managing small tea shops. It is observed that women are enterprising and hard working in bringing in income to the family and are always doing additional work for extra wages.

The positive impact the project will have on women is the broadening of business activities in trade and commerce, women and men in majority of the affected areas are interested and adept to managing their own business even if it's a small one. However there is inevitability of negative impacts, in that the relocation may affect the women social relationships, adjustments in running a household in a different setting with lesser earnings, reduction in land and assets. All this can result in the women opting for involuntary work to supplement income, which could lead to vulnerabilities that may affect her social, economic, physical and emotional health.

The RAP of the project will keep in mind this factor during implementation and consider the overall well-being of both genders and strategize a mechanism that is conducive for women to plan, participate and grow.

9.3 Improvement in Project Preparation and Implementation

Attempts to involve women through official structures or general assemblies are problematic. Women are often excluded or marginalized from formal political institutions. It is often unacceptable or difficult for women to express their opinions in public. Specific strategies are needed to facilitate women's participation. Women themselves have insights about how to work around male dominated power structures. Women's representation at higher levels is needed to make grassroots participation more effective. Early consultation with men, especially community leaders, is important to promote positive attitudes towards women's participation. Men may resist women taking on new roles initially, but once the benefits have been demonstrated, their attitudes often change. Practical measures are needed to ensure women's participation in planning meetings. Few measures are to taken to initiate the process of gender inclusion in the project;

- Field teams of the RAP implementing agency should have one or two women as investigator.
- Women are invited to all the stakeholders and community meetings and are consulted regularly on the process of the project.
- Authority in charge of disbursement of compensation should ensure that women PAPs, receive compensation in their name, the implementing agency can assist by helping them open bank accounts and have identity cards registered/recognized by the government.
- Assistance can be provided to women in getting support and capacity building in an alternative livelihood.
- Their involvement and consultation should be considered and integrated into the monitoring and evaluation process of the project.

9.4 Equity in Construction Activities.

Equal wage for equal volume of work should be followed in all construction sites. It is inevitable that while the construction work will require skilled workers that can be obtained from outside the State or within, the unskilled workforce is usually obtained from the local area, usually from the areas nearby the construction sites. Construction sites should adhere to social compliances regarding, health, safety and management in term of considering both the needs of the men and women workforce. It is vital that women workers be encouraged and that construction sites be women conducive, with separate facilities for toilets and baths, living arrangements and a safe place/room to keep their young children while they are working. It is also important to note, that the construction site is women friendly, not only when women workers are employed, but also when (in rare cases) the male workers stay in the labour site along with their families. In such instances, separate facilities should also be arranged for the male workers family.

Monitoring and evaluation team should be aware about the presence of women workers and make a checklist that indicate compliance of all gender safeguards. Equal wages must be paid for equal volume of work

9.5 Measures for Controlling STD and HIV/AIDS:

It is a fact that HIV/AIDS and STIs can go uncontrolled in areas where moving population such as the Truckers and Migrant Laborers are present. The National AIDS Control Organization has also identified Truckers and Migrant Laborers to be high risk groups which means that such groups are vulnerable to get infected and also spread the infection of HIV and STI. Several programmes are in place to address the activities of these groups so that HIV and STI is contained and not allowed to spread. Such programmes also provide free treatment for STIs and HIV which allows the worker to become better and more likely to take care of him/herself.

The project area is predominantly in East Khasi Hills where various intervention programmes to reduce HIV and STIs are already in place through the State Health Department. Most of the Primary Health Centres and Health Sub centres along the project road can serve as the referral centres that Construction workers can access and benefit from. The Implementing agency can also contact the Meghalaya AIDS Control Society, which is section of the State Department of Health, and identify a local NGO working on HIV prevention to support in HIV/AIDS and STI awareness and sensitization to the Communities along the project area and the Construction Workers.

Chapter 10 INDIGENOUS PEOPLE

10.1 Introduction

10.1.1 Background

The Project located entirely in East Khasi Hills District and West Jaintia Hills District of Meghalaya State, inhabited by Khasi and Jaintia with a few Garo, deemed to be Scheduled Tribes in Indian Constitution. With reference to World Bank's Operational Policy 4.10, they are not necessarily considered to be Indigenous Peoples; however, elements of Indigenous People Plan (IPP) are considered in RAP. Accordingly, it is decided to undertake a social assessment to evaluate the project's potential positive and adverse effects on the Scheduled Tribes, and to examine project alternatives where adverse effects may be significant.

10.1.2 Requirement and Objectives of IPP Study

The Project require to ensure that Scheduled Tribes present in, or with collective attachment to, the project area are fully consulted about, and have opportunities to actively participate in, project design and the determination of project implementation arrangements. The scope and scale of consultation, as well as subsequent project planning and documentation processes, have been commensurate with the scope and scale of potential project risks and impacts as they may affect Scheduled Tribes.

It is also require to assess the nature and degree of the expected direct and indirect economic, social, cultural (including cultural heritage), and environmental impacts on Scheduled Tribes who are present in, or have collective attachment to, the project area.

The primary objective for consideration of IPP elements is to empower project affected tribal communities along the NH-40 directly so that they will be able to take advantage of the opportunities for improvement of their livelihoods. The plan will include a) social empowerment b) economic empowerment c) partnership development and d) project management.

Social Empowerment: the objective of this component is to empower road side affected tribal communities, create sustainable institutions so that they manage common activities around microfinance, livelihoods and natural resource management.

Economic Empowerment: the objective of this component is to develop the capacity of affected tribal communities to plan and provide funds to them to undertake various economic initiatives and common public good activities.

Partnership Development: the objective of this component is to partner with various service providers, resource institutions and public and private sector organisations to bring resources such as finance, technology, and marketing into the project so that the identified targeted groups and organisations will able to improve their livelihoods.

Project Management: the component will facilitate various governance, implementation, coordination, learning and quality enhancement efforts in the project.

10.1.3 Rehabilitation measures considered for improved and Sustainable Livelihoods

- **Land-based livelihoods**

The aim of the focus group discussion and case studies is to get a rapid assessment of the current situation of the road side Scheduled Tribes, the agricultural production systems and practices they use and the challenges that face them in pursuing their livelihoods.

- **Wage-based livelihoods**

The aim of study is to identify how to engage Scheduled Tribes in temporary income-generating opportunities which will serve multiple recovery objectives. In addition to providing regular wages to meet household needs and rebuild productive assets, the study is focused on temporary employment which can help alleviate the psychosocial effects of long term reliance on outside assistance. Two common ways of creating employment opportunities are cash for work (CFW) initiatives and public works employment schemes. It is necessary to understand current status of wage based livelihoods in project area.

- **Enterprise-based livelihoods**

Small enterprise development has become an increasingly appealing alternative for all the stakeholders involved in rural development. Enterprise-based diversification looks attractive because of its alleged capacity to promote more sustainable rural livelihoods. Established and nascent entrepreneurs and artisans may benefit from credit or training (business planning, marketing, inventory, and quality control) to expand their business and generate local employment. To start up small enterprise development, the study is more focused on understanding current status and requirements of enterprise – based livelihoods.

10.1.4 Scope of the Study

The social assessment subject to undertaking is the social structure, value system and their assessment in relation to the potential positive and adverse effects specifically addressed are not limited to but including the following:

- Gathering of baseline information on the social structure, value system, demography, political characteristics including Clan System, the land and territories that they have traditionally owned or customarily used or occupied, and the natural resources on which they depend;
- The customary rights of the Scheduled Tribes, both individual and collective, pertaining to lands or territories they traditionally owned, or customarily used or occupied, and where access to natural resources is vital to the sustainability of their cultures and livelihoods;
- The needs to protect such lands and resources against illegal intrusion or encroachment by others;
- The cultural and spiritual values that the Scheduled Tribes attribute to such lands and resources such as “Sacred Forest”, “Monolith” and others if any;
- Tribal Peoples’ natural resources management practices and the long-term sustainability of such practices;

- Identification of the key project stakeholders and determination of potential adverse impacts for analysis of the relative vulnerability of, and risks to, the affected Scheduled Tribes' communities given their distinct circumstances and close ties to Khasi Hill and its natural resources, as well as their lack of access to opportunities relative to other social groups in Meghalaya State of in India;
- Assessment, based on free, prior, and informed consultation, of the affected Scheduled Tribes' communities and each clan within the project area of NH-40, in terms of the potential adverse and positive effects induced on them by the project;
- Identification and evaluation, based on free, prior, and informed consultation with the affected Scheduled Tribes' communities, of measures necessary to avoid adverse effects, or if such measures are not feasible, identify measures to minimize, mitigate, or compensate for such effects, and to ensure that the Scheduled Tribes receive culturally appropriate benefits under the project;
- Review or identification, on a scale appropriate to the project, of the legal and institutional framework applicable to Scheduled Tribes.

10.1.5 The Approach

In cases where resettlement affects the income-earning capacity of the displaced families of Scheduled Tribes, compensation alone does not guarantee the restoration or improvement of their living standards, therefore it is recommended to undertake resettlement as a sustainable development initiative, that is, an initiative that leads to an improved standard of living for Scheduled Tribe.

10.1.6 Methodology and Tools

(1) Methodology

Three-pronged methodology has been used for social assessment of Tribal Peoples:

- a) **Desk Review / study:** of various relevant Acts, reports, government programs and other documents.
- b) **Qualitative Study:** application of various PRA (Participatory Rural Appraisal) technics / tools, Focus Group Discussion / Community Consultation / Open Forum with all stakeholders,
- c) **Quantitative Study:** special case studies (Sample Method) of agriculture cultivators, women groups (Self Help Groups), small scale entrepreneurs like road side shop keepers etc.

This assessment has primarily been conducted using qualitative methods however wherever essential the assessment has also done quantitative data analysis;

The qualitative methods has been involved multiple stakeholders' consultation including Government officials at district / Block level, members of District Council, heads of village (Clan), CBOs / NGOs (if any) and members of affected communities;

Following Table 10.1-1 presents tools and methods applied for the Study

Table 10.1-1: Tools and methods of data collection

Tools	Purpose
Transect walk analysis	To ascertain the configuration of the village / hamlet and distribution of the natural and the man made resources with respect to the different communities in the village.
Village mapping	To know general topography and settlement pattern of the village, connectivity with main road, lanes within village, location of school, religious structures, drinking water facilities, health services, sanitation facilities etc.
Resource mapping	To understand agricultural land (community / private), cropping pattern, traditional farming practices, water resources for irrigation, forest area (state / district council / community and private).
Time Line	To understand shifting cultivation
Focus Group Discussion / Village level meeting	<p>The purpose is to identify different social and economic groups in the village and to enumerate the characteristics and features of the groups. To ascertain the activities and enterprises that could be undertaken in the project area. To understand the status of women in the village and to gain an understanding of gender related issues (Women specific FGD). To understand the problems faced by each category of community members and also to ascertain the salient issues specific to the group and perceived expectations from the proposed project.</p> <p>Focus of discussion will involve:</p> <ul style="list-style-type: none"> • Socio, economic and cultural characteristics of different social groups; • Analysis of inclusion and exclusion of poor and women in existing institutional arrangements including Self Help Groups, Cooperative and other user groups; • Potential economic activities (Income Generating Activities) in the project area; • Constraints and opportunities within the existing institutions with respect to implementation capacity; • Impact of the proposed project (positive and negative).
Institutional Analysis	To assess the villagers perception of the services that they receive from various government and non-government service providers and institutions.
Livelihood Analysis	To identify livelihood options available with the village round the year.
Interviews	Interviews will be conducted with key informants / stakeholders viz. State Secretary, rural development department, district collectors, BDOs, members of district councils, SHGs, local community groups, NGOs, displaced family members to get their suggestions, views on proposed project, opportunities, constraints and likely positive and negative benefits of the project.
Case Studies	Special case studies will be conducted on agricultural production (inputs and out puts), community farming, shifting cultivation, SHG etc.
Secondary data Analysis	All the relevant secondary data / information will be reviewed.

(2) Groups and Areas subject to the Study

- a) **Target Group:** the affected tribal population by project from project area of East Khasi Hills and Jaintia Hills District.
- b) **Sample Size:** 2/3rd of the affected population that fall within the alignment of the proposed Project.
- c) **Study area:** the study team has conducted study in the project affected areas of East Khasi Hills and Jaintia Hills districts of Meghalaya State. The study was mainly focused on the people whose movable and immovable assets will be directly or indirectly affected and those who depend directly or indirectly on agriculture and other resources as their sources of livelihood or income generating activities. These areas could be adversely affected with the implementation of the Project. The affected areas that falls under the alignment of the proposed new bypasses beginning from Bypass 1 to Bypass 7.

10.2 Traditional Livelihoods in Meghalaya State and Project Districts

Meghalaya is predominantly an agrarian economy. Agriculture and allied activities engage nearly two-thirds of the total work force in Meghalaya. About 80% of the population depends entirely on agriculture for their livelihood. Shifting cultivation and terrace agriculture are the major farming systems practiced by the people in the state. Rice is the dominant food grain crop accounting for over 80% of the food grain production in the state. Other important food grain crops are maize, wheat and few other cereals and pulses. Besides these are potato, ginger, turmeric, black pepper, areca nut, bay-leaf, betel vine, mustard and rapeseed etc. are some of the important cash crops. In Meghalaya land ownership pattern is followed i.e. the village land which means that the land is communally owned. Shifting cultivation is practiced in these lands and collection of forest products from the forest for sustenance are the main livelihood activities whereas in privately owned land settled agriculture is practiced and cash crop cultivation are the main activities.

The state of Meghalaya is endowed with a large deposits of valuable minerals resources such as coal, limestone, granite and clay which is also a source of livelihood for the people in this region. The State of Meghalaya is blessed with abundant stone quarries from which stone of various quality and size can be extracted. Hence the process of quarrying which means that rock materials are removed from the ground, either manually or mechanically. Among the different types of rocks are sandstone, limestone, marble, granite and slate. Rocks maybe extracted from the hillocks or ground in the form of solid blocks or slabs. Then these are crushed into pieces or broken by manual work.

Livestock is also identified as one livelihood in Meghalaya which can promote self-sustainability and gainful employment to the people of the State.

In Meghalaya non-timber forest products (NTFPs) and medicinal and aromatic plants (MAPs) have become an important source of cash and subsistence income for poor people living near forest. People in this region have traditionally been collecting different forest products from private forests as well as community conserved forest.

(1) Shifting Cultivation

While shifting cultivation is commonly observed in Northeast region in India, it is practiced in only limited area of East Khasi Hills, especially along NH40. As shown in Table 10.2-1, land used for shifting cultivation is only 0.7% of areas of Khasi Hills Autonomous District Council (East Khasi Hills, West Khasi Hills and Re-boi). Especially the primitive way of shifting cultivation (traditional *Jhum*, slash and burn

cultivation is hardly observed now a days. People have modified or innovated shifting cultivation in different ways (ex. *bun* cultivation, slashing only low branches) to make it more productive and environment-friendly. While it seems to be practiced keeping its shifting routine for recovery of soil fertile in East Khasi Hills, its inefficiency and environmental unsustainability can be still pointed out and Meghalaya State Government takes policy for transiting agricultural practice to more productive one.

Table 10.2-1: Land uses in the Area of Khasi Hills Autonomous District Council

Sl. No.	Class	Area (sq. km)	Percentage
1.	Dense Forests	3,071.1	29.4
2.	Open Forests	3,560.2	34.1
3.	Agricultural Land	888	8.5
4.	Non Forest	2,851.7	27.3
5.	Shifting Cultivation	72	0.7
	Total	10,443	100

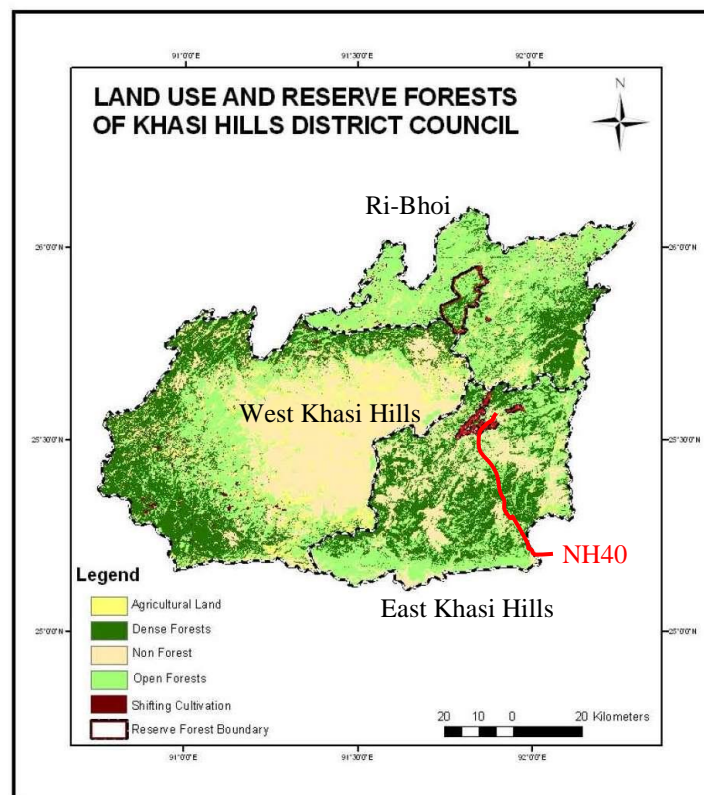
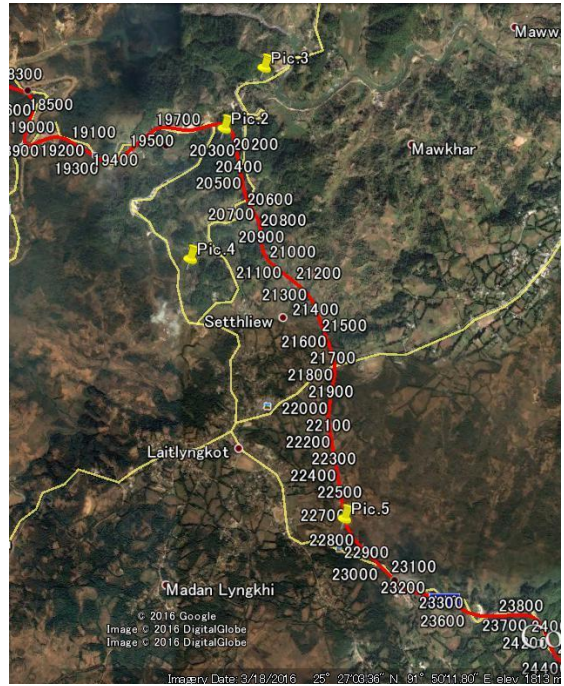


Figure 10.2-1: Map Showing Land Uses in the Area of Khasi Hills Autonomous District Council



Bypass 2 near Ritmawniew



Bypass 4 near Laitlyngkot

Figure 10.2-2: Area where shifting cultivation is practiced along NH40



Pic.1
Bun fields cultivating potato



Pic.2.
Bun fields cultivating radish



Pic 3.
Bun fields cultivating potato



Pic 4.
Bun fields cultivating maize, lettuce



Pic. 5
Bun fields cultivating maize and lettuce
(can be potato, sweet potato depending on seasons)

(2) Roadside Quarry

Hill-cutting quarry can be commonly observed along NH40. Meghalaya government stated in 2013 that while sand mining would not be banned, it would put in place regulations and provide alternative options for sustainable livelihood for those involved in the activity.

