IMPACT ASSESSMENT REPORT
CSR PROJECTS 2022

Bharat Petroleum
energising lives

Bharat Petroleum Corporation Ltd.

Contents

List of Abbreviations

1. Bharat Petroleum Corporation Limited (BPCL)

2. Centre for End to End in CSR (Centre for End to End in CSR)

3. Indian Institute of Corporate Affairs (IICA)

4. Gopabandhu Institute of Medical Science & Research (GIMSAR)

5. Corporate Social Responsibility (CSR)

6. Primary Health Centre (PHC)

7. Community Health Centre (CHC)

8.Indian Cancer Society (ICS)

EXECUTIVE SUMMARY

This project report is an impact assessment of high-value CSR Projects funded by Bharat Petroleum Corporation Limited (BPCL) at multiple locations in India. This research project was awarded to the Centre for End to End in CSR at the Indian Institute of Corporate Affairs (IICA) and involves both primary and secondary data collection, related analysis, and compilation of data in the form of a report. This report is divided into separate chapters for each of the CSR projects, each detailing the specific findings of the projects undertaken by BPCL.

Below are brief summaries of the projects and key findings:

1. **Support for MRI machine and CT Scan machine at Gopabandhu Institute of Medical Science & Research (GIMSAR), Cuttack, Odisha**

   BPCL facilitated the procurement of an MRI and a CT scan machine to support early diagnosis of critical illnesses at SCB Hospital in Cuttack through Project Implementing Agency: Servants of The People Society. This intervention addressed the limited diagnostic testing facilities in the area. Early diagnosis was achieved for about 25-40% of referred patients, leading to faster treatment and recovery. The upgraded ICU facilities enabled advanced medical treatment.

2. **Support for medical equipment for Covid intervention for ICU at Govt. Medical College**

   A 25-bedded intensive care unit was upgraded to enhance healthcare facilities, including for COVID-19 patients through Project Implementing Agency: National Health Mission (Arogyakeralam). This intervention reduced the number of referral cases and allowed for comprehensive treatment at GMC, resulting in lower mortality among critical patients.

3. **Construction of 11 Community toilets blocks under Swachh Bharat Abhiyan at Mahul & Chembur**

   Community toilet blocks were constructed by BPCL to promote open defecation free (ODF) communities through Project Implementing Agency: Habitat for Humanity India Trust. The new facilities replaced dilapidated and unhygienic toilets, reducing sanitation-related ailments and improving hygiene. The saved time and energy from not having to travel long distances to defecate are now used for household chores.

4. **Providing primary healthcare services through the operation of four Medical Mobile Units**

   A mobile medical health program using Mobile Medical Units (MMUs) was implemented in Thane, Nashik, Dhule, and Jalgaon Districts to improve primary healthcare accessibility through Project Implementing Agency: Wockhardt Foundation. Survey respondents reported significant medical expense savings, averaging Rs 12711, with no fees charged for MMU services.

5. **Financial Support for Cancer Care and Cure in partnership with Indian Cancer Society (ICS) through six empaneled hospitals at various location in India**

   BPCL provided financial support through the Project Implementing Agency: Indian Cancer Society for underprivileged cancer patients across six empanelled hospitals. The majority of respondents reported stable medical conditions and recovery, as they were unable to afford treatment costs without this support. Alternative financing options often involved borrowing or selling assets.

6. Scaling -up support for placement linked vocational training centre for Leprosy affected and underprivileged youth

Vocational training was provided across six locations: Champa, Faizabad, Nashik, Bankura, Vadathorasalur, and Vizianagaram through Project Implementing Agency: The Leprosy Mission Trust India. Out of the total research participants, 89% of respondents reported improved skills, and 42% availed free placement services.

7. Scaling -up support for placement linked vocational training centre for Leprosy affected and underprivileged youth

Vocational training was provided across six locations: Champa, Faizabad, Nashik, Bankura, Vadathorasalur, and Vizianagaram through Project Implementing Agency: The Leprosy Mission Trust India. Out of the total research participants, 89% of respondents reported improved skills, and 42% availed free placement services.

8.Construction of Laboratory block at Govt. School in aspirational district: Development at Government Higher Secondary School, Kadavallur

BPCL financed the development of a 577.92 square meter laboratory wing through Project Implementing Agency: Govt. Higher Secondary School, Kadavallur. However, the laboratories were reported to be underutilized due to a lack of equipment, teaching aids, furniture, and essential supplies like water and gas, limiting the project's impact on academic improvement.

9. Skill Development Training Programme for 940 persons in Shrawasti (Uttar Pradesh) and Mewat/ Nuh (Haryana) both aspirational districts

The reported expense saved by respondents using the Mobile Medical Unit (MMU) facility ranged from Rs. 200 to Rs. 5000, depending on the type of medical services received. Higher savings, up to Rs. 5000, were typically reported by those who availed of free medicines, including deworming treatments, for various health issues such as skin problems, joint pain, skin disorders, fever, and itching. On the other hand, lower savings, around Rs. 200, were mainly from consultation charges that individuals avoided by not having to pay a private doctor. Across all respondents, the average reported savings amounted to Rs. 1271.

The project aimed to impart skill training, with 62.5% of respondents reporting improved skills through Project Implementing Agency: Manav Vikas Sanstha. However, placement rates were low at 12%, with community reluctance to send women to work outside villages and busy household schedules hindering the continued practice of acquired skills.

10. Construction of 4 Community Sanitation units under Swachh Bharat Abhiyan at Thane by Habitat for Humanity India Trust in partnership with Thane Municipal Corporation

The Construction of 4 community sanitation units in Thane, Maharashtra, aimed to benefit approximately 1,550 families, addressing sanitation challenges and promoting open defecation- free slums under the Swachh Bharat Abhiyan through Project Implementing Agency: Habitat for Humanity India Trust in partnership with Thane Municipal Corporation targeting areas like Shashtri Nagar, Kailash Nagar, Sai Nath Nagar, and Bhaskar Nagar.

Improved sanitation facilities in Thane's slum areas have led to increased usage rates (>95%) and reduced sanitation-related ailments, particularly benefiting women and children. Despite operational challenges in some locations, routine maintenance and enhanced accessibility have significantly improved hygiene standards, reflecting the positive impact of the intervention.

These findings highlight the varied impact of BPCL's CSR projects, addressing critical needs in healthcare, sanitation, vocational training, and education across different regions of India.

11. Crop Residue Management Initiatives

The Crop Residue Management Initiative, implemented by the Confederation of Indian Industry Foundation in Ludhiana and Barnala districts of Punjab, aims to eliminate crop residue burning in 10 villages over two years. The project provides financial support for farm tools, promotes in-situ and ex-situ crop residue management practices, and drives behavioral change through awareness programs. Key findings reveal significant reductions in crop residue burning, increased farmer participation in Farmer Producer Organizations, and high satisfaction with awareness activities.

1.0 INTRODUCTION TO THE PROJECT

Bharat Petroleum Corporation Limited (BPCL) has a rich history as a Maharatna Public Sector Undertaking, evolving from its early days as an oil and gas company to a Fortune 500 conglomerate in oil refining, exploration, and marketing. BPCL is committed to the greater good of society, focusing on Sustainable Development Goals through initiatives in education, environmental sustainability, health and sanitation, skill development, and community development. Additionally, BPCL supports projects for heritage preservation, natural resource conservation, and disaster relief and rehabilitation, reflecting its dedication to both business excellence and societal welfare.

1.1 About the Research Project

In line with BPCL's vision, it has undertaken eleven CSR Projects at multiple locations in India. The list of the projects is as follows:

1. Support for MRI machine and CT Scan machine at Gopabandhu Institute of Medical Science & Research (GIMSAR), Cuttack, Odisha
2. Skill Development Training Programme for 940 persons in Shrawasti (Uttar Pradesh) and Mewat (Haryana)
3. Providing primary healthcare services through the operation of four Medical Mobile Units.
4. Construction of 11 Community toilets blocks under Swachh Bharat Abhiyan at Mahul & Chembur by Habitat for Humanity India Trust in partnership with Municipal Corporation
5. Thaunder Swachh Bharat Abhiyan at Thane by Habitat for Humanity India Trust in partnership with Municipal Corporation
6. Enhancing the ICU facilities in Govt. medical college, Ernakulam for medical management of Covid-19
7. Construction of Laboratory block for Govt. Higher Secondary School, Kadavallur
8. Support for Cancer Care and Cure in partnership with Indian Cancer Society (ICS) through six

empanelled hospitals at various location in India

9. Scaling -up support for placement linked vocational training centre for Leprosy affected and underprivileged youth
10. Support in providing quality medical healthcare services through LifeLine Express (Hospital on a train) in Dhubri, Assam and Papum Pare, Arunachal Pradesh
11. Crop Residue Management initiative for making 10 villages free from the practice of crop residue burning.

This research project has been awarded to the Centre for End to End in CSR at Indian Institute of Corporate Affairs (IICA). The scope of work for this study includes conducting an impact assessment study for these eleven high value CSR projects of BPCL. The study involves both primary and secondary data collection, related analysis and compilation of data in the form of a report.

1.2 Methodology Adopted

The first step in the adopted methodology was to collate secondary data from different government sources (including websites, indices and publications). The second step was to prepare, pre-test and finalize the research tools for the field survey. The third step was to assemble a survey team and prepare them for the field survey in all the project locations. As the fourth step, Focus Group Discussions (FGD) were held for collecting qualitative information regarding the village. Fifth, data analysis of findings and preparation of the preliminary evaluation was done. The last step is the finalization of the report and reporting of conclusions and recommendations. The relevant research tools adopted for each CSR project have been detailed in the subsequent chapters. The general process adopted is outlined in Figure 1:

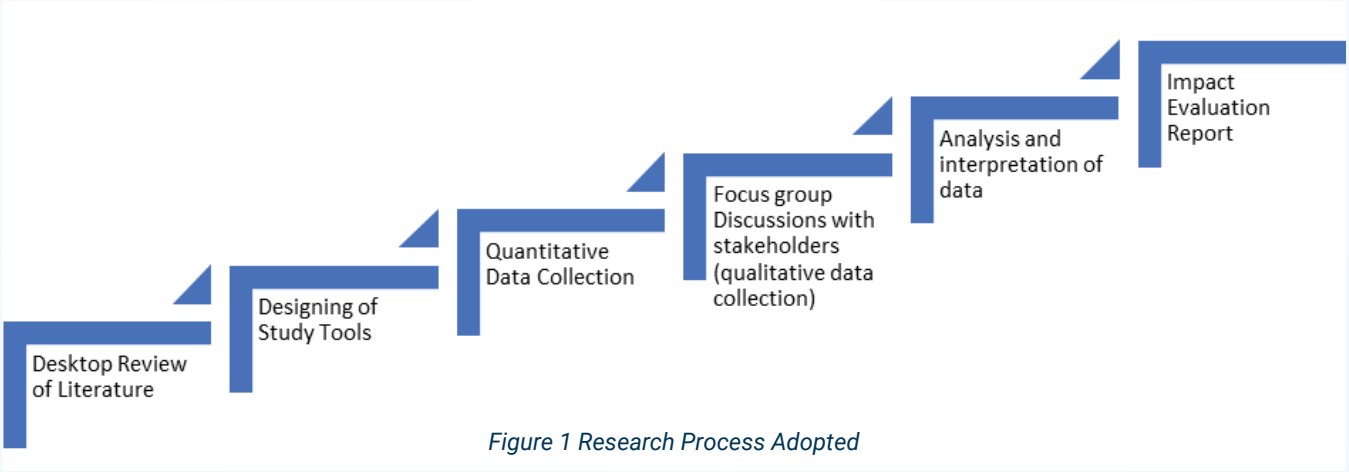

Figure 1 Research Process Adopted

This report is divided into separate chapters for each of the CSR projects. Each chapter relates to findings of the specific CSR project undertaken by BPCL. The chapters include an outline of the need for the project, the demographic and population under consideration, a brief of the project followed by the gaps plugged in through the project and summary of impact created by the project.

2.0 SUPPORT FOR PROCUREMENT OF MRI MACHINE & CT SCAN MACHINE

The first step in the adopted methodology was to collate secondary data from different government sources (including websites, indices and publications). The second step was to prepare, pre-test and finalize the research tools for the field survey. The third step was to assemble a survey team and prepare them for the field survey in all the project locations. As the fourth step, Focus Group Discussions (FGD) were held for collecting qualitative information regarding the village. Fifth, data analysis of findings and preparation of the preliminary evaluation was done. The last step is the finalization of the report and reporting of conclusions and recommendations. The relevant research tools adopted for each CSR project have been detailed in the subsequent chapters. The general process adopted is outlined in Figure 1:

2.1 Project at a Glance

Aspect	Details
Project Name	Procurement of 1.5T MRI Machine and 32 Slice CT Scan Machine
Institution	Gopabandhu Institute of Medical Science and Research (GIMSAR)
Objective	Support early diagnosis of critical illness through early advance medical services
Usage of Machines	Diagnostic imaging tests of specific body parts, useful for diagnosis of relevant illnesses
Facility Upgrade Contribution	Improved health outcomes for the community through early diagnostic and treatment opportunities.
Primary Stakeholders	Doctors, Administration and staff at GIMSAR Local community, Patients and Implementing partner: Servants of the People Society
Sanctioned Budge	INR 6,60,00,000
Project Duration	12 months

2.2 Need for CSR Intervention

The need for this CSR intervention is highlighted by the inadequate medical diagnostic testing facilities in the project area. An impact assessment study conducted by IICA confirmed that, before this facility upgrade, patients requiring diagnostic tests had to travel to SCB Hospital in Cuttack. This hospital is frequently overcrowded and has limited bed availability in its inpatient department, creating significant challenges for patients. The study emphasized the pressing necessity for local diagnostic services to alleviate these issues and improve healthcare accessibility in the area

2.3 About the Project Area

Cuttack, often referred to as the business capital of the world, has a total population of 2,624,470, comprising 1,352,760 males and 1,271,710 females. The district has a population density of 667 people per square kilometer and has a literacy rate of 85.5 percent. The medical infrastructure in Cuttack includes four medical colleges and hospitals, 18 Community Health Centers (CHCs), and 57 Primary Health Centers (PHCs), all serving the healthcare needs of the district's residents.

2.4 Study Tools

Figure 2: Focus Group Discussion with the participants

Figure 3: Key informant interview with the participants

A comprehensive assessment was conducted at GIMSAR by IICA through a series of interviews and focused group discussions. Ten in-depth interviews were held with key personnel at the institution, including the Deputy Manager, Chairman, technicians, nurses, and doctors. Additionally, twelve participants took part in focused group discussions conducted at the hospital, providing a wide range of perspectives on the current state of medical services and the impact of the proposed facility upgrades. This combination of interviews and group discussions ensured a thorough understanding of the healthcare needs and challenges faced by both the staff and patients at GIMSAR.

2.5 Study Findings

Outreach of Services Offered under the Project

According to the impact assessment study conducted by IICA, a minimum of 3-4 patients utilize diagnostic services, including MRI and CT scans, at GIMSAR daily. The maximum number of patients for MRI scans can reach up to 12 per day. Patients are referred for these diagnostic services from various departments, including Medicine, Orthopaedics, Neurology, and Surgery.

The procedure for availing diagnostic services begins at the reception counter, where bookings are made, followed by the ticket counter for fee payment. The fees for an MRI and CT scan are Rs 2000 and Rs 1000, respectively. Comparatively, the cost of the same services outside GIMSAR ranges from Rs 4000-5000, resulting in savings of Rs 2000 or more per patient at this upgraded diagnostic service center. There are provisions for underprivileged patients to receive free services under the Biju Swastya Kalyan Yojana. Poor patients not enrolled in the scheme are required to pay a minimal amount to cover the maintenance charges of the machines.

The average waiting time for tests is approximately 15 minutes, with emergency cases receiving priority. Elderly patients can schedule appointments by phone before traveling to GIMSAR. The nearest hospital offering similar diagnostic services is S.C.B. Medical College and Hospital in Cuttack, located 25-30 km away. GIMSAR's diagnostic services primarily cater to patients from Khuntuni, Badanba, Megha, Athagarh, Madhapur, Nursinghapur, Chanapur, and nearby areas. Many of these patients are referred for internal injuries from accidents or chronic conditions such as heart disease.

Benefits Extended Under the Project:

Early Diagnosis: The facility has enabled early diagnosis for 25-40% of referred patients, allowing treatment to begin sooner and resulting in faster recovery times.

Efficient Coordination: Having a modern diagnostic facility within the same hospital building enhances inter-departmental coordination, benefiting patients.

Advanced Medical Treatment: Upgraded ICU facilities have made advanced medical treatment possible. Doctors report no longer needing to refer patients to private labs or clinics in Cuttack, leading to reduced mortality rates in specific cases.

Cost Savings: The reduced cost of diagnostic services increases patients' savings and disposable income

As part of the evaluation, discussants were asked to rate the diagnostic services at GIMSAR. They gave a rating of five out of five, indicating a high level of satisfaction. Additionally, they provided similar high ratings for the functionality of the installed MRI and CT scan machines, praising the quality of equipment and adherence to maintenance routines as per specified guidelines. A minimum number of 3-4 patients undertake diagnostic services (MRI and CT scan) per day. The maximum number of patients for the diagnostic services can go up to 12 patients per day (for MRI scan). Patients are referred for these diagnostic services across different hospital departments including Medicine, Orthopaedic, Neurology and Surgery.

Key Outcomes

Key Outcomes	Details
Utilization & Referrals	Minimum 3-4 patients daily, with up to 12 MRI scans Referrals from multiple departments
Cost & Accessibility	Affordable fees (Rs 2000 for MRI, Rs 1000 for CT); Savings up to Rs 2000; Free service for underprivileged
Efficiency & Service Quality	Average 15-minute waiting time; Priority for emergencies; Elderly appointments available
Patient Satisfaction & Impact	High ratings for services and equipment (5/5); Early diagnosis for 25-40% of patients; Reduced mortality rates; Increased savings for patients

Scalability of the project
Ability to adapt and accommodate increased demand or growth in the future

CASE STUDY 1 :

Rojida Bibi, a 36-year-old woman from Muktadeipur village, Nuapatna, endured excruciating foot pain for nearly a year, jeopardizing her family's livelihood reliant on their meat shop. Despite consulting doctors and undergoing inconclusive tests, her suffering persisted. Desperate for relief, she turned to GIMSAR, choosing convenience over distance, as the mere act of walking had become agonizing. Thanks to BPCL's intervention, Rojida underwent an MRI scan at GIMSAR in June 2022. The compassionate care she received not only alleviated her physical pain but also nurtured her courage, empowering her to face her fears. Rojida's story highlights the transformative impact of BPCL's initiative, offering not just medical services but hope and dignity to those in dire need.

CASE STUDY 2

Raskishan Das, hailing from Tarading village in Athagarh, Cuttack, once faced the daunting task of seeking medical treatment for his mother, Nibari Dei, who suffered from a blood clot in her brain. Their family, reliant on farming and daily wage labor, struggled to afford and access adequate healthcare, especially with the nearest medical facility in Cuttack over 50 kilometers away. Disheartened by the overcrowded and under-equipped conditions of the facility, they longed for better options. However, BPCL's intervention brought a ray of hope as GIMSAR now offered ICU, MRI, and CT scan services, just a stone's throw away. The convenience and efficiency of GIMSAR transformed their lives as prompt diagnosis and close proximity allowed Nibari Dei to receive timely treatment, leading to significant recovery. Today, she stands as a testament to the life-changing impact of BPCL's initiative, not only assisting in household chores but also symbolizing the hope and resilience fostered by accessible healthcare.

CASE STUDY 3 :

Gadadhana Ratha, an 85-year-old farmer from Megha village in Cuttack, faced a debilitating stomach pain that threatened his livelihood and strained his family of nine, surviving on a meager monthly income of Rs. 15,000. Seeking medical help, he journeyed to the Community Health Centre at Village Bagheera, only to be redirected to GIMSAR for an MRI scan. Fortunately, holding a BSKY card entitled him to a free scan, courtesy of BPCL's CSR project at GIMSAR. This intervention not only spared him the burden of traveling to Cuttack city but also relieved the financial strain on his family, allowing him to receive timely and accessible healthcare. Gadadhana's story illuminates the profound impact of BPCL's initiative, providing not just medical services but dignity and relief to those in need.

3.0 SUPPORT FOR MEDICAL EQUIPMENT FOR COVID INTERVENTION FOR ICU AT GOVT. MEDICAL COLLEGE

3.1 Project at a Glance

Objective	To further healthcare facilities and improve the health of incoming patients (including COVID-19)
Upgraded Facilities	25-bedded Intensive Care Unit (ICU) as proposed by National Health Mission, Ernakulam
Equipment Provided	Blood Gas Analyser , Defibrillator , Flash Autoclave , Infusion Pump, Multipara Monitors , Portable USG with eco probe , Portable X-ray machine , ICU ventilator , DVT Pump
Primary Stakeholders	Doctors, administration, and staff at Government Medical College, Ernakulam Local community, Patients, Implementing partner: National Health Mission (Arogyakeralam)
Budget	INR 1,00,00,000
Implementing Partner	National Health Mission (Arogyakeralam)

Figure 5: Government Medical College, Ernakulam

3.2 Need for CSR Intervention

The need for this CSR intervention is justified by the lack of comprehensive care for critical patients at the medical facility. This observation was validated by an impact assessment study conducted by IICA. Prior to the facility upgrade, patients requiring diagnostic tests had to travel to other government hospitals in Ernakulam, as revealed by the study. Discussants emphasized the limited availability of ICU beds in these hospitals, which hindered access for critical patients. This intervention aims to address these shortcomings and improve healthcare accessibility and quality in the region.

3.3 About the Project Area

Ernakulam, the third most populous district in Kerala, has a total population of 32,82,388, comprising 16,19,557 males and 16,62,831 females. With a population density of 2770 per square kilometer, the district stands as a hub of activity and community life. In terms of healthcare infrastructure, Ernakulam is well-equipped, featuring a diverse array of medical colleges and hospitals. The district houses 23 Community Health Centers (CHCs), collectively providing 775 beds, while 42 Primary Health Centers (PHCs) offer an additional 60 beds. Notably, 33 PHCs operate round the clock to cater to the healthcare needs of the populace, ensuring accessibility and quality care around the clock.

3.4 Study Tools

As part of the impact assessment study conducted by IICA, a total of 6 case studies, 2 focus group discussions, and 4 key informant interviews were undertaken. These research methodologies utilized semi-structured interview schedules to gather detailed insights and perspectives regarding the project's outcomes and effectiveness.

3.5 Study Finding

Outreach of Services Offered under the project

The ICU unit at Government Medical College, Ernakulam, established in 2008, stands as a vital facility encompassing approximately 1200 square feet of temperature-controlled space, dedicated to providing advanced health monitoring for critical patients. The responsibility for its maintenance lies with the hospital administration, with nurses assigned to conduct regular functionality checks and report any technical issues promptly. Capable of supporting up to 25 patients simultaneously, the ICU unit often operates at full capacity due to high admission rates, which remain consistent throughout the year. In instances of overwhelming demand, less critical patients are temporarily shifted to a ward before being transferred to the ICU unit. Notably, patients from various medical conditions, including asthma, leptospirosis, coronary kidney disease, heart attack, myocardial infection, COPD-Asthma, and cerebral vascular accidents, benefit significantly from the availability of ICU facilities within the Ernakulam Government Hospital.

Discussants revealed that General Hospital, Ernakulam, along with hospitals at Rajagiri and Kakkanad, along with some private medical facilities, serve as the closest alternatives providing ICU monitoring units for critical patients. The upgraded ICU unit has been lauded for its affordability and convenience, particularly for individuals from lower economic strata, with a significant proportion of patients belonging to income ranges between 2000-10000 per month.

The benefits extended under the project are manifold. Firstly, there has been a reported reduction in the number of referral cases by doctors at GMC, as the upgraded facility enables

comprehensive treatment for critical patients on-site, resulting in lower mortality rates. Additionally, the availability of diagnostic services within the ICU unit eliminates the need for patients to rely on external labs, enhancing efficiency and expediting treatment processes. The ICU unit caters to a maximum number of critical patients seeking treatment for kidney and breast-related diseases, with diagnostic tests such as blood gas analyzer and portable X-ray machines readily available within the unit, eliminating the need for patient transfers.

During the evaluation, discussants rated the functionality of the machines at 3.5 out of five, highlighting areas for improvement such as understaffing and the need for equipment repairs. Consequently, based on study findings, recommendations include increased drug availability, meeting staffing requirements, and improved monitoring of maintenance routines to ensure optimal functionality of the ICU unit.

Key Outcomes	Details
Total ICU Beds	25
Average Occupancy Rate	High, frequently fully occupied
Proportion of Patients from Lower Economic Strata	Significant, ranging from Rs. 2000-10000 per month
Referral Cases	Decreased, Reported by Doctors (KII)
Functionality Rating of Machines	3.5/5
Mortality Rate Among Critical Patients	Decreased
Most Common Critical Conditions	Kidney and breast related diseases
Availability of Diagnostic Services within ICU	Yes, including blood gas analyzer and portable X-ray machine

Objective	To further healthcare facilities and improve the health of incoming patients (including COVID-19)
Diverse Revenue Streams	The project benefits from multiple revenue sources, ensuring financial stability and resilience.
Strong Community Support	Robust community engagement and support contribute to the project's sustainability and success.

CASE STUDY 1 :

Tankamma, a 70-year-old resident of Kathamangalam in Kerala, faced a challenging ordeal due to her health condition, compounded by financial constraints. With a modest pension of 2000 rupees and suffering from CAD-ACS-STEM, accessing critical medical care seemed daunting. However, the establishment of the ICU unit at GMC Ernakulam proved to be a lifeline for Tankamma. Under the expert care of Dr. Remimol, she received timely treatment and was put on a ventilator to stabilize her vital functions. Thanks to the proximity and affordability of the upgraded facility, Tankamma's family could afford her the necessary medical attention without the burden of long-distance travel or exorbitant expenses. Gradually, her health began to improve, marking a significant transformation in her quality of life. This intervention by BPCL not only saved Tankamma's life but also alleviated the financial and logistical burden on her family, ensuring access to critical healthcare services when they needed it the most.

CASE STUDY 2 :

Pushpa Achuthan, a 72-year-old resident of Kadebhagam, Kerala, faced a daunting health crisis with encephalopathy, seizure, and hypothermia. Living in a modest household with a monthly income of 10,000 rupees, her son being the sole breadwinner, accessing critical medical care seemed like an insurmountable challenge. However, thanks to

the intervention by BPCL and the establishment of the ICU unit at the government hospital in Ernakulam, Pushpa's life took a hopeful turn. Under the attentive care of Dr. Vibha, she received prompt treatment for her seizures, closely monitored with the aid of a multipara monitor. The proximity and accessibility of the upgraded facility proved to be a blessing for Pushpa and her family, sparing them the burden of expensive treatments and long-distance travel. With her condition now stable, Pushpa's family is grateful for the invaluable assistance provided during her treatment, marking a transformative moment in her health journey.

CASE STUDY 3 :

Nataraj, a 71-year-old car driver from Kalamassery, found himself in dire need of medical attention when he was struck by acute pulmonary edema. Fortunately, he was swiftly informed about the newly established ICU unit at GMC Ernakulam through community awareness campaigns spearheaded by the hospital. Upon arrival, he was placed under the care of Dr. Beninol, whose expertise and dedication guided Nataraj through his critical condition. The proximity of the hospital to his residence eased the burden of travel, allowing for seamless treatment and follow-up visits. Now, with his breathing significantly improved and his voice clear, Nataraj is well on his way to a full recovery, thanks to the timely intervention and initiative of BPCL, ensuring access to quality healthcare for individuals like him in the community.

CASE STUDY 4 :

Jacob, a 68-year-old auto driver from Thiruvankulam, faced a daunting challenge when he was diagnosed with pulmonary edema. With his daughter as the sole breadwinner, their financial strain added to the urgency of his medical care. Fortunately, Dr. Beni at GMC Ernakulam provided crucial treatment starting from July 16th, utilizing advanced equipment like the blood gas analyzer to monitor his progress. Despite the severity of his condition, Jacob and his family found solace in the comprehensive care and support provided by the hospital's ICU unit. Their gratitude extended to BPCL, whose initiative ensured access to top-notch healthcare, marking a pivotal step in Jacob's journey towards recovery.

CASE STUDY 5 :

Ayyappan, a 76-year-old residing near Cusat in Kalamassery, found himself grappling with Chronic Obstructive Pulmonary Disease (COPD), adding strain to his family of five, solely reliant on his son's daily wage earnings. Under the attentive care of Dr. Jacob at GMC Ernakulam, Ayyappan underwent rigorous treatment, including frequent nebulization and close monitoring in the ICU unit, necessitating ventilator support. Despite the financial burden, the family found relief in the fact that the treatment was provided free of cost. Thanks to BPCL's initiative, ensuring accessibility to essential medical care, Ayyappan is now on the path to recovery, marking a beacon of hope for families in similar circumstances.

CASE STUDY 6 :

Ally, an 87-year-old housewife residing in Manjali Paravoor, found herself battling both coronary artery disease (CAD) and COVID-19, adding to the challenges faced by her family of five surviving on a meager income of Rs 5000 per month. Under the expert care of Dr. Vibash Santosh, Ally was admitted to the ICU for critical monitoring, her condition bordering on paralysis upon arrival. With the aid of ventilator support and constant vigilance through a multipara monitor, Ally's condition gradually stabilized. This crucial medical intervention, offered through the initiative of BPCL, provided hope to Ally and her family amidst financial hardships, underscoring the significance of accessible healthcare in communities like theirs.

4.0 CONSTRUCTION OF COMMUNITY SANITATION UNITS IN MAHUL, CHEMBUR AND THANE, MAHARASHTRA

4.1 Project at a Glance

Location	Number of Community Toilet Blocks	Sanctioned Project Budget Value
Mahul, Chembur	11	Rs 1,60,48,259
Thane	4	Rs 1,63,63,004

4.2 Need for CSR intervention

The intervention is mainly directed towards meeting the critical sanitary needs of the community and promotion of open defecation free amongst the communities. The public toilets available prior to the intervention were reported to be in poor condition, and ill maintained. A community sanitation unit has been designed to overcome the limitation of shortage of space in informal settlements in the project area and promote good sanitation practices through offering monetary support in its construction.

4.3 About the Project Area

- Maharashtra is the third largest state with the second largest population in the country with Mumbai as it's capital. The project area is in two districts of Mumbai (Thane and Mumbai Suburban district).
- Mumbai Suburban has a total population of 93.56 Lakhs. Spread over the geographical area of 386 sq. kms, the population consists of 5,031,323 males and 4,325,639 females. Mumbai Suburban has 3 talukas and 87 villages.2
- Chembur village is in Kurla district in Suburban District, Mumbai. Suburbs like Kurla, Deonar, Mahul, Govandi, Chunabhatti, and Ghatkopar are near Chembur. Mahul is a fishing village in Chembur, Mumbai (Kurla Tehsil), situated on the Mumbai Suburban district's eastern seafront.
- Thane district is third in the state in terms of population. Thane district ranks third when it comes to industrial development. It has total population of 8,070,000 with a population density of 1915 population per square km.[3]
- The construction of Community Toilet blocks under this CSR project took place in selected slums across the two districts. The total no. of slums in Mumbai city numbers 1,135,514 in which population of 5,206,473 resides. This is around 41.84% of total population of Mumbai city.[4]

According to a report- Nearly 50 lakh residents of the city's notified slums (slums which existed before the 1995/2000 cut-off date of the Slum Rehabilitation Scheme and therefore eligible for free housing under the scheme) are served by 750-odd community toilet blocks constructed under the World Bank-initiated Slum Sanitation Programme (SSP). These toilets have 26,379 seats, which approximately means one toilet seat to be shared by 190 users, as against the MCGM-accepted WHO norms of one toilet per 50 people. This overwhelming load is reduced by those who use the nearly 30,000-odd free-to-use MHADA toilets, those who can afford to daily use the other pay-and-use facilities, and those who defecate in the open.
https://www.orfonline.org/expert-speak/42671-sanitation-problems-in-mumbai-at-catastrophic-proportions/

4.4 Study Tools

As part of this study, interactions tool place with five women leaders, nine local leaders/key informants and four caretaker/volunteers/administrative officials in the project area. A total of 18 such Key informant interviews, and three focus group discussions along with in-depth interviews were conducted to have a thorough understanding of the sanitation situation and how it has changed post intervention.

The location of the interventions in Thane District includes Azad Nagar, Dhokali, Kalwa slum areas, and Sharad Nagar, Prem nagar, Parab Nagar, Panchamukhi Chawl, Kailash Nagar, Coro and Ambapada in Chembur/Mahul.

4.4 Study Findings

The construction of community toilet blocks/renovation of existing toilet units took place over period. The toilet blocks at Dhukali slum area in Thane were found to be non-operational at the time of the visit. The reasons include the toilet block having never been inaugurated/opened for public due to political non-cooperation. The toilet blocks at this location are well equipped with CCTV and digital card access, however the residents have to rely on toilets constructed by Thane

[2] https://mumbaisuburban.gov.in/demography/

[3] https://thane.nic.in/about-district/

[4] https://www.census2011.co.in/census/city/365-mumbai.html

Municipal Corporation. The data collection exercise at Kalwa slum in Thane District could not be conducted due to non-cooperation of the residents and their aggressive behaviour towards the enumerators.

The remaining units across Thane and Chembur/Mahul were found to be functional and the average number of users of these toilet blocks ranges from 250 households and up to 400 households. The reported users of these toilet blocks include men, women, children and elderly.

Figure 6: Top Left and Top Right Functional Toilet units at Ambapada and Premnagar. Bottom Left and Bottom Right Non functional toilet blocks at Kalwa and Dhokali

Maintenance Routines

The responsibility for cleaning and maintenance of toilet blocks in most of the units in Thane and Chembur/Mahul locations lies with the sweeper appointed by the municipality. The sweeper visits the toilet blocks at a frequency of once a week, and or on a need basis. In some cases, such as the Ambapada, (Chembur/Mahul) the local residents assist a volunteer to clean the toilet by providing cleaning equipment and necessary tools. In the case of toilet unit at ITI Thane, a caretaker has been appointed by the municipality who is responsible for keeping the toilet blocks clean. A nominal charge of Rs 5 is charged for male users, Rs. 4 for female users and Rs. 2 for children is levied to raise funds for keeping the premises clean. According to the key informants for this toilet block, outsiders/visitors to the area frequent the toilet block more often than residents.

A similar arrangement of collecting a fee to maintain cleanliness of the toilet blocks was reported in Kalwa slum unit in Thane and Panchmukhi Chawl in Chembur/Mahul. At this location Rs. 50 per month and Rs. 20 per family is collected from each user family living in the locality respectively.

At Azad Nagar in Thane, the user families pay Rs 100 per month for the maintenance of the toilet blocks. This unit has a watchman/guard who has been employed to ensure safety of the installations. Instances of theft of toilet block equipment was reported in Kalwa slum in Chembur/Mahul.

[5] Parab Chawl,Khadi M/c.Chembur
[6] Chembur Mahul & Azad Nagar

Operation Hours and User Rating

The usual operation hours for the toilets constructed at Panchmukhi, Parab chawl, Prem Nagar is from 6 am to 9 am. The toilet units at Coro,Sharad Nagar and Ambapada were reported to remain open for 24 hours. The toilet units at Thane location remain open from 4 am to 12 am. Table 1 is the reported user ratings on different aspect of construction and accessibility of toilets on a scale of 1 to 5 (with 5 being the best and 1 rating being the worst)

Toilet Block Location	Average Rating of quality of construction/ renovation	Average Rating of Usability of toilets	Average Rating of following of maintenance routines	Average Rating of location accessibility
Ambapada	4	4	4	5
Sharad Nagar	3	4	3	5
Coro	5	2	1	5
Parab Chawl	5	5	5	5
Prem Nagar	3	2	3	4
Panchmukhi	2	2.5	2.5	2.5
ITI Thane	3	3	3	3
Kalwa, Thane	3	2	3	4
Azad Nagar, Thane	4	3.5	2	4

Table 1 User Rating of various aspects of Toilet blocks across study locations

Reported Issues Faced Prior to the Intervention

The toilet blocks that were constructed prior to the intervention5 were reported to be in dilapidated condition. In some cases6, the existing toilets were left uncleaned for a long time and hence had become unhygienic to be used.

As a result, sanitation related ailments would spread and the area around the toilet blocks had become a breeding ground for mosquitoes.

Female population in the are particularly suffered from lack of adequate sanitation facilities. Because of the unhygienic and unsafe nature of the sanitation infrastructure, the residents resorted to open defecation. Women felt awkward to use open space for nature's call. At some locations[4], people had to walk around half a km to defecate in the open which was time consuming. Children would often be seen defecating alongside the roads or at any vacant location.

Other than the poor condition of the toilet, the other reason for the open defecation of people reported shortage of space to construct a household latrine.

Changes After Improved Sanitation Facility

The intervention under this project has reduced the daily difficulties faced by the people in accessing adequate and safe sanitation. The reported usage of the toilet blocks is high (over 95%). The intervention has proved to be particularly beneficial for women and young children Some discussants revealed that the skin related problems faced that the community faced prior to the intervention has reduced drastically.

Access to safe sanitation facility has been made available around the communities that has reduced their effort to travel long distances to defecate, the saved time and energy is reported to be now used for household chores.

Aspect	Outcome
Operational Toilet Blocks	Majority operational, Dhukali slum in Thane non-operational
Maintenance Routine	Sweeper visits once a week or as needed, resident involvement in cleaning, nominal charges for maintenance
Operation Hours	Varies, some 24 hours, others specific timings
User Ratings	Average ratings: Construction/Renovation - 3.45, Usability - 3.29, Maintenance - 2.86, Location Accessibility - 4.5
Reported Issues Prior to Intervention	Dilapidated condition, open defecation due to inadequate facilities
Changes After Improved Sanitation Facility	High usage rate (>95%), reduction in difficulties accessing safe sanitation, particularly benefiting women and children, reduction in sanitation-related ailments

Scalability	Recommendations
The success of the sanitation project in improving access to safe sanitation facilities for communities suggests potential scalability to other areas facing similar challenges. By replicating the project model and adapting it to local contexts, municipalities and organizations can address sanitation needs across different regions effectively.	To enhance scalability, collaboration between government bodies, NGOs, and local communities is crucial. Standardizing maintenance routines and operational procedures can ensure consistency and sustainability of sanitation facilities. Additionally, conducting thorough community engagement and awareness programs can promote the adoption of hygienic practices and encourage community ownership of sanitation infrastructure.

CASE STUDY 1 (Panchmukhi Chawl) :

The story of Bina Yadav, a 45-year-old resident of Panchmukhi Chawl in Chembur, embodies the transformative impact of BPCL's initiative on community sanitation. With her family relying solely on her husband's private sector income, their financial constraints were palpable. However, the construction of toilet blocks, facilitated by BPCL, heralded a new era of safety and hygiene for Bina and her community. Gone were the days of worry and discomfort; now, women and girls felt secure and dignified. As the once dilapidated sanitation infrastructure gave way to modern facilities, the community witnessed a tangible improvement in health. Ailments dwindled, and vitality returned, marking a profound shift in the quality of life for Bina and her neighbors. Thanks to BPCL's vision and commitment, their simple act of building sanitation units reverberated with profound positive change, touching lives and fostering well-being in ways beyond measure.

CASE STUDY 2 (Premnagar,Chembur) :

In Premnagar, Chembur, Salma Ali's life underwent a significant transformation thanks to BPCL's initiative to construct toilet blocks. As a 45-year-old with a family of five, her husband's private service was their sole source of income, amounting to a modest Rs 8500 per month. The absence of toilet facilities not only inconvenienced the family but also deterred her parents from visiting. However, with the advent of BPCL's intervention, this scenario shifted drastically. The construction of toilet blocks not only brought dignity and convenience to Salma's household but also fostered a sense of connection as her parents could now visit without hesitation. Beyond the personal sphere, the impact rippled through the community, with a noticeable reduction in ailments attributed to improved sanitation. BPCL's initiative not only addressed a basic need but also catalyzed a cascade of positive change, enhancing the well-being and cohesion of the community in Premnagar, Chembur.

CASE STUDY 3 (Parab Chawl/Khadi M/C, Chembur) :

In Parab Chawl, Khadi M/c, Chembur, the life of Vishakha Parab, a 57-year-old beneficiary, took a turn for the better with BPCL's initiative to construct toilet blocks. With a family of five and her husband's private service as their sole income source, the monthly earnings stood at a modest Rs 10,000. Previously, the absence of toilet facilities not only hindered daily life but also prevented them from hosting guests. However, with the advent of BPCL's intervention, a newfound sense of pride and respect permeated Vishakha's household. Now equipped with modern sanitation facilities, friends and relatives began visiting, marking a shift in social dynamics. The simple act of providing toilets not only improved living standards but also revitalized their social life, underscoring the profound impact of BPCL's initiative on community cohesion and well-being in Parab Chawl, Chembur.

CASE STUDY 4 (Azad Nagar) :

In Azad Nagar, the story of Snehal Chauhan, a 21-year-old student, reflects the transformative impact of BPCL's initiative to construct modern toilet facilities. With a family of four and a monthly income of Rs 35,000, Snehal actively participated in the project, contributing her efforts towards supervision, awareness, and hygiene promotion in the community.

The previous outdated toilets had posed significant challenges, especially during rainfall, leading to inconveniences and discomfort for residents. However, with BPCL's intervention, a new era dawned upon Azad Nagar. The queues at the old, inadequate toilet blocks

diminished, and Snehal's home became a welcoming space for guests. Through Snehal's involvement and BPCL's commitment to improving sanitation infrastructure, the community experienced tangible improvements in living standards and social cohesion, epitomizing the transformative power of collective action and community engagement.

CASE STUDY 5 (Azad Nagar)

In Vighnaharta Mitra Mandal, Chembur, the story of Mr. Pranay Karve, a 28-year-old beneficiary, illustrates the tangible benefits brought forth by BPCL's initiative to reconstruct toilet facilities. Solely relying on income from his food stall business to support his family of three, Mr. Pranay's life took a turn for the better upon learning about the project during the reconstruction phase initiated by BPCL. The addition of a toilet near his home not only enhanced convenience but also alleviated discomfort initially faced due to the absence of electricity. Undeterred, Mr. Pranay took matters into his own hands, managing the connection and installing lights, thereby ensuring accessibility and safety for users. Through BPCL's proactive efforts, Mr. Pranay's quality of life improved, reflecting the profound impact of accessible sanitation infrastructure on individual livelihoods and community well-being in Vighnaharta Mitra Mandal.

5.0 PROVIDING PRIMARY HEALTHCARE SERVICES THROUGH THE OPERATION OF FOUR MEDICAL MOBILE UNITS

5.1 Project at a Glance

Aspect	Treatment Offered
Program Name	Wockhardt Foundation's Mobile 1000 Program
Program Objective	To provide accessibility to primary healthcare for the poor and vulnerable
Target Beneficiaries	Especially women, elders, disabled, and children
Program Components	Mobile Medical Units (MMUs) operated in vans covering rural or slum areas with limited healthcare facilities. MMUs function as referral clinics and ambulances in emergency cases. Awareness activities on health and hygiene. Free doctor's consultation, distribution of medicines, basic diagnostic tests, referral to other healthcare facilities, health education and awareness
Financial Outlay	Rs 1,44,80,800 for setup and operation of four MMUs over a 12-month period
Key Activities	Free doctor's consultation and distribution of medicines - Basic diagnostic tests - Referral to other healthcare facilities - Health education and awareness activities
Mode of Operation	MMUs are stationed in vans and operate in rural or slum areas, with static hospitals acting as referral centers
Duration	12-month period

[7] https://ruralindiaonline.org/en/library/resource/rural-health-statistics-2020-21/#:~:text=There%20were%20157%2C819%20sub%20centres, were%20situated%20in%20rural%20areas.

5.2 Need for CSR intervention

Despite much funding in developing public health infrastructure the access to primary healthcare remains a challenge in rural parts of India. According to the latest rural health statistics[7], against the benchmark of catering to a population of 3000-5000, a sub-health centre caters to 5734 rural residents, while a primary health centre caters to 35,602 eligible patients against the benchmark of 30,000 patients. Likewise, on an average a community health centre caters to 1,63,298 patients, which is about 40,000 higher than the upper limit prescribed. In addition to lack of access to healthcare facilities, studies indicate that the public healthcare workforce in India is lower than the prescribed global norms[8].

Similar estimates have been made for rural Maharashtra, where shortfall in specialists in public health care facilities in Maharashtra have been reported due to lack of government support, inadequate recruitment, and delays in filling up vacancies.[9]

5.3 About the Project Area

The project was undertaken in Thane, Nashik, Dhule and Jalgaon Districts of Maharashtra. The study area has many employment opportunities by virtue of its location on the Mumbai Agra Highway and has many logistics and warehousing companies in the vicinity. The area is well connected by road and local trains to Thane & Mumbai Cities.

5.4 Study Tools

As part of the primary data collection selected villages in Thane and Nashik districts were visited. These villages were located on the route that the MMUs took. The villages include: Shivnagar, Janwal, Lonad, Amne, Vashare and Talawali Villages in Bhiwandi Taluka in Thane District and Khairgaon, Deole, Ubhade, Pimpalgaon Mor and Belgaon T villages in Igatpuri Taluka, district Nashik in Maharashtra.

Primary data through beneficiary survey was conducted with 24 respondents who had availed of the MMU service himself/herself and two respondents whose family members had availed of MMU service.

The field data collection suffered several challenges:

- A database of the beneficiaries who availed of the services was not provided which made it difficult for the field team to reach out to the beneficiaries. During door-to-door attempts of meeting with beneficiaries, many respondents decline to participate in the data collection process.
- The awareness and the recall of the project among the beneficiaries was very low since the project was done almost 3 years back.
- The Key informants approached for data collection could not give any technical information and features of the MMU as they were not fully aware of the same.
- Located in an industrial area, the study villages have several healthcare related projects that are undertaken, some of which overlap with the current project. A few respondents were confused with the operator of the MMUs from which they had availed healthcare services and later on admitted that the operators of these MMUS were either run by Swadesh Foundation or were Covid 19 vaccination vehicle that were visiting the villages and were mistaken to be MMU operated by Wockhardt Foundation.

[8] https://www.researchgate.net/publication/311543459_On_the_Health_Workforce_Crisis_in_Rural_India
[9] https://www.adb.org/sites/default/files/publication/783876/sawp-091-assessment-maharashtra-state-health-system.pdf

5.5 Study Findings:

- Majority of the respondents availed of free medicine services (18 frequency), followed by consultation with the doctors in the MMU (frequency 14). Other services availed includes counselling session, diagnostic services and referral services.

- General ailments for which MMU service was availed are pain in legs (amongst women and senior citizens), cough & cold, fever, body pain, headache, blood pressure, diabetes etc.

- Majority of the respondents reported to have saved medical expenses through availing medical services throu gh MMUs run under this project, with an average saving of Rs 1271[10]. No fees were charged for the services offered through MMUs.

- Majority of the respondents were reportedly satisfied with the services (Figure). Likewise, majority of the respondents shared that they were satisfied with the cost effectiveness of the treatment offered, cleanliness of the van and proactiveness of staff in helping the patients.

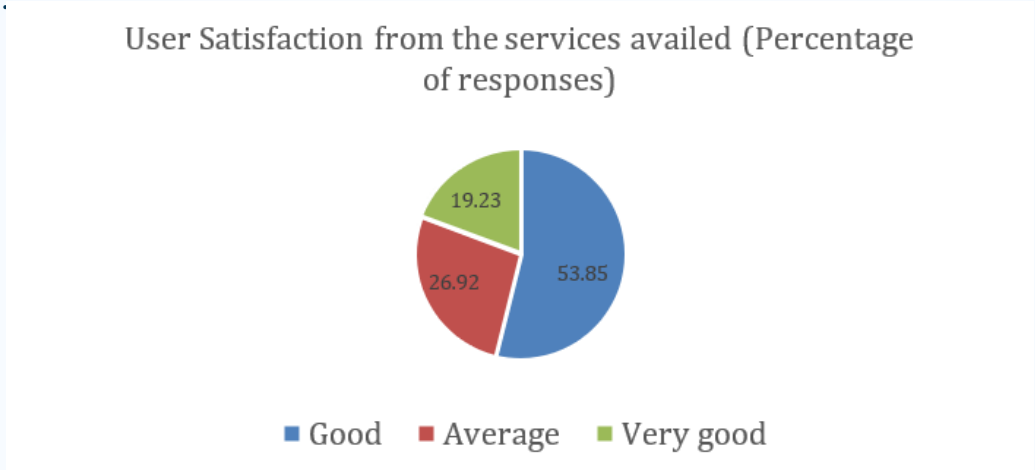

Figure 7 User Satisfaction from the services availed (Percentage of responses)

The MMU would reportedly visit each location twice a month on a predefined day for roughly two hours day. Daily, the van catered to about 25-30 patients, and the waiting time was short. Many respondents reported their dissatisfaction with the frequency of visits and hours of operation of the MMU units. Patients in need of urgent/advanced medical treatment were referred to nearby hospitals. During the COVID-19 restrictions (in the project period), the outreach of the MMU service was severely impacted.

One key recommendation shared with the field data collection team was that Gram panchayat, local leaders and the medical staff of the primary health care officials could have been more actively involved in the implementation of the project. This could have helped improved in reaching out and increase awareness among eligible patients in the study area.

Figure 8 Participants of Beneficiary Survey

[10] The reported expense saved by respondents using the Mobile Medical Unit (MMU) facility ranged from Rs. 200 to Rs. 5000, depending on the type of medical services received. Higher savings, up to Rs. 5000, were typically reported by those who availed of free medicines, including deworming treatments, for various health issues such as skin problems, joint pain, skin disorders, fever, and itching. On the other hand, lower savings, around Rs. 200, were mainly from consultation charges that individuals avoided by not having to pay a private doctor. Across all respondents, the average reported savings amounted to Rs. 1271.

6.0 FINANCIAL SUPPORT FOR CANCER PATIENTS IN EMPANELLED HOSPITALS

6.1 Project at a Glance

Empanelled Hospitals	Treatment Offered
Cancer Institute (CI), Adyar	Surgery, radiation therapy, chemotherapy, supportive care, drugs/medicine, investigation charges, prosthesis/growth hormone, bone marrow treatment (for specific cases in later stages)
Christian Medical College (CMC), Vellore	Surgery, radiation therapy, chemotherapy, supportive care, drugs/medicine, investigation charges, prosthesis/growth hormone, bone marrow treatment (for specific cases in later stages)
Kailash Cancer Hospital (KCH), Gujarat	Surgery, radiation therapy, chemotherapy, supportive care, drugs/medicine, investigation charges, prosthesis/growth hormone, bone marrow treatment (for specific cases in later stages)
Sri Shankara Cancer Hospital Res Centre (SSCHRC), Bengaluru	Surgery, radiation therapy, chemotherapy, supportive care, drugs/medicine, investigation charges, prosthesis/growth hormone, bone marrow treatment (for specific cases in later stages)
Tata Memorial Hospital (TMH), Mumbai	Surgery, radiation therapy, chemotherapy, supportive care, drugs/medicine, investigation charges, prosthesis/growth hormone, bone marrow treatment (for specific cases in later stages)
Rajiv Gandhi Cancer Institute (RGCI), Delhi	Surgery, radiation therapy, chemotherapy, supportive care, drugs/medicine, investigation charges, prosthesis/growth hormone, bone marrow treatment (for specific cases in later stages)

Project Details	Value
Sanctioned Project Budget	Rs 14,99,49,600
Duration	15-month period
Number of Cancer Patients Supported	450
Primary Stakeholders	Doctors, administration, and staff at empanelled hospitals; local community; patients; Indian Cancer Society (implementing partner)

6.2 Need for CSR intervention

Cancer is one of the leading causes of death in India, and the cost of treatment is often prohibitive for many families. Financial support helps to make treatment more affordable and accessible for those who need it. As indicated in the beneficiary survey, majority of the respondents were dependent on financial assistance to undertake cancer treatment.

The need for medical assistance for cancer patients is consistently high. Across the empanelled hospitals, discussants revealed that they receive over 300 applications each year. The patients are shortlisted based on diagnostic evaluation of the doctor and in close coordination with the designated social worker. The guidelines of Indian Cancer Society are followed to shortlist the patients for treatment. The Key Informants at the empanelled hospitals confirmed the need for this project and recommended that it be expanded to include a larger number of patients.

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6.3 About the Project Area

The project covers six metropolitan areas in the country with a large urban and rural population.

- Chennai is the capital of the Indian state of Tamil Nadu. It is the fourth most populous city in India and the sixth most populous urban agglomeration in the world. As of 2011, the city had a population of 4.68 million, while the population of the urban agglomeration was estimated at 8.9 million.[11]

- Vellore is a city and the administrative headquarters of Vellore District in the Indian state of Tamil Nadu. As of 2011, the city had a population of 423,425.12 Bengaluru is the capital of the Indian state of Karnataka. As of 2011, the city had a population of 8.42 million, making it the third most populous city in India and the 18th most populous urban agglomeration in the world.[13]

- Vadodara is a city in Gujarat, India, located on the banks of the Vishwamitri River. As of 2011, it had a population of 1.6 million, making it the third largest city in Gujarat after Ahmedabad and Surat.[14]

- Delhi is the capital of India and one of its nine union territories. As of 2011, Delhi had a population of 16.75 million, making it the second most populous city in India after Mumbai and the seventh most populous urban agglomeration in the world.[15]

- Mumbai is the capital city of Maharashtra and one of its nine union territories in India. As of 2011, Mumbai had a population of 12.4 million, making it the most populous city in India and one of the most populous urban agglomerations in the world.[16]

[11] https://www.census2011.co.in/census/city/541-chennai-tamil-nadu.html
[12] https://www.census2011.co.in/census/city/542-vellore-tamil-nadu.html
[13] https://www.census2011.co.in/census/city/543-bengaluru-karnataka.html
[14] https://www.census2011.co.in/census/city/544-vadodara-gujarat.html
[15] https://www.census2011.co.in/census/city/545-delhi-delhi-nct-of-delhi-.html
[16] https://www.census2011.co.in/census/city/546-mumbai-maharashtra-.html

6.4 Study Tools

The key tools for primary data collection for this project was beneficiary survey and Key Informant Interviews. Field data collection was conducted through active support from ICS that included sharing of updated contact details of the beneficiaries. Given the sensitive nature of medical data sought, a non-disclosure agreement was signed with the implementing partner. A verbal consent was taken from the respondent who included either the patient or a member of his/her family before proceeding with interview schedule. The questions in the interview schedule focused on whether the patient received financial aid under the project and enquired about their current health status.

A total of 131 respondents were reached out for beneficiary survey across the six empanelled hospitals and Key informants such as doctors, nurses and representatives from Medical Social Department were contacted at these hospitals.

6.5 Study Findings

- Majority of the respondents (96%) reported that the patients were able to undergo the required follow up treatment for their illness. Reasons for not being able to follow up includes that the patient has passed away, or the patient family decided to opt for alternate financing for the treatment (Ayushmann card issued by the Government of India)
- Majority of the respondents reported that their patient is recovering from the illness and has a stable medical condition (86.2%). Three respondents reported that the patient has passed away, while for 11 (8.4%) respondents, the patient's recovery was reported to be stagnant.
- In some cases (frequency 3 respondents) complaint of delay in receiving the reimbursement of treatment costs. These patients had to bear the initial cost of treatment until the patient was enrolled in the programme.
- All the respondents reportedly received financial assistance as part of this project and were not financially secure to bear the cost of treatment. The alternate financing options that were reported in our discussions include borrowing money, selling jewellery/house/land, or not being able to continue the treatment due to lack of funds.

Figure 9: Top left: Key Informant Interview at tata memorial Hospital, Mumbai, bottom lef and Right: MRI scanning machine and Key Informant Interview at Kailash cancer Hospital, Vadodara

Figure 10: (Left) MRI Scan machine at SSHRC Bengaluru and (Right) Cancer survivor and beneficiary of the project at CMC Vellore

Outcome	Responses
Patients able to undergo required follow-up treatment	96%
Reasons for not following up: patient passed away or opted for alternate financing (Ayushmann card)	N/A
Patients recovering and in stable medical condition	86.2%
Patients passed away	3 Respondents
Patients with stagnant recovery	11 respondents (8.4%)
Complaints of delay in receiving reimbursement	3 respondents
Initial cost of treatment borne by patients before program enrollment	3 respondents
Respondents received financial assistance	100%
Respondents not financially secure to bear cost of treatment	100%
Alternate financing options reported	Borrowing money, selling jewellery/house/land, discontinuing treatment due to lack of funds
Patients with stagnant recovery	11 respondents (8.4%)

Scalability	Recommendations
Expand the project to cover more geographic areas and increase the number of beneficiaries by leveraging partnerships with more hospitals and increasing funding	Implement a streamlined reimbursement process to ensure timely financial assistance to patients, reducing the initial financial burden on them.

CASE STUDY 1 :

Chathresha Kurup C.R., a 43-year-old farmer from Washermen Pet in Chennai, faced a dire situation with non-melanoma skin cancer. Dependent on income from farming and fishing, his family's prospects dimmed as his condition worsened in November 2021. Thanks to the financial assistance from the BPCL-funded project, he received regressive treatment at Cancer Institute, Adyar. The hospital staff not only facilitated the application for aid but also managed all documentation, easing the burden on Chathresha's illiterate family. The community's support, combined with the project's financial help, allowed him to start treatment promptly. His painful lesions and rashes were treated, significantly improving his health. The family's hope is renewed, and his wife has even started a small shop to support their income. This initiative by BPCL has been transformative, providing crucial medical and emotional support, and offering a brighter future for Chathresha and his family.

CASE STUDY 2

Ms. Padma R, a 35-year-old resident of Church Street, Bangalore, faced a daunting battle with rapidly spreading breast cancer. On

August 5, 2022, she began treatment at Shri Sankara Hospital, Bangalore, which included chemotherapy, radiotherapy, and surgery. Despite being extremely ill, Padma placed her trust in the doctors and adhered strictly to the treatment plan. With the financial assistance from the BPCL-funded project, she received the comprehensive care she needed and ultimately triumphed over cancer. Her successful recovery has allowed her to resume her dream of ensuring her daughter's education.

This initiative by BPCL has profoundly transformed Padma's life, providing her with the health and hope to continue pursuing her aspirations.

CASE STUDY 3 :

Ms. D. Mary, a 58-year-old resident of Mullai Nagar, Vellore, faced a grim battle with diaphragm cancer. With five family members relying on her husband's income as a rickshaw puller, her deteriorating health in April 2017, marked by severe abdominal pain, sleeplessness, loss of appetite, anxiety, and depression, threatened their livelihood. Admitted to the hospital, she diligently followed her treatment plan, aided by the financial support from the BPCL-funded project. Her perseverance paid off, leading to a full recovery. Now, Mary enjoys a healthy life with her family, her transformation a testament to the life-changing impact of BPCL's initiative.

CASE STUDY 4

Mrs. R. Mary Padmalaochobi, a 65-year-old resident of Royapuram, Chennai, struggled to support her family of five on a meager pension of Rs. 1000. Diagnosed with leukemia and spleen cancer in January 2022, her health rapidly declined, leaving her bedridden and fatigued. With financial assistance from the BPCL-funded ICS program, she underwent necessary treatment and experienced a remarkable recovery. No longer confined to bed and free from the overwhelming fatigue, her health has significantly improved, transforming her life and providing newfound hope and stability for her family.

7.0 SCALING UP SUPPORT FOR PLACEMENT LINKED VOCATIONAL TRAINING CENTRE FOR LEPROSY AFFECTED AND UNDERPRIVILEGED YOUTH

7.1 Project at a Glance

Aspect	Details
Organization Supported	The Leprosy Mission Trust India (TLMTI)
Project Objective	Impart residential vocational training to 792 youth from leprosy and disability backgrounds
Number of Beneficiaries	792 youth (396 each year)
Training Locations	Champa, Faizabad, Nashik, Bankura, Vadathorasalur, Vizianagaram
Course Duration	18 months per batch (12 months classroom training + 6 months placement activities and remedial support)
Training Components	Technical and life skills to enhance earning capacity, employability, coping with emergencies, and mainstream societal participation
Types of Courses	Formal Trade Courses (recognized by NCVT/SCVT) and Non-Formal Trade Courses (recognized by Jan Shiksha Sansthan and Modular Employable Scheme)
Formal Trade Courses	Mechanic Motor Vehicle, Mechanic Diesel, Welder, Computer Operator & Programming Assistant, etc.
Eligibility for Non-Formal Courses	Students who do not meet educational eligibility for formal trades
Project Cost	Rs 3,60,36,000
Cost Coverage	Support for 60% of youth enrolled at VTIs (leprosy affected or dependents of leprosy affected family members), 40% of students admitted on full cost basis
Course Recognition	Formal courses recognized by NCVT/SCVT, Non-formal courses recognized by Jan Shiksha Sansthan and Modular Employable Scheme

Outcome Goals	Enhanced earning capacity, improved employability, ability to cope with emergencies, and active participation in mainstream society

7.2 Need for CSR intervention

The Leprosy-affected youth population faces enormous disadvantages making it impossible for them to break the cycle of poverty. Skilling of leprosy affected youth provides an opportunity for them to break free of this cycle of poverty and get out of the fatalist attitude. Likewise, underprivileged youth very often belonging to economically poor households have limited job opportunities in the formal sector. Some of the reasons for lack of employment opportunities includes poor skill set, coupled with a strong educational foundation at the early stage of their career. Providing them with skilling opportunity offers them assistance to reverse the situation and make them more employable. The respondents covered in the study confirm that majority (60%) belong to Other Backward Class (OBC), followed by Scheduled Castes (22%), Scheduled Tribes (9%) and General Category (9%).

Majority of the respondents reported to belong to Below Poverty Line social category (55%) evident through the type of ration card held, and 6% reportedly hold Other Priority Households (OPH) ration card.

Majority of the respondents (50%) reported to have a family income of below Rs 10,000, while another 13% of the respondents reported their family income to be more than Rs 10,000 and up to Rs 20,000.

80% of the respondents were reportedly freshers and did not have prior work experience in the trade for which they attended the course.

7.3 About the Project Area

- Nashik is the fourth largest city in Maharashtra, India. According to the 2011 census, the population of Nashik was 1,486,053. The city has a population density of 8,717 people per square kilometer. The sex ratio is 925 females per 1000 males. The literacy rate is 89.85%. [17]
- Faizabad district is located in the state of Uttar Pradesh, India. According to the 2011 census, the population of Faizabad district was 2,945,919. The district has a population density of 890 people per square kilometer. The sex ratio is 902 females per 1000 males. The literacy rate is 68.72%[18]
- Champa district is located in the state of Chhattisgarh, India. According to the 2011 census, the population of Champa district was 1,068,845. The district has a population density of 522 people per square kilometer. The sex ratio is 990 females per 1000 males. The literacy rate is 73.14%.[19]

India continues to account for 60% of new leprosy cases reported globally each year and is among the 22 "global priority countries" that contribute 95% of world numbers of leprosy warranting a sustained effort to bring the numbers down. In the year 2007, new cases detected in India were 137,685, and nine years later in 2016, the number remained almost the same at 135,485, a significant increase over the 127,326 new cases detected in 2015"
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5885632/

[17] https://censusindia.gov.in/nada/index.php/catalog/815/download/2910/DH_2011_2720_PART_B_DCHB_NASHIK.pdf
[18] https://censusindia.gov.in/nada/index.php/catalog/1205/download/3834/DH_2011_0946_PART_B_DCHB_FAIZABAD.pdf
[19] https://censusindia.gov.in/nada/index.php/catalog/45257/download/48980/DH_2011_2206_PART_B_DCHB_JANJGIR- CHAMPA.pdf

- Bankura district is located in the state of West Bengal, India. According to the 2011 census, the population of Bankura district was 3,936,959. The district has a population density of 1,074 people per square kilometer. The sex ratio is 947 females per 1000 males. The literacy rate is 76.84%.[20]
- Vadathorasalur is a village of Viluppuram district of the state of Tamil Nadu. It has a population of 5479 of which 2776 are males while 2703 are females as per population census 2011. The male literacy rate is 75.13 percent while the female literacy rate is 57.85 percent.[21]
- Vizianagaram district is located in the state of Andhra Pradesh, India. According to the 2011 census, the population of Vizianagaram district was 2,737,948. The district has a population density of 441 people per square kilometer. The sex ratio is 990 females per 1000 males. The literacy rate is 67%.[22]

7.4 Study Tools

A beneficiary survey was conducted with 245 project beneficiaries spread across the six VTIs, of which 26 respondents were currently enrolled in the program. In addition, trainers and staff members across the six VTIs were interviewed to learn about the subjective aspects of the project. On an average, the programme attracts young participants with an average age of the respondents being 24 years. The sample included in the beneficiary survey shows 25% female participants.

Majority of the respondents reportedly participated in Computer Operator & Programming Assistant course (27% of the sample), followed by Diesel Mechanic course (25%). The remaining participants attended courses such as Electrician (9%), Welder (10%), Motor Vehicle Mechanic (10%), and others including AC and refrigeration, Dress Making, Electrician/ Refrigeration & AC, Mechanic Diesel, Offset Printing /Computer, Sewing technology, Tailoring/Knitting/Rexene.

7.5 Study Findings

Majority of the respondents (80%) learnt about the course at TLMTI from friends/relatives or acquaintances, while 9% of respondents were informed about the course by the hospital staff that they are referring to for their illness. 10% of the respondents reported that they were informed about the course being run at VTIs by the TLMTI staff through advertisements or word of mouth. The reported motivation of the respondents to join the skill development course ranged from wanting to contribute towards family income, learning new skills or to usefully engage in skill building activity.

69% of the respondents reportedly received counselling attended a dedicated counselling session to help them decide the choice of trade for the training23, and with 58% of the eligible respondents an assessment to evaluate the nature of disability to help them ascertain the choice of trade offered under this project. This assessment was done through a competent team of medical professionals.

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[20] https://censusindia.gov.in/nada/index.php/catalog/1365/download/4474/DH_2011_1913_PART_B_DCHB_BANKURA.pdf
[21] https://censusindia.gov.in/nada/index.php/catalog/157/download/278/DH_2011_2812_PART_B_DCHB_VIZIANAGARAM.pdf
[22] https://www.censusindia.gov.in/2011census/dchb/2817_PART_B_DCHB_VIZIANAGARAM.pdf
[23] The respondents from Bankura VTI reported to have attended counselling sessions that saw participation from industry resource persons.

were informed about the course being run at VTIs by the TLMTI staff through advertisements or word of mouth. The reported motivation of the respondents to join the skill development course ranged from wanting to contribute towards family income, learning new skills or to usefully engage in skill building activity.

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Figure 11 The VTI centres are equipped with wheelchair ramps, railings, informational posters/guidelines to improve accessibility to differently abled participants (picture of a wheelchair ramp installed in Faizabad VTI)

55% of the respondents were aware of BPCL as the funding agency for their attendance to the course.

26% of the participants rated admission process to be participant friendly and as excellent, while 46% rated it to be good. Less than 2 percent of the participants reported inadequate training resources at the respective VTIs.

33% of the participants rated the training equipment provided during the training to be excellent, while 46% rated it to be good. Less than 2 percent of the participants reported inadequate training resources at the respective VTIs. The course curriculum was reported to have been compppliant with the guidelines issued by national Council for Vocational Education Training (NCVET).

85% of the participants availed of accomodation services at the VTIs. 40% rated the accomodation sevices to be excellent, while 44% rated it to be good. 1% of the participants (2 frequency) reported the food to be repetitive and of being bad quality. Special measures to provide women friendly environment includes researvation of seats for women participants along with scholarships and provision of female instructirs at the VTIs.

81% of the respondents received a certificate of completion, while another 9% were awaiting for the certificate.

29% of the respondents reported to have utilized the remedial class support offered under the programme.

89% of the respondents reported that their skill set in the chosen trade has improved through attending the training course.

42% or 91 respondents who successfully completed the respective training course availed free of cost placement services. These participants interviewed with an average of 2.1 placement agencies.

The drop out rates across the six VTIs was reported to be low (about 2%) caused due to the participants suffering from health problems, family constraints to continue education or taking up wage employment.

40% or 87 of the participants who successfully completed the respective training course were reportedly employed at the time of the survey.

- Majority of these respondents (45%) earn between Rs 6000 to Rs 10,000. 15% of these respondents draw a monthly salary of less than Rs. 5000 and between Rs.11,000 and Rs 15,000

Figure 12: State of the art training infrastructure in the VTIs

respectively. 23% of the respondents reported to be earning between Rs 16,000 and up to Rs. 30,000. 2% of the respondents earn more than Rs 30,000.

A prominent feature of the training programme across the six VTIs have been emphasis on industry collaborations with companies such as TATA, Mahindra and Mahindra, Eicher Motors, Kiran Automobiles, and White House (Chennai). This, coupled with strong alumni association activities ensurest that the participants upon completion of the programme are provided with hand holding support to gain employment. The VTIs also have strong collaboration with local networks including Nehru Yuva kendras and Jan Shiksha Sansthaan.

The design and implementation of the training also benefits from inputs from the industry partners who visit the VTI centers to meet with the students and staff throughout the training period. Trained faculty with industry experience, cooperative and hardworking support staff , strong alumni network and ability to reach out to remote participants are seen as key strengths of the training program implemented through TLMTI.

The qualitative discussions with the VTI staff reveals that a key challenge is lack of awareness amongst some companies who are reluctant to hire differently abled persons who pass out from the VTI centers. Lack of consistent electricity supply to operate heavy machinery in Faizabad VTI was reported to be an issue.

Figure 13 National and State level achievers from the training program conducted at VTI Vadathorasalur (top) and VTI Nashik (bottom)

Outcome	Details
Source of Information about Course	80% friends/relatives/acquaintances, 9% hospital staff, 10% TLMTI staff through advertisements/word of mouth
Motivation to Join Course	Contribute towards family income, learning new skills, useful engagement in skill-building activity
Counseling and Assessment	69% received counseling, 58% underwent assessment for disability by medical professionals
Awareness of BPCL Funding	55% aware of BPCL as the funding agency
Rating of Admission Process	26% rated excellent, 46% rated good
Training Equipment Rating	33% rated excellent, 46% rated good, <2% reported inadequate training resources
Compliance with NCVET Guidelines	Course curriculum compliant with NCVET guidelines
Accommodation Services Rating	85% availed accommodation, 40% rated excellent, 44% rated good, 1% reported food as repetitive and of bad quality
Women-Friendly Measures	Reservation of seats, scholarships, provision of female instructors
Certificate of Completion	81% received certificate, 9% awaiting certificate
Utilization of Remedial Class Support	29% utilized remedial class support
Improvement in Skill Set	89% reported improved skill set in chosen trade
Placement Services Utilized	42% availed placement services, average of 2.1 interviews per participant
Dropout Rate	2% dropout rate due to health problems, family constraints, or taking up wage employment
Employment Status Post-Training	40% employed at the time of survey
Monthly Salary of Employed Respondents	45% earn Rs 6000-10,000 15% earn <Rs 5000 15% earn Rs 11,000-15,000 23% earn Rs 16,000-30,000 2% earn >Rs 30,000

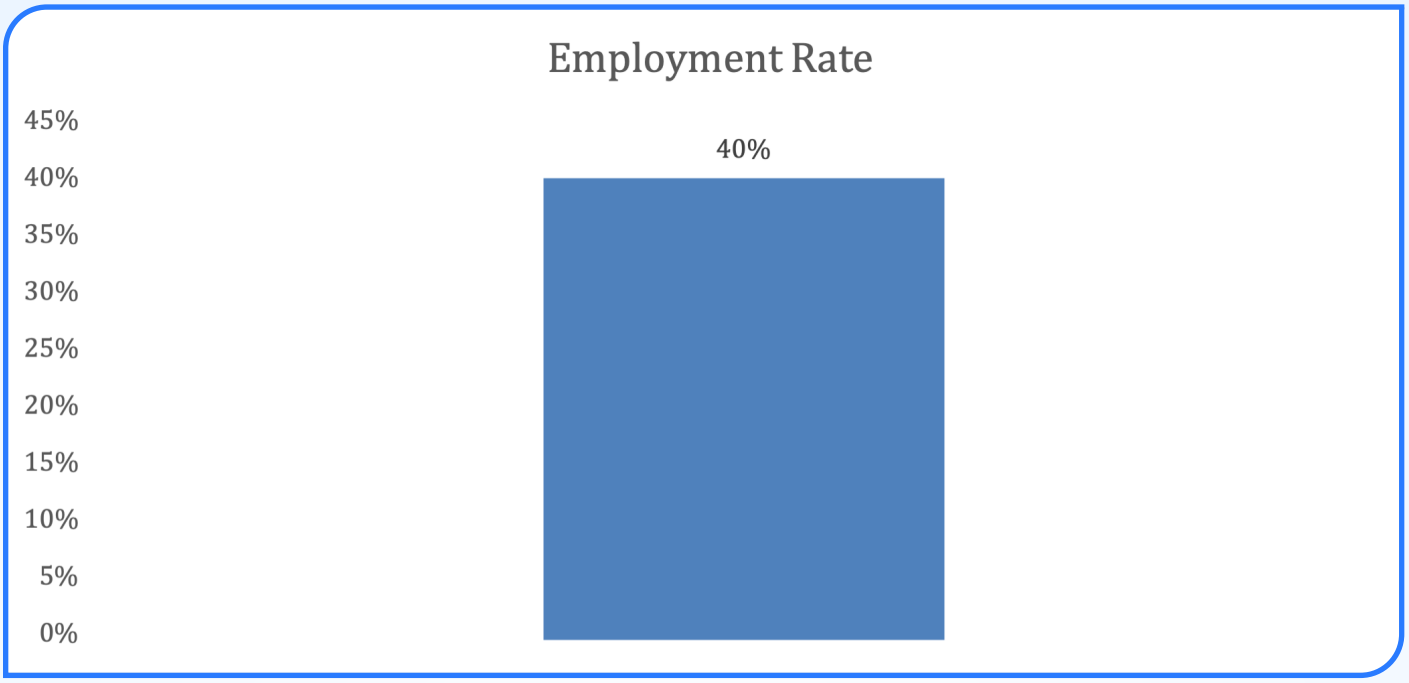

Figure14: Total employment rate of the respondents

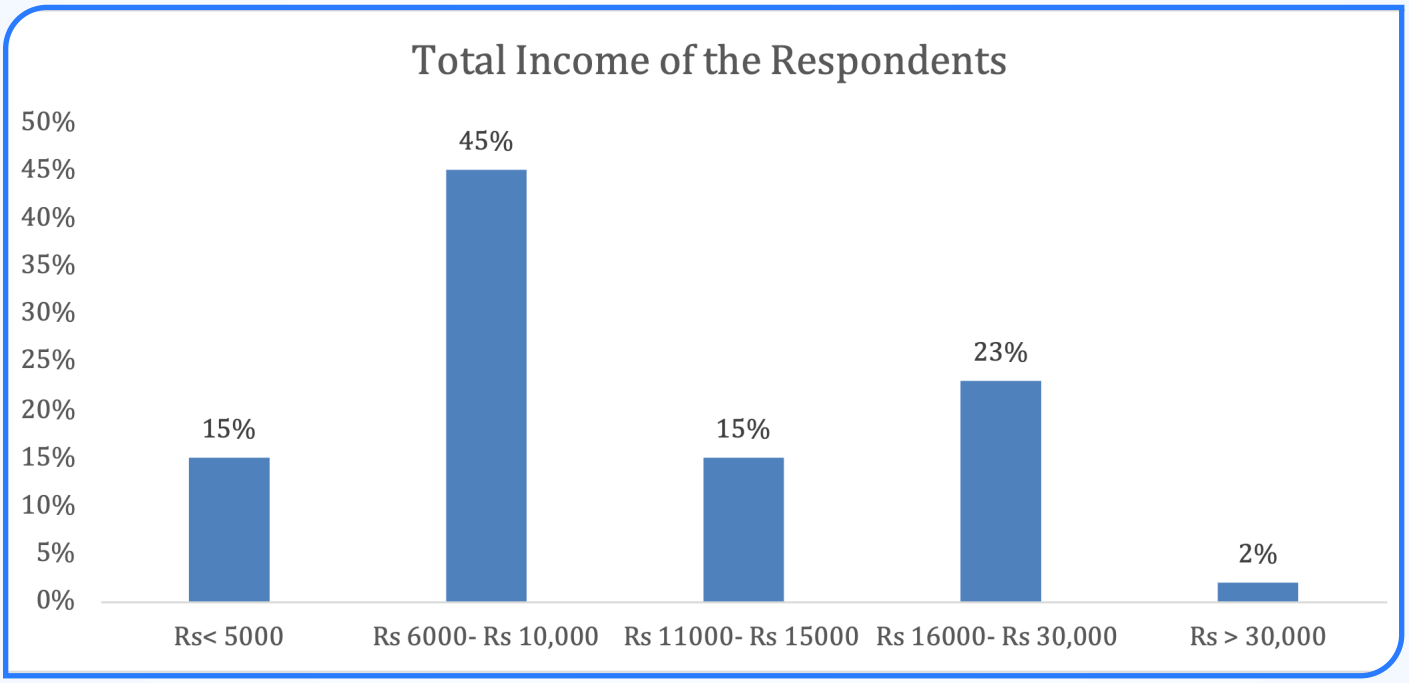

Figure15: Total Income of the respondents

CASE STUDY 1

Ms. Mahamaya Saren, from Howrah district in West Bengal, participated in BPCL's program and pursued a course in tailoring. After completing the evaluation process and receiving her certification, she secured a job that transformed her life. Her new financial independence has not only raised her family's standard of living but also boosted her confidence. She now supports her niece's education, maintains a savings account, has built a house, and helped her brother purchase a motorcycle. Mahamaya has become a role model in her community, inspiring younger women with her success and determination.

CASE STUDY 2

Mr. Tankaeshwar Mathi Tirkey, a welder from Champa district in Chhattisgarh, transformed his life through BPCL's training program in motor repair and mechanics. Previously reliant on his brother's income from manual labor and struggling with extreme bodily deformity, Tankaeshwar was

looking for stability after losing his job. With dedication, he completed the training and secured a well-paying job. This newfound stability and confidence have significantly improved his quality of life, demonstrating the powerful impact of BPCL's initiative.

CASE STUDY 3

Mr. Mithilesh, a 23-year-old from Faizabad, Uttar Pradesh, transformed his life through BPCL's COPA trade training program. Previously constrained by limited resources, he aspired to pursue computer training but lacked the means to do so. The intervention provided him with the opportunity he needed, leading to newfound happiness and satisfaction in his life.

CASE STUDY 4

Mr. Enock Sunil Disuza, a 23-year-old from Naghadi, Panchavati Nashik, experienced a transformative journey through BPCL's initiative. Initially facing challenges due to his father's illness and his own speech disorder, he discovered an opportunity for growth during his father's treatment at the trust's hospital. Engaging in personality development courses provided by the trust, he honed his communication skills and secured employment at Hindustan Aeronautics Company Limited. BPCL's initiative not only empowered him to overcome personal obstacles but also facilitated his professional success, exemplifying the life-changing impact of such programs.

CASE STUDY 5

Akshay Sudhakar Waghpanjar, a 27-year-old from Heerawadi, Nashik, experienced a significant transformation thanks to BPCL's initiative. While undergoing treatment at Kothara Hospital, Amravati, he learned about the training program from staff members. Following two years of dedicated training, he secured a job at KIA Motors, doubling his monthly income to Rs 30,000. This initiative not only enhanced Akshay's professional prospects but also uplifted his family's financial stability, showcasing the tangible impact of BPCL's support.

CASE STUDY 6

Mr. Vimlesh Guru's life took a positive turn through BPCL's initiative after facing financial hardships due to his father's leprosy diagnosis. As the sole breadwinner in a family of seven, his father's illness brought considerable challenges. However, the referral to the training center provided an opportunity for transformation. Vimlesh underwent training in computer operation and secured a job earning Rs 20,000 per month as a computer lab assistant in Faizabad. BPCL's intervention not only restored financial stability but also empowered Vimlesh to contribute effectively to his family's well-being, showcasing the profound impact of such initiatives on individuals and their communities.

8.0 REDUCING AVOIDABLE DISABILITY THROUGH MEDICAL SERVICES ON LIFELINE EXPRESS-HOSPITAL ON TRAIN

8.1 Project at a Glance

Aspect	Details
Reduce avoidable disability in communities through medical and surgical services	Offering screening, early identification, and treatment services - Providing counselling, initial stage treatment, and medication for patients
Reduce burden on secondary and tertiary care centers	Referring complicated cases to local hospitals
Capacity building through Continuing Medical Education (CME) and counselling sessions	Conducting CME sessions - Providing counselling sessions
Awareness generation activities	Door-to-door campaigns - Distribution of pamphlets - Public announcements - Display of hoardings and banners at project locations
Mobilizing patients through involvement of local health authorities andrelevant stakeholders	Door-to-door campaigns - Distribution of pamphlets - Public announcements - Display of hoardings and banners at project locations
Participation from specialized doctors offering consultation services	Specialized doctors providing consultation services

Figure16: Top Left: Patients register for OPD ; Top Right: Check up for Plastic Surgery ; Bottom: Women register for Gynaecology check ups

8.2 Need for CSR intervention

The population density in North-eastern States is one of the lowest in the nation, and many of its inhabitants live in isolated, mountainous regions with limited access to transportation. The region's health infrastructure is still in the process of being developed, making it difficult for people to access health services. To address this issue, the government has implemented outreach programs and established hospitals to provide health care. The harsh climate and lack of adequate access to the mainland make it difficult for people to fulfil their basic medical needs.

The rural population mostly depends on the government hospitals for their treatment. The existing health care infrastructure is not enough to cater to the growing demand. There also have been cases where the distance to the hospital appears to be related with the increased risk of mortality.

The survey respondents revealed that on an average the distance of a government facility from their homes was 6 km. 46.4 percent of that respondents shared that the nearest government medical facility is very difficult to access. Around 64.6 percent of the respondents reported that the medical consultation available at the government facility is affordable, but the cost of medicine is high.

Around a quarter of the respondents reported daily wage labour as their primary source of income, and the average number of earning members in the family was reported to be 1.3 for an average 6.1 family members.

Almost a quarter of the respondents (28.5%) reportedly earn between Rs. 5001 and Rs. 10000, while 8.3% earn less than Rs 5000.

8.3 About the Project Area

The project area is located in the northeast region of India and its terrain and geographical landscape makes it hard to provide health care services round the clock.

- Dhubri is a city and a municipal board in Dhubri district in the Indian state of Assam. According to the 2011 census, Dhubri has a population of 1,19,919. The sex ratio is 945 females per 1000 males and the literacy rate is 68.3%. [24]

- Papum Pare is a district in the Indian state of Arunachal Pradesh. According to the 2011 census, Papum Pare has a population of 4,87,890. The sex ratio is 976 females per 1000 males and the literacy rate is 73.2%.[25]

8.4 Study Tools

The beneficiary survey covers 382 respondents across the two locations (Dhubri and Papum Pare). In addition, discussions were held with key stakeholders in the project to learn about the processes involved in project implementation.

8.5 Study Findings

A good percentage (40%) of respondents out of sample are females. The nature of illnesses for which medical services were availed includes orthopaedic issues of backbone, brain related, eye

[24] https://www.census2011.co.in/census/district/521-dhubri.html
[25] https://www.census2011.co.in/census/district/527-papum-pare.html

and ear related, dental, diabetes, epilepsy, cleft lip, genealogical, kidney, skin, tuberculosis, urine related or general medical check-up. As part of the treatment, general check-up like blood pressure, blood glucose, were conducted after registration and the respondents confirmed that no money was charged for this service.

To present the study findings the respondents have been categorized into two groups based on whether they availed of a surgical procedure or a non-surgical medical service.

Amongst the respondents who underwent a surgical procedure, eye related issues make up the largest share. On an average the respondents had been suffering from the illness for over 4.3 years that indicates their inaccessibility to adequate counselling/medical treatment prior to participation in the project. The respondents in this category unanimously shared that their participation in the project activities resulted in saving medical expenses for themselves or their family. The respondents confirmed that no money was charged for the services offered at LifeLine Express. 87% of these respondents reported that they benefitted from a follow up counselling session after the treatment.

Amongst the non-surgical response category of respondents, dental, eye and epilepsy related patients made up the largest share. On an average the respondents had been suffering from the illness for over 5.7 years. The participants in this study all agreed that taking part in the project activities led to them or their family members saving money on medical costs. They also confirmed that no fees were charged for the services provided by LifeLine Express.27% of these respondents reported that they benefitted from a follow up counselling session after the treatment. Figure is a tabulation of responses on perceptive ratings of the project beneficiaries on different aspects of the services offered under this project including its capacity to meet urgent medical needs, cleanliness and medical facilities, and staff competency. The ratings range from Not Satisfactory to Very Good.

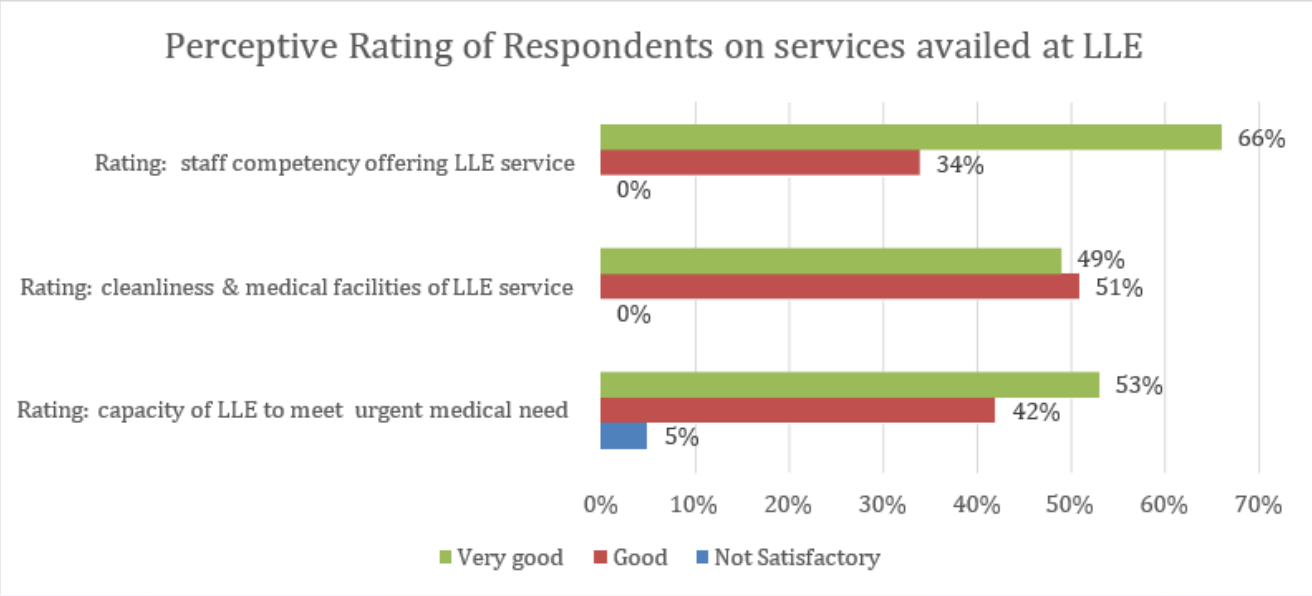

Figure 17 Perceptive Rating of Respondents on services availed at LLE

The responses show 53% of respondents rated the capacity of LLE to meet urgent medical needs as "Very Good". 51% of the respondents rated the cleanliness and medical facilities of LLE service as "Very Good", and 66% rated the staff competency offering LLE service as "Very Good". 5% of the respondents rated the capacity of LLE to meet urgent medical needs as "Not Satisfactory.

CASE STUDY 1 :

Mr. Subhash Chaudhury, a 40-year-old municipality worker, was grappling with cataract, hindering his ability to work efficiently. Accessing proper treatment was a challenge due to the distant and inaccessible hospital. However, upon learning about the LifeLine Express hospital through local sources and advertisements, he sought treatment there. The intervention not only restored his vision but also alleviated the financial burden, allowing him to redirect saved funds towards medication. Grateful for the treatment and support received from LifeLine Express officials, Mr. Chaudhury's life has been significantly transformed by this initiative.

CASE STUDY 2 :

Mrs. Sapiya Bibi, a 67-year-old daily wage laborer, faced the debilitating effects of cataracts without awareness or means for treatment. Her financial constraints compounded her plight until she learned of the LifeLine Express hospital through local sources. Guided and supported by the hospital staff, Mrs. Bibi underwent a successful cataract surgery, restoring her vision and enabling her to resume work without hindrance. Grateful for the transformative impact of the initiative, she regained independence and hope for a brighter future.

CASE STUDY 3 :

Mrs. Marjina Bewa, a 68-year-old resident of Gauripur, struggled with impaired vision, hindering her independence and daily activities. With a modest family income, her condition left her dependent on others for even simple tasks. However, upon learning about the LifeLine Express through local channels and distributed pamphlets, Mrs. Bewa found renewed hope. Undergoing a successful surgical procedure, she regained her sight and independence, restoring her confidence and enthusiasm for life. The intervention not only transformed her quality of life but also instilled optimism for the future, empowering her to resume her work with renewed vigor.

CASE STUDY 4 :

Mrs. Kachani Bibi, a 59-year-old resident of Gauripur, had been battling severe eye infections and swollen eyes for the past five years, relying on medication for relief. However, her condition persisted until she learned about the LifeLine Express through friends and relatives. Upon seeking treatment on the train, Mrs. Bibi found respite under the care of the LifeLine Express team. With expert medical attention, her eyes were successfully treated, and she experienced full recovery. Grateful for the transformative impact of the intervention, Mrs. Bibi now enjoys improved health and renewed hope, thanks to the LifeLine Express initiative by BPCL.

9.0 CONSTRUCTION OF LABORATORY BLOCK FOR GOVT. HIGHER SECONDARY SCHOOL, KADAVALLUR

9.1 Project at a Glance

Aspect	Details
Project Goal	Finance the development of a Laboratory Wing and Academic Block
Total Area	577.92 square meters
Number of Stories	Three
Components	Laboratory Wing and Academic Block
Number of Labs	6 labs
Lab Types	Physics, Chemistry, Biology, and Computer
Project Budget	Rs. 1,00,00,000/-
Project Duration	Two years
Utilization of Infrastructure	Laboratories for Physics, Chemistry, Biology, and Computer

9.2 Need for CSR intervention

Availability of adequate infrastructure and equipment to conduct science experiments is the building block on which science teaching is based. Lab work provides students with hands-on experience and helps them to understand the concepts they are learning in the classroom. It also allows them to apply their knowledge to real-world situations and develop problem-solving skills. Additionally, lab work can help students develop critical thinking skills and gain an appreciation for the scientific process.

9.3 About the Project Area

Kadavallur is located in Thrissur district of the state of Kerala. According to the Census India 2011 report, Kadavallur Census Town has a population of 12,912 people, 6,091 of them are men and 6,821 of whom are women.[26]

9.4 Study Tools

To determine the quality of the laboratories built, four interviews with the school staff was conducted, including Principal, science teachers and laboratory assistant.

9.5 Study Findings

To determine the quality of the laboratories built, four interviews with the school staff was conducted, including Principal, science teachers and laboratory assistant.

https://www.census2011.co.in/data/town/627760-kadavallur kerala.html#:~:text=Kadavallur%202022%20%2D%202023%20Population,in%202023%20is%20approximately%2017%2C700.

Figure 18 Top Left Computer Lab. Top Right Biology Lab, Bottom Left: Physics Lab, Bottom Right: Discussion with teachers

Our discussions with key stakeholders revealed that the intervention has the potential to bring greater clarity of laboratory subjects among the subject and support their participation in various science competitions and win many awards.

However, the laboratories constructed under the project were reported to be not functional to its full capacity because of:

1. Lack of Equipment and teaching aids
2. Shortage of furniture for students
3. Lack of supply of water/gas in the laboratories

As a result of these shortcomings, the project has not been able to have evident impact on academic improvement. The Principal of the school in a written letter has acknowledged the positive foresight of the project, and sought support to equip the lab infrastructure to become functional.

Key Outcomes	Scalability
High Quality construction of laboratory buildings	Support sought to obtain equipment and other crucial resources to make the laboratory functional

10.0 PLACEMENT LINKED SKILL DEVELOPMENT TRAINING PROGRAMME IN ASPIRATIONAL DISTRICTS

10.1 Project at a Glance

Aspect	Details
Project Goal	Provide skill training for self-employment and job placement
Training Locations	Shravasti district (Uttar Pradesh), Mewat district (Haryana)
Training in Shravasti	260 self-employed tailors, 150 hand embroiderers
Training in Mewat	380 self-employed tailors, 150 hand embroiderers
Total Trainees	940 individuals
Project Focus	Skill upgradation and community development
Placement Assistance	Provided to trainees interested in job opportunities
Project Budget	Rs. 1,93,76,960
Project Duration	15 months

10.2 Need for CSR intervention

Lack of proper skill and training restricts people from the opportunities for self-development by limiting their access to well-paid employment. The project intervention was to impart skill training to eligible individuals and help them attain gainful employment and develop their livelihood opportunities. The skill gap reports published by National Skill Development Corporation (NSDC)[27] puts Shravasti District in UP as a high priority district for skill development initiatives as it has been classified as one of the 250 most backward districts in the country. The report for Haryana highlights low enrolment of students in vocational centres in Mewat partly attributed to limited number of Industrial Training Institutes (4) in the region which is lower than the state average.

The beneficiary survey indicates that the percentage of BPL category (56%) constitute the majority of the respondents. In the survey, 45.3 % percentage of the beneficiaries reported family income less than Rs 5,000 while 20.3% reported average family income to be between Rs. 6,000 and Rs. 10,000. 82% of the respondents reportedly had never worked before in the trade for which they had attended the training.

10.3 About the Project Area

- Shrawasti district of Uttar Pradesh is spread across 1640 square km. The total population is 11.17 lakhs. Male population is 5,93,897 and female population is 5,23,464. The male literacy rate is 57.2 percent while the female literacy rate is 34.8 percent [28]
- Mewat district of Haryana is spread across 1507 square km . The total population of the district is 10.89 lakhs. Male population is 5,71,162 while the female population is 5,18,101. The male literacy is 69.94 while the female literacy is 36.6 percent.[29]

[27] https://skillsip.nsdcindia.org/sites/default/files/kps-document/haryana-sg-report.pdf
https://skillsip.nsdcindia.org/sites/default/files/kps-document/up-sg-report.pdf
[28] https://censusindia.gov.in/nada/index.php/catalog/1288/download/4166/DH_2011_0950_PART_A_DCHB_SHRAWASTI.pdf
[29] https://censusindia.gov.in/nada/index.php/catalog/455/download/1468/DH_2011_0619_PART_B_DCHB_MEWAT.pdf

10.4 Study Tools

As part of the research tools, beneficiary survey was conducted with 152 beneficiaries across the two project locations. In addition, qualitative tools were employed to understand the nature of impact created through the project.

10.5 Study Findings

The average age of respondents/project participants was reported to be 26 years, with 92% female respondents. Figure shows the reported educational qualifications of the respondents. The survey reveals that that majority of the beneficiaries belong to OBC category (50.6%) followed by the general category (21.7%).

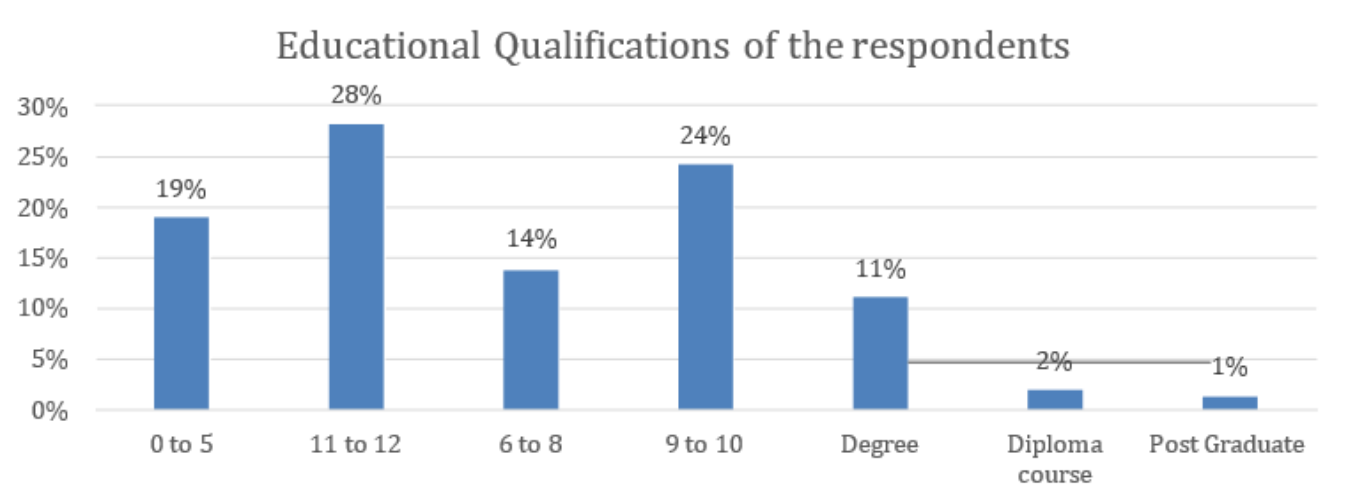

Figure 19 Educational Qualifications of the respondents

The average family size of the respondents is 5.5, out of which on an average 1.4 member is engaged in an economic activity.

Figure 20: Training on Tailoring and Embroidery work in Progress at Shrawasti Center

30% of the respondents reported that they were approached by a representative from the implementing agency to enrol in the course, while the majority of the respondents were informed about the course through word of mouth (friends and family). The reported motivation for the students to enrol in the capacity building training included eagerness to contribute financially to the family income or interested in learning a new skill or become financially independent. 16% of the respondents were reportedly aware of BPCL's financial contribution towards their training. 92.1% of the respondents rated the organization of the course at par with the industry requirements. Majority (62.5%) of the respondents reported that they benefitted through attendance of the training program through an improvement in their skills, while 22.3% were not sure of the same. 15% of the respondents reported that the attendance of the training programme did not yield improvement in skill set in their chosen trade.

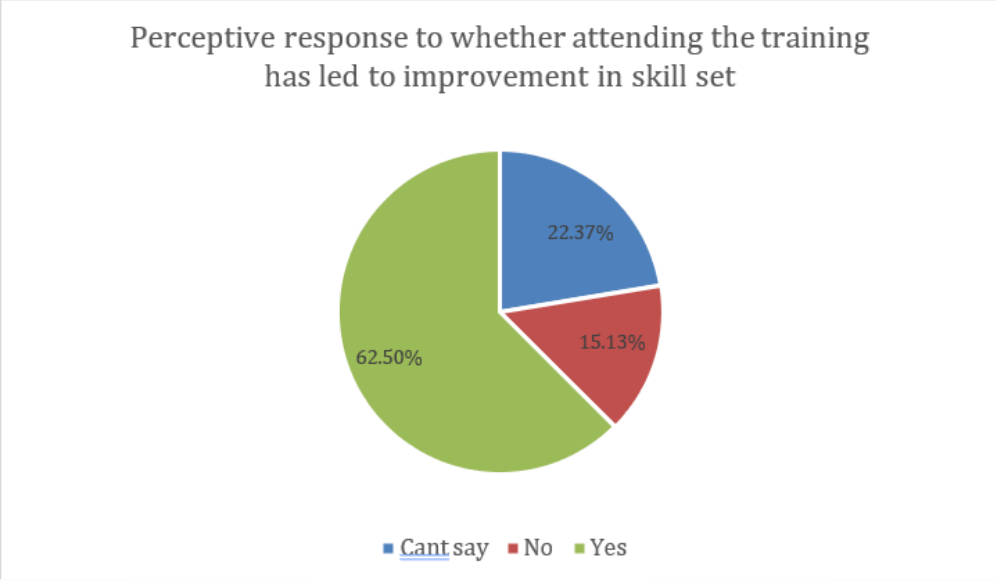

Figure 2 Perceptive response on improvement in skill set from the project

The placement of the respondents was found to be low, with 12% of the surveyed respondents reported to be employed at the time of the interaction. Majority of these employed respondents reported to be self employed.

38% of the respondents reported to have gained employment as a result of attending the course. 95% of the respondents recommended that they could benefit from a strong placement opportunity after completing the course.

The discussants revealed that the pandemic situation during COVID 19 posed as a key challenge in supporting placement services to the trainees. In addition, general unwillingness of the community members in sending women outside their villages to work was reported to be another challenge in ensuring placement services.

The trainees reported lack of time to practice the training because of busy schedule from their household chores as a key inhibitor to continue practicing their skills.

Outcome	Scalability & Recommendation
Inclusion of underprivileged trainees	The project could be made scalable through a parallel project activity aiming at community attitude towards women gaining employment in formal setting

11.0 CROP RESIDUE MANAGEMENT INITIATIVE

11.1 Project at a Glance:

Aspects	Details
Project Title	Crop residue management initiative for making 10 villages free from the practice of crop residue burning
Project Implementing Agency	Confederation of Indian Industry Foundation (CII)
Project Location	Ludhiana and Barnala Districts, Punjab
Project Duration	2 years
Project Budget	Rs. 1,24,86,073/-
Project Expenditure	Rs. 85,83,428/-
Scope of Work (as mentioned in MoU)	a. Financial support for farm tools and adoption of improved in-situ crop residue management practices and pilot ex-situ solution for straw management at the village level. b. Behavioral change through awareness programs on benefits of improved straw management approaches. c. Facilitate Participatory Monitoring of stubble burning with active involvement of farmers and community volunteers.

11.2 Need for CSR Intervention

The major causes of paddy residue burning in Punjab are the introduction of mechanized harvesting, in the form of combine harvesters; the depleting water table; and the shortage of agricultural labour.

During the rice-wheat crop rotation in the State, rice is cultivated from June to October in warm and humid conditions, while wheat follows from November to March. Any delay in sowing wheat can significantly reduce crop yields. The critical period for wheat harvesting falls between April 10th and 30th, with temperatures typically around 30-35°C. Rice transplantation, occurring on June 20th, allows farmers only a short window of 20-25 days between rice harvest and wheat planting.[30]

Manual harvesting, once the traditional choice, has become uneconomical for farmers due to rising labor costs and a shortage of labor and has given rise to the practice of burning rice crop residue is commonly known as stubble burning. Crop residue burning contributes significantly to air pollution, particularly in north India during harvest months.

High levels of particulate matter (PM2.5 and PM10) from burning crop residues lead to respiratory problems and other health issues in the community. Poor air quality due to stubble burning has

[30]https://www.ceew.in/sites/default/files/CEEW-Paddy-Residue-Burning-in-Punjab-Farmers-Perspectives-Issue-Brief-29Mar19.pdf

Asevere health implications, especially for vulnerable populations such as children, the elderly, and those with pre-existing respiratory conditions long with health risks, stubble burning negatively affects soil health and contributes to climate change by releasing greenhouse gases. The heat from burning of crop residue destroys beneficial soil bacteria and fungi, reducing soil fertility and increasing crop vulnerability to pests and diseases

11.3 About the Project area

The Crop Residue Management Initiative funded by BPCL is focused on 10 villages in Ludhiana and Barnala Districts, Punjab. The CII Foundation partnered with the Gadri Baba Dulla Singh Giani Nihal Singh (GBDSGNS) Foundation to promote sustainable agricultural practices and mitigate the effects of stubble burning in the project villages.

The project included financial assistance for farm tools to promote in-situ crop residue management through the existing FPOs, alongside one pilot of ex-situ solution at the village level. Further, the project included raising awareness about the benefits of residue management approaches to reduce burning through community volunteers and IEC materials.

- Ludhiana district is the largest district in Punjab terms of both area and population. The geographical area of Ludhiana is 3767 sq km, which is divided into the flood plains of the Sutlej and upland plain area. The average rainfall of the district is 544 mm.[31]
- Barnala is an adjoining district to Ludhiana and with an area of about 1410 sq. kms and a population of 6 lakh persons[32]

11.4 Project Implementation Strategy

The project focused on enhancing farm tools and promoting improved in-situ crop residue management (CRM) practices by procuring state-of-the-art equipment and distributing it to Farmer Producer Organizations (FPOs) in project villages.

Collaborative trainings were organized to educate interested farmers on the proper usage, maintenance, and repair of these machines, ensuring efficient handling throughout the agricultural cycle.

During the harvest season, farmers were able to borrow these machines from FPOs at a nominal fee, which covered maintenance costs rather than generating profit.

Soft skills training included discussions on general issues surrounding paddy burning and awareness campaigns led by volunteers and school students. These activities included door-to-door campaigns, public announcements, wall paintings, and distribution of Information, Education, and Communication (IEC) materials. The engagement of the entire village community contributed significantly to behavioral change regarding stubble burning practices.

Volunteers stationed in each village played a pivotal role during harvest seasons by facilitating the movement of machines and monitoring instances of stubble burning to prevent unauthorized burning activities. Their proactive involvement ensured comprehensive support and adherence to sustainable agricultural practices within the project area.

[31]https://www.kvkludhiana.com/district-profile.php#:~:text=Ludhiana%20is%20the%20most%20advanced,district%20is%203767%20sq%20km.
[32]https://agri.punjab.gov.in/sites/default/files/intro%281%29.pdf

11.5 Study Tools

Key informant discussions were conducted with representatives from the implementing NGO (Dr Harminder Singh Sidhu, President and implementation team), local leaders, and relevant stakeholders (Mr. Tahir from CII foundation and his field team) to gain insights into the current practices and challenges faced in crop residue management.

Additionally, a primary survey was carried out involving 280 farmers across seven villages: Bassian, Dadhahoor, Kalalmajra, Kirpal Singh Wala, Nathowal, Sehbazpura, and Sukhana. This survey aimed to collect firsthand information on farmers' practices, perceptions, and the effectiveness of residue management techniques in their respective village.

Majority of the survey respondents were males with an average age of 44 years. The figure below shows their educational background.

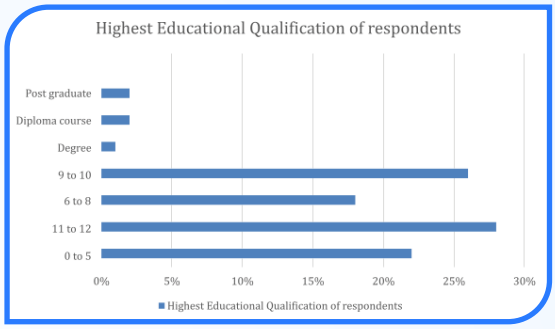

Figure 21: Qualification of the respondents

The survey revealed that the majority of respondents had completed secondary education, with significant percentages having completed grades 9 to 12 and a notable portion with primary-level education. Middle school education was reported by 18% of respondents. Higher education qualifications, including diplomas, