ACKNOWLEDGEMENT

All economic activities working together in space produce a unified system of spatial economy; therefore, linkages between sector planning and spatial planning are important. Social, economic and spatial aspects of developments are interrelated and physical growth must be in harmony with well-defined social and economic goals. This is only possible when the three essential and complementary aspects of development - the social, economic and physical, are considered together and coordinated from the very beginning. This requires local solutions implemented with the knowledge and engagement of local people and supported by the CSR funds of companies with light oversight. The trust we place in local communities leads to the IICA edge.

This report is an outcome of the Impact Assessment Study undertaken by National Foundation for Corporate Social Responsibility, Indian Institute of Corporate Affairs. The study was undertaken in Golaghat District of Assam with full cooperation and support from the Numaligarh Refinery Limited officials.

We would like to extend our sincere thanks to Numaligarh Refinery Limited and all their functionaries involved in the study at different levels and for their insightful inputs and support.

We are grateful to the Research team, Field coordinators and Reviewers for conducting this study efficiently. We thank them for diligently completing the study by visiting the field and conducting meeting with all the stakeholders of the projects.

DR. SAMEER SHARMA

DG & CEO – IICA
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EXECUTIVE SUMMARY

Community development initiatives are a major component of CSR that NRL focuses on. NRL has adopted a multi-pronged approach and is trying to improve upon the standards of health, education, infrastructure, livelihood, integrated rural development and skill development. The ultimate test of the success of any CSR project is its social, economic or environmental impact. In order to examine whether the CSR interventions of NRL were designed in line with the needs of the community and whether the projects made an impact on the lives of the beneficiaries, this impact assessment study was conducted by reviewing the projects’ achievements.

A hybrid study methodology was used, which is a methodology that is a mix of quantitative (e.g. survey data) and qualitative (e.g., interviews) information. Primary data was collected in 102 earmarked villages consisting of eight CSR Projects in six thematic areas- sanitation (toilet construction), livelihood (handloom weaving centre, poultry, piggery, dairy, goatery), health (MMCs and VKNRL Hospital), skill development (mid-wifery nursing course and geriatric care centre), integrated rural development (household lights, solar street lights and road construction) and education (school infrastructure).
Major Achievements of the CSR initiatives by NRL

**EDUCATION**
- Construction, Repairing and Renovation of School Infrastructure
- 84% of the population in Golaghat is literate

**HEALTH**
- 70% of the HHs consult in hospital by NRL (VKNRL) or MMU by NRL when they fall sick
- Services and medicines have reached out to 97% of the respondents.

**SANITATION**
- Use of pit toilets (own) has enhanced from 35% to 58%.
- Open defecation has reduced to a large extent from 32% to 4%.

**LIVELIHOOD**
- 47% of the respondents received services that helped them in income generating activities.
- Average HH employment of 30 days in a year

**INTEGRATED RURAL DEVELOPMENT PROGRAM (Electrification)**
- About 82% of the Households are electrified by NRL
- 3 equipments in a household are functional because of the solar light system.

**SKILL DEVELOPMENT**
- Quality of skill development programme, as per majority of the respondents (53%), is good.
- Majority of the respondents have never received such unique skill training in past.
The CSR programmes of NRL have achieved their goals to a large extent in areas of health, sanitation, skill development and integrated rural development. Stakeholder perspective in the program has been favourable, with beneficiaries of the CSR initiatives expressing satisfaction with the facilities received from NRL. The project interventions are aligned with company’s CSR policy, national benchmarks as well as community needs. The projects continually adapted to beneficiaries’ needs over time and ploughed in learning real-time implementation. The livelihood generation programme requires improvement in selection of beneficiaries. The education program of NRL has provided infrastructural facilities (e.g. school books, uniforms, toilet and drinking water facility) in the schools of the District. The CSR projects under education require planning for intervention based on the needs of the school going children as well as drop-outs.

The sanitation project (toilet construction) has reduced open defecation and increased use of pit toilets in the area. It was indicated that the water supply has reached and being accessed by 65% of the population in the District. The health related projects have also been effectively executed and about 70% of the households in Golaghat district use the health services provided by NRL hospital (VKNRL) and medicines are available to 97% of the beneficiaries through its Mobile Medicare Units (MMCs) as well as pharmacy at VKNRL hospital.

The integrated rural development program has ensured electrification in 82% of the households in the villages. The skill development programme introduced by NRL is unique; and the quality of the programme is perceived to be satisfactory. All the projects have been implemented within time and stipulated budget except for toilet construction. As per the information received from NRL, for the purpose of toilet construction, initially, Direct Benefit Transfer (DBT) mode was used while implementing agencies were empanelled to construct toilets in model villages. The mid-term changes led to delay in the completion of the project.

The CSR interventions have positively affected the lives of the people by and large. The sanitation projects have improved the overall health and hygiene of the beneficiaries. The livelihood project has enhanced the income of the beneficiaries; however, the benefits could have been more widespread by designing an effective monitoring mechanism. The infrastructure development program has improved the living condition of the villagers by providing them electrification (grid electrification, household light & solar street light), which has enhanced access for pedestrians, improved personal as well as community safety and improved quality of life. The skill development program has benefitted the beneficiaries by
providing them domain specific knowledge and on the job training experience. Finally, the school infrastructure provided under the education program has reduced the drop-out rate in the district and schools have been made available within three kilometres radius from the place where students live.

However, some challenges remain that casts doubts on long-term sustainability of projects. The sanitation program is adversely affected by irregular water supply, less space and lack of interest of the household members in using the toilets. Similarly, livelihood generation projects also require monitoring and maintenance for the equipments provided under the project intervention. In contrast, health, skills development and education programs are more sustainable as the human capital developed is likely to persist for a long time.

**Recommendations**

The implementation of CSR projects by NRL are in accordance with Schedule VII of Companies Act 2013. The NRL should conduct a rigorous need assessment of beneficiaries and align projects to their needs. During the field survey, a major gap in the communication between the company and beneficiaries was observed such that the target community was not aware of the interventions of the company. Therefore, community engagement and sensitization programmes by NRL must be emphasised upon.

The specific recommendations are given below:

- The toilet construction project has benefitted the villagers in the form of improvement in health and hygiene and has also improved awareness about the usage of toilets. However, there is a need to increase usage of toilets by converging with Swachh Bharat Mission. For this, the NRL should use the common dimensions of toilets created by Swachh Bharat Mission in schools and awareness can be generated by adopting tools created by Swachh Bharat Mission, Government of India. Most important is the long term sustainability of the project. This can be done by constructing toilets with greater dimensions and adequate supply of water.

- The NRL has to focus on making the water supply project sustainable. For this, the quantity of water has to be ensured to match the prescribed levels of at least 55 litres per capita per day (LPCD) as recommended by Minister of Drinking Water and Sanitation, and water supply to be made more predictable. Operation & Maintenance (O&M) strategy has to be designed to ensure that the water supply is self-sustainable in the long-run. Some sort of bulk user charge is an attractive option to NRL to
explore. In future for all projects, the NRL should have an exit strategy for post-project sustainability.

- To improve the condition of livelihood options in the villages, the NRL should focus on the capabilities of the population in the village. The traditional way of enhancing capabilities is providing learning opportunities and generating awareness amongst the villagers. It would be beneficial for the population if the NRL assesses the needs and living condition of the existing population before finalizing the CSR intervention. It was observed during the study that the selection process of beneficiaries was ambiguous; therefore, a well defined criterion for selection of beneficiaries is to be developed by NRL for future CSR interventions.

- The visits by mobile medical facility of VKNRL should be more frequent and focused on remote villages. A fixed calendar should be prepared and regular updates regarding the health camps and MMV visits can be shared with the villagers using mobile phones (e.g. bulk SMS). Mainstreaming of AYUSH is also recommended.

- The NRL needs to built-in a system for regular maintenance of roads and solar lighting system in the long term. Also, street lights have been installed in the model villages and are required to be installed in other villages for better electrification and to increase accessibility of the villagers after dusk. For this, NRL should explore some form of a shared user- charge and plan exit strategy diligently.

- Even though there is widespread support for the skill development project, the NRL will have to focus on placements after delivery of the training program, as this will make the project fruitful and sustainable in the long-term. On the job training can be organized in future linked to stipend for the trainees. Exposure to job market and access to digital reading material must be provided to the beneficiaries. This will engage them as well as motivate them to learn.

- The focus of the CSR intervention to promote education should be on improving the quality of education. One way to improve the quality of education is by leveraging digital component to classroom education. The emphasis should be on enhancing the performance of low scorers through customized education program for them. This would be a fruitful initiative to encourage children to study and decrease dropout rate further.
CHAPTER-1 BACKGROUND OF THE STUDY

1.1 About the company

Numaligarh Refinery Limited is a public sector oil company in Assam. It is located at Morangi, Golaghat district, Assam and is a joint venture of Bharat Petroleum (61.65%), Oil India (26%) and Govt of Assam (12.35%). It is under the admin control of Ministry of Petroleum & Natural Gas, Government of India (Numaligarh Refinery Limited, 2016). The refinery was set up in accordance with the provisions made in the historic Assam Accord signed on 15th August 1985 and has been conceived as a vehicle for speedy industrial and economic development of the region. The NRL has been able to display creditable performance since commencement of commercial production in October, 2000. With its concern, commitment and contribution to socio-economic development of the state combined with a track record of continuous growth, NRL has been conferred the status of Mini Ratna PSU.

The product range of the company includes LPG, Naphtha, Motor Spirit (MS), Aviation Turbine Fuel (ATF) Superior Kerosene Oil (SKO) High Speed Diesel (HSD), Raw Petroleum Coke (RPC) Calcined Petroleum Coke (CPC), Sulphur, Wax, Nitrogen, Mineral Turpentine Oil (MTO), Special Boiling Point Spirit (SBPS) and Liquid Sulphur (Numaligarh Refinery Limited, 2016a). The NRL is conscious of the fact that business is inseparable from societal and environmental impacts.

1.2 Company policy

1.2.1 Corporate Vision

To be a vibrant, growth oriented energy company of national standing and global reputation having core competencies in refining and marketing of petroleum products committed to attain sustained excellence in performance, safety standards, customer care and environment management and to provide a fillip to the development of the region (Numaligarh Refinery Limited, 2016b).

1.2.2 Corporate Mission

- Develop core competencies in Refining and Marketing of petroleum products with a focus on achieving international standards on safety, quality and cost.
• Maximize wealth creation for meeting expectations of stakeholders.

• Create a pool of knowledgeable and inspired employees and ensure their professional and personal growth.

• Contribute towards the development of the region.

1.3 Company CSR Policy

NRL’s ‘CSR and Sustainability Policy’ incorporate the following salient points:

1.3.1 CSR Vision

The CSR and sustainability Vision are:

“To pursue CSR and Sustainability activities with a difference for ushering in inclusive development of the community”

1.3.2 CSR Mission

The Mission shall be:

“To identify and implement welfare schemes based on genuine needs of the people through baseline survey and in-house assessment, in consultation with village development committee, district authorities, stakeholders, and to access effectiveness of implemented schemes through periodic evaluation”.

1.3.3 CSR Objectives

The Objectives are:

i) To formulate, implement and monitor CSR and Sustainability activities through a three-tier organisational structure.

ii) To earmark adequate resources for pursuing CSR and Sustainability activities as per the policy.

iii) To ensure effective utilisation of allocated resources towards CSR and Sustainability.

1.3.4 Conformity to statutory requirements

The Policy conforms to stipulations under Section 135 of the Companies Act 2013, the CSR Rules issued by the Ministry of Corporate Affairs and applicable Guidelines on CSR and Sustainability issued by the DPE (Numaligarh Refinery Limited, 2016a).
1.4 Thematic areas for CSR activities

Numaligarh Refinery Limited (NRL) has incorporated human well-being into its corporate philosophy and organizational culture. The NRL has continuously been working for the upliftment of the society through its persistent CSR efforts (Numaligarh Refinery Limited, 2016c). Marching ahead to improve the socio-economic conditions of the region, it has crossed several milestones in this noble mission. Covering the activities specified under

The NRL is focusing are pursued along five thrust areas, viz.

1.4.1 Drinking Water & Sanitation

- Parichannata- Covering every household with sanitary toilet
- Jeevandhara- Providing safe drinking water

1.4.2 Livelihood- Income Generation

- Swanirbhar- Support to SHGs/ JLGs/ local entrepreneurs for income generation; Engaging experts for sharing technical know-how; Linkages to financial institutions for sustaining businesses

1.4.3 Community healthcare

- Niramoy Healthcare at the doorsteps through mobile medical camps
- Vivekanand Kendra Numaligarh Refinery Limited Hospital Infrastructure development

1.4.4 Integrated rural development

- Rural Electrification through grid and solar power

1.4.5 Skill development

- Setting up of VKNRL School of Nursing with hostel facilities (general nursing and midwifery course)
- Geriatric care centre

1.4.6 Promotion of education

- Providing school infrastructure and related facilities

1.5 Impact assessment study

Impact Assessment is a means of measuring the effectiveness of organisational activities and judging the significance of changes brought about by those activities. Interventions without
Impact Assessment are performance without knowing results. Performance assessment is to be done after needs are assessed and funds and resources are invested to keep track and to ensure progress.

1.6 Context of the study

The socio-economic welfare of the region is an integral part of NRL’s corporate philosophy and organizational culture. Thus, the company has undertaken several CSR interventions for improving lives of people in the neighbouring areas. This study is an effort directed towards understanding and assessing the impact of CSR interventions of NRL on the targeted villagers.

The geographical locations were selected by the company Numaligarh Refinery Limited (NRL) in accordance with Corporate Social Responsibility (CSR) Regulation Company Act, 2013 which endorses that ‘preference should be given to local areas and the areas where the company operates'. The Impact Assessment Study of multiple CSR projects of NRL aims to assess the outcome and impact of CSR activities in 102 villages in Golaghat district of Assam.

The concrete objectives of the Impact Assessment study are:

1. To examine whether the programs were designed in line with the needs of the community and organization’s mission/vision.

2. To assess whether the right mechanism was adopted for implementing the interventions.

3. To understand whether the goals and objectives decided at the beginning of the programs were achieved.

4. To assess whether there are any unexpected changes or negative effects in the lives of the target community.

This impact assessment study aims at establishing the immediate impact experienced at the household level and to identify any indirect benefits experienced for the wider community in the implementation area of Numaligarh Refinery Limited under the various CSR initiatives.
CHAPTER 2- METHODOLOGY

The methodology adopted for this assessment study is a mixed method approach which involves qualitative and quantitative methods based on household survey, key informant interviews, a desk review and analysis of the program history and timeline.

2.1 Field Survey Design

The assessment study uses household and village based data to gather information about the programmes. The household questionnaire has been developed using national and international level indicators and benchmarks. Specific indicators have been broken down under each of the thematic areas as per the CSR policy of NRL aligned to the indicators of Sustainable Development Goals and Multidimensional Poverty Index.

The household questionnaire seeks information from the respondents about their socio-economic background, livelihood source, sanitation and health status, education and skill development facilities and accessibility to basic amenities like road infrastructure; electrification etc..

The interview schedules obtained information about the facilities available in and around the village. The information was collected from the CSR officials of NRL and administrative staff of VKNRL hospital (Nursing hospital by NRL). The information obtained from the CSR official schedule was about the projects undertaken, their implementation and impact on the community. Information about the facilities available in the hospital was provided by the Administrative Department.

2.2 Sample size

The total beneficiary households, as informed by NRL, (village wise beneficiary list at Annexure 1) were 10389. A sample size of 1059 households (Confidence interval-95%, Margin of error-3%) was used. Random sampling was used to select the respondents among the beneficiaries.

2.3 Data collection method

The primary data collection involved visiting 15 villages (attached in Annexure 2), out of 102 villages, earmarked by NRL for conducting the assessment study. The data collection team interacted with the beneficiaries and obtained their views to understand their perception. The CSR officials of NRL were also interviewed in order to understand the company’s perception.
and assumptions. Furthermore, secondary sources, such as government reports, official web portals were also used.

2.3.1 Baseline Study

Baseline studies are a critical element in the formula for measuring change over time. A baseline study serves the purpose of informing decision makers what impact the project has had on the target community. A major challenge in the data collection process was absence of the exact location of beneficiaries for every interventions implemented by NRL, which caused confusion and resulted in lack of clarity when surveyors were on the field looking for beneficiaries for each of the project implemented. The location of beneficiaries would also have helped in attributing change in the living standard of the target population due to the projects. Moreover, a need assessment study along with baseline study is required for before designing and implementation of CSR projects.

The baseline study, although provided by NRL, did not serve the purpose of providing relevant information about the condition of the villages in Golaghat district of Assam prior the implementation of the programmes. It did not present the technical deliverables necessary to accomplish the project’s objectives. With the missing benchmarks to compare future measurements, the progress through the intervention could not be measured effectively. Therefore, the baseline study was not sufficient for judging the true impact of interventions.
CHAPTER-3 PROJECT WISE ASSESSMENT

3.0 Model Village Development

The commonly understood meaning of the term model village is a village which is endowed with all the modern facilities such as infrastructure, all round development, including the one to be brought about by behavioral change.

To turn the backward village into a smart model one, the CSR interventions of NRL focused on three verticals - providing rural electrification through grid and solar power, providing safe drinking water and constructing toilet. The four model villages where interventions were located and assessed are Napathar, Chawrabosti, Ponka and Mazdoor Gaon. Development of a model village emphasised on development of sanitation, infrastructure, education, health and cleanliness.

Image 1 Model Village Initiatives

➢ For the purpose of providing safe drinking water to every household in the village, a Reverse Osmosis (RO) plant was commissioned. The households in the village
admitted that drinking water has been provided by the NRL; however, the operation, maintenance and monitoring of the plant was a major concern, which is essentially the responsibility of village development committee and the households themselves once the NRL has completed the installation.

Image 2 Water supplied by Golaghat Municipal Corporation

- Treading towards achieving the CSR objective of improving rural infrastructure, the NRL has electrified villages. Solar home systems have been installed in the un-electrified households for regular access to electricity supply. Solar street lighting system has been provided and strategically located in the villages.
The program has improved the living condition of the villagers by providing them electrification (street light & household light), which has enhanced access for pedestrians as well as their personal safety.
NRL is also providing solar street light facilities along the road in the villages. The project not only ensures accessibility, but also security of the villagers travelling in night and environment sustainability.
Toilet construction has been done partnering with implementing agencies. Amongst its many achievements, most of the households, i.e. 97% of the households have toilet facility in model village (Figure 1).

![Toilet construction image]

**Image 5 Toilet construction**

The NRL has worked in the vicinity of Golaghat to transform backward villages into smart villages and develop a sustainable model of livelihood. The company has worked in the areas of integrated rural development to ensure basic amenities to the villagers.

![Ownership of toilets in model villages graph]

**Figure 1. Ownership of toilets in model villages**
The data obtained has been thematically separated in the following themes and projects:

**SANITATION**
- Toilet Construction
- Water Supply

**LIVELIHOOD**
- Handloom Weaving centre, Piggery, Dairy and Goatery

**HEALTH**
- VK NRL Hospital
- Mobile Medicare Van

**INTEGRATED RURAL DEVELOPMENT**
- Street Light, Solar Light and Electrification

**SKILL DEVELOPMENT**
- Geriatric Care Centre and Mid Wifery Nursing Course

**EDUCATION**
- School Infrastructure
SANITATION (TOILET CONSTRUCTION & WATER SUPPLY)

“Paricchanata” and “Jeevandhara”

TOILET CONSTRUCTION IN HOUSEHOLDS
“Paricchanata”: Hygenic sanitation by construction of toilet blocks for BPL households

WATER SUPPLY
“Jeevandhara”: Providing water supply facility by reviving existing piped water scheme and repair & renovation of existing ring wells in nearby villages.

Image 6 Sanitation Projects
3.1 - Project 1: Toilet Construction

3.1.1 Project Introduction

Numaligarh Refinery Limited has contributed for Sanitation projects in the villages of Golaghat district, Assam through its projects Paricchannata, Swacchh Vidyalaya Abhiyan as well as awareness campaigns on hygienic sanitation practices. The company has been involved in construction of public toilets in nearby towns as a part of their CSR activity. In some villages, the subsidy amount (INR 28,500) and other benefits were transferred directly to the beneficiaries' bank accounts, for toilet construction. However, in model villages (Ponka, Napathar, Mazdoor gaon and Chawrabosti), implementing agencies were appointed for toilet construction. Additionally, toilet construction (including maintenance) has been undertaken in the schools of Golaghat district. Maintenance cost is being provided for all the 101 toilets constructed under Swachh Bidyalaya Abhiyan. Apart from this, the company has organized awareness Campaigns & Cleanliness drives in schools, nearby market places, etc. to promote cleanliness and sanitation under Swachh Bharat Mission.

3.1.2 Project Objectives

- To provide Low Cost Sanitary Toilets to Below Poverty Line (BPL) households in the villages of Golaghat District of Assam through Direct Benefit Mode
To provide Low Cost Sanitary Toilets to schools in the villages of Golaghat District of Assam

To ensure better health and hygiene along with elimination of open defecation in the villages of Golaghat District of Assam

3.1.3 Relevance of the project

The CSR policy of NRL focuses on the needs of the people to achieve inclusive development. This impact assessment shows that the project objectives are aligned with the company policies at Numaligarh Refinery’s plant in Assam. The low cost sanitary toilets constructed in Golaghat district in Assam encourage better health and hygiene habits amongst villagers that is aligned to the objective of promoting welfare and village development.

- **Alignment with National Benchmark**

<table>
<thead>
<tr>
<th>National Benchmark</th>
<th>Project Intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td>As per Census (2011), in Assam, 56.70% households have Individual Household Latrines (Ministry of Drinking Water and Sanitation, 2012).</td>
<td>In our survey, it was found that 77% of the villagers in Golaghat district of Assam use toilet provided by NRL. The NRL sanitation program has witnessed an increase of 68.5% in households with toilets.</td>
</tr>
</tbody>
</table>

- **Alignment to Community Needs**

Due to lack of access to toilet facility, the villagers practised open defecation. The villagers faced many challenges such as lack of space and issues of open defecation, especially for women. When the impact assessment study was carried out, it was found that most of the women were facing difficulties while defecating in the open before the implementation of the programme. Figure 3 depicts multiple issues and challenges faced by respondents on a daily basis. Majority of the households indicated that the greatest challenge is faced by women who go to the open for defecating. Also, lack of space is another major concern raised.
Tailored to the needs of the villagers and the community, NRL has designed its CSR project of toilet construction, maintenance and simultaneously organized awareness camps for the promotion of better hygiene and sanitation practices in the village.

During the study it was indicated, about 67 per cent of the respondents had access to toilets (Figure 3) on a daily basis while only 10% of the households do not have access to toilet facility.

Figure 4 shows the level of basic household amenities such as toilets, electricity and drinking water. The usage of toilets has increased after the implementation of the program. As per the findings, activities and outputs of the NRL interventions are consistent with the needs of the community and match the goals and objectives of the project.
Admittedly, awareness creation and sensitization amongst the beneficiaries are important aspects of toilet usage. Awareness camps by NRL focussed on creating awareness about toilet-use, general health and environmental hygiene. Respondents were asked about the awareness camps organized in the village, majority of the villagers (60%) responded that they did not attend any awareness camp organized by NRL and 16% of the respondents were not aware about any such camp being organized in their locality. About 24% of the villagers attended the awareness camps organized by NRL which resulted in increase of toilet use and improvement in general health and hygiene in the village.

3.1.4 Effectiveness

The objectives were achieved to a large extent in the sense that open defecation was reduced and usage of toilets increased in the villages. Figure 5 shows 69% of the beneficiaries are satisfied with the toilets provided by NRL.
Challenges in the achievement/ non-achievement of the objective

Figure 6 shows that 95 respondents reported that lack of adequate space was a major challenge in toilet use while 42 beneficiaries reported lack of access to water as the major issue that lead to low toilet usage. Thus, the major problem to the project came from lack of space, lack of water, small tanks and cleanliness. These challenges provide scope for further improvement in the project objectives and implementation.

The cost of ‘Paricchannata’ scheme (toilet construction and awareness project) for the assessment years is given in Table 1:
Table 1. Utilization of CSR funds by NRL

<table>
<thead>
<tr>
<th>Project “Paricchannata”</th>
<th>2016-17 (in Lacs)</th>
<th>2017-18 (in Lacs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Budgeted amount</td>
<td>11.12</td>
<td>453.7</td>
</tr>
<tr>
<td>Total expenditure</td>
<td>6.90</td>
<td>334.03</td>
</tr>
</tbody>
</table>

Though, the allocated funds for the project have not been fully utilised; however, it was observed that the resources were used in an effective manner. Thus, intended objectives have been largely achieved as the project has reduced open defecation ODS and has encouraged use of toilet usage in many villages. Therefore, toilet construction has improved lives of many people in the villages by proving facilities that would contribute to their health and hygiene. Figure 6 shows that majority (69%) of the people are satisfied with the toilets.

3.1.5 Efficiency

An approach that focuses on the assessment of the effectiveness of a project in terms of the level of satisfaction of the social needs and expectations of the community can be explained as the efficiency of a project.

The modes of construction of toilets were either by the households on their own or facilitated through implementation agencies appointed by NRL. In model villages, toilet construction, as responded by the beneficiaries, was slow and there were problems reported for the quality standard of the toilets constructed by the implementing agencies appointed by NRL. In non-model villages, households were responsible for toilet construction as they received DBT in their bank accounts through NRL. It was observed that households have toilets; however, the respondents believed that the amount transferred was not sufficient for toilet construction. They also suggested that the toilets should be constructed by implementing agencies under the supervision of NRL officials as per the requirement of the household.

The sanitation projects of the assessment years 2016-17 and 2017-18 have been completed within time and in budget.
3.1.6 Convergence

The NRL toilet construction program was aligned to the national priority of reducing open defecation and the toilet construction has surpassed the number in Swatchh Bharat Program. The Swatchh Bharat Mission Gramin -All India observed an increase of 60.25% in households with toilet since 2nd October 2014 (Ministry of Drinking Water & Sanitation, 2019). The NRL sanitation program has witnessed an increase of 68.5% in households with toilets.

3.1.7 Impact

After the implementation of the program, significant changes have occurred as open defecation has reduced and people have started using toilets. Open defecation has reduced from 32% to 4%. Awareness campaign has spread knowledge to 24% of the population.

Before the implementation of the project, majority of the villagers were not using toilets and in case of open defecation, they were facing many problems. Walking to a long distance was a problem for women to go in open was the major challenges before the project was implemented. The program has successfully reached out to the people in the community and people have benefited with improved health, hygiene and awareness. The improvements in sanitation services and personal hygiene have positive health impacts, such as, reduced incidents of infectious diseases and diarrhoeal diseases. In addition, safety has improved as they no longer go out in open.

The activities were carried out as they were planned, villages of NRL periphery were covered in the project intervention, based on the respondents’ records there has been a great change and acceptance of healthy sanitation practices in the villages, people in the community also changed their attitudes and students developed new sanitation habits in schools through the successful program. Then, a behavioural change also occurred.

3.1.8 Sustainability

Toilets were not spacious, tanks were small and water supply shortage was observed. Thus, when it comes to sustainability, it was observed that the beneficiaries had to spend their own money to improvise the condition of the toilet which hampers the sustainability of toilet usage provided by NRL.
3.1.9 Recommendation

The project has benefitted the villagers in the form of improvement in health and hygiene and has also improved awareness about the usage of toilets. The toilet construction program of NRL is relevant to the needs of beneficiaries and has led to positive impact on the health and hygiene and largely, moving towards achieving the physical target set. It is recommended to NRL to increase usage of toilets among the beneficiaries by converging with Swachh Bharat Mission. For this, awareness can be generated by adopting tools created by Swatchh Bharat Mission, Government of India. The NRL should use the common dimensions of toilets created by Swatchh Bharat Mission in schools. Most important is the long term sustainability of the project. It is suggested by the respondents to make larger size toilets with adequate supply of water.
3.2 - Project 2: Water Supply

Project Name “Jeevandhara”

*Providing water supply facility by reviving existing piped water scheme and repair & renovation of existing ring wells in nearby villages.*

**Project Objectives**

- To provide water supply facility by reviving existing piped water scheme in nearby villages and schools of Golaghat District of Assam through Golaghat Municipal Board.
- To repair and renovate existing ring wells in nearby villages and schools of Golaghat District of Assam through village management committees
- To ensure better health and hygiene of the community nearby villages and schools of Golaghat District of Assam

**3.2.1 Relevance of the Project**

The impact assessment shows that the project intervention follows the company CSR policy of promoting welfare of the villagers located in the periphery of the NRL plant. Moreover, provision of water supply in Golaghat district of Assam in order to promote better health and
hygiene of the beneficiaries justifies the CSR objectives of the company of promoting welfare and village development.

➢ Alignment with National Benchmark

<table>
<thead>
<tr>
<th>National Benchmark</th>
<th>Project Intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Sometimes</td>
<td>Sometimes</td>
</tr>
<tr>
<td>NA</td>
<td>NA</td>
</tr>
</tbody>
</table>

According to the Assam Human Development report (2014), 43.28 percent of the rural population in Assam has access to safe drinking water. According to Census (2011), 14.15% of households use tap as the main source of drinking water. The findings of the baseline study suggests that supply of drinking water is a major issue in Golaghat district.

As observed, an R.O water plant has been installed by NRL wherein the water supply is being managed by Golaghat Municipal Board. Figure 7 show that the benefits of the program have reached 65% (53+12) of the households in the district and water is provided at least once a day.

Figure 7.Availability of drinking water provided by NRL in a year
The Assam Human Development Report (2014), states that the provision of water supply in the rural area of the State is a priority. Moreover, the baseline assessment suggested that common water supply sources provide contaminated water which can cause many types of diseases. Thus, the focus of NRL is to provide safe and reliable water supply to the households located in the periphery.

3.2.2 Effectiveness

Importantly, the objectives were achieved to a large extent as majority of the beneficiaries were satisfied with the quality of drinking water provided. It is observed that 57 per cent of respondents were satisfied with the quality of drinking water provided. The key factor of water supply project was frequency of water supply in the villages. As figure 8 shows, 32% respondents received water more than one time in a day while 21% get water at least once every day.

![Figure 8. Frequency of Water Supply](image)

Moreover, Figure 10 shows that water supply provided by NRL is being used for drinking as well as for regular usage by 49% of the households. Schools in Golaghat district have also been provided water supply. Thus, the NRL project has effectively achieved its objectives.
Though the programme has ensured that a large number of households have access to water every day, some challenges remain. Firstly, 71% of the households shared that water is not...
supplied at a fixed time of the day. Secondly, the water supplied to the households is not sufficient to meet the requirements (Figure 10).

The project has been cost effective in the way that the expenditure has been less than the budgeted amount and the intervention has positively affected the lives of the people. One area of concern is that even after completion of the programme, funds allocated for the programme have not been completely utilized. As seen in the Table 2, the total budgeted CSR fund for the year 2017-18 was 59.06 lakh whereas the total expenditure made was 39.35 lakh.

Table 2 Utilization of CSR funds by NRL

<table>
<thead>
<tr>
<th>Project “Jeevandhara”</th>
<th>2016-17 (In Lacs)</th>
<th>2017-18 (In Lacs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Budgeted Amount</td>
<td>40.52</td>
<td>59.06</td>
</tr>
<tr>
<td>Total Expenses</td>
<td>32.17</td>
<td>39.25</td>
</tr>
</tbody>
</table>

3.2.3 Convergence

Under the National Rural Drinking Water Programme (NRDWP), 44% of rural households and 85% of government schools and anganwadis were provided access to safe drinking water. Complementing the NRDWP, NRL, through Golaghat Municipal Board, has provided water supply to 65% of households in Golaghat district of Assam. As discussed above, 53% of the
beneficiaries received water supply throughout the year in the village and 12% of the beneficiaries received drinking water sometimes from NRL.

3.2.4 Impact

Merely 65% of the households are receiving water from NRL and all schools are getting filtered water. The most positive impact is seen by the reduction in the incidents of water borne diseases like jaundice, typhoid etc. (Figure 11).

Figure 11. Occurrence of water borne diseases like jaundice, typhoid, etc. since the project started

Another positive feature is the convenience for women as they need not go to water sources located at long distances.

3.2.5 Sustainability

Figure 12 shows that most of the households want water supply to be more regular, some want more number of taps. Households also want increase in quantity of water. However, 29 households indicated towards the cost of water and thus, is an issue impactong long-term sustainability of the project.

Figure 12. Area where improvement is required in context of water supply programme
3.1.6 Recommendation

The NRL has to focus on making the project sustainable. For this, the quantity of water has to be ensured to match the prescribed levels of at least 55 litres per capita per day (LPCD) (Ministry of Drinking Water & Sanitation, 2014) and water supply to be made more predictable. Operation & Maintenance (O & M) strategy has to be designed to ensure that the water supply is self-sustainable in the long-run. NRL can plan and work out a measure to charge one time bulk amount from the beneficiaries of the project which should be economical for the users of the intervention. In future, for all projects, the NRL should plan an exit strategy diligently to ensure post-project sustainability.
3.3 - Project 3: Livelihood Program

Project Name - “Swanirbhar”

Project Introduction

Project Swanirbhar of Numaligarh Refinery Limited aims at providing assistance to self-help groups residing within 10 kilometres radius of the refinery for setting up Handloom Weaving centre, Piggery/Dairy and Goatery units for livelihood support and income generation of the population, residing in the periphery.
Project Objectives

- To improve the quality of life, by provision of self-employment avenues and loan recovery to the people in community
- To enhance relationship with financial institutions by providing loans to the people in community
- To study the impact of Income and Employment of Rural Women and youth of SHGs and JLGs after provision of employment opportunities and micro enterprise and financial opportunities

3.3.1 Relevance of the Project

The project intervention “Swanirbhar” is aligned with the company CSR objective of improving the quality of life by creation of livelihood avenues for the villagers residing in the periphery of the refinery plant. Livelihood opportunities are developed to ensure inclusive growth of the community as stated in company CSR objective.

<table>
<thead>
<tr>
<th>National Benchmark</th>
<th>Project Intervention</th>
</tr>
</thead>
</table>

- Under the MNREGA Scheme of the government, the average days of employment per Household in Assam in the years 2016-17 and 2017-18 were 29.68 and 28.55, respectively (Ministry of rural development, 2018).
- As a result of the program, the number of employment days per Household is 30 days in a year.

The average days of employment in households of Golaghat district of Assam are similar to that of the state Assam.

➢ Alignment to Community Needs

The programs were designed keeping in consideration the needs of the local people; however, the process of identification and selection process of beneficiaries was not clearly defined. Therefore, it is not possible to determine whether the project reached out to the needy.

The activities of the intervention included promotion of local entrepreneurs, SHGs, JLGs for setting up various livelihood avenues. The activities are consistent with the goal to enhance
the livelihood opportunities. Provision of equipments, tools and livestock is meant to enhance the earning capability of beneficiaries.

The needs identified for the beneficiaries of various livelihood programs are categorically listed below:

**Weaving Handloom**- There is a need for market linkages even though the villagers are provided with necessary tools and infrastructure.

![Handloom weaving Unit](image11)

**Image 11. Handloom weaving Unit**

**Dairy**- Cows and necessary infrastructure (cow sheds/ tabela) are provided that help in improving the living condition of cattle stock and further, in income generation of the owner. However, the villagers believe that the maintenance of the cow as well as cowshed was not provided for in the project. The beneficiaries were not able to bear the maintenance cost of the cows as well as the infrastructure. Moreover, the NRL has to provide training in veterinary skills and provide handholding services. Similar is the case with poultry units.
Hatchery and Poultry- The poultry incubators were provided but were not installed. As a result, beneficiaries were not able to use the equipment.
### 3.3.2 Effectiveness

The households were asked regarding the primary source of income and it was observed that majority of the respondents were involved in selling agricultural products, selling animal products and involved in other menial jobs such as daily wage labours. Since the monitoring mechanism followed for the CSR intervention is weak, the livelihood projects (weaving handloom, hatchery, dairy farms, poultry, jaggery plant as rice flattening mills) have not contributed to income enhancement to a large extent as envisaged (figure 13).

![Figure 13. Primary source of income](image)

As a result, the desired objectives were not achieved as the earning capacity of the beneficiaries has not improved from the equipments provided. Only a few beneficiaries have actually benefitted from the programme.

The lives of people in the villages have improved but the benefits have been confined to only those households who had a pre-existing livelihood engagement.

The funds used to undertake activities have not been completely utilised. In the project year 2017-18, the total budgeted amount for CSR was 139.07 lakh, however, by the end of the financial year only 55.03 lakh were spent. Table 3 shows that the funds allocated have remained unutilised in 2016-18.
Table 3. Utilization of CSR funds by NRL

<table>
<thead>
<tr>
<th>Project</th>
<th>2016-17 (In Lacs)</th>
<th>2017-18 (In Lacs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Swanirbhar”</td>
<td>70.13</td>
<td>139.07</td>
</tr>
<tr>
<td>Budgeted Amount</td>
<td>46.82</td>
<td>55.03</td>
</tr>
</tbody>
</table>

The survey has found an interesting aspect with respect to livelihood support being provided to household. Figure 14 shows that NGOs provide the largest support to the households in the villages according to the beneficiaries. This provides an opportunity to the NRL to strengthen the CSR interventions in income generating activities and make them more effective.

![Figure 14. Support Provider](image)

### 3.3.3 Efficiency

The programmes initiated in the assessment years 2016-17 and 2017-18 are still undergoing. Even though the livelihood enhancement supporting facilities such as equipment for rice mill, poultry and hatchery, cow sheds etc were provided in time, however, they could not be used with time to generate additional income by households due to lack of maintenance or installation support.
Based on overall observation of the field surveyors, it was found out that there were some gaps in the monitoring mechanism followed by NRL. Even though NRL has provided the facilities, the mechanism for ensuring if equipments are operational was overlooked. The project aimed at enhancement of livelihood opportunities for the community. The company has implemented the projects but the intended impacts have not been achieved due to lack of a robust monitoring mechanism. The benefits of the programme need to reach out to more households.

3.3.4 Convergence

The livelihood projects chosen by the company are aligned with the initiatives of the government.

![Figure 15. Number of Working Days in Last Year](image)

- However, the increase in employment is not widespread. Only 23% of the households in the villages were engaged in income generating activities for 9-12 months in a year. On the other hand, 33% were engaged in productive employment for less than a month in a year which is equal to the average number of days of employment provided by MNREGA in Assam (Ministry of rural development, 2018).

3.3.5 Impact

Prior to implementation of the project, majority of the villagers didn’t have source of livelihood generation. The condition has improved for those households who already had access to some livelihood generating activity. The livelihood capacity of people has improved by ownership and use of equipments, tools and livestock provided under the intervention.
The intervention has improved the income of some beneficiaries as well as provided training for alternative means to agriculture to selected beneficiaries which enhanced their awareness about the sources of income related to agriculture.

![Image 14 Livelihood Training](image)

The implementation of the programme has impacted some lives by enhancing their earning capacities. The SHGs and JLGs have contributed to income generation by providing financial support. Figure 17 shows that the SHGs and JLGs have enabled 47% of the households to participate in income generating activities.
3.3.6 Sustainability

NRL has provided all the required equipments and tools for generation of income opportunities in the district. Lack of regular monitoring has led to the asymmetric benefits. Improper selection of beneficiaries has led to the increase in income of only a few households who had the capacity to benefit fully from the intervention.

3.3.7 Recommendation

One lesson is that income generating activities benefit households differently depending on their capabilities. The traditional way of enhancing capabilities is learning and generation of awareness. However, another alternative is to move away from supply side and focus on the need of the community for implementing effective intervention. Also, the selection process of beneficiaries was ambiguous; therefore, a well defined criterion for selection of beneficiaries is to be developed by NRL for future CSR interventions.
COMMUNITY HEALTH

3.4-Project 4: Health Programs

“Niramoy”: A project to conduct routine free mobile medical camp in villages in the vicinity of Numaligarh Refinery in collaboration with Vivekanand Kendra Numaligarh Refinery Limited [VKNRL] Hospital

Project Introduction

A healthcare project “Niramoy” through regular mobile health camps is being implemented in nearby villages of NRL. It is a project to organize regular free mobile medical camps in the periphery of NRL plant. Awareness camps for critical ailments like AIDS, cancer, etc. are organized under this project. Also, assistance is provided for treatment of critical ailments to
people from economically weaker section of the society. Subsidy for treatment is also given at VKNRL hospital.

**Project Objective**

- To provide free healthcare services in collaboration with VKNRL Hospital
- To conduct routine free mobile medical camp in villages in vicinity of refinery in collaboration with VKNRL Hospital

### 3.4.1 Relevance of the Project

The aim of CSR projects of NRL is welfare of the villagers located in the periphery of the NRL plant coincides with the aim of the project. The free mobile medical services provided by NRL in Golaghat district Assam promote better health and hygiene, thereby, justifying the CSR objectives of the company of promoting welfare and village development.

Based on the baseline report, the programs were designed keeping in consideration the needs of local people. The intervention attempted to provide assistance for treatment of non-critical ailments for patients in the villages around NRL plant. The diseases are most prevalent in women working in the tea gardens of NRL, health status of the villagers is also one of the sensitive issues apart from which skin ailments are the most common type of disease. The report also suggested that the cardiac problems can be attributed to cigarette smoking and hence villagers should be made aware of the dangerous after effects of smoking. Mobile medical vans provided by NRL are used for providing facilities for prevention and cure of such symptomatic diseases.
3.4.2 Effectiveness

According to majority of the villagers (89%), the mobile medical van reached out to the households in the remote areas in order to provide them cure for minor ailments free of cost. The facility was made available to most of the households in the villages and benefits were availed by all the people. For critical ailments, households were provided free check-ups, consultation by experts and certified doctors and treatment at concessional rates at VKNRL hospital.

According to 94% of the beneficiaries, it was indicated that they receive free consultation service and medicines at the VKNRL hospital (Figure 17).
Mobile medical camps also provide free consultation and medicines to patients. This shows the complete coverage of the villages.

As far as the frequency of the services provided by MMC is concerned, majority of the households indicated that MMC is conducted less than three times in a month (Figure 19).
Figure 18. Frequency of MMC visits in a month

The objectives of the programme were achieved as it is contributing to the health and hygiene of the community. Also, the programme involves conducting awareness campaigns such as organizing eye test camps and blood test camps in the villages. Figure 19 shows that 90% percent of the households surveyed believe that the programme is improving health and hygiene.

Figure 19. Impact of MMC

3.4.3 Efficiency

The regular availability of equipments required for checking vital signs and medicines for treatment were ensured by the company through mobile medical camps (MMCs). The majority of the beneficiaries (70%) confirmed that all of the diagnostic equipments were
available and the stock of medicines provided by the camp was sufficient for treatment of diseases (Figure 20).

![Figure 20. Availability of medical equipment in the camp](image)

Furthermore, at VKNRL hospital, equipment for treating critical ailments, medical infrastructure (maternity ward, MBBS Doctors & Nurses, general ward, OPD) and pharmacy with medicines at concessional rates are available. Moreover, for serious ailments, the hospital has the facility of tele-conference video consultation with experts from Apollo hospitals.

The health projects of the assessment years 2016-17 and 2017-18 have been completed within time and within budget. The cost for the projects in year 2018-19 is within the designated budget and the project is being carried out successfully in the plant periphery of NRL.

### 3.4.4 Convergence

The company policy complements the MMC (Mobile Medical Unit) programme under National Rural Health Mission (NRHM) initiative focusing on the needs of North-eastern states. It provides free medical check-ups, organizes health camps and provides medicines for treatment of the patients. The MMU set up by NRL follows the guidelines of Operationalization of Mobile Medical Unit (in North-eastern States, Himachal Pradesh and J&K) (National Rural Health Mission, 2018). It provides most of the equipments mentioned in the guidelines by National Rural Health Mission (list in Annexure 3).
3.4.5 Impact

With the implementation of the programme, the healthcare facilities have reached to even the remotest areas of villages. The family members of respondents are able to access the facilities offered by MMUs. Figure 21 show that 89% of the respondents are aware of and access the healthcare facilities offered by camps.

![Figure 11. Do People Access the Healthcare Facility Offered by the Camps](image)

The qualitative information shows that the company organizes eye tests and blood test camps regularly. However, response to emergency situations is a gap as 75% of the households stated that medical help during emergency was not available (Figure 22).

![Figure 22. Emergency medical care provided](image)
3.4.6 Sustainability

The interventions for health and awareness have been successful in improving the overall health of the community. The benefits of interventions are reaching even the remotest areas and majority of the community members are using the health facilities provided by MMC and VKNRL hospital. As Figure 23 shows, more than 94% of the households reported the quality of service provided by MMC to be above average.

![Figure 23. Quality of Service Provided By MMC](image)

3.4.7 Recommendation

The frequency of visits of mobile medical unit of VKNRL should be increased. Also, an awareness drive must be organized to update villagers about existence of such facility. A fixed calendar for the year and the route of the mobile units could be shared with the villagers so that effective usage is possible using mobile phones (e.g. bulk SMS). A record of trend of increase or reduction of patients and types of issues reported should be diligently maintained. Also, resources must be arranged to deal with emergency medical situations in the villages.

The NRL should also promote mainstreaming of AYUSH. AYUSH and modern systems of medicine have distinct approaches and methods of practice. Mainstreaming of AYUSH is one of the strategies in National Health Mission (NHM) as well which seeks to provide accessible, affordable and quality health care in order to improve the existing health care delivery system. Training and engagement of AYUSH Doctors and facilitating AYUSH at PHCs can enable choice to the patients. The Ayurveda practitioners and staff nurses after
being trained in primary care and public health competencies through the bridge course can be placed at wellness and health centres in the villages.

INTEGRATED RURAL DEVELOPMENT

3.5 - Project 5: Integrated Rural Development Program (Electrification)

Image 18 Installation of Solar Home Lighting

Project Introduction

The project aims at developing Model Villages and providing accessibility to the remotest village by providing rural electrification through grid, solar power, and street lights in model villages. The NRL has been making efforts to provide basic infrastructural facilities such as road construction to villages in the vicinity of its refinery. The implementing partner of NRL for rural electrification is Assam Power Distribution Company Limited (APCDL) and M/s The Energy & Resources Institute (TERI), New Delhi.
Project Objective

- To provide electrification in nearby villages

3.5.1 Relevance of the Project

The aim of the CSR projects of NRL is the welfare of the villagers located in the periphery of NRL plant. The integrated rural development program is promoting welfare and alleviating living standards of the community thereby justifying the CSR objectives of NRL of focusing on village development.

➢ Alignment to National Benchmarks

<table>
<thead>
<tr>
<th>National Benchmark</th>
<th>Project Intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td>As per Census (2011), 36% of households in Assam are not electrified (Assam Development Report, 2014).</td>
<td>About 82% of the Households are electrified by NRL.</td>
</tr>
</tbody>
</table>

36% of the households in Assam are not electrified (Assam Development Report, 2014). Due to this, there arose a need for electrification to be provided by NRL. The NRL has provided electricity to 82% households as per the needs of the community in Golaghat district of Assam (Figure 24).
The Golaghat district is a flood prone area and the road conditions worsen during the rainy season. The conditions of the roads were poor in the area, prior to the implementation of the programme. The road construction project of NRL has revived the road conditions keeping in consideration the needs of the people. Thus, the program of Integrated Rural Development has been designed keeping in consideration the needs of local people.

Image 19 Road constructed by NRL

3.5.2 Effectiveness
The objectives of the programme have been achieved to a large extent as 82% of the households are electrified by NRL under the program. Moreover, as Figure 25 shows 49% of the households agree that NRL has installed street lights in their locality. This may be because street lights have been completely installed in model villages while it is in the process of installation in other villages.

![Figure 25. Street Lights Installed By NRL in Locality](image)

About 64% of the households stated that the existing street lights by NRL are not working that is a matter of concern (Figure 26). However, the maintenance of the street lights is not a part of the intervention of NRL and is the responsibility of the village development committee.

![Figure 26. Existing Street Lights by NRL in working condition](image)

About 94% of the beneficiaries stated that the village has access to solar energy that is used for lightning and illumination of the households. About 72% of the households indicated that on an average, three equipments in a household are usually electrified from solar lighting system.
Also, the road construction project has enhanced the accessibility to nearby facilities such as hospitals, markets etc. It has also enhanced the accessibility of travel models like auto, buses etc.

Table 5 gives the detail of the allocated budget and expenditure on rural electrification. The expenditure has been less than the allocated budget. The unutilized funds can be used for providing electrification to the remaining 16% of the households.

### Table 5. CSR Funds utilized by NRL

<table>
<thead>
<tr>
<th>Project integrated rural development</th>
<th>2016-17 (In Lacs)</th>
<th>2017-18 (In Lacs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Budgeted Amount</td>
<td>63.06</td>
<td>18.93</td>
</tr>
<tr>
<td>Total Expenses</td>
<td>54.58</td>
<td>14.86</td>
</tr>
</tbody>
</table>

#### 3.5.3 Efficiency

Figure 27 show that the villages get electricity daily for about 18 to 24 hours on an average.
When discussed with the beneficiaries and gram panchayat; it was indicated by the villagers that the condition of road is good post implementation of the programme as compared to what it was prior the intervention.

The integrated rural development projects of the assessment years 2016-17 and 2017-18 have been completed within time and in budget. The cost for the projects in year 2018-19 is within the designated budget.

3.5.4 Convergence

The project intervention complements Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY), under which 25372 villages of Assam have been electrified which is 77% of the total villages (Assam Power Distribution Company Limited, 2016). The initiative by NRL has contributed to electrification of villages by installing solar lights and household electrification in 82% households of Golaghat District (Figure 25).

3.5.5 Impact

The electrification of villages by NRL has several positive impacts on the safety and welfare of the community residing in the villages. Household lighting provided by NRL has enhanced the life of families and increased opportunities for children to study. Also, installation of street lights has led to fewer accidents on the roads and made people feel safe from crime in night. Road Construction has also benefitted the community by improving the ease of pedestrian access and enhancing the accessibility of travel modes to nearby facilities.
3.5.6 Sustainability

The benefits of interventions are reaching even the remotest areas targeted and majority of the community members are using the benefits of the electrification programme provided by NRL.

3.5.7 Recommendation

The NRL has to built-in a system for regular maintenance of solar light system and road construction to achieve sustainability. However, to make the initiative sustainable, more households can be illuminated and street lights need to be installed for village development. For this, NRL should explore some form of a shared user-charge. Secondly the name of the program as ‘integrated rural development’ is a misnomer as any integrated program has all socio-economic elements of village development. To ensure sharpness and focus it would be preferable to either call the program rural electrification. Training and reading instructions on change of bulbs, regular maintenance should be provided to the youth of the village including few electricians. Regular monitoring should be introduced through a third party.
SKILL DEVELOPMENT

3.6 - Project 6: Skill Development Training (General Nursing and Mid Wifery Course at VKNRL and Geriatric Care Course)

The skill development programme aims at providing training on various trades such as Ayurvedic Nursing, Geriatric Home Health Aide, Technical training on automatic domain, hospitality management, nursing, welding, fitter, CNC operator and paramedical science.

**Project Objective**

- To provide skill development training to educated unemployed youth through VKNRL nursing college and Geriatric care centre
3.6.1 Relevance of the Project

The company CSR policy that believes in promoting development of the villagers located in the periphery of the NRL plant. The skill development programme aims at ensuring employment for educated unemployed youth. Thus, the CSR policy is aligned to the project objectives. The specific project details are given in Table 6.

<table>
<thead>
<tr>
<th>Project Details</th>
<th>VKNRL Nursing School – General Nursing and Mid-wifery Course</th>
<th>Geriatric Centre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course Details</td>
<td>3 years course – 1 year integrated supervised internship 2 batches going on simultaneously (started from 2017)</td>
<td>2 months course- 1 theory and 1 On the Job Training 8th batch OJT in Assam from 5th Batch</td>
</tr>
<tr>
<td>Batch Strength</td>
<td>Total 80 students, qualified faculty available</td>
<td>35 students, 2 teachers, 3 other staff</td>
</tr>
</tbody>
</table>

- **Alignment with National Benchmark**

  The educated youth is provided with nursing training, the training helps them in becoming independent and self-reliable. In this way, the project intervention aids in reducing the high unemployment rate in Golaghat district through its skill development activities.

  - **National Benchmark**
    - About 80% of the educated youth in Assam is unemployed (Department of Labor, 2011).
  - **Project Intervention**
    - 84.2% of the youth is unemployed in Golaghat (Assam Human Development Report, 2014)
As per the Employment Policy for Assam, 2011, the distribution of job seekers according to their skill level shows that a vast majority (about 80%) of the unemployed youth who have registered their names in the Employment Exchanges are unskilled. As there are little placement opportunities for people (Department of labour, 2011), the NRL to focuses on providing skill based training for educated unemployed youth.

![Figure 28. Reasons for joining the programme](image)

Figure 28 show that the largest number of participants joined the course in order to avail placement opportunity while others have joined the program for skill enhancement.

### 3.6.2 Effectiveness

The objective of this intervention was to enhance skills and capabilities of educated youth in Golaghat district. The project intervention used skill development courses such as nursing and geriatric care training for reducing unemployment in the district. The students of the training courses are satisfied with the course content and information and the majority believe that the course content is very useful and the details are in Figure 29.
The feedback received from students on trainers is given in Figure 32. About 54% of the students rated trainers as motivating, while 22% students rated trainers as strictly professional and 18% believed them to be easily accessible.

As far as the quality of skill development programme is concerned, the majority of respondents (53%) were satisfied with training. As Figure 30 shows, some of them even believe that the quality of the programme is very good and a few believe that it is excellent.

Although the programme has been successful in terms of usefulness of course and training quality; however, obtaining extra reading material is a challenge and the books in the library are in limited numbers. Moreover, it was indicated by the students that they have limited access to practical exposure. Figure 31 gives the list of issues raised by the participants of the training program.
3.6.3 Efficiency

As seen in Table 7, the expenditure has been lesser than the budgeted amount. It is observed that there is a huge difference between the funds allocated for the programme and the actual expenditure in the year 2016-17. The allocated funds have been under utilized in consecutive two financial years.

Table 7. CSR Funds utilized by NRL

<table>
<thead>
<tr>
<th>Skill Development Project</th>
<th>2016-17 (In Lacs)</th>
<th>2017-18 (In Lacs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Budgeted Amount</td>
<td>2034.26</td>
<td>2173.29</td>
</tr>
<tr>
<td>Total Expenses</td>
<td>485.65</td>
<td>1743.74</td>
</tr>
</tbody>
</table>

3.6.4 Convergence

Pradhan Mantri Kaushal Vikas Yojana (2016 - 2020) is a flagship outcome-based Skill Training Scheme of the Ministry of Skill Development & Entrepreneurship (MSDE). This Skill Certification Scheme aims to enable and mobilize a large number of Indian youth to take up skill training and become employable and earn their livelihood (PMKvy, 2018). The skill development programme of NRL supplements the PMKvy by setting up General Nursing Mid-wifery at VKNRL hospital and Geriatric Care centre with an aim of providing relevant jobs to the youth.
3.6.5 Impact

With the implementation of the programme, the students are benefitting with domain, practical as well as soft skills knowledge and on the job training experience. The qualified trainers are another key factor behind the success of this programme. As Figure 32 shows, a majority of the respondents (51%) believe that the skill trainers are very good and that makes the program very successful.

![Pie Chart]

Figure 32. Positive Aspects of Training Programme

The skill development programme at VKNRL hospital provides infrastructural facilities, hostel for staff and students, free course, computer lab and smart class facility. One concern is that the students will be charged rupees six thousand from the upcoming session.
The output of the skill development program has been assessed using student’s perception of quality of training provided in a cost efficient manner. However, it can be improved with use of available funds to provide practical exposure to the students as the ongoing batch is the first batch of GNM nursing and Mid-wifery course, the students have not been placed yet. The most important measure of the project will be the success in students’ placement.

3.6.6 Sustainability

A majority of the participants (91%) want the programme to be repeated as they have not received such training in past. Though the projects are being conducted successfully, there were challenges faced by participants in the VKNRL nursing school. Figure 33 shows that majority of beneficiaries indicated that the quality of water needs to be improved in the hostel as the water being supplied is hard. Participants are taken to VKNRL hospital for practical exposure, but there are few patients admitted in the hospital on regular basis. Several participants suggested that arrangements should be made for visit to other hospitals in the area for greater exposure.
3.6.7 Recommendations

Even though there is widespread support for the skill development project the NRL will have to focus on placements once the training is completed, as this will make the project sustainable in the long-run. On the job training placement is the single most important activity to be organized in future linked to stipend. Apart from On the job training (internship), access to digital reading material must be given to students. This will engage the students as well as motivate them to learn more.
EDUCATION

3.7 Project 7: Construction, Repairing and Renovation of School Infrastructure

The education programme aims at providing better environment for education to students residing in villages in the vicinity of NRL in Golaghat, Assam.

Project Objective

- To construct new school infrastructure, repair & renovation of 42 nearby school buildings and other facilities
3.7.1 Relevance of the Project

▶ Alignment with Company CSR Policy

The education programme in Golaghat district of Assam aims at ensuring that the students have appropriate physical environment for education. This aligns to the CSR objective of the project, that is, to promote human development of peripheral villages.

Alignment with National Benchmark

The project intervention aids in reducing the illiteracy rate in Golaghat district through its education programme and the project objectives are aligned with national benchmarks.

<table>
<thead>
<tr>
<th>National Benchmark</th>
<th>Project Intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ About 72.91% of the population in Assam is literate (Census, 2011).</td>
<td>□ As per our survey, 84% of the population in Golaghat is literate.</td>
</tr>
</tbody>
</table>

The NRL focuses on providing infrastructure for promoting education in order to improve the literacy. Based on the needs of the community, the NRL has built infrastructure for schools and has provided basic amenities to promote education.

3.7.2 Effectiveness

The objective of the intervention was to reduce illiteracy rate in the district. The infrastructure provided has been useful for the students. Figure 34 shows that majority of the beneficiaries received basic amenities and infrastructural facilities such as chairs and desks, free books, free meals, medical room etc. in the school.
The physical infrastructure was observed by the field surveyors. Figure 35 shows the basic facilities in school provided by NRL. The school infrastructure facilities provided by NRL are according to the standards.

Although the programme has been successful in terms of providing good standard of infrastructure and basic amenities; however drop out is a challenge. Figure 38 shows the reasons of dropouts. The major reason for dropping out of the school was the requirement of the children for household daily chores. The secondary reason for drop-outs was school being too far away from residence.
3.7.3 Efficiency

The project expenditure has been less than the budgeted amount as the funds allocated for the programme have not been completely utilized in two of the assessment years.

According to majority of the respondents (Figure 37), the education programme provides infrastructural facilities, free books, free uniforms, full time teachers, safe drinking water facility and separate toilet for boys and girls in the schools.

Apart from providing above mentioned facilities, the schools are also making the students aware about Water, Sanitation and Hygiene (WASH) issues to improve hygiene practices as 64% of the beneficiaries admitted to receive information and training WASH.
3.7.4 Convergence

In order to facilitate the completion of school education and to reduce the dropout rates, Assam Government decided to establish 100 new schools in tea garden areas by upgrading existing Primary schools to High Schools up to Class-X based on a Public Private Partnership (PPP) model with experienced non-government societies (Government of Assam, 2018). The education programme of NRL complements this development scheme of Government in Assam.

3.7.5 Impact

The programme has facilitated building of school infrastructure in the area. The RTE Act defines the limits of neighbourhood schools as 1 km walking distance from the habitation of a child at the primary level (class 1 to 5) and within 3 km walking distance for upper primary level (class 6 to 8) (RTE, 2009). As Figure 38 shows the accessibility to school has increased after the intervention of NRL.

![Figure 38 Distance from Home to School](image)

Additionally, the students have benefitted with amenities such as free books, free uniforms, water facility, separate toilet facility and presence of full-time teachers. Due to all those facilities provided and enhanced accessibility, the dropout rate (12%) is low.

3.7.6 Sustainability

The amenities provided are all beneficial in the long term, in reducing the dropout rate and enhancing participation of students in the school. Most important is presence of a school
within one-three kilometres distance from most of the households which makes the project sustainable.

3.7.7 Recommendations

The focus of the initiative should be to improve the quality of education. One way to improve the quality of education is by leveraging digital component to classroom education. Technology attracts children to come to school, keeps them interested and retains children in school and help kids to learn the computer in vernacular languages can be a helpful CSR initiative. As part of a growing trend, affordable technology is helping children in impoverished or remote locations to access an education they would otherwise have to forego. Tablets with gamification, video based learning with NCERT course curriculum could be distributed. The emphasis should be on enhancing the performance of low scorers through personalised education. This way dropout rate can be reduced, even more.
Conclusion
The CSR interventions of the NRL focuses on creating a sustainable impact on the community and aims at developing creative solutions that draw on the complementary capabilities to address major challenges that affect the population. The involvement of NRL in addressing community issues has helped in building trust and support from stakeholders.

The NRL has been contributing to various development areas such as health & sanitation, education, livelihood, skill development and rural development in a considerable way. The company has CSR activities scattered across the Golaghat district in 102 villages, in diverse thematic areas. It becomes a huge challenge for the CSR executives to develop an approach that can truly deliver on these lofty ambitions. The NRL needs to concentrate their CSR efforts to limited number of projects in limited number of villages, since management time and resources are limited. The greatest opportunities will come from areas where the company officials significantly interact with on a regular basis and thus can have the greatest impact on the lives of people living there. The company needs to focus on few nearby areas where they can gain a deeper understanding of the needs of the people and find the potential for mutual value creation. The key is finding symmetry between the business and societal perspective and being open enough to understand issues of both the sides.

Furthermore, apart from need assessment, a thematic area wise baseline study is essential in order to be able to determine the level of impact expected and to enable the monitoring of impacts after the development has occurred. CSR governance and monitoring are important key element of effective CSR mechanism. Baseline information will need to be gathered from the field from each of the thematic area as per the CSR policy of the company, and also the information that is already available, need to be collated. In case a CSR intervention has a number of alternative sites, each of the sites should undergo a baseline study so that the relative severity of the impacts for each alternative can be assessed.

A brainstorming session could be undertaken in the NRL to identify few of the key interventions suitable to the needs of the community in the plant periphery for the forthcoming financial year. Standard Operating Procedures (SoPs) for each of the interventions, monitoring indicator framework and formats could be prepared to ensure structured impactful CSR by the company.
Summary of Recommendations

**EDUCATION**
- Improve the quality of education
- Digital based mediums such as gamification and video based learning with NCERT course to enhance children's performance
- Enhancing the performance of low scorers through personalized education

**HEALTH**
- A fixed calendar should be prepared for visit of MMCs
- Increase frequency of MMVs in the villages
- Regular updates regarding the MMV visits can be shared with the villagers using bulk SMS
- Mainstreaming AYUSH is recommended

**SANITATION**
- Construct toilets with greater dimensions and adequate supply of water
- Operation & Maintenance strategy has to be designed
- Exit strategy to be planned

**INTEGRATED RURAL DEVELOPMENT**
- Built-in a system for regular maintenance of roads and solar lighting system
- Install street lights in more villages for better electrification and to increase accessibility

**LIVELIHOOD**
- Focus on the capabilities of the population
- Assess the needs and living condition of the population
- Develop a well defined criterion for selection of beneficiaries

**SKILL DEVELOPMENT**
- Focus on placements after delivery of the training program
- On the job training can be organized linked to stipend
References


Assam Power Distribution Company (2016), ‘DDUGJY (Deen Dayal Upadhyaya Gram Jyoti Yojana)’, Schemes. Available at

Global Libraries Initiative (GL) (2008), IPA Road Map, Bill & Melinda Gates Foundation, Seattle, WA.


CSR IMPACT ASSESSMENT FOR NRL

**IICA Team involved in the Study**

**Reviewer**
Dr. Garima Dadhich

**Research Team**
Ms. Vaishali Arora
Ms. Divya Banerjee
Ms. Himani Gautam

**Field Supervisor**
Ms. Sudha Rajagopalan
### Annexure 1

**Village wise list of beneficiaries**

<table>
<thead>
<tr>
<th>S/N</th>
<th>Name of the Village</th>
<th>Distance from NRL</th>
<th>No. of Households/Beneficiaries</th>
<th>Project Intervention in the area</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Ponka</td>
<td>3KM</td>
<td>175</td>
<td>Toilet / Grid Electrification/ Road/ school</td>
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<td>3KM</td>
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<tr>
<td>73</td>
<td>Dhansiri Haahshora</td>
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<td>74</td>
<td>Goroomari Balichapori</td>
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<td>75</td>
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<td>76</td>
<td>Kolaboria</td>
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<td>77</td>
<td>Borpak Nagabali</td>
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<tr>
<td>78</td>
<td>Nepalikhuti &amp; Madhapur</td>
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<td>79</td>
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<td>Modhupur</td>
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<td>81</td>
<td>Kakachang</td>
<td>30KM</td>
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<tr>
<td>82</td>
<td>Deoithor</td>
<td>10KM</td>
<td>Solar Home lighting system</td>
<td></td>
</tr>
<tr>
<td>83</td>
<td>Sahala &amp; Moriahola</td>
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<tr>
<td>84</td>
<td>Lakhipur</td>
<td>50KM</td>
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<tr>
<td>85</td>
<td>Borgoria Borchapori area (Bilkan Chook)</td>
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<tr>
<td>86</td>
<td>1 No Rong Bong SC Gaon</td>
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<td>87</td>
<td>5 No Rong Bong SC Gaon (Tanti Bosti)</td>
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<tr>
<td>88</td>
<td>1 No Ponka grant, Chaura Basti</td>
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<td>89</td>
<td>Ponkagrant (Adjacent to Ouguri)</td>
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<td>4 No Rongbong Koibotta Gaon.</td>
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<td>91</td>
<td>Sumoni Gaon, Purabangla.</td>
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<td>Bishnupur Borchapori Gaon.</td>
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<td>93</td>
<td>Ouguri Chapori Village, Rajabari.</td>
<td>1KM</td>
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<tr>
<td>94</td>
<td>Numaligarh Block Gaon</td>
<td>5KM</td>
<td>Grid Electrification / Low cost toilet/ Road</td>
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<td>95</td>
<td>Na Pathar gaon (8 No ward), Numaligarh.</td>
<td>6KM</td>
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<tr>
<td>No.</td>
<td>Location</td>
<td>Distance</td>
<td>Population</td>
<td>Project Type</td>
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<td>------------</td>
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<tr>
<td>96</td>
<td>Letekujan Tea Estate (1) Factory Line, Paleng Line, Maj Line, Fatek Line, Bishnupur Line.</td>
<td>1KM</td>
<td>100</td>
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<tr>
<td>97</td>
<td>2 No. Ponka Gaon (Amlokhital)</td>
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<td>45</td>
<td>Grid Electrification</td>
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<tr>
<td>98</td>
<td>4 No. Rong Bong (Robidas chook, Seoujipar, Das Chook).</td>
<td>5KM</td>
<td>44</td>
<td>Grid Electrification / Low cost toilet</td>
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<td>99</td>
<td>Bercap Gaon under Bokakhat Sub Division</td>
<td>20KM</td>
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<td>Grid Electrification</td>
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<tr>
<td>100</td>
<td>Bypass Seoujipara, 2No Ponka Grant, Bishnupur</td>
<td>2KM</td>
<td>30</td>
<td>Grid Electrification / Road</td>
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<tr>
<td>101</td>
<td>Sunali Adarsha Gaon, Kamargaon</td>
<td>20KM</td>
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<td>Grid Electrification</td>
</tr>
<tr>
<td>102</td>
<td>Borgoria Ahom Chuk, Nepali Chuk, Muslim Chuk</td>
<td>2KM</td>
<td>100</td>
<td>Grid Electrification / Low cost toilet</td>
</tr>
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</table>
## Annexure 2

**List of villages visited and Interventions Assessed**

<table>
<thead>
<tr>
<th>Name of Villages</th>
<th>Interventions Assessed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Napathar</td>
<td>Rural development, Livelihood, school for drinking water and infra, Toilet</td>
</tr>
<tr>
<td>Chawrabosti</td>
<td>Rural development, School, Mobile medical camp</td>
</tr>
<tr>
<td>Ponka</td>
<td>Rural Development Livelihood, School for DW and infrastructure, Toilet</td>
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<tr>
<td>Madhavpur</td>
<td>Solar HLS, Toilet</td>
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<tr>
<td>Letekuchaporil</td>
<td>Livelihood, toilet, Solar HLS Electrification</td>
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<tr>
<td>Doigrong, Giddibost</td>
<td>Solar HLS</td>
</tr>
<tr>
<td>Bishnupur</td>
<td>Livelihood, Electrification, Toilet, School for DW and Infra</td>
</tr>
<tr>
<td>Mazdoor Gaon</td>
<td>Rural Development, Toilet</td>
</tr>
<tr>
<td>Rong bong</td>
<td>Electrification, two schools for DW and infra</td>
</tr>
<tr>
<td>Chinakan, Kuruabahi</td>
<td>Solar HLS, Livelihood, Toilet</td>
</tr>
<tr>
<td>Kakochang</td>
<td>Solar HLS</td>
</tr>
<tr>
<td>Juganiati</td>
<td>Solar HLS</td>
</tr>
<tr>
<td>Gandhigaon</td>
<td>Rural Development, Toilet, DW</td>
</tr>
<tr>
<td>Borchapori</td>
<td>Solar HLS</td>
</tr>
<tr>
<td>Ponka Grant</td>
<td>Electrification, Livelihood, Toilet</td>
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</table>
Annexure 3

Suggested list of equipments and accessories as per the guidelines for the Operationalisation of Mobile Medical Unit (in North-eastern States, Himachal Pradesh and J&K as per National Rural Health Mission)

1. Examination Table with steps
2. Torch
3. Stethoscope
4. BP apparatus
5. Clinical Thermometer
6. Weighing machine
7. Knee hammer
8. Measuring tape
9. Cold storage (vaccine carrier)
10. ENT and Eye examination kits
11. Oxygen cylinder
12. First aid kit
13. Resuscitation kits
14. Haemoglobinometer
15. Uristix
16. Microscope
17. Syringes and needles
18. Suture instruments and material
19. Needle cutter
20. Vaginal specula
21. Water storage device
22. LPG gas cylinder
23. Prefabricated building material
24. Furniture: foldable cot/ chairs/ tables/stools for pharmacist
25. Linen and rubber sheets
26. Gloves
27. Glass slides
28. Stationery
29. Dust bins: separate for infective and non-infective waste.
30. Room heater for states experiencing severe winter.
31. Solar panels
32. Public address system
33. Patient cards with NRHM logo
34. Storage bins for drugs
35. Display board on services offered by MMU