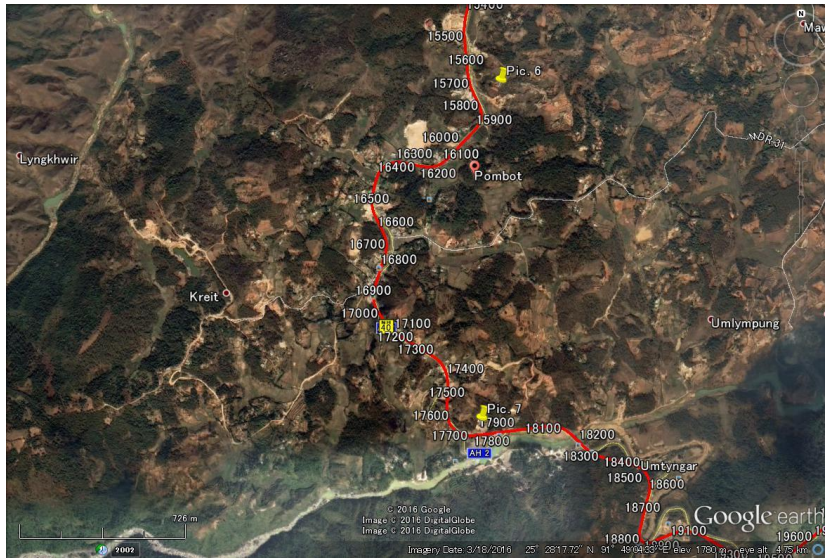


Figure 10.2-3: Cases of Area where Quarry is practiced along NH40



Pic. 6 Hill-cutting near Pombot



Pic. 7 Hill-cutting/ stone crushing near Umtyngar

10.3 Public Consultation

The NGO - *Tynrai Foundation* conducted the first round of extensive consultation at community / village level in the project area during August and September 2016. Community level consultation (Focus Group Discussion and Interviews) were held with targeted beneficiaries and the primary stakeholders of the project in 6 villages across the 2 districts of project area. These consultation included women, youth, BPL House Holds, Self Help Group members, and the farmers. The consultation meetings also involved tribal and other customary village leaders, members of village councils. The consultations were free, in local language, and conducted with prior information disseminated through consultation team. The consultation indicated strong demand and broad community support for livelihood interventions.

Table 10.3-1: Village wise consultation profile

Village	Date/Time	Location	No. of Participant (Male/Female)
MyllemRngi	6/09/2016	Community Hall of the Village	5 (Male-1, Female-4)
Umlympung	06/09/2016	Community Hall of the Village	33 (Male-11, Female-22)
Siatbakon	7/09/2016	Community Hall of the Village	33 (Male-10, Female-23)
Nongshyrngan	09/09/2016	Community Hall of the Village	29 (Male-12, Female-17)
Bakur	09/09/2016	Community Hall of the Village	18 (Male-8, Female-10)
Myllem Madan ling Syiem	10/09/2016	Community Hall of the Village	19 (Male-2, Female-17)

10.3.1 Village wise FGD Findings

Following Table 10.3-2 presents findings from village level Focus Group Discussion

Table 10.3-2: Focus Group Discussion Findings

Name of Village	Findings from FGD/Meetings/Interaction
MyllemRngi	<p>[General]</p> <ul style="list-style-type: none"> Almost all the respondents are engaged in farming and do not have other alternative livelihoods. <p>[Issues]</p> <ul style="list-style-type: none"> Existing traditional irrigation system will be disturbed due to the new road alignment which will affect cultivated lands and production. <p>[Institutions for income generations/ alternative livelihoods]</p> <ul style="list-style-type: none"> The Mahatma Gandhi National Rural Employment Guarantee Scheme is implemented in this village and provides jobs at least for 50 to 100 days in a year.
MyllemMadanlingSyiem	<p>[General]</p> <ul style="list-style-type: none"> The main income generating activities in this village come from agriculture and small enterprises such as tea stalls, vegetable vendors, small grocery shops and car washing centres. <p>[Issues]</p> <ul style="list-style-type: none"> The main constraints faced by the people of this village are the acquisition of private land and have concerns over the compensatory mechanisms.

	<ul style="list-style-type: none"> • Short term benefits are the employment opportunities such as employment in road construction; make shift stalls and related activities. <p>[Institutions for income generations/ alternative livelihoods]</p> <ul style="list-style-type: none"> • There are existing women Self Help Groups (SHGs) that mainly assist members during special events that happen in the village. These SHGs do not take any financial help from other sources. • The schemes that are available in this village are those of the PWD and MGNREGS • There is no existing or functioning NGO and no other schemes or trainings/capacity building have taken place in this village according to the Community.
Umlympung	<p>[Issues]</p> <ul style="list-style-type: none"> • The main concern of the Community is the impact of livelihood since with the coming of the proposed Project as most of them have the community members are engaged in small scale enterprises (Tea stalls/food stalls along the existing road) <p>[Institutions for income generations/ alternative livelihoods]</p> <ul style="list-style-type: none"> • Schemes present are, the Mahatma Gandhi National Rural Employment Guarantee Scheme which is availed by many of the villagers here providing 100 days of work at Rs 163/- daily wage. • The village was also to avail MLA scheme for development of this village.
Siatbakon	<p>[General]</p> <ul style="list-style-type: none"> • The main income generating activities in this village come from broom cultivation and small scale enterprises. <p>[Institutions for income generations/ alternative livelihoods]</p> <ul style="list-style-type: none"> • There is no existing or functioning NGO and no other schemes or trainings/capacity building have taken place in this village • The only government scheme that is available in this village is the MGNREGS scheme.
Nongshyrngan	<p>[General]</p> <ul style="list-style-type: none"> • There are no Sacred Forests that are affected, no traditional land practice; however one Stone Monument (Monolith) which is present in the village will be affected. • About the medicinal plant there was one Garden owned by the 4 clans. <p>[Institutions for income generations/ alternative livelihoods]</p> <ul style="list-style-type: none"> • The NGOs that was MRDS (Meghalaya Rural Development scheme). MRDS (Meghalaya Rural Development society) is the only project that was functioning till 2012 providing Livelihood Opportunity such as Mushroom Cultivation they also provide seeds to the farmers for cultivation. • The scheme that is implemented is only MGNREGS
Bakur	<p>[General]</p> <ul style="list-style-type: none"> • There is no culturally important facets like the Sacred Forests or Monoliths. <p>[Institutions for income generations/ alternative livelihoods]</p> <ul style="list-style-type: none"> • There were a number of organisations that were known to the villagers, but currently defunct and not active. Presently there are a number of pressure groups such as WJYC (West Jaintia Youth Council), KSU (Khasi Students Union), HNYF (Hynniewtrep National Youth Federation), and Women Organizations working in these areas. These groups are not government sponsored therefore making them illegible to implement any scheme(s) in the designated areas. • These pressure groups however act as a monitoring body of the people in those areas by keeping a check on the existing government activities.

- The schemes that are available in the village are the Mahatma Gandhi National Rural Employment Guarantee Scheme. Community hall buildings have been constructed under the Border Area Scheme which is present in the village. The infrastructure of the existing school (Khasi Pnar secondary School) was upgraded using the Border Area Scheme.
- The SHG (LiaShaphrang SHG) in this village is active and functional.



*Studies conducted in Siatbakon Village
7th September 2016*



*Resource Mapping conducted i Nongshyrngan
Village,
9th September 2016*



*Studies conducted in Siatbakon Village
7th September 2016*



*Market Studies conducted in Siatbakon Village,
7th September 2016*



*Studies on agriculture conducted in Myllichem Madan Ing Syiem,
10th september 2016*



*FGD conducted in Myllichem Madan Ing Syiem,
10th september 2016*



*Seasonal Calendar conducted in Siatbakon Village,
7th September 2016*



*Resource Mapping in Ningshyrangan Village,
9th September 2016*

Figure 10.3-1: Consultation Meetings/FGD

10.3.2 Key Social Issues Identified during first round of Consultation

The study team organised the first round of consultative meetings with the villages that agreed to meet and discuss the proposed Project. During the team's engagement with the people of these villages they were able to make key observations that team felt necessary to discuss. The following were the key Social Issues as identified by the study team:

- Acute asset poverty among tribal community;
- Bulk of rural poor self-employed in subsistence agriculture and other non-farm occupations;
- Government programs have not been able to reach out to and mobilize the rural people effectively. This is mainly due to limitation of staff availability, implementation capacity, budget, and emphasis on targets;
- Community mobilization and transparency in functioning and information sharing continue to remain weak in government programs;
- Existing Self Help Groups in project area are defunct and weak in social cohesion and group functioning, driven more by subsidies, with low repayment rates and low bank linkages;
- Lack of information, low awareness and functional illiteracy have constrained the access of the poor to essential social and livelihood services and infrastructure;
- The poor have low capacity to effectively participate in economic, social and political life;
- At the village level, participation of the rural poor in village planning and governance is low, both in traditional and statutory governance structures and process;
- Women have limited role in decision - making bodies and local self – governance;
- High unemployment among the rural youths;
- Meagre income from agriculture and lack of employment opportunities leaves households with limited options to come out of poverty situation;
- Lack of meaningful capacity building efforts with respect to tribal communities is another important reason of exclusion;
- The concepts and objectives of programs / schemes do not trickle down meaningfully to the real beneficiaries.

10.4 Market, Distribution and Processing of Agricultural / Non – Agricultural Produces

10.4.1 Background

There are two kinds of rural market places, i.e., (i) periodic (primary) market places occurring with eight days rotation are majority; these are big and large-scale markets as well as small markets (depending on the location) composed of farmers, traders, middle men, small retail traders, and have a mix of permanent (established), temporary (un-established), and road side shops, and (ii) daily market places, located nearby in the area but are small-sized market places with retailers providing wide variety of products to meet daily necessities. The latter do not exist in all parts of all the districts as there are only ten or more places that have this kind of rural market in the state.

10.4.2 Management System of Markets

The management system of markets differs in areas except for two regulated markets managed directly by the Meghalaya Agricultural Marketing Board (MAMB).

Khasi Hills: Most of the rural markets are under the Syiem and his Durbar who have the right to collect a customary toll called “Ka Musur” and “Ka Bainguh Syiem” for all types of commercial goods, including Certificate of Origin (CO) on forest for all forest products at any revenue station authorised by the Syiem and Durbar. It is preferred that the right to collect customary toll and market toll, as far as practicable, be done through public auction as may be decided by the Syiem and Durbar.

Garo Hills: The rural markets along with toll gates in Garo Region are managed by the Garo Hills Autonomous District Council (GHADC). The markets are leased annually or for a five-year term (depending on the term of the ruling party) by inviting bids. GHADC receives money from the lessee of which 10% is retained by GHADC, and the rest goes to the concerned Nokma and his Durbar.

Jaintia Hills: The market system in Jaintia Hills is governed by the United Khasi-Jaintia Hills Autonomous District Council (JHADC) Act, 1959. However, there are nine markets directly under JHADC, five private markets under JHADC control, and eight religious/ Elaka markets run by respective Daloi’s of that Elaka. The revenue collected from the markets under JHADC control comes in full to JHADC. For private markets which are under JHADC control, JHADC receives 50% of the gross income of all private markets. For the markets under 100% control of Daloi of Elaka (s), 100% revenue is retained by Daloi of the Elaka and his Durbar.

The rural markets in Meghalaya and Project Districts generally perform three functions, viz, (i) selling of local produce within the area, (ii) assembly of local products for selling to other areas, and (iii) retailing of wholesale lots from other areas in the local area. The selling of local produce to traders and consumers is the predominant activity in these markets. Here farmers represent the biggest group either as sellers or as buyers. At times, farmers retail their produce and become traders also. Besides, goods that are not produced locally, are brought by smaller and occasional traders to retail to the local population. These markets, through their interconnections, are the farmer's main connection point with both inter- and intra-regional marketing system. The condition of such connection is restricted and localised to certain specific areas due to geophysical conditions as well as condition of infrastructure facilities.

10.4.3 Market Study of Project Area

Market Study was conducted in the Project area out market systems, condition of existing markets, turn over, distribution rout and characteristics of distribution system, international trade with Bangladesh etc.

The main wholesale market that is situated in between this bypass is at Pynursla village. Other markets are Bara bazaar in the main city of Shillong and also in Dawki village (border of Bangladesh) which act as a wholesale market as it is a border area where export of goods to Jowai and Bangladesh occurs. From this study, it shows that the market system in this area is not well defined as almost the entire marketing system is unorganized and exists in the form of traditional 'Haats' and weekly 'bazaars'.

The weekly bazaars in this area occur twice a week at Pynursla and Dawki, once a week at Laitlyngkot and Lewwahlyngkhat and whereas in Shillong, which is the main market for many of the villages in this bypass, the market is an everyday affair. All these markets serve as a means of exchanging goods for the people from rural areas and urban areas. This renders the job of determining the commodity-wise and district-wise marketable surplus very difficult. The situation is further compounded by the fact that a chain of middle-men (person or company that connects buyers with sellers) operate as transporters and traders between the farm-gate and the markets within the state as well as outside including the markets in neighbouring Bangladesh.

The problems that exist in the market system in Meghalaya are that, the farmers do not have a proper storage room for raw materials in which they have to sell their products at low prices, also there is competition over raw materials within the local markets leading to fluctuation of prices, but no small cottage industries to convert the raw materials into finished products. Only with the existence of small cottage industries will the farmers be able to convert the raw materials into different kinds of produce and this will in turn have an impact in the overall market system in Meghalaya as well as in the whole of Northeast India.

The State Agricultural Produce Marketing Act was enacted in the year 1980 and the State Agricultural Marketing Board was set up in 1983, to develop marketing infrastructural facilities and to provide marketing support to the farmers in the State. In the year 1991, with the assistance of the Centre for Agricultural Marketing, Government of India located at Jaipur, detailed survey was conducted and a project profile for development of marketing infrastructure in Meghalaya was prepared. Accordingly, it was proposed to set up secondary markets in each District in the State which are called Wholesale Regulated Market. Thus, land was made available at Mawiong in the East Khasi-Hills District, Garobadha in the West Garo Hills District and William nagar in the East Garo Hills District.

10.4.4 Market system:

It is a process of networks of buyers, sellers and other actors that come together to trade in a given product or service. The participants in a market system include direct market players:-

- i) Producers: A producer is someone who creates and supplies goods or services;
- ii) Buyers: A buyer is one who engages in the purchase or acquisition of a part or the entire business organization;
- iii) Consumers: A consumer is a person (or group) who pays to consume the goods and/or services produced by a seller.

10.4.5 Marketing Channels:

Agricultural produce is normally channeled through the following types of market:

- a) **Rural Primary Markets:** In rural markets, trade is characterized by direct sales of small quantities of produce by producers to village traders and by sales by retailers to rural consumers. Rural markets form part of a trade network and are normally arranged on a periodic basis on specific weekdays, and are commonly organized at a central place in a village or district centre or beside the village's access road. In some instances, provincial and district-level markets also serve this function, as well as providing an assembly function (i.e. assembling produce in larger quantities for onward sale to outside buyers).
- b) **Assembly Markets:** Larger rural markets are found where greater quantities of produce are traded, either by the producers themselves or by traders. These "assembly" markets (often combined with local rural markets), are normally situated on main highways, or near to ferries and other local transport nodes. Produce is predominantly bought by traders or collection agents on their own behalf or on behalf of urban wholesalers.
- c) **Wholesale Markets:** Terminal wholesale and semi-wholesale markets are located within or near major cities. These markets may be supplied by purchasing or assembly centres in the rural areas or directly from farms, either by traders or by large farmers. Transactions are predominantly handled by traders although many wholesale markets incorporate "farmers' markets" where farmers can sell directly to retailers. Some markets also allow traders to sell to retailers "off the back of the truck".
- d) **Retail Markets:** These are markets directly serving consumers and are found in main urban areas, such as provincial, town and city centers. Although primarily retail, they may have some semi-wholesale functions, particularly if they allow farmers to trade. In that case, they are often called farmers' markets.
- e) **Other Marketing Channels:** Channels other than markets often exist, particularly in the case of horticultural produce. These include on-farm sales, where collectors purchase the produce (usually under contracts between the producers and distributors) and arrange transport to wholesale outlets, packing houses or supermarkets. The extent to which this is done depends primarily on the general state of development of the economy and the demands of consumers.

10.4.6 Findings of Market Study

To understand market situation, a study was conducted in the project area. The study was mainly focused on:

1. To understand the economic status of the farmers and shopkeepers within project area; and
2. To find out the flow of the marketing system/market service provided by the farmer.

A questionnaire was used as a tool of data / information collection. Followings are the key findings of the study:

- Most of the respondents (86%) are females whereas 14% are male which show that the women are more engaged in daily activities;

- Most of the respondents (57%) have passed their schooling till high school whereas around 43% have cleared only up to class 5th;
- Around 86% of the respondents have families comprising of 8-10 member and 14% of the respondents have families with 5-7 members which is still a big family by modern standards. This shows that people in this area do not give any importance to family planning which is an important factor to take into account with regards to socio-economic aspect;
- Among the respondents, 57% are depend on farming as a primary occupation and 43% depend on local businesses such as animal husbandry, car wash services, stone quarries as secondary occupation;
- Most of the houses of the respondents who will be affected along the Bypass are pucca houses constituting of about 57% and kutcha houses around 43%;
- Among the respondents, 29% of the respondents have their own land for agriculture, 57% have their own shops on their own lands and 14% of the respondents have rented out shops along the ROW;
- Around 75% of the respondents travel to Shillong market for acquiring goods whereas 25% go to 7th mile market for the same;
- With regards to owning land, 57% use the land for cultivation, 29% cultivate the land for own consumption and the remaining 14% lease out the land to others;
- Around 71% of the respondents carry their products from the fields to the main road by themselves since they have their lands close to or just by the roadside and around 21% depend on hired labourers to carry their goods to the main road;
- Among these respondents, 14% earn a montly income ranging between ₹ 5,000-10,000, another 14% earn between ₹ 25,000-30,000, 29% earn more than ₹ 30,000 and 43% of the respondents however do not keep any record of their earnings and savings;
- On a weekly basis, 43% of the respondents spend around ₹ 350 on their goods, another 43% spend ₹ 200 and the remaining 14% spend ₹ 450;
- Among the respondents, 43% of the respondent sell their product in the village itself, 43% in Shillong market and 14% in 7th Mile market depending on the quantity of the products;
- The time of the year when the production is less for 14 % of the respondents is during the month of Jan-Feb since it is the sowing season and the rest of the 86% of the respondents do not keep records; please clarify.
- All the respondents say that they do not have bargaining power when it comes to buying or selling their products in the market because the prices are all fixed by the middlemen in the market place;
- There is no association or welfare group in the village to look after their grief or interest;
- Around 71% of the respondents say that there is no Self Help Group in the village while 29% do not have any knowledge about the existence of any SHG;
- All the women play a major role in income generating activities since they are directly involved in the exchange of goods in the market, the sowing and reaping process in the agricultural fields as well;
- All the land used for settlement, for cultivation or for other business purposes belongs entirely to the women respondents;
- Around 86% of the respondents say that there is a need for training/building capacity for the women of the region, whereas the remaining 14% says that the training will be of little or no help at all since they will not have time to attend such trainings;

- Almost 57% of the respondents expressed that fluctuation in prices of goods do not affect them at all since they also have their secondary occupations to support them, whereas the other 43% say that price fluctuation does affect them since they have no other alternative sources of income;
- Among the respondents 43% feel that the presence of middlemen affect their income and the flow of money from the producer to the consumer and vice versa whereas the 57% of the respondent say that it does not affect them at all;
- Among the respondents, 57% say that changes in the climate does affect their daily activities because the crops are affected and the other 43% says that it does not affect their daily activities;
- Around 57% of the respondents have to pay taxes to the custodian of the market normally the Syiem of Myllem while selling their goods in the Shillong market only. Whereas the rest do not have to pay any tax as they sell their product in their own village or other nearby market;
- Among the respondents, around 57% face the problem of monopoly in the market while 43% say that it does not affect them as they are not solely dependent on only one market;
- Around 29% of the respondents say that the reason for change in the system of market in last five years is due to lack of labour, 29% say it is due to competition with other local markets, 28% say that it is due to income patterns, while 14% say it is due to loss of income caused by the intrusion of outsiders coming into the same market.

10.4.7 Suggestions and Recommendations

In the different interviews with the respondents, they have mentioned that there is no association or group of people that work or look after the welfare or interest of these different groups of people in the different villages within project area. Therefore it was suggested by the people if the government could provide mechanisms that can help or that can look into such issues.

Opinions of the Project Affected Persons (PAP) about the Project- A positive response from them altogether was received for the project. However compensation must be given to them based on the proper valuation of their assets especially their lands, Residential and Commercial structures and other assets.

10.5 Livelihood Frameworks

- Participatory identification and selection of affected beneficiaries, individually or collectively;
- Targeting of excluded and vulnerable areas and communities;
- Regular informed consultations and information dissemination in the project area;
- Focused information and communication campaign in project area;
- Social mobilization of identified affected HH and beneficiaries;
- Representation of women, youth and other tribal households in livelihood programs;
- Participatory planning for livelihoods, community infrastructure and natural resource management;
- Community based Grievance Redress System, linked to customary systems of conflict and grievance resolution;
- Targeted planning and allocation of economic and livelihoods assistance;
- Sensitization and capacity building of project staff and partners

10.5.1 Gender Strategy

Participation of women would be key factor in implementing social inclusion while the Study focuses on women's mobilization and empowerment as a core intervention and strategy, it would need an additional actions to address the gender inequities in project area, especially those related to identification of women headed households, women's lack of information, participation in decision-making etc. The gender strategy will be based on:

- Exclusive women's SHGs promoted based on affinity;
- Targeted identification and mobilization of women – headed households, widows, destitute and deserted women;
- Orientation and training of project staff on gender issue in project area;
- Gender sensitization;
- Training / capacity building on women's leadership;
- Ensuring women's participation and representation in planning and implementation of livelihoods plan;
- Convergence of other programs and schemes for women.

10.5.2 Identified Alternative Livelihoods

The identification, selection and development of income generating activities intended for the villages along the NH-40 must be deemed as important if the proposed Project is to be implemented. If households and enterprises are to be displaced, they would need adequate resources to fall back on in times of need and this means finding alternative methods of income generation. Livelihoods are made up of skills, technologies, organisations and finances that are built up over time for people to make a living and have a good quality of life. Listed below is some of the alternative livelihood options identified based on the diversity of resources, skills and technologies they are able to access.

- Agricultural diversification: it means intensifying inputs like labour etc in one small piece of land instead of a huge area of land and incorporate new technology with their traditional methods of farming;

- Rural livelihood diversification: the process by which rural families construct a diverse portfolio of activities and social support capabilities in order to survive and improve their standard of living. The determinants and effects of diversification in the areas of poverty, income distribution, farm output and gender are examined;
- Government intervention for livelihood options;
- Temporary livelihood options in the form of daily wage especially for the landless people;
- Promoting Apiculture (bee- keeping) apiculture can play a vital role in the livelihood promotion of the farmers in Meghalaya;
- Training in agro processing activities refers manufacturing the raw materials and intermediate products derived from the agricultural sector. Agro processing industry thus means transforming products originating from agriculture, forestry and fishery;
- Training in embroidery and tailoring this can also be another form of alternative livelihood for the people in the affected areas especially the women.
- Eco-Tourism is another important livelihood option that can be looked into. Eco-Tourism directed towards exotic natural environments, intended to support conservation efforts and observe wildlife. It is possible to develop eco-tourist spots within East Khasi Hills and West Jaintia Hills in Meghalaya due to its scenic beauty. There are waterfalls such as Byrdaw Falls (Pomshutia), Elephant Falls (near Pomlum) which are tourist attractions that fall within the NH-40. There are also a few areas used for camping sites and other outdoor activities near Dawki (Shnongpdeng being one of the major tourist attraction spots) which contribute to the tourism of Meghalaya. Such tourist spots and areas can be identified and developed to bring in more tourists to the state of Meghalaya. On the hindsight, careful steps must be taken to not overburden the already existing tourist spots which will result in pollution and huge amount of footfalls. The villagers of these areas can be taken into confidence with multiple consultations to identify such areas to boost the village economy and also provide an alternative livelihood option for them.

10.5.3 Linkage with Meghalaya State Rural Livelihoods Mission

As per the guidelines of National Rural Livelihood Mission (NRLM), the Government of Meghalaya has formed a state society in the name - Meghalaya State Rural Livelihoods Society (MSRLS). The society is registered under the Meghalaya Society Registration Act XII of 1983 and was designated as the Nodal Agency for implementing NRLM in the state. The basic purpose of forming this society is to put in place a dedicated and sensitive support structure from the State level down to the sub-district level which will focus on building strong and self-managed institution of the poor at different levels. This will provide the poor a platform for collective action based on self-help and mutual cooperation, build linkages with mainstream financial institutions and Government departments to address the multi-faceted dimensions of rural poverty. The study will focus more on understanding the mission and linking it with project affected area beneficiaries. Apart from this mission, the study will also concentrate on various State Government schemes appropriate in the project affected area, these are

- Chief minister's rural development fund (CMRDF);

- Construction of rural roads Program (CRRP);
- Indira Awaas Yojana (IAY);
- Innovative stream for rural housing and habitat development;
- Meghalaya rural employment guarantee scheme;
- National family benefit scheme (NFBS);
- National social assistance programme;
- Special rural works programme (SRWP).

10.5.4 Proposed Countermeasures for Agriculture and Allied Sector in the Project area

Subject	Countermeasures
Appropriate Crop Production	An issue of significance is appropriate crop choice to maximize productivity in agriculture. Meghalaya's, especially project area demand for meat, fish, and eggs is far higher than the national demand, and so is its demand for beverages. Its demand for rice is marginally higher than that of the country. Dependency indices for the state indicate a high dependency on 'imports' in all the districts for several products such as cereals, pulses, oilseeds, total food grain, and fish. Consumption demands could be used as indicators for increased cultivation for local consumption. With the development of markets, instead of cultivating traditional crops, people of project area can exploit its climatic advantage to cultivate certain high-value horticulture and floriculture products for export to neighbouring markets.
Modernisation of Agriculture	Almost any effort to increase productivity will require phasing out of <i>Jhumming</i> and replacing it with settled cultivation. The indirect benefits from the replacement of <i>Jhumming</i> will be that the percentage of fallow land to overall cultivable land will be progressively reduced. Production of horticulture and floriculture products will also require modernisation of farm techniques and expansion of irrigation facilities.
Water Management	Because of the high altitude and mountainous terrain of the project area, water run-off is very high, which makes multiple cropping almost impossible. Thus, water harvesting and water retention, along with major irrigation based on river and stream water, may be the sine qua non of agricultural development in Meghalaya. Such steps also will increase both land and labour productivity in agriculture.
Developing Forest Resources	The abundance of forest resources could contribute significantly to the income growth of the project area. However, the share of income from logging and forestry in GDP is abysmally low, indicating that the project area still has unexploited potential in realising income from forestry.
Cluster-based Development	The short-run development approach will be cluster-based to realise greater economies of scale and specialisation. For this, the cultivated area of the project area can be divided into crop-wise clusters based on comparative advantages, with each cluster defined as a Crop Development and Marketing Unit (CDMU) which emphasises the marketing aspects of the cluster. Collection centres will need to be set up near the clusters, which will have linkages with clusters in other regions to promote economic linkages with wholesale markets. Marketing intervention, especially for horticultural produce, with a full complement of post-harvest infrastructure and market network is fundamental. These CMDUs would be given appropriate managerial and financial flexibility for assisting producers realise reasonable profits from their efforts.
Transportation Network	An efficient transport network allows farmers to expand their business horizon, resulting in specialisation in production and trade. In the absence of such networks and markets, villages have to become self-sufficient, where each farmer is essentially forced to produce everything he / she requires, without being able to create marketable surplus. The value of surplus production can be realised in the context of trading opportunities.
Creating Market Framework	The highly perishable nature of agricultural goods becomes an issue when there are several small farmers and little inter-state coordination. Farmers need some support in marketing their products if they are to be induced to make the shift to cash crop production. Further, unless states coordinate their production and storage plans, excessive production can lead to a market crash.

Agro-based Industry	There is a link between productivity, trade, and urbanisation. The rate of urbanisation crucially depends upon the rate of industrialisation. Thus, in order to increase labour productivity in the project districts, one should focus on creating agro-based industrial clusters in project districts having strong forward and backward linkages. The success of such agro-based industrialisation will depend upon (i) the creation of markets and (ii) efficient and reliable transport connectivity. The important initiatives in this regard will have to include a thrust on improving the value chains. The private sector will have to play a crucial role in making investments not only in agro-based industries but also in building the infrastructure for improving the value chain through public-private partnerships (PPP).
---------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Source: Meghalaya Vision 2030

In the project area where over half the population is below the poverty line, harnessing water is at the heart of alleviating poverty by providing livelihood opportunities to the rural poor. The Government of Meghalaya has launched a programme called ‘Integrated Basin Development and Livelihood Promotion (IBDLP)’. The thrust areas of the IBDLP include integrated water resources management, creation of small multipurpose reservoirs (SMRs), and generating water-centric livelihoods such as fisheries and aqua tourism. The objective is not only to capture surface run-off and water along the drainage lines and reduce erosion but also to formulate a water policy and aim at better river governance. The SMRs will be used for various productive purposes like aquaculture, drinking water supply, mini-hydro irrigation, aesthetic value, tourism, and ecosystem promotion. Considerable investments are supposed to be made in this flagship programme. Therefore, it is recommended to link affected people those who are interested in water resource management in their fields with IBDLP.

10.5.5 Integrated Basin Development and Livelihood Promotion Programme (IBDLP)

The Integrated Basin Development and Livelihood Programme (IBDLP) was launched in April 2012 as a flagship programme co-terminus with the State’s 12th Plan. The program aims to put Meghalaya on a higher growth trajectory during this plan period and improve the quality of life and well-being of all its citizens.

As the program has an ambitious, challenging and ideal concept, it presumes every individual of the state to produce anything for the market as an entrepreneur. The program plans to concentrate all resources to support such individuals and foster real entrepreneurs who can manage their business by themselves.

The Meghalaya Institute of Entrepreneurship (MIE) has been set up as the nodal institution to facilitate the setting up of entrepreneurs under the IBDLP. Followings are focus areas of MIE:

- Training basic skills of managing enterprises in case of enterprises linked to agriculture. In general, training provided by agriculture-related departments is technical in nature, not so much focusing on the business. MIE emphasizes on looking at the agriculture value chain, and tries to fill up the gaps like those related to post-harvest and packaging. As there is limited business orientation amongst people involved in agriculture, it is quite challenging to provide training in agriculture sector-related enterprises;
- On demand, MIE offers training services to line departments that include training of beneficiaries and officials. Most of the training for the officials is on development orientation of the importance of marketing;

- MIE considers that there are four priority groups of participants, i.e., Priority 1: Ready for business; Priority 2: Need exposure and training; Priority 3: Need detailed support; Priority 4; Persons not knowing what to do. MIE is more focused on imparting training to the Priority 4 group of participants, as its focus is bottom up approach;

10.5.6 Farmers Organizations and Livelihoods

Overview

Cooperatives of various types, self-help groups (SHG), farmers' clubs, farmer's producers organisations, growers association, fisheries groups, and water users' association (WUA) for irrigation have been formed in Meghalaya. SHGs are now being promoted by Meghalaya State Rural Livelihood Society (MSRLS under NRLM) and other SHG support organisations.

Cooperatives

The number of cooperatives in Meghalaya has grown in the past ten years. Around 1,410 cooperatives are registered and engaged in various activities including agriculture, dairy, fisheries, horticulture, and marketing. Out of the total, 360 multipurpose cooperatives and 172 primary agriculture credit societies are functional. Twenty-five cooperatives are engaged in marketing of agricultural and horticultural produces. Maximum numbers of the cooperatives have been formed in East Khasi Hills District accounting for 293 cooperatives or 20.8% of the total number of cooperatives in the state. There are 89 women cooperatives, of which 16 cooperatives are not functioning.

It is recommended that the respective project affected people should be linked with respective cooperative in the project area.

Self Help Groups (SHGs)

SHGs in Meghalaya are formed under the auspices of Swarnajayanti Gram Swarajgar Yojna (SGSY) and other projects/schemes like north eastern region community resource management project (NERCORMP). NABARD is also promoting SHGs through 13 SHG promoting institutions and organised 1,779 SHGs so far. However, due to the lack of the integrated monitoring system of the status of the SHGs, the Survey Team was unable to understand the overall condition of the SHGs in the state. Meghalaya State Rural Livelihood Society is in the process of reorganising SHGs formed under SGSY and organising new ones and also establishing MIS to monitor the status.

Some of the SHGs formed under the integrated watershed management project (IWMP) and NERCORMP are engaged in income generation activities of vegetable cultivation, processing food, making vermin compost, handicraft making, processing non timber forest products (NTFPs), etc.

As of 31st March 2014, 3,075 SHGs in Meghalaya have outstanding loans amounting to Rs. 126.82 million. In the case of SHG bank linkages, the transaction cost for accessing financial and other support services is high because of the terrain and limited presence of service providers. The outreach of banks and other financial institutions is poor in the remote areas. Many of the borrowers become defaulters not because they do not want to make the repayment but due to the cost and time required to reach the bank. They have to travel quite far and spend time and money to come to the bank for repayment.

It is therefore recommended to focus on non-functional SHGs to make them functional and formation of new SHGs of project affected women groups in the project area.

10.5.7 Issues and Possible Counter Measures

In order to achieve the agricultural development in the project area, all the allied sectors contributing to the food production are to be developed by strategic interventions based on the existing production systems in each sector. The result of SWOT analysis and recommendation of countermeasures are as follows.

Chapter 11 REHABILITATION PLAN

11.1 Rehabilitation Plan

The rehabilitation plan should consider the present socio-economic status of the PAPs. The survey conducted as such reflects this information and helps in formulating a plan that considers the peoples current way of life and how a new environment can better their standard of living. A key objective of RAP is to enhance the livelihood of PAPs and ensure that their resettlement is not sinking their quality of life. Rehabilitation is to be developed and implemented by the State Government; inputs and feedback from relevant stakeholder/communities must be incorporated in the plan through a series of discussions and workshops. The plan should be outlined within the framework of the policies and guidelines of JICA and the State/Country policy.

The following will benefit from Rehabilitation Plan in this project;

- Agricultural Land affected by the project, PAPs working at sand and quarrying
- Residents whose occupation affected directly (resettlement) or indirectly (decreasing income by construction of bypass) by the project.

It shall be noted here that Rehabilitation Plan in this report is still a proposal, and Resettlement and Rehabilitation Plan will be drafted by each DC followed by Social Impact Assessment Procedures. Accordingly, information presented in Chapter 10 and suggestions in Chapter 11 should be considered by DCs. Implementation of R&R plan is responsibilities of DCs and NHIDCL, with support of Implementing NGOs.

Measure 1. Job Training

- Purpose: - Train for earning by new occupation
- Countermeasure: -Survey the applicants and their demand for new occupation.
-Based on possibility of project, market and advice from Experts, consider contents of job training.
-Programs of seminar or practice for job training
-Provide the opportunity of job training

Measure 2. Provide and enhance the chance of Employment

- Purpose: -Increase the production of existing agriculture and quarrying etc.
- Countermeasure: -Based on survey of household livelihood and opinion of PAPs, consider measures to provide and enhance.
-Consider according to expert's advice based on possibility of project and market
-Consider reduction of individual expense, such as leased land or group purchase in case of land expansion

Measure 3. Financial Support

- Purpose: -Better economic situation after resettlement
- Countermeasure: -Establishment of Microfinance (Low / Non interest)
-Subsidy

Measure 4. Employment in short term

Purpose: -Make opportunity of short term employment in relocated place until getting stable income by the main job.

Countermeasure: -Make opportunity of short term employment

The following points can be taken as reference:-

a).Skill gap assessment in the project area:

It is possible that the PAPs may have potentials and innate skills that could raise their income, but may not be aware or is challenged in proceeding forward with the skill due to reasons of poverty or capacity- eg in marketing, production and sustenance. The State can explore possibility of conducting a Skill mapping in the area, which does have to be exhaustive, but basic enough to provide the project with appropriate and result oriented trainings and programmes. The assessment should also provide information on the marketability of such skills if PAPs have capacity in the area.

b).Cottage industries:

Handloom and Handicraft, are part and parcel of Meghalaya's various tribes, The Khasi and Jaintia Tribes are very attune to this art form, with many households in the rural areas practicing it as a hobby or simply to provide for the needs in the house eg, bamboo stools, baskets for storage, mats for sleeping, shawls and wrap around (used by women). While this art form had been promoted as an income generation activity and as a flourishing business for a few, majority of the Khasis in the project area are yet to take this forward as a livelihood skill. The Implementation agency can identify such potential skills as an alternative means of livelihood and utilize the available assistance from the State for scaling up this scheme.

c).Skill development linkages and small business initiation-

Implementing agency can create or establish linkages between PAP and available schemes and assistance with various State Government Departments such as Agriculture, Horticulture, and Sericulture. Widen the linkage by also involving Private organizations that are credible and that can provide trainings and handholding to the PAPs in the initial stages. Meghalaya has many Skills development initiatives that are both private and government. A Resource directory of these institutes and societies can be collated and shared with PAPs. It is significant that the list must have genuine, credible organizations that will assist and not mislead the PAPs.

Agriculture and Horticulture Production

Agricultural Production

1. Increase in cropping intensity by introduction of short duration high yielding varieties by replacing the existing long duration local varieties followed by cultivation of other crops like oilseed, pulses, wheat.
2. Proper nutrient management practices along with crop protection measures to be under taken to increase production and productivity of crops.
3. Maximum utilization of available water sources for irrigation purpose and creation of extensive rain water harvest structures to reduce the runoff loss and soil erosion.
4. Farm mechanisation, wherever possible, in order to meet the agricultural labour demand and to reduce the time required for agricultural operations.

Horticulture

1. Natural advantages such as topography, climatic conditions are to be best utilized by cultivating wide range of horticultural crops like fruits, flowers, spices, medicinal and aromatic plants. Exotic crops like strawberry having very high demand in local, domestic and international markets can accelerate the enhancement of farmers' income.
2. Promotion and commercialisation of horticulture by means of value addition through Common Interest Groups (CIGs) or SHGs.
3. The protection of existing forest areas through awareness programmes and planting of fast growing species of fruit trees in Jhum areas. To release the pressure on existing forests, cultivation should be encouraged in waste land and other marginal lands.
4. Development of high value and specialised tissue culture laboratories to enhance food production capacity and benefit farmers by supplying the required quality seedlings for horticultural crops.

Animal Husbandry and Dairy Farming

Animal Husbandry

1. Development of piggery and poultry including small ruminants for meat production and dairy cattle for milk by encouraging revived and improved backyard farming.
2. Encouragement to each household in the rural area for rearing three nos. of pig, 50 nos. of poultry birds, and one dairy cow in every 10 household.
3. Implementation of programmes such as, induction of quality dairy cattle, community cattle rearing, rural dairy farming, and artificial insemination.
4. Establishment of Dairy co-operatives/CIGs/SHGs for easy marketing
5. Establishment of small scale milk product processing industries for value addition
6. Improvement of technical dissemination network from Departmental farm to individual farms
7. Consolidating the existing livestock and poultry breeding farms, so as to evolve suitable crossbred in sufficient numbers from departmental farms for breeding and propagation.
8. Establishment of piggery clusters composed of core breeding farm and satellite fattening pig farms
9. Intensification of fodder development. Fodder stock and grass land reserve in all districts such as hay and silage making units to meet the requirement of fodder in lean period are to be set up.

Consolidating entire animal health care programme.

Fishery

1. In order to increase fish production in the State low lying area to be brought under aquaculture
2. Paddy cum fish culture to be encouraged in low lying paddy fields
3. Emphasis to be given for demand driven timely supply of quality fish fingerlings
4. Specialized transport vehicles for transportation of fish to the distant markets

Production of quality nutrition rich fish feeds to cater to the needs of fish farmers.

Chapter 12 RESETTLEMENT BUDGET

The resettlement budget takes account of compensation of affected Land, structures, trees, resettlement assistance, institutional cost, hiring of RAP implantation agency, contingency, HIV/STI awareness activities, capacity building, external monitoring and evaluation consultants, documentation and internal monitoring, institutional cost.

12.1 R&R Cost.

As accorded in the LARR 2013, the collector or DC shall award the R&R to the affected family in terms of entitlement's; the award shall include the following

- a. Rehabilitation and resettlement amount payable to the family
- b. Bank account number of the affected person
- c. Particulars of the house site .
- d. Particulars of one time subsistence allowance and transportation allowance
- e. Particulars of payments for cattle shed and petty shops
- f. Particulars of one time amounts to artisans and small traders.
- g. Details of mandatory employment to be provided to the members of affected family
- h. Particulars of annuity and other entitlements provided.

12.2 Replacement Cost of Structures

All structures either commercial or residential will be compensated at replacement cost as per entitlement matrix. The structures are classified in to (i) single story/Assam type (Assam type houses are those covered with tin roofs, have pillars and strong foundation). (ii) Two story RCC. (iii) One story RCC and (iv), Hut (built witholdtins). Cost of structure is calculated as per State government rates for 2016

Table 12.2-1: Replacement Cost of Structures

SI No	Structure	No	Area Sq. m	INR Rate per sq. m	Cost INR
1	single story/Assam type	248	21,311	2,388	50,890,668
2	Two story RCC	8	1,552	2,078	3,225,056
3	One story RCC	41	7,395	2,383	17,622,285
4	Hut	1	74	20	1,480
	Total	298	30,332		71,739,489

12.3 Market Value of Trees

There are a number of factors to consider in measuring the value of a tree, one of which is oxygen production. Value of trees are also considered on their ability to control soil erosion, humidity, sheltering birds, animals and other plants and controlling air pollution. Besides, these, different trees give income to the people residing nearby through the fruits, leaves, bark, etc that can be naturally extracted from the tree. Tree plantations are purposely created with the intent for income generation.

In the project road, the main tree plantations are the areca nut (betel nut) trees which are the source of livelihood for many households in BP 6&7. The areca nut tree is tall and comes from the family of the palm tree. The fresh nuts are plugged, processed/dried, and sold for consumption. The areca nut is a traditional and customary snack of the Tribal people in Meghalaya, which is also used during various ceremonies and rituals of the tribes here.

As per the LARR 2013, section 29, the collector, or Deputy Commissioner in case of Meghalaya, for the purpose of determining the value of trees and plants attached to the land acquired, may use the services of experienced persons in the field of agriculture, forestry, horticulture, sericulture or any other field considered necessary by him. This report will provide the number of trees that will probably be affected, the value of the tree in terms of the household earnings.

Table 12.3-1: Market Value of Trees*

Sl. No.	Type of tree	Number of Trees	Average Girth (cm)	Market Rate (Rs.)	Total Value in Rs.(Million)
1	Khasi Pine	6400	100	18,000	115.20
2	Broad Leave Tree (Such as Teak etc.)	600	90	40,000	24.00
3	Betel Nut	23,449	30	3000	70.35
4	Other Fruit bearing tree/Bamboos/Jack Fruit etc.	4164	80	12,000	49.96
Total					259.51

12.4 RP Implementation Cost.

Keeping in view the R&R impacts in the project and as mentioned in the institutional arrangement for R&R planning and implementation section of this report, an NGO will be hired under the subproject to implement the RP. A lump sum Rs. 1000000/- budget provision is made in the R&R budget to meet this cost. The cost of other institutional requirement for implementation of RP such as staff in charge at PIU level and for internal monitoring is not included and can be decided by the State.

12.5 Replacement cost of CPR

There are 6 bypasses that will be constructed to avoid congestion in existing road. The Bypass starts from the periphery of Shillong, and connects the existing road in various junctions as BP 2, 3, 4, 5 and 6. The affected structures are all included in the Table 12.2-1 and trees in Table 12.3-1.

12.6 R&R Budget

The appropriate Government shall constitute multi-member land pricing commission or authority to finalize cost of land acquisition/compensation State-wise/area-wise as determined under Section 30(1) read with Schedule I to the Act.

Determination of market value of land by collector u/s 26 LARR 2013:

(a) the market value specified in Indian Stamp Act, 1899 for the registration of sale deeds or agreements to sell as the case may be, in the area where the land is situated; or (b) the average sale price for similar type of land situated in the nearest village or nearest vicinity (The market value shall be determined by the Collector based on one-half of the total number of sale deeds or the agreements to sell recorded in preceding 3 years where highest sale price have been mentioned); (c) consented amount of compensation as agreed upon in case of acquisition for PPP or private companies projects as defined in section 2(2).

Section 29 (1) The Collector in determining the market value of the building and other immovable property or assets attached to the land or building which are to be acquired, use the services of a competent engineer or any other specialist in the relevant field, as may be considered necessary by him.(2) The Collector for the purpose of determining the value of trees and plants attached to the land acquired, use the services of experienced persons in the field of agriculture, forestry, horticulture, sericulture, or any other field, as may be considered necessary by him. (3) The Collector for the purpose of assessing the value of the standing crops damaged during the process of land acquisition may utilize the services of experienced persons in the field of agriculture as considered necessary by him.

S. 30 (1) In addition to the market value of the land as above provided, the collector shall in every case award a solatium (i.e., extra compensation for the forcible nature of acquisition) of one hundred per cent over the total compensation amount.

The following budget is prepared based on discussions with real estate consultants and referring to the State government rates for structures 2016. The unit cost is taken on average.

Table 12.6-1: R&R Budget

Item	Unit	Unit Cost	With BP5		Without BP5	
			Quantity	Total (Rs)	Quantity	Total (Rs)
I. Compensation						
Land (construction)	ha	1,500,000	229.99	344,984,000	199.05	298,570,000
Land (surplus soil)	ha	1,000,000	52.82	52,820,000	38.88	38,880,000
Rural area multiplier	*the land price will be double for compensation of rural area land as per LARR 2013			795,608,000		674,900,000
Structure	Sq. m		31,900	75,351,000	30,200	71,499,000
Trees	No.			258,900,000		250,505,000
Crops	No.			624,000		600,000
Solatium	*100% of compensation as per LARR 2013			1,130,483,000		997,504,000
Sub-Total (I)				2,260,966,000		1,995,008,000
II. Allowance						
Moving allowance	Household	50,000	313	15,650,000	297	14,850,000
Subsistence allowance	Household	36,000	313	11,268,000	297	10,692,000
Assistance to vulnerable	Household	25000	145	3,625,000	138	3,450,000
Training	Household	20,000	313	6,260,000	297	5,940,000
Sub-Total (II)				36,803,000		34,932,000
III. Implementation						
Expert fees	Lump sum			7,000,000		6,197,000
Staff training	Lump sum			1,000,000		885,000
NGO	Lump sum			15,000,000		13,280,000
External monitoring	Lump sum			2,000,000		1,771,000
Information disclosure	Lump sum			1,000,000		885,000
Livelihood restoration	Lump sum			10,000,000		8,853,000
Sub-Total (III)				36,000,000		31,871,000
IV. Land Transfer						
Land Transfer to other ministries				31,187,000		31,187,000
Sub-Total (IV)				31,187,000		31,187,000
Sub-Total (I+II+III+IV)				2,364,956,000		2,092,998,000
Contingency (10%)				236,495,600		209,299,800
Total				2,601,451,600		2,302,297,800

Chapter 13 RESETTLEMENT SCHEDULE

13.1 Introduction

The schedule is provisional, uncertain climatic conditions of the project area must be considered. A major part of the project area is known for heavy rains, fog and mist that surface randomly at any time, making driving and walking unsafe. Desk reviews, planning meetings and other documentation work can be done during such times and the project should be aware and prepared of sudden weather change and adapt strategies that will minimize loss of working hours.

13.2 Schedule for project implementation

Implementation of RAP mainly consists of compensation to be paid for land, affected structures; Rehabilitation and Resettlement activities. The civil works contract for each sub-project will be awarded when compensations are disbursed to entitled persons and minimum 80% of the land taken over by the Government. Completion schedule will involve continuous coordination among the project management units and the various other involved departments and agencies.

13.3 Schedule for Resettlement Action Plan

Consensus from concerned residents or agencies is planning to be obtained as following schedules.

- As for 101 Area of Widening section 1, NHIDCL needs to obtain an official letter from MoD for certifying their “No Objection” against land transfer.
- As for Aire Force Area of Widening section 2, NHIDCL needs to obtain an official letter from Eastern Air Command for certifying their “No Objection” against land transfer.
- As for Bypass 2, DPR consultants has already prepared realignment considering objection against the proposed alignment from local residents. NHIDCL reached agreement with concerned local residents regarding the re-aligned route through public consultation meetings on 19 May, 2017.
- As for Bypass 6&7, NHIDCL reached agreement with concerned local residents for the proposed alignment and relocation of the PHC through public consultation meetings in coordination with the Deputy Commissioner of West Jaintia Hills District and conducted Joint Inspection on 20th May, 2017. NHIDCL needs to reach agreement with Border Security Force (BSF) under Ministry of Home Affairs regarding the proposed alignment as well.

13.4 R&R Implementation Schedule

The R& R implementation schedule is as follows

The R& R implementation schedule will follow the below key activity⁴:

⁴ Refer to LARR 2013 chapter ii (B),chapter iv Chapter vi,

- i. State Government shall by notification appoint in respect of the project, an Officer not below the rank of joint Collector or Additional Collector or Deputy Collector or equivalent Official of Revenue Department to be the Administrator for Rehabilitation and Resettlement.
- ii. The Administrator for R&R , with a view to enable him to function efficiently , will be provided with such powers, duties and responsibilities as prescribed by the appropriate Government ;and also be provided with Office infrastructure and be assisted by Officers and staff who shall be subordinate to him as the appropriate Government may decide.
- iii. The State Government shall also appoint an Officer of the rank of Commissioner or secretary for R&R who will be responsible for supervising the formulation of R&R schemes or plans and the proper implementation of the same. He/She will also be responsible for the post –implementation social Audit.
- iv. Under the Chairmanship of the Administrator of R&R, the State Government shall constitute a Committee called the Rehabilitation and Resettlement Committee. The members of such a committee may consist as provided by the LARR 2013 section vi clause 45 (2).
- v. A notification to the effect of the project affected land will be published in the Official gazette, two daily newspapers, of which one is of the regional language, in the respective village Dorbar Office, the office of the District Collector and the Sub divisional magistrate; uploaded in the Official website of the government and in the affected villages.
- vi. Immediately after issuance of the notification , the Autonomous District councils shall be informed of the notification issued at a meeting called especially for the purpose.
- vii. Appraisal of Social Impact Assessment Report by Expert Group. The appropriate government will ensure that the Social Impact assessment be evaluated by an expert group (consisting of members as prescribed in the LARR 2013 chapter II Clause 7 (2).
- viii. Update the list of PAP through Detailed Measurement Survey DMC.
- ix. Conduct a survey and undertake census of the affected families- Inventory of affected properties and assets estimation.

Phase of Resettlement and Rehabilitation

To summarize, the proposed R&R activities are divided in to three broad categories based on the stages of work and process of implementation. The details of activities involved in these three phases, i.e. Project Preparation Phase, RP Implementation phase, Monitoring and Evaluation period :

(a).Project Preparation Phase

- The major activities to be performed in this period include establishment of PMU and PIU at project and level .

- Appointment of NGO and establishment of GRC etc.
- The information campaign & community consultation will be a process initiated from this stage and will go on till the end of the project. Information dissemination through consultations, community meetings using brochures/leaflets that inform about the resettlement policy, entitlements and any necessary information deemed fit for the project effectiveness. The language of the dissemination must be in the regional language.

(b). RP Implementation Phase

- After the project preparation phase the next stage is implementation of RP which includes issue compensation of award by EA; payment of all eligible assistance; relocation of PAPs; initiation of economic rehabilitation measures; site preparation for delivering the site to contractors for construction and finally starting civil work.

(c). Monitoring and Evaluation Period

- As mentioned earlier the internal monitoring will be the responsibility of PMU, PIU and implementing NGO and will start early during the project when implementation of RP starts and will continue till the completion of the project. The independent monitoring and evaluation will be the responsibility of an external agency to be hired for the Project.

Table 13.4-1: Resettlement Schedule

Year	1				2				3				Responsible Agency	
Quarter	1	2	3	4	1	2	3	4	1	2	3	4	Management	Implementation
Preparation														
Completion of ROW drawings	■	■											DC	DC
Hiring NGO for RAP Preparation	■	■	■	■									DC	DC
Verification and update RAP			■	■									PWD	MIG
Preparation of Rehabilitation Plan			■	■									DC	NGO
Submission of revised RAP to JICA				■									DC	NGO
RAP budget approval from Central Government				■									NHIDCL	DC
Disclosure of revised RAP				■	■	■	■	■	■	■	■	■	Revenue Dep.	Revenue Dep.
Establish Grievance Redress Mechanism				■	■	■	■	■	■	■	■	■	DC	ADC, NGO
Declaration of cut-off date (L.A notification)				■									Revenue Dep.	Revenue Dep.
Preparation of resettlement sites				■	■	■	■	■					DC	R&R Committee
Implementation														
Rehabilitation				■	■	■	■	■	■	■	■	■	DC	R&R Committee
Disbursement of compensation and assistance				■	■	■	■	■					DC	R&R Committee
Physical displacement					■	■	■	■					DC	R&R Committee
Taking possession of acquired land					■	■	■	■	■	■	■	■	DC	R&R Committee
Handover of acquired land to contractor					■	■	■	■	■	■	■	■	DC	R&R Committee
Monitoring														
Half-yearly report					■		■		■				Revenue Dep.	Monitor.Commit..
Completion report											■		Revenue Dep.	Monitor.Commit..
Read Construction Civil Works									■	■	■	■	NHIDCL	Contractor

Source: JICA study team.

Appendices

Appendix-1

**HOUSEHOLD INTERVIEW SURVEY
FORM OF QUESTIONNAIRE**

INSTRUCTION FOR ANSWERING QUESTIONNAIRE FORMS

Please answer all the questions one by one sequentially. Print the information in the space provided or put a check mark/ code in the appropriate box.

Form 1: Census/Socio-Eco Survey

Only the representative of the household should complete Form 1.

Form 2: Survey on the Knowledge of the Project and Preferences for Compensation

Only the representative of the household should complete Form 2.

Form 3: Inventory Survey

Only the representative of the household should complete Form 3.

For Official Use Only.

Q1. Name of Person in charge of this survey sheet _____

Q2. Survey date:

Date/Month	
------------	--

Q3. Name of Respondent Mr/Mrs/Ms _____

Q4. Address of Household :

House No _____ Village _____ Block _____

Sub-division _____ District _____

FORM 1:CENSUS/SOCIO-ECO SURVEY

INSTRUCTION: *To be completed by Representative of household.*

Q5: Personal Information.

a. Age	b. Sex	C. Social Category	d. Ethnicity	e. Religion	f. Relationship with head of Household		Response	
	1. Male	1. ST	1. Khasi	1. Buddhist	1. Myself	Q6 a		
	2. Female	2. SC	2. Garo	2. Christian	2. Spouse.	Q6 b		
		3. OBC	3. Jaintia	3. Muslim	3. Daughter.	Q6 c		
		4. General	4. Bengali	4. Hindu.	4. Son.	Q6 d		
		5. Others	5. Nepali	5. Others, Please specify.....	5. Mother	Q6 e		
			6. Koch	6. Father.	Q6 f		
			8. Hajong	7. Grand mother			
			9. Others Please specify.....	8. Grand father			
				9. Relatives			

Q6: Education Level

Q6.

1. No Education	4. Below High school	7. Finished College (graduate or higher)
2. Below Elementary	5. Completed High school	
3. Completed Elementary	6. Not Completed College	

Q7: Occupation

Q7

01. Agriculture	06. Self Employed	11. Retired/ Pensioner
02. Allied Agriculture	07. Skilled Profession	12. Unemployed but capable to work
03. Dairy	08. Unskilled Labor	13. Too Young to work/disabled/Student
04. Forestry	09. Private Service	14. Other (Please specify)
05. Household/Cottage Industry	10. Governmental Service	

Q8. How long has your family been staying in the present address?

Q9. Household Composition.

	No	Relationship with H/H Head*	Sex**	Age	Education Level✱	Occupation◇	Physical condition❖
Q9 No of household members living together	1						
	2						
	3						
	4						
	5						
	6						
	7						
	8						
	9						
	10						

**please select from 5b. ✱please select from Q6. ◇Please select from Q7.

*Relationship with H/H head: (1) head (2) Spouse (3) Child (4) Parents (5) other Relatives.

❖Physical condition: (1) Normal (2).Disabled (3). Very old/Chronically ill.

Q10: Total monthly household income of H/H from all sources (INR/month).

01. Below 1000	08. 13001- 15000
02. 1001-3000	09. 15001-17000
03. 3001-5000	10. 17001- 19000
04. 5001-7000	11. 19001-21000
05. 7001-9000	12. 21001- 23000
06. 9001-11000	13. Above 23000
07. 11001-13000	

Q10 a.

Q10 b. Estimated by Surveyors 1.yes. 2. No.

Q11.Number of persons employed/unemployed in the H/H:

Employed	Unemployed.....
Housework	Students.....

Q12. Housing and Land ownership

a. Type of house (filled by surveyors)							
1. Resident 2. Commercial. 3. both	Q12 a <input type="text"/>						
b. Structure of the House (filled by surveyors)							
1. Single storey. 2. Two storied. 3	Q 12b <input type="text"/>						
c. Housing ownership Q12 c ()							
<table border="1"> <tr> <td>1. Self-owned</td> <td>3. Private-owned house for rental or borrow</td> </tr> <tr> <td>2. Government-owned house for rental</td> <td>4. Uncertain ownership</td> </tr> <tr> <td colspan="2">5. Others (Please specify</td> </tr> </table>		1. Self-owned	3. Private-owned house for rental or borrow	2. Government-owned house for rental	4. Uncertain ownership	5. Others (Please specify	
1. Self-owned	3. Private-owned house for rental or borrow						
2. Government-owned house for rental	4. Uncertain ownership						
5. Others (Please specify							
d. If rented, how much do you pay per month? INR _____							
e. Land use right ownership : Q12 e ()							
<table border="1"> <tr> <td>1. Private Land with Land Settlement Certificates (LSC)</td> <td>4. Village Council Pass</td> </tr> <tr> <td>2. Periodic Patta</td> <td>5. Government Land</td> </tr> <tr> <td>3. Home Site</td> <td>6. Other (please specify</td> </tr> </table>		1. Private Land with Land Settlement Certificates (LSC)	4. Village Council Pass	2. Periodic Patta	5. Government Land	3. Home Site	6. Other (please specify
1. Private Land with Land Settlement Certificates (LSC)	4. Village Council Pass						
2. Periodic Patta	5. Government Land						
3. Home Site	6. Other (please specify						

Q13:

A. Residence / dwelling	
Does your household own or rent your residence?	1 <input type="checkbox"/> Owned 2 <input type="checkbox"/> Rented
What type of residence does your household have? MR	1 <input type="checkbox"/> House num.: 1 <input type="checkbox"/> Other:
How many rooms are in your house(s)?	House 1: House 2:
Size of residential structure(s)	House 1:m ² House 2:m ²
Do you have a toilet?	1 <input type="checkbox"/> yes 2 <input type="checkbox"/> no
What type of toilet do you have?	1 <input type="checkbox"/> Latrine w/ open pit 2 <input type="checkbox"/> Latrine w/ closed pit and water seal 3 <input type="checkbox"/> Flush toilet 4 <input type="checkbox"/> Open land
What other structures are on your residential land? MR	1 <input type="checkbox"/> Garage 1 <input type="checkbox"/> Shed 1 <input type="checkbox"/> Fence 1 <input type="checkbox"/> other:
Do you have <u>electricity</u> in your residence?	1 <input type="checkbox"/> yes 2 <input type="checkbox"/> no
Assess the condition of the residence ⁵	1 <input type="checkbox"/> Well maintained 2 <input type="checkbox"/> Poorly maintained 3 <input type="checkbox"/> Neither poorly nor well maintained
Household fuel	
What kind of cooking stove do you use? MR	1 <input type="checkbox"/> Wood stove (fuel-efficient) 1 <input type="checkbox"/> Wood stove (regular) 1 <input type="checkbox"/> 3-stones 1 <input type="checkbox"/> modern stove
What kind of cooking fuel do you use? MR	1 <input type="checkbox"/> Coal 1 <input type="checkbox"/> firewood 1 <input type="checkbox"/> electricity 1 <input type="checkbox"/> gas 1 <input type="checkbox"/> dung 1 <input type="checkbox"/> other:
What kind of heating do you use?	1 <input type="checkbox"/> Dual purpose stove (cook and heat) 2 <input type="checkbox"/> radiator 3 <input type="checkbox"/> Electric heater
What kind of heating fuel do you use? MR	1 <input type="checkbox"/> Coal 1 <input type="checkbox"/> firewood 1 <input type="checkbox"/> electricity 1 <input type="checkbox"/> gas 1 <input type="checkbox"/> dung 1 <input type="checkbox"/> other:

Where do you obtain cooking and heating fuel? MR	1 <input type="checkbox"/> Shop 1 <input type="checkbox"/> road seller 1 <input type="checkbox"/> wholesale 1 <input type="checkbox"/> collect 1 <input type="checkbox"/> other:
How far do you have to walk to household fuel your fuel source?	1 <input type="checkbox"/> <10m 2 <input type="checkbox"/> 10-50m 3 <input type="checkbox"/> 50-100m 4 <input type="checkbox"/> 100-500m 5 <input type="checkbox"/> 500m-1km 6 <input type="checkbox"/> >1km 7 <input type="checkbox"/> truck delivery
Who in your household is <u>mainly</u> responsible for getting cooking and heating fuel?	1 <input type="checkbox"/> Men 2 <input type="checkbox"/> women 3 <input type="checkbox"/> children
Water supply	
What kind of water source do you use? MR	1 <input type="checkbox"/> well 1 <input type="checkbox"/> house connection 1 <input type="checkbox"/> stand post 1 <input type="checkbox"/> river 1 <input type="checkbox"/> other:
How far do you have to walk to your water source(s)?	1 <input type="checkbox"/> <10m 2 <input type="checkbox"/> 10-50m 3 <input type="checkbox"/> 50-100m 4 <input type="checkbox"/> 100-500m 5 <input type="checkbox"/> 500m-1km 6 <input type="checkbox"/> >1km
Who in your household is <u>mainly</u> responsible for collecting water?	1 <input type="checkbox"/> Men 2 <input type="checkbox"/> women 3 <input type="checkbox"/> children
Household assets	
How many beds do you have in your residence?	
How many TVs?	
How many radios?	
How many computers?	
How many and what kind of vehicles does your HH own? MR	1 <input type="checkbox"/> Car: 1 <input type="checkbox"/> jeep: 1 <input type="checkbox"/> truck: 1 <input type="checkbox"/> bus: 1 <input type="checkbox"/> motorcycle: 1 <input type="checkbox"/> bicycle: 1 <input type="checkbox"/> None
Livestock	
Do you own livestock?	1 <input type="checkbox"/> yes 2 <input type="checkbox"/> no
If yes, what kind? [species & number] MR	1 <input type="checkbox"/> Poultry: 1 <input type="checkbox"/> cows: 1 <input type="checkbox"/> sheep/goats: 1 <input type="checkbox"/> pigs: 1 <input type="checkbox"/> horses:
How do you feed your livestock?	1 <input type="checkbox"/> Stall feeding 2 <input type="checkbox"/> grazing 3 <input type="checkbox"/> other:
Where do you keep your livestock?	1 <input type="checkbox"/> Stall 2 <input type="checkbox"/> Pasture 3 <input type="checkbox"/> other:
Who in your household is <u>mainly</u> responsible for looking after livestock??	1 <input type="checkbox"/> men 2 <input type="checkbox"/> women 3 <input type="checkbox"/> children 4 <input type="checkbox"/> all
Gardening	
Do you have a garden?	1 <input type="checkbox"/> yes 2 <input type="checkbox"/> no
What kinds of products do you cultivate? MR	1 <input type="checkbox"/> Vegetables 1 <input type="checkbox"/> berries 1 <input type="checkbox"/> flowers 1 <input type="checkbox"/> other:

Who in your household is <u>mainly</u> responsible for cultivating your garden?	1 <input type="checkbox"/> Men 2 <input type="checkbox"/> women 3 <input type="checkbox"/> children 4 <input type="checkbox"/> all
Health and nutrition	
What are the most common diseases your household suffers from? MR	1 <input type="checkbox"/> diarrhea 1 <input type="checkbox"/> cold/flu 1 <input type="checkbox"/> heart disease 1 <input type="checkbox"/> jaundice 1 <input type="checkbox"/> cancer 1 <input type="checkbox"/> tuberculosis 1 <input type="checkbox"/> leukemia 1 <input type="checkbox"/> joint pains 1 <input type="checkbox"/> blood pressure 1 <input type="checkbox"/> other: _____
Where do you seek medical help? MR	1 <input type="checkbox"/> Government hospitals 1 <input type="checkbox"/> Private hospitals 1 <input type="checkbox"/> Private doctor 1 <input type="checkbox"/> Traditional medical practitioner 1 <input type="checkbox"/> Shaman 1 <input type="checkbox"/> home remedies 1 <input type="checkbox"/> other:
How far is the health service you use?	1 <input type="checkbox"/> <1km 2 <input type="checkbox"/> 1-5km 3 <input type="checkbox"/> >5km
Do you have enough food for your household every day?	1 <input type="checkbox"/> yes 2 <input type="checkbox"/> no
How many meals do you usually have per day?	1 <input type="checkbox"/> 1 2 <input type="checkbox"/> 2 3 <input type="checkbox"/> 3 4 <input type="checkbox"/> 4
Transport	
How does your family travel to work and school? MR	1 <input type="checkbox"/> walking 1 <input type="checkbox"/> bus 1 <input type="checkbox"/> bicycle 1 <input type="checkbox"/> motorcycle 1 <input type="checkbox"/> car 1 <input type="checkbox"/> other:
How long does it take?	Adults: Children:
How much per month does it cost?	INR:
Gender relations	
What are primary tasks of women?	1 <input type="checkbox"/> Household work 2 <input type="checkbox"/> Earning income 3 <input type="checkbox"/> Other:
What are the primary tasks of men?	1 <input type="checkbox"/> Household work 2 <input type="checkbox"/> Earning income 3 <input type="checkbox"/> Other:
Who in your households makes decisions regarding home related matters?	1 <input type="checkbox"/> Men 2 <input type="checkbox"/> women 3 <input type="checkbox"/> joint 4 <input type="checkbox"/> separately

Who in your households makes decisions regarding matters outside the home?	1 <input type="checkbox"/> Men 2 <input type="checkbox"/> women 3 <input type="checkbox"/> joint 4 <input type="checkbox"/> separately
Social cohesion	
Are there frequently major disputes in your community?	1 <input type="checkbox"/> yes 2 <input type="checkbox"/> no
What are the main issues in such disputes? MR	1 <input type="checkbox"/> land 1 <input type="checkbox"/> marriage 1 <input type="checkbox"/> livestock 1 <input type="checkbox"/> politics 1 <input type="checkbox"/> other: _____
Are there special ways to solve these disputes?	
Are disputes normally resolved successfully?	1 <input type="checkbox"/> yes 2 <input type="checkbox"/> no
Are there frequent crimes in your community?	1 <input type="checkbox"/> frequent 2 <input type="checkbox"/> few 3 <input type="checkbox"/> none
What type of crime? MR	1 <input type="checkbox"/> theft 1 <input type="checkbox"/> violent fights 1 <input type="checkbox"/> murder 1 <input type="checkbox"/> drugs 1 <input type="checkbox"/> violence against women 1 <input type="checkbox"/> none 1 <input type="checkbox"/> other: _____
Are there community organizations in your neighborhood?	1 <input type="checkbox"/> yes 2 <input type="checkbox"/> no
What are the activities of the community organizations? MR	1 <input type="checkbox"/> infrastructure 1 <input type="checkbox"/> micro-credit 1 <input type="checkbox"/> income generation 1 <input type="checkbox"/> education 1 <input type="checkbox"/> health 1 <input type="checkbox"/> sanitation 1 <input type="checkbox"/> other: _____
Who is among the members?	1 <input type="checkbox"/> all sectors of village population 2 <input type="checkbox"/> men only 3 <input type="checkbox"/> women only 4 <input type="checkbox"/> dominant families 5 <input type="checkbox"/> other: _____
Do you participate?	1 <input type="checkbox"/> yes 2 <input type="checkbox"/> no
Why or why not?	
What is your opinion about these community organizations?	1 <input type="checkbox"/> useful and effective for community 2 <input type="checkbox"/> not benefiting community 3 <input type="checkbox"/> benefits only some people Comments:
B. Business	
Development needs and priorities	

<p>What are the most urgent needs your household and your neighborhood experiences and what solutions do you consider necessary? Please rank!</p>	1.
	2.
	3.
	4.
	5.
<p>Expected Impacts from project</p>	
<p>What positive impacts do you expect from the project?</p>	
<p>What negative impacts do you expect from the project?</p>	

FORM 2:KNOWLEDGE OF THE PROJECT AND PREFERENCES FOR COMPENSATION

Q14. Do you know about the improvement project of NH40 from Shillong to Dawki?

1.Yes	2. No.	
-------	--------	--

Q15. Do you accept your resettlement due to the project?

1.Yes	2. No.	
-------	--------	--

Q16. Please choose the compensation method

1. Land for Land 2. Cash Compensation 3. I don't know.	Q16	
--------------------------------------------------------------	-----	--

Q17 What are your concerns in terms of resettlement?

1. Amount of Compensation 2. Livelihood after resettlement method	3. Development of Resettlement site 4. Payment	Q17	
-------------------------------------------------------------------------	------------------------------------------------------	-----	--

Q18. Do you agree to move to resettlement site?

1. Yes	2. No
--------	-------

Q19. What do you expect to the resettlement site?

1. Accessesibility to Job and School	2. Bear the original living space.	Q 19
3. Sanitary condition		

Q20. Do want to participate income restoration program(IRP) for the project?

1. Yes	2. No		
--------	-------	--	--

Q21. What kind of assistance do you expect by the IRP?

1. Technical advice	4. Managerial advice	Q21	
2. Extra money	5. Materials		
3. Assistance for getting other Land Other land			
	6. Build the building		

Q22. Is the affected land or source of income is primary source of income?

1. Yes. 2. No	Q22	
---------------	------------	--

**FORM 3:
INVENTORY SURVEY.**

1. Total affected areas of land

a. _____ Sq. feet

b. Balance of the Remaining Land..... % of the Total affected land.

2. Total and affected areas of structures, by type of structure.

Type	Structure	Unit (sqft)	
Residence	Single storied		
	Two Storied		
	Others		
Name of land owner/possessor/tenant/...			
Relationship to respondent			
Other structures in the affected area			
Fence / wall	1 <input type="checkbox"/> yes 2 <input type="checkbox"/> no Size: m		
Latrine	1 <input type="checkbox"/> yes 2 <input type="checkbox"/> no num.:		
Shed	1 <input type="checkbox"/> yes 2 <input type="checkbox"/> no num.:		
Garage	1 <input type="checkbox"/> yes 2 <input type="checkbox"/> no num.:		
Other:	1 <input type="checkbox"/> yes 2 <input type="checkbox"/> no num.:		
<i>Value of affected land [market value]</i>		<i>INR/ m²:</i>	<i>Total: INR</i>
		Annual income	
Type of commercial activity in commercial structure MR	1 <input type="checkbox"/> Grocery shop 1 <input type="checkbox"/> Restaurant 1 <input type="checkbox"/> Construction material 1 <input type="checkbox"/> production/sale 1 <input type="checkbox"/> Petrol station 1 <input type="checkbox"/> Other		
Other structures in the affected area			
Fence / wall	1 <input type="checkbox"/> yes 2 <input type="checkbox"/> no Size: m		
Latrine	1 <input type="checkbox"/> yes 2 <input type="checkbox"/> no num.:		
Shed	1 <input type="checkbox"/> yes 2 <input type="checkbox"/> no num.:		
Garage	1 <input type="checkbox"/> yes 2 <input type="checkbox"/> no num.:		
Other:	1 <input type="checkbox"/> yes 2 <input type="checkbox"/> no num.:		
<i>Value of affected land [market value]</i>		<i>INR/ m²:</i>	<i>Total: INR</i>
Crops and trees in the affected area	Numbers	Annual income	
(Tree)			

(Tree)			
(Tree)			
(Crop)			
(Crop)			
(Crop)			
(others)			
<i>Value of affected crops and trees</i> <i>[market value]</i>		<i>INR/ m²:</i>	<i>Total: INR</i>

3. Quantity of other losses, e.g., business or other income, jobs or other productive assets, estimated daily net income from informal shops

Category of Loss	Unit	Amount of Loss	Description
Business			
Other productive assets			
Daily net income from informal business			

4. Quantity/area of affected common property, community or public assets, by type

Community land and structures	
Type of facility	<input type="checkbox"/> Religious institution <input type="checkbox"/> Cemetery <input type="checkbox"/> Health Center/Hospital <input type="checkbox"/> Other: _____
Name of owner/possessor/renter/user	
Location/Address	
Total land	
Government	m ²
Owned [size]	m ²
Possessed [size]	m ²
Rented[size]	m ²
Non-titled [size]	m ²
Total [size]	m ²
Affected Land	
Government	m ²

Owned [size]				m ²
Possessed [size]				m ²
Rented[size]				m ²
Non-titled [size]				m ²
Total [size]				m ²
<i>Value of affected land [market value]</i>	<i>INR/ m²:</i>		<i>Total: INR</i>	
Total Structures	1 <input type="checkbox"/> yes	2 <input type="checkbox"/> no		
House	1 <input type="checkbox"/> yes	2 <input type="checkbox"/> no	Size:	m
Fence / wall	1 <input type="checkbox"/> yes	2 <input type="checkbox"/> no	Size:	m
Latrine	1 <input type="checkbox"/> yes	2 <input type="checkbox"/> no	num.:	
Shed	1 <input type="checkbox"/> yes	2 <input type="checkbox"/> no	num.:	
Garage	1 <input type="checkbox"/> yes	2 <input type="checkbox"/> no	num.:	
Other:	1 <input type="checkbox"/> yes	2 <input type="checkbox"/> no	num.:	
Affected structures	1 <input type="checkbox"/> yes	2 <input type="checkbox"/> no		
House	1 <input type="checkbox"/> num.:	size:	m ²	
	Proportion of house affected:		%	
	Can be rebuilt on land?		1 <input type="checkbox"/> yes	2 <input type="checkbox"/> no
<i>Value of affected structures [market value]</i>	<i>INR/ m²:</i>		<i>Total: INR</i>	
Fence / wall	1 <input type="checkbox"/> yes	2 <input type="checkbox"/> no		
	<input type="checkbox"/> can be moved		m from ROW	
	Size:	m		
<i>Value of affected fence/wall [market value]</i>	<i>INR/ m:</i>		<i>Total: INR</i>	
Community Latrine	1 <input type="checkbox"/> yes	2 <input type="checkbox"/> no		
<i>Value of affected Latrine [market value]</i>	<i>INR/ m²:</i>		<i>Total: INR</i>	
Community Shed	1 <input type="checkbox"/> yes	2 <input type="checkbox"/> no		
<i>Value of affected Shed [market value]</i>	<i>INR/ m²:</i>		<i>Total: INR</i>	
Other	1 <input type="checkbox"/> yes	2 <input type="checkbox"/> no		
<i>Value of affected other structure [market value]</i>	<i>INR/ m²:</i>		<i>Total: INR</i>	
Cemetery				
Need to move graves	1 <input type="checkbox"/> yes	2 <input type="checkbox"/> no		
Num. to be moved	Num.:			

Comments

Appendix-2: Signature of the Attendees on Stakeholders Consultation

1st round consultation in Pynursla (Bypass 5) (10 June, 2016)

Sl No	NAME (KYRTENG) ⁽¹⁷⁾ 10/6/16	DESIGNATION (JAKA TREI)	ADDRESS (JAKA SAH)	PHONE No	E-MAIL	SIGNATURE
1	Martin Mubuning	Pynursla	Pynursla			[Signature]
2	A.S. Khasbudin	Pynursla	do			[Signature]
3	M. B. Khaytan	do	do			[Signature]
4	J. Diengdoh	do	do			[Signature]
5	Santov Sharma	Team leader EIS PVT US	301, 302 SRBC Sector-5 Vasant Vihar Chattisgarh			[Signature]
6	Nakamura Jun Rupendra Shrestha	JICA study Team Transys Consulting Pvt Ltd	Cachepoint, Shillong Meghalaya			[Signature]
7	N. Khongboun	Pomshatia	Pomshatia			[Signature]
8	G. V. Deb	DGM, NHIDCL	Shillong			[Signature]
9	Ramvir Alam	Manager CO, NHIDCL Shillong	Shillong			[Signature]
10	N. Bhattacharya	Addl. Sagan Lead EIS	Shillong			[Signature]
11	Gideon Khakng	Director, NEEDS	Shillong			[Signature]
12	Kusana Wangi	Socio Economic expert - EIS	Shillong			[Signature]
13	Edward Thun	Proj. Coordinator NEEDS	Shillong			[Signature]
14	Debraj's Mohan	EIS PVT Ltd. (Eco)	301, 302 SRBC Sector-5 Vasant Vihar Chattisgarh			[Signature]

1st round consultation in Pynursla (north, Bypass 5) (9 July, 2016)

No	KYRTENG	JAKA SAH (DONG)	PHONE-NO	SIGNATURE
17	Williamfing Shingim Saha	Pynursla (North)		[Signature]
18	K. Thakur	PYNURSLA (North)		[Signature]
19	A. Sanyal	Pynursla (North)		[Signature]
20	T.A. Khan	"		[Signature]
21	B. Mohan	Staplokan		[Signature]
22	L. Mas...	North Shillong		[Signature]
23	Kemi Khongboun	Mekhap		[Signature]
24	Polajied Wanchung	Lawsoktum		[Signature]
25	Sonai...	Malki		[Signature]
26	Seni...	Maulai Nongkwan		[Signature]
27	Medalin Sangriang			[Signature]
28	Balajy...			[Signature]
29	G. Khakng	NEEDS		[Signature]
30	Honica Krausapi			[Signature]

Stakeholder Meeting Pynursla 9/7/16.

1st round consultation in Pynursla (south) (9 July, 2016)

	NAME	SAHA (SAH SAH)	PHONE NO	SIGNATURE
17	Shri. Phrouly Konguey	Saha/Mulestib	[REDACTED]	[Signature]
18	Shri HW Talay	R/S Waktelait		[Signature]
19	Shilo Fain	Shnongpdeng		[Signature]
20	HASLi Lyne	Shnongpdeng		[Signature]
21	Medhickon Symbum	Shnongpdeng		Mops
22	ARLIS Lamin	Shnongpdeng		Alamin
23	Morning SUMER	Shnongpdeng		M. Lamin
24	Mesit Lamin	Shnongpdeng		M. Pohlong
25	Melinda. Pohlong	Shnongpdeng		[Signature]
26	Ka Si Kongwang			[Signature]
27	Shnongpdeng			[Signature]
28	Shri Willy Lamin	Shnongpdeng		[Signature]
29	Chi Bell Symbum	Shnongpdeng		[Signature]
30	Shri Fintham Dekar	Waktelait	[Signature]	
31	Sant. Srina K. gal	11	S. K.	
32	Sut. Atulla Lamin	Shnongpdeng	[Signature]	
33	STAP TADONG	Waktelait	[Signature]	

State holder Meeting + Community Meeting
Pomsutia 9/7/16

	KYRTENG	SAHA (SAH SAH)	PHONE NO	SIGNATURE
34	Por Min Poh Long	Shnongpdeng	[REDACTED]	[Signature]
35	Shri Stephano. K. mawth	R/S-Pontung		[Signature]
36	Shri. Plant. Khongber	R/S nongsuphan.		[Signature]
37	Timai TADONG	Waktelait		[Signature]
38	Michael Pohlong	Dararang		[Signature]
39	Anis Khongstia	Shnongpdeng		[Signature]
40	Dilip Khongstia	Shnongpdeng		[Signature]
41	Admony Lamin	Shnongpdeng		[Signature]
42	Pynklos - Pohlong	Shnongpdeng		[Signature]
43	Andreas Khongpit	Pomsutia		[Signature]
44	Riang Paktai	Kongbarch		[Signature]
45	Bolunh Khongwang	Shnongpdeng		[Signature]
46	Wansaa Kongceep	Shnongpdeng		[Signature]
47	Bong. Kongceep	11	[Signature]	
48	Pais Tynsary	Dararang	[Signature]	
49	A Khong Bth	WAKPRAIT	[Signature]	
50	Henry, Secker	Dararang	[Signature]	

State holder Meeting + Community Meeting
Pomsutia 9/7/16

SL NO	KYRTEKG	JAK SAH	SMH	PHONE NO.	SIGNATURE
65	Mrs Ribon Sngeloh	Pynursla	(Sawker)		<i>[Signature]</i>
66	Alhassan Lyngdoh-Nior	Pynursla	(Sawker)		<i>[Signature]</i>
67	EL Kana K. Dak	Chomon	Sawker		<i>[Signature]</i>
68	O Kongwary x Kongwary	Shatam			

1st round consultation in Pynursla (north, Bypass 5) (12 August, 2016)

LA STUDY ON NH 40
NAME OF MEETING: Stakeholders Meeting
DATE: 12-8-2016
VENUE: U.K. Sew Dunbar hall

SL NO	NAME/KYRTEKG	JAK SAH/ADDRESS	SIGNATURE/SOI
14	S Lynda	Langkyrdon	<i>[Signature]</i>
15	Rai son Khong Kiam	Tyng Kei	<i>[Signature]</i>
16	S P Yang	Mylkat	<i>[Signature]</i>
17	Moeji Julia Khong Khe	Lang Kiam	<i>[Signature]</i>
18	Sai Borlang Jaktung	Wahlyngkhat	<i>[Signature]</i>
19	Phiston Rami	"	<i>[Signature]</i>
20	Marrkelan Khunglam	"	<i>[Signature]</i>
21	Wankoi Khunglam	"	<i>[Signature]</i>
22	Sunday R. Saakhet	ukrew	<i>[Signature]</i>
23	Kelvin Konabel	Mylkat	<i>[Signature]</i>
24	Boh K Lee	Pynursla	<i>[Signature]</i>
25	P Khongtid	Sawker/madani Shooling	<i>[Signature]</i>
26	Arachon Sngeloh	U.K. Sew-wat-palan	<i>[Signature]</i>

2nd round consultation (5 November, 2016)

STAKEHOLDER / PAPs | MEETING DATE - 5th NOV. 2016
 VENUE - SANMER - 5th MILE

NO	NAME / KYRIEN	SAKA SAK / ADDRESS	PHONE - NO	SIGNATURE / S
	BAABHABOKLIN S. LAITTHMA	KYNDONG-NONGKYNTIR		
	BATIBON KHARKONGOR	"		B.K.
	RILINDA KHONGMUID	"		A.K.
	Elizabeth Kurkalang	umtynggar		E.K
	Mazimis Kurkalang	umtynggar		me
	Shumlimeo Kurkalang	umtynggar		S.K
	Bistalin Kurkalang	Mylliem mawri		B Kurkalang
	M. Kharbuki	Mylliem 9 miles		M. Kharbuki
	Bernasha Kurkalang	Mylliem madaniengyiem		B. Kurkalang
	Pherbak. F. Sumer	Gen. secy Bakur wot Janta		
	Ribashisa Nongkhlaw	Hpiniewael upp shell.		R.S.
	Banti jiyak, Syntem	Mylliem Nongkyndong		B. Syntem
	E. Kopy	Saumer.		

NO	NAME / KYRIEN	SAKA SAK / ADDRESS	PHONE - NO	SIGNATURE / S
14	Phahbon Marbariang	5mer		Phahbon Marbariang
25	Kong Larisha Kurkalang	mylliem	7	
36	" Sisidana Nongkhlaw	"	9	
47	" Ilanc Kharbuki	Kyndong Nongkyntir	8	
48	Kong Bibona Kharkongor	Mylliem Kyndong	9	D. Kharkongor
18	Dannon Kharkongor	Mylliem Kyndong		D. Nongkhlaw
20	Deng Nohsub Nongkhlaw	Mylliem Kyndong		A. Kharbuki
21	Ahima Kharbuki	Mylliem Kyndong		D. Kharbuki
29	Diosita Kharbuki	PE, 9% 500, Mylliem 480 clock		
30	C wannary			
40	Mo bar Siy	Laitly of ket		
51	I. Kharbuki	Laitly of ket		
61	Q. PASSAN	myllie kyndong		

L. NO	NAME / KYRTENG	JAKA SAH / ADDRESS	PHONE - NO	SIGNATURE / SOI
27	Lucky Shangkang	Siatbakon		Shangkang
28	Hamskul Khonglam	Siatbakon		Khonglam
29	Kiar Mawiong	Siatbakon		Mawiong
30	SONITA . KHARKONGOR	KYNDONG NONGKYNTIR		S. Kongor
31	OLIVIA . KHARKONGOR	KYNDONG NONGKYNTIR		O. Kongor
32	ISORTA . KHARKONGOR	KYNDONG NONGKYNTIR		I. Kongor
33	Jaitesumen Mawjor	Kyngay Nongkynti		ly
34	Blstawan Sohtun	Kyngong Nongkynti		By Sohtun
35	Kitbokiang Nongsteng	Kyngong Nongkynti		By
36	Firthon Kharbajar	Kyngay Nongkynti (Myllim)		FF
37	Mrs. Disribon Khonglak	Lamin		Khonglak
38	Mrs. Syoz Cayang	Dawli Bakar		S. Cayang
39	Sant - Misarfu Gayang	Lamin		M. Gayang
40	Smt. Estarson Gayang	Lamin		E. Gayang
41	M.S. Markookhonglak	Dawli Bakar		M. Khonglak

L. NO	NAME / KYRTENG	JAKA SAH / ADDRESS	PHONE NO	SIGNATURE / SOI
42	Liliancy. Khariam	Siatbakon		Khariam
43	Medil. Khonglam	Siatbakon		M. Khonglam
44	Pharlin. Seling	Siatbakon		P. Seling
45	Ridalin. Khongtani	Siatbakon		R. Kh. tani
46	Sbtar. Dkhar	Siatbakon		S. Dkhar
47	Wondar. Nongrem	Siatbakon		W. Nongrem
48	Dasihun. Kshiar	Siatbakon		D. Kshiar
49	Bansihun. Marbanig	Siatbakon		Bansihun
50	Elekha Khongmalon	Mawshun		E. Khongmalon
51	Hamedia Khongmalon	Mawshun		H. Khongmalon
52	Rophina Lagphul	Madanung Syiem		R. Lagphul
53	Kyntima. Pathaw	"		K. Pathaw
54	Metylda Kharphuli	Myllim Madan Syiem		M. Kharphuli
55	Gertrudis. Kharphuli	"		G. Kharphuli
56	Marsula. Thabal	Siatbakon		M. Thabal
57	Smt. Phewonon Nongkhal	Kyngong Nongkynti		P. Nongkhal

NO	NAME / KARYAWAN	JAKSAH / ADDRESS	PHONE NO	SIGNATURE
58	KETEK LANG KHONG LIA	PANGTONG	2014234473	J.K. Pui
59	FORICA KHARPUKI	PANLUM		Athar Pui
60	JENICE KHARPUKI	PANLUM		P. Pui
61	ANABEL KHARPUKI	PANLUM		B. Kur Kalang
62	PHEBORA KHARPUKI	PANLUM		B. K. Koyor
63	Balarisha. Kur Kalang	Umynges		B. Siliang
64	Bahunlang Khat Koyor	MYLIEM 9 MY		S. Khongtiang
65	BANLONG JONG	12 th Mile		kk kumply
66	SHAR KHONGTIANG	PANGTONG		Pi Khongtiang
67	HEABOK K. NAOPHANG	KYNDONG		#kmm
68	SIBONGWELL KHONGSID	Nangshyngan	B. Khong Kiat	
69	HILDA KHONGMUI	Nangshyngan	S. S. Khelet	
70	Sabena Khonglah	Pangtung	M.B	
71	Bing Nangkiot	Nangshyngan	B. Khair	
72	Jeffree Khonglam	Nangshyngan	Stewart	
73	Sirapting Sekkhelet	Nangshyngan		
74	M.B. Khongmuid	Nangshyngan		
75	Darion Isias	Pangtung		
76	Julablin Khongmuid	Pangtung		
77	Bahrait Nangrum	Nangshyngan		
78	Huzis Khongmuid	Nangshyngan		

NO	NAME / KARYAWAN	JAKSAH / ADDRESS	PHONE NO	SIGNATURE
89	Phrenly Khongrup	Lombong P.S. Srauba Sorder Mekala	[Redacted]	[Signature]
90	Shilong Phokha	Pade wongjantier		[Signature]
91	Kantak Thabak	Saitbakon		[Signature]
92	Nita Khongbah	Pangtung		N.K.
93	Beautiful Khongtiang	Pangtung		[Signature]
94	Veronica Khongshang	Pangtung		V. Khongshang
95	Idianghumbak Khongmuid	Pangtung		P. Khongmuid
96	Paul Khongwis	Pangtung		[Signature]
97	Bhun K. Hanhah	Pangtung		[Signature]
98	Hima Khongtiang	Nangshyngan		[Signature]
99	Charlis Khongbah	Pangtung	[Signature]	
100	Seikos Khonglam	Pangtung	[Signature]	
101	Kantar Thabak	Saitbakon	[Signature]	
102	Mik Lyngdon	Pangtung	[Signature]	

NO	NAME / KYRTENG	SAKASAH / ADDRESS	PHONE NO	SIGNATURE / SGT
18103	Hemantha Khardon	Pongtung		M. Khardon
18104	Bakymen Khonglam	Pongtung		M. Khonglam
18105	Miley Khongwis	Pongtung		M. Khongwis
18106	Jolin Khongshaw	Pongtung		Jolin
18107	ben bak Khong wis	Pongtung		Ben Bak
20107	ben bok Khong lam	Pongtung		Ben Bok
21109	Teikos Khonglam	Nongshykian		Teikos
22110	Lashah Lyngdoh	Pongtung		Lashah
22111	S. Hong bet	Pongtung		S. Hong bet
24112	Rap bok Kyiemliu (Socg Shong)	Pongtung		Rap bok
25	(Fors Church)			
28113	Midaso Kongsang	7 mile upper stillong		M. Kongsang
21114	Nias kor Nongkhalaw	Mylliem		N. Nongkhalaw
21115	Swipman Lyngdoh	Pomlum 7 mile upper stillong		W. Lyngdoh
28116	DOLLY K. Nongbet	Mylliem Nongkhalaw		Dolly K.
1117	Gilbert Lyngong (for (L) Albert Deker)	Dauki Baker		Gilbert
118	deo Kurkalsang	Mylliem - 11 Her		deo

Sl. no	NAME / KYRTENG	SAKASAH / ADDRESS	PHONE NO	SIGNATURE / SGT
46 119	Biola Nongkhalaw	Kyndong Nongkhalaw		B. Nongkhalaw
46 120	M. Elibon Nongkhalaw	"		M. Elibon
47 121	Budoi Syiem	Maolan ing syiem		B. Syiem
48 122	Marbudlang Kharhoyor	Kyndong Nongkhalaw		M. K. Koyor
49 123	Malinda Kharhoyor	- do -		Malinda
50 124	Semina Thabah	Sialbakon		S. Thabah
51 125	Biele Thabah	Sialbakon		B. Thabah
52 126	Komila Thabah	Sialbakon		K. Thabah
53 127	Baita Sokhlet	Sialbakon		B. Sokhlet
54 128	Aidad Khongni	Sialbakon		A. Khongni
55 129	Lia Khongtani	Sialbakon		L. Khongtani
56 130	ElSila Kharphuei	Mylliem madan ing syiem		ElSila
57 131	Picoy Kharphuei	"		P. Kharphuei
58 132	Saiamsidoy K. Koyor	Kyndong Nongkhalaw		S. Koyor
59 133	Phrol Kharhoyor	"		Phrol
60 134	Telin Bon Kharhoyor	"		T. Koyor

NO	KYRTENG	SAKA SAH	PHONE NO	JAKA SOI KYRTENG
135	Aimila khas layor	Kyrdong Nanglyntir		A. K. Kongor
136	Brianglimai Khar Kongor	- DO -		B. Kongor
137	E. Shontis. Khar Kongor	Madan ing Syiem		B. Khar Kongor
138	Don Sukalong	- DO -		Shai
139	Shiar Sohtun	Kyrdong Nanglyntir		S. Mabaniang
140	Shien Marbamang	- DO -		S. Sohtun
141	Sostina Sohtun	- DO -		K. K. Kongor
142	Klarida Khar Kongor	- DO -		- H. jana
143	Henmon Kharjana	Madan ing Syiem		Shai
144	Bibikinda Khar Kongor	Kyrdong Nanglyntir		Shley.
145	Mrs. Bidq Sohtun	Um Syiem		Shidong
146	Snt. Merlibon Shabong	Shidong Kaitlynghot		

2nd round consultation (5 December, 2016)

STAKEHOLDERS MEETING
Date: 5th November 2016-12:05 Venue: Community Hall Wahkdait.

Sl No	Name Kyrteng	Designation/kam	Village/shmong	Signature/Soi
1	Sh. N. Talang	Headman	Wahkdait	
2	Peem Laboungnak S. Syiem	(Mrs) Syiem	Shokong.	L.S. Syiem
3	Firstborn Dkhar	Asst Secy Shmong	Wahkdait	
4	Personal Suting	Chairman Darbar	Wahkdait	
5	Agamar Majoua	Law Diner	Manniang	
6	Suly Khongstia	Co-ordinator	Wahkdait.	Sh
7	Seiborlay Massar	Member	Wahkdait	Massar

Kyrteng	Kam	Shnong	Sign
8. Tommy Septeighu	Mentan	Wahedait - T-S	
9. Mesangray Repday	"	" M. Pym	
10. Sekrin Khongtin	"	Mausyngay - S. Kshia	
11. Leming Kshin	"	" Romingkhior	
12. Ril Khongta	"	Mausyngay - R. K. Stein	
13. Dogander Dkhar	"	Wahedait - AKS	
14. Suti Tatin Pohstun		Mausyngay - AKS	
15. B. Dkhar	- Dikam -	Siatbakon	
16. Serima Khongjah		Wahedait	
17. Mrs. Ana Muklein		Mausyngay	<i>Muklein</i> 8415038658
18. Twin Thabak		Siatbakon	
19. Edrit reungnung		"	
20. Pusa Thabak		"	
21. Meristella "		"	

Sl No	Name Kyrteng	Designation/kam	Village/ shnong	Signature/Soi
22	P. Tanyu	Melan	Mandun	<i>P.</i>
23	F. Klupap	"	"	<i>F.</i>
24	W. Nongrum	Moplin Nongrum Himokhyrini	Siatbakon	<i>W.</i>
25	Moss. Bekinda dearin	<i>Bekinda</i>	Barang	<i>Bekinda</i>
26	Moss. Mitty dearin	<i>Mitty</i>	Barang	<i>Mitty</i>
27	Ms. Jim dearin	<i>Jim</i>	Barang	<i>Jim</i>
28	Moss. Makus dearin	<i>Makus</i>	Barang	<i>Makus</i>

Sl No	Name Kyrteing	Designation/kam	Village/ shnong	Signature/Soi
29	Pjabbhalang Mphlimgat	Bidang	Maukeng	P.NS
30	Synguk Pysyupa	S	Pynussla	S.K.Pysyupa
31	Klep manor	K. manor	Mawoiang	K. manor
32	Okaphida Sating	B. Sating	Mawoiang	B. Sating
33	Selatidora Khoyzit S. Khoyzit	S. Khoyzit	Siatkakon	S. Khoyzit
34	Phurkam Khoytani P. Khoytani	P. Khoytani	Siatkakon	P. Khoytani

Sl No	Name Kyrteing	Designation/kam	Village/ shnong	Signature/Soi
35	Haom Sokul, K. Saom	Dukaan K Saom	Siatkakon	
36	Riak Mawoiang	Dukaan Mawoiang	Siatkakon	
37	Mis Lyndok	Nongrup	Pongtung	Mk.
38	Klang Khonglat	Nongrup	Klakdait	Kklak
39	Cidona Suong	Dukaan Luai dong	Tamabit (Dawki)	Csuong
40	Miral Lamin	Dukaan Lha	Tamabit (Dawki)	Miran
41	Bina Gayay	Dukaan	Bakul Dawki	Bgayay

Sl No	Name Kyriang	Designation/kam	Village/shong	Signature/Soi
42	Anabilis Gayang	Dukan Shatja	Tamabil (Dauki)	A. Gayang
43	Jacinta Khonglah	Dukan Ing. Dukan (Border)	Dauki Tamabil	J. Khonglah
44	Smt, Nito Khonglah	Ing Dukan (border)	Bakur-Dauki Tamabil	M.K.
45	Smt, Josephin Amin	Dukan (border)	Bakur-Dauki, Tamabil	J. U.
46	Smt, King Khonglah	Ing Dukan (border)	Bakur-Dauki, Tamabil	P.K.
47	Sri, Anukhin Munner	Office & Ing Dukan Border near custom office	Bakur-Dauki Tamabil West-San in Heli District	Amun SPT/16
48	Beaunthill Khongtiang	ing shong bah	Pongtiang	Khongtiang
49	Syndor Shabae	imp dukom	Siabakom	S. Shabae
50	Sibilda Khongbeh	Kper	Siabakom	S. Sibue
51	Daphin Khongtiang	imp shong	Siabakom	D. Phay

Sl No	Name Kyriang	Designation/kam	Village/shong	Signature/Soi
52	Simeor Khongbeh	Ka imp shong	Siabakom	S. Sibue
53	Melatin Nongrum	Ka imp shong	Siabakom	M. Nongrum
54	Lasty Khonglah	Sakt	Bakur	L. Khonglah
55	Slimar Khonglah	Ing shong	Bakur	S. Khonglah
56	Banisha Marbaning	Ing shong	Maukajim	B. Marbaning
57	Wedis Sukphay	Ing shong	Maukajim	W. Sukphay
58	Prit Mabbal	Bri	Wahkdait	P. Mabbal
59	Ngonstar Marbaning	Ing shong	Maukajim	Ng. Marbaning
60	DISCIPLINE	Ing. faka Ing	siabakom	D. Khongdeh

No	Name Kynteng	Designation/kam	Village/shmong	Signature/Sci
61	Pilianay . Khrean	ieng Clukan	Sieithakon	<i>[Signature]</i>
62	Thadiah . Khrean	Bri	Wahkdait	S-Khrean
63	Rajer	ieng	Syngkyden	R-Ni
64	Phicell	Khongsei	Syngkyden.	
65	Rouse	Bri	Pashun	<i>[Signature]</i>
66	Mi Ren	Bzi	Ponshatia	Nig

No	Kynteng	Kam	Shmong	Sign
80	Borshamegalis	Rongboh Shmong Pomlun	Pomlun	BR masaw
81	Nerula . Sumoz	'kabri	wahkdait	N.R. Sumoz
82	Sinora Suting	Bri	wahkdait	S. Suting
83	Aiambok lin Okko	Bri	wahkdait	H. Okko
84	Mait Mukhim	Bri	Mowriang	<i>[Signature]</i>
85	S. Poktam	Kaylah Stunoy	Pashun	<i>[Signature]</i>
86	Edim Mukhim	Bri	Mowriang	S. Mukhim
87	Bojanin Tyngay	Bri	Wahkdait	B. Tyngay
88	Staw Serleji	Bri	Wahkdait	S. Serleji
89	Willing Khaykhey	Bri	Wahkdait Amkoi	W. Khaylah
90	Shaukar	Khaylah. Bri	' Amkoi	S. Khaylah
91	Dat	Khongtia	Wahkdait	D. KSC.

Appendix-3

Resettlement and Rehabilitation Monitoring Form

Major items of action		Specific action steps (sub-items)	Unit	Planned Total	Progress					
					1/2	1	1 1/2	2	2 1/2	3
1)	Recruitment, training and deployment	1	Deployment of managerial staff	Man-month						
		2	Deployment of resettlement workers	Man-month						
		3	Training and mobilization	Nos. of Trained personnel						
2)	Adopting the Land Resettlement Plan	1	Review of RAP	%						
		2	Devise corrections to the RAP	%						
		3	Submission of comments to NHIDCL	%						
		4	Approval of RAP with corrections	%						
3)	Socioeconomic Survey	1	Designing the Surveys	%						
		2	Field Survey and collection of data	%						
		3	Computerization of field data	%						
		4	Data analysis and report generation	%						
4)	Valuation of affected property	1	Formation of Property Valuation Assessment Team	%						
		2	Planning for valuation	%						
		3	Communication and collection of data	%						
		4	Recommendation	%						
5)	Information campaign	1	Distribute information brochure	EP						
		2	Personal contacts	EP						
		3	Public consultation meetings/FGD	Times						
6)	Relocation of Project Affected Persons	1	Motivate Eligible Persons	EP						
		2	Payment of Transfer Grant	EP						
7)	Identification of Eps	1	Collection of award data	EP						
		2	Assigning ID numbers	EP						
		3	Photographing of EPs	EP						
		4	Issuance of ID cards	EP						
		5	Distribution of ID cards	EP						
8)	Grievance Redress	1	Members given in GRCs	Nos.						
		2	Receiving complaints / claims from EPs	EP						
		3	Disposing off complaints	EP						
		4	Assist EPs in replacement land purchase/Relocation	HHs						
9)	Information Management/ Technical services	1	Finalization of resettlement budget	%						
		2	Preparation of information brochure	%						
		3	Preparation of operation manual	%						

Major items of action		Specific action steps (sub-items)	Unit	Planned Total	Progress							
					1/2	1	1 1/2	2	2 1/2	3		
10)	Resettlement of Project Affected Persons.	4	Designing ID card, EP file	%								
		5	Develop ID numbering system	%								
		6	Computerization of award data	EP								
		1	Assist EPs to collect Cash Compensation	EP								
		2	Preparation of EP files	Sets								
		3	Opening bank account by the EPs	Nos.								
11)	Supervision and Management	4	Organize payment of benefits from Deputy Commissioner	EP								
		5	Assist vulnerable EPs in resettlement	Nos.								
		1	Supply of manpower and logistics	mms								
		2	Liaison with NHIDCL and other agencies	Times								
12)	Performance Reporting	3	Monitoring through Supervision Consultant	Month								
		4	Administrative management	Month								
		1	Inception report	Nos.								
		2	Monthly progress report	Nos.								
		3	Draft final report	Nos.								
		4	Final report	Nos.								

Rehabilitation Monitoring Form

Major items of action		Specific action steps (sub-items)	Unit	Planned Total	Progress										
					1/2	1	1 1/2	2	2 1/2	3	3 1/2	4	4 1/2	5	
1)	Training for Rehabilitation	1	Deployment of managerial staff	Man-month											
		2	Deployment of training staff	Man-month											
		3	Training and mobilization	Nos. of Trained personnel											
2)	Socioeconomic Survey (after 5 years)	1	Designing the Surveys	%											
		2	Field Survey and collection of data	%											
		3	Computerization of field data	%											
		4	Data analysis and report generation	%											

Appendix-4

Terms of Reference of the RAP Supporting Agency

1. Introduction

The Government of India (GOI) has requested loan assistance from Japan International Cooperation Agency (JICA) for the improvement of National Highway 40 (including bridges) aiming at improving the road connectivity within the North-East region of India and with other areas, thereby contributing to the economic development in the region. The project is improvement to 2 lane with paved shoulder/4 laning of NH-40 between Shillong to Dawki section including construction of Dawki Bridge in Meghalaya. National Highway and Infrastructure Development Corporation Limited (NHIDCL) will be the implementing authority of the project.

The Resettlement Action Plan (RAP) for the project which complies with the Resettlement Framework is prepared based on relevant national law of Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013 (LARR 2013) and with the policy of the JICA Guidelines for Environmental and Social Considerations and World Bank OP 4.12. A RAP supporting agency i.e. NGO will be hired by the NHIDCL for the implementation of the RAP.

2. Description of the Project

The total length of the existing NH40 (Shillong - Dawki) stretches approximately 81 km. The vertical alignment varies significantly starting at Shillong with the altitude of about 1500 m, crossing the highest point at about 1,700 m and the lowest at only about 50 m. The project is to improve this section to a two-lane road with paved shoulders. Since the existing NH40 meanders with zigzags and sharp curves passing through mountains, improving the alignment of horizontal curves and bypasses to avoid built-up areas shortens the total length to approximately 71.5 km.

3. Scope of Work- General

The general scope of work shall include i) dissemination of information as described in the policy framework regarding RAP implementation procedure; ii) conducting public consultations, iii) assisting Project Directors and his/her staff in implementation of Resettlement Action Plan and iv) maintain close co-ordination with the Resettlement Specialist of Construction Supervision Consultant (CSC) and NHIDCL staff. Displacement and other impacts due to the project are shown in the table below-

Table-1: Displacement and other impacts

Sl. #	Loss type	Package-I	Package-II	Total
1	Total quantity of land (ha) affected			
2	Total Households affected [Land with Residence. Structure & Trees+Residential Structure+Rented Resident Structure+ Private Trees+Others-Gate]			
3	Total commerce and business enterprises (CBEs) affected [Land with Business Structure & Tree+ Business with Structure + Rented Business]			
4	Total community property (CPR) affected			
5	Total number of structures affected			
5a	Total quantity of all structure (sqm) affected			
5.b	Total quantity of residential structure (sqm) affected			
5.c	Total quantity of commercial structure (sqm) affected			
5.d	Total quantity of CPR structures (sqm) affected			
6	Total no. of toilets affected			
7	Total no. of tube wells affected			
8	Total no. of trees on private land affected			
9	No of trees on government land affected			

A list of the affected households with demographic and socioeconomic information will be provided to the RAP supporting NGO by NHIDCL.

Key implementation issues in the delivery of the tasks includes: (i) consultation and stakeholder participation; (ii) dissemination of relevant information; (iii) assisting executing agency (NHIDCL) in payment of compensation and other resettlement grants (iv) assisting affected persons (APs) in the process of resettlement.

4. Scope of Work- Specific Tasks

4.1 Information Campaign: The consultant will design, plan and implement an information campaign in the affected areas to facilitate the implementation of RAP. The campaign would include measures such as distribution of information booklets, leaflets, notices and other materials among the APs, carrying out community meetings, public announcements and any other measures necessary to provide information to all APs in the project area. The CSC will assist the APs during pre and post relocation period. The NGO staff will also assist APs, where necessary, in preparing grievance redress cases for consideration by the Grievance Redress Committee (GRC). Assistance to NHIDCL in payment of Resettlement Benefits to APs. The selected NGO will be responsible to assist NHIDCL in processing entitlements for the APs and making payment of resettlement benefits to them. The NGO will compile and process data and develop & operate a menu driven computerized Management Information System (MIS) for preparation of entitled persons file and entitlement card for Entitled Person (EP).

4.2 Identification of Entitled Persons: Consult census/survey data and prepare final list of affected households, commercial business enterprises and community establishment now staying within the Right of Way (ROW) from the list.

4.3 Assistance to APs during relocation: The NGO will assist the APs during pre and post relocation period in close coordination with Rehabilitation and Resettlement Committee and NHIDCL

4.4 Assistance to NHIDCL in Payment of Resettlement Benefits to APs: The selected NGO will assist NHIDCL in processing entitlements for the APs and making payment of resettlement benefits to them. The Agency will compile and process data and develop & operate a menu driven computerized Management Information System (MIS). The NGO will prepare EP's files with type and quantity wise losses and Entitlement Card (EC) mentioning amount of compensation/benefits for each of the EPs and prepare Indent mentioning category wise amount of compensation /benefits. The indent would be approved by the Project Director before making payment. The NGO will prepare payment debit voucher on behalf of NHIDCL and assist NHIDCL in preparing Measurement Book.

5. RAP Implementation Schedule and Tasks

The implementation of the RAP is scheduled to start from July 2017 and expected to be completed by December 2019. The NGO will be deployed for a period of 30 months and will be responsible to implement all resettlement activities stated in the TOR. The Project Director, in consultation with the RS of the CSC will provide time schedule as per the requirement of the resettlement program. The NGO will assist NHIDCL but not necessarily limited to the following:

5.1 Information Campaign and RAP Disclosure: The NGO will carry out consultation regarding policies and options and collection of legal documents required to claim compensation. Property owners require being advised/helped to gather all required documents. The affected people will be made aware of the GRC procedures for disputes over claims.

5.2 Disbursement of Compensation: Payment of compensation to titled and non-titled owners will be processed and paid by NHIDCL through Deputy Commissioner (DC) with assistance from the RS of the CSC. The Resettlement Specialist will supervise and monitor the process and the NGO will keep record of the payments and report to the NHIDCL on monthly basis.

5.3 Notice for Encumbrance Free: Written notice will be given to individual affected persons at completion of payment of all compensation/entitlement from NHIDCL. The NHIDCL will keep records of issuance date of notice for making ROW encumbrance free signed by both NHIDCL and EPs.

5.4 Taking-over and handing-over sites: The NGO will assist NHIDCL take-over acquired land from DC office and then hand-over to contractors. Contractors will move into sites the day following expiration of the encumbrance free notice.

6. Major Activities to be performed by NGO

The selected NGO will assist NHIDCL in implementing successfully all stipulations agreed in the RAP entirety, fairly and transparently. In this context, the major functions to be performed by the NGO are:

A: Information dissemination and feedback:

(i) Ensure dissemination of the project and resettlement policy related information to the project-affected persons and others (community groups, local administration, etc.) that might be considered instrumental in the effective and transparent implementation of the RAP. Even though the RAP recommends some dissemination mechanisms, the NGO can suggest more in the process of its implementation and would gather information and disseminate it upward to the project authority.

(ii) During implementation of the project, extensive consultation and collaboration with key stakeholders on a continued basis is planned. The selected NGO will be required to assist NHIDCL in organizing such consultation programs and facilitate consultation with local government representatives, local leaders, etc.

B. Assisting APs in resettlement process:

(i) The main purpose is to make the APs and EPs aware of the project goals, importance, GRC procedures, compensation entitlement and receiving procedures, etc. Some of the major activities are: (a) Inform the EPs about the documents required for claiming compensation from DC office & resettlement benefit from NHIDCL (b) checking with the APs to make sure that they have all the required documents to claim compensation from DC and NHIDCL (c) whether or not there are usufruct rights of others on the properties within ROW and informing the people with such rights about the compensation policies.

(ii) Inform the AP households, especially the vulnerable ones, about the “compensation in cash and/or kind” option stipulated in the RAP and ensure fulfillment of the choices made by them.

(iii) Counseling and helping the households, whose previous incomes have been seriously affected, to find alternative source of income.

C. Grievances redress procedure

The selected NGO will play vital role in the grievance redress process. The most important preconditions for doing this with maximum effectiveness are that the NGO will build personal rapport and confidence with the APs and will be fully aware of all socioeconomic problems/issues arising from the project. Among other things, the NGO will:

(i) Ensure that the APs are fully aware of the grievance redress procedure and the process of bringing their complaints to the GRC.

(ii) Assist the APs in any usual manner (e.g., preparing applications, accompanying them to the hearing and explaining the grievance to the GRC and the like) to bring the complaints to the committee.

(iii) Impartially investigate the veracity of the complaints and try to settle them amicably, fairly and transparently before they go to the redress committee or the courts of law.

(iv) For more focused work in this area, the NGO will prepare a list of problem cases in implementation of RAP. In doing so, the NGO will pay special attention to the problems and needs of the vulnerable APs and recommend to the NHIDCL with probable mitigation measures.

D. Information management

The selected NGO will collect computerized Census and Socio Economic Survey data related to the pre-acquisition condition of the AP households and the nature and magnitude of all categories of losses as well as the compensation thereof determined by NHIDCL. All essential information will have to be generated by using one or more menu-driven MIS. Among other things, the NGO will:

(i) Collect information on Cash Compensation from the DC office and prepare statement for assessing additional payment on the basis of quantity of affected properties.

(ii) Collect and computerize all information related to different types of payments and additional supports provided to the EP and update the EP file and EC.

(iii) Prepare ‘entitlement card’ for the individual EPs as per their types of losses and the amount of compensation due for each type of loss from legal title and the amount of additional compensation/resettlement benefits if any, to be paid by NHIDCL through NGO.

- (iv) Record and maintain details of the issues/disputes causing delay in the disbursement/receipt of compensation and the persons involved in them, including the cases brought to the courts of law, if there is any.
- (v) Document information on the cases, with reasons, brought to and resolved by the GRC, with decisions going in favor of or against the complainants.
- (vi) Collect and maintain relocation information on the homestead losers by categories of EP households such as legal owners, squatters, tenants and others.

E. Progress reports

The RAP requires that all APs are paid the stipulated compensations/entitlements before they are evicted from the properties and/or construction work begins. The selected NGO will provide NHIDCL weekly report on the progress in RAP implementation, including any issue that might be hindering progress, separately for each bridge. The report will be brief consisting of both quantitative and qualitative information on:

- (i) The NGO in its report should reflect the status of total number of EPs identified by DC for compensation and progress of payment in a particular period and resettlement benefits paid against DC's payment and other benefits as per RAP policy by zones and EP categories.
- (ii) Number of focus groups formed and meeting held with the affected persons with issues discussed.
- (iii) Number of vulnerable affected households male headed and female headed have received cheques and be deployed in project civil works according to their eligibility.
- (iv) Number of cases received by the Grievance Redress Committee indicating the types of grievance made in favor of or against the complainants.
- (v) Any other issues that are relevant to implementing the policies stipulated in the RAP.

7. Staff requirements

The NGO is free to determine the number of members to be working in the team. A bar chart shall indicate the proposed timing of their input. The team members shall meet the following criteria:

- (i) The Team Leader (Resettlement Specialist) is the spokesman for the NGO. He/she shall hold Masters in Social Science and have at least 15 years of relevant experience in implementation of RAP, report writing etc. He/she shall have conducted at least 5 trainings/ workshops in Resettlement Issues, and must be fluent in English.
- (ii) The Deputy Team Leader (Resettlement Expert) will assist Team Leader in RAP Implementation process. He shall hold Masters in Social Science and have at least 10 years of relevant experience in implementation of RAP. He shall have conducted at least 5 trainings/ workshops in Resettlement Issues, and must be fluent in English.
- (iii) MIS specialist shall hold a degree in Statistics/Mathematics/Computer Science having more than 10 years of relevant experience in Resettlement tools (EP/EC), and be fluent in English.
- (iv) Gender and livelihood development specialist will have at least masters in any discipline with 7 years experience in the relevant field.
- (v) Area Manager shall hold Masters in Social Science and have at least 5 years of relevant experience in implementation of RAP. He shall have conducted at least 3 trainings/ workshops in Resettlement Issues, and must be fluent in English.
- (vi) Enumerators shall be graduates with at least two years relevant experience

A. NGO selection criteria:

The NGO should have registration with concerned Authorities and experience in implementation of Resettlement Action Plan. The NGO will be selected through quality and cost based selection method.

B. Implementation arrangements

The NGO has to keep office near the concerned locality (more than one in each zone) during the time of implementation of the RAP in order to ease contact with the APs, the cost of which will be specified in the budget. The NGO will make its own transport arrangements, which will be reflected in the budget.

Appendix-5

Terms of Reference of the External Monitoring Agency (EMA)

A. Project Background

The Government of India (GOI) has requested loan assistance from Japan International Cooperation Agency (JICA) for the improvement of National Highway 40 (including bridges), aiming at improving the road connectivity within the North-East region of India and with other areas by improving and constructing national highways in the region, thereby contributing to the economic development in the region. The project is improvement to 2 lane with paved shoulder/4 laning of NH-40 between Shillong to Dawki section including construction of Dawki Bridge in Meghalaya. National Highway and Infrastructure Development Corporation Limited (NHIDCL) will be the implementing authority of the project.

The Resettlement Action Plan (RAP) for the project which complies with the Resettlement Framework is prepared based on relevant national law of Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013 (LARR 2013) and with the policy of the JICA Guidelines for Environmental and Social Considerations and World Bank OP 4.12. A RAP supporting agency i.e. NGO will be hired by the NHIDCL for the implementation of the RAP. To monitor activities of the RAP, NHIDCL will engage an External Monitoring Agency (EMA).

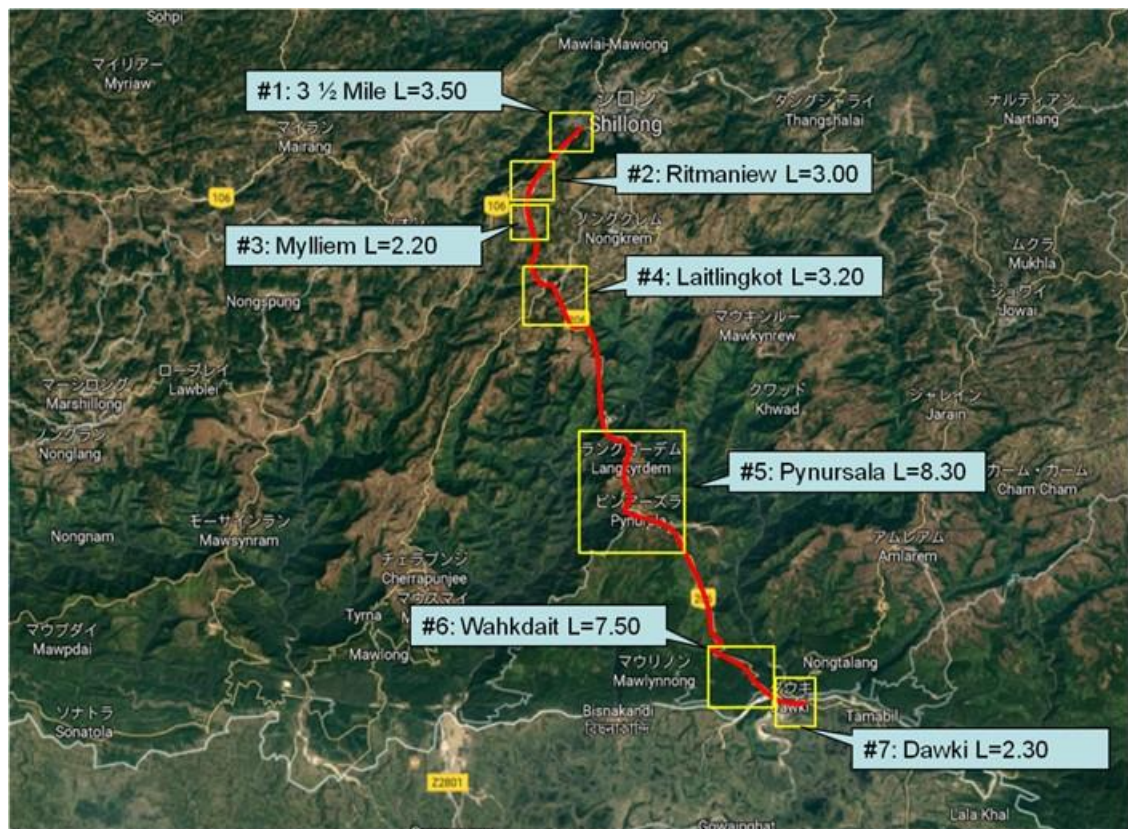


Figure-1: Location of the Project

(*# indicates Bypass.)

B. Key Objective of External Monitoring

Monitoring involves the collection and analysis of data on resettlement activities with the applying accruing information. Monitoring allows project participants to keep track of resettlement activities, to determine whether resettlement objectives are being achieved, and to make whatever changes are necessary to improve resettlement performance.

Evaluation is an assessment of resettlement performance and results in light of stated the objectives. Evaluation for purposes of the RAP is proposed to include a participatory component allowing the project participants to comment on their experience of the project. To be successful, monitoring and evaluation begins with clear resettlement design followed by identification and elaboration of appropriate criteria and indicators.

Indicators and Means for Verification

Indicators form the key elements of any monitoring and evaluation system. Indicators also make possible the comparison of inputs with the completion of outputs and achievement of objectives and goals, thus providing the basis for performance evaluation. Four categories of indicators have been formulated to facilitate monitoring of Progress, Outputs, Effects, Impacts and Compliance in implementing the resettlement.

Effect Monitoring

This will be used to measure the extent to which the immediate objectives have been achieved and give an idea of the results emanating from implementing the RAP e.g., percentage of APs now accessing better housing or improved livelihoods on account of being successfully resettled.

Impact Monitoring

This is the process through which, assessment of the overall achievement of the resettlement goal will be made. Specifically, this is the system that will generate data to gauge success towards implementation of this RAP in terms of impact of the resettlement on the APs. The basis for impact monitoring is the baseline social-economic survey data against which the wellbeing of APs will be compared.

The Independent External Monitoring Agency (EMA) will review implementation process as per set policies in the RAP and assess the achievement of resettlement objectives, the changes in living standards and livelihoods, restoration of the economic and social base of the affected people, the effectiveness, impact and sustainability of entitlements, the need for further mitigation measures if any, and to learn strategic lessons for future policy formulation and planning.

Scope of Work

The scope of work of the Independent EMA will include the following tasks:

- (1) To review and verify the progress in land acquisition/resettlement implementation of the Project and whether they have been followed as provided in the RAP.
- (2) Provide a summary of whether involuntary resettlement was implemented (a) in accordance with the RAP, and (b) in accordance with the stated policy.
- (3) Verify expenditure & adequacy of budget for resettlement activities.
- (4) Describe any outstanding actions that are required to bring the resettlement activities in line with RAP. Describe further mitigation measures needed to meet the needs of any affected person or families judged and/or perceiving themselves to be worse off as a result of the Project. Provide a timetable and define budget requirements for these supplementary mitigation measures.
- (5) Describe any lessons learned that might be useful in developing the new national resettlement policy and legal/institutional framework for involuntary resettlement.

- (6) To Identify, quantify, and qualify the types of conflicts and grievances reported and resolved and assess whether the consultation and participation procedures followed in accordance with the RAP.
- (7) To identify the strengths and weaknesses of the land acquisition/resettlement objectives and approaches, implementation strategies.
- (8) Identification of the categories of impacts and evaluation of the quality and timeliness of delivering entitlements (compensation and rehabilitation measures) for each category and how the entitlements were used and their impact and adequacy to meet the specified objectives of the plans. The quality and timeliness of delivering entitlements, and the sufficiency of entitlements as per approved policy.
- (9) To review the quality and suitability of the relocation sites from the perspective of the both affected and host communities.
- (10) Review results of internal monitoring and verify claims through sampling check at the field level to assess whether land acquisition/resettlement objectives have been generally met. Involve the affected people and community groups in assessing the impact of land acquisition for monitoring and evaluation purposes.
- (11) To monitor and assess the adequacy and effectiveness of the consultative process with affected APs, particularly those vulnerable, including the adequacy and effectiveness of grievance procedures and legal redress available to the affected parties, and dissemination of information about these.

C. Methodology and Approach

The general approach to be used is to monitor activities and evaluate impacts ensuring participation of all stakeholders especially women and vulnerable groups. Monitoring tools should include both quantitative and qualitative methods. The external monitor should reach out to cover:

- (1) 100% APs who had property, assets, incomes and activities severely affected by Project works and had to relocate either to resettlement sites or who chose to self-relocate, or whose source of income was severely affected.
- (2) 10% of persons who had property, assets, incomes and activities marginally affected by project works and did not have to relocate;
- (3) 10% of those affected by off-site project activities by contractors and sub-contractors including employment, use of land for contractor's camps, pollution, public health etc.;

D. Team Composition of the Independent External Monitoring Agency

Table-1 Team composition and qualifications

Position/expertise	Qualification and experience
1. Team Leader/ Resettlement Expert	Masters in social science with 10 years working background in planning, implementation and monitoring of involuntary resettlement for infrastructure projects. Experience in institutional capacity analysis and implementation arrangement for preparation and implementation of resettlement plans, and knowledge in latest social safeguard policies of the international development financing institutions in Bangladesh
2. Social Impact Specialist/Anthropology	Masters in social science with 5 years working experience in social impact assessment including census and socio-economic surveys, stakeholders' consultation, and analysing social impacts to identify mitigation measures in compliance with social safeguard policies of the international development financing institutions and national legislations. Experience of preparing resettlement framework and action plans and implementation of plans for externally financed projects is essential.
3. Data Analyst	Graduate with working experience and knowledge of software, preferably relational, those are most commonly used in Bangladesh; demonstrated ability to design and implement automated MIS(s) for monitoring progress, comparing targets with achieved progress and the procedural steps

E. Time Frame and Reporting

External monitoring of the RAP will be undertaken alongside that of other project components. EMA will take place as follows:

Post Project Monitoring:

In order to determine final impacts of the resettlement activity, a final evaluation cum an impact assessment will be undertaken 6 months after conclusion of resettlement to evaluate whether the intended objectives were realised. For this, suitable baseline indicators related to income, assets, land ownership, expenditure pattern of key activities, housing conditions, access to basic amenities, demographic characteristics, indebtedness, etc. will be applied.

The monitoring reports should be submitted to NHIDCL. An evaluation report at the end of the project should be submitted to the NHIDCL and concerned parties with critical analysis of the achievement of the program and performance of NHIDCL and Rehabilitation & Resettlement Committee.

The external monitors will provide monitoring and evaluation report covering the following aspects:

- Whether the resettlement activities have been completed as planned and budgeted;
- The extent to which the specific objectives and the expected outcomes/results have been achieved and the factors affecting their achievement or non-achievement;
- The extent to which the overall objective of the Resettlement Plan, pre project or improved social and economic status, livelihood status, have been achieved and the reasons for achievement / non achievement;
- Major areas of improvement and key risk factors;
- Major lessons learnt; and
- Recommendations.

Formats for collection and presentation of monitoring data will be designed in consultation with NHIDCL, consultant's resettlement specialist.

F. Qualification of the Independent External Monitoring Agency

The I-EMA will have at least 5 years of experience in resettlement policy analysis and implementation of resettlement plans. Further, work experience and familiarity with all aspects of resettlement operations would be desirable. NGOs, Consulting Firms having requisite capacity and experience as follows can qualify for services of and external monitor for the project.

- (1) NGOs, Consulting firms duly registered with GOI agencies or a department of any recognized university is eligible.
- (2) The applicant should have prior experience in social surveys in land based infrastructure projects and preparation of Resettlement Action Plan (RAP) as per guidelines on involuntary resettlement of any of the JICA, ADB and World Bank.
- (3) The applicant should have extensive experience in implementation and monitoring of resettlement plans, including the preparation of implementation tools.
- (4) The applicant should be able to produce evidences of monitoring using tools such as computerized Management Information System with set criteria for measuring achievement.
- (5) The applicant should have adequate manpower with capacity and expertise in the field of planning, implementation and monitoring of involuntary resettlement projects as per donor's guidelines.

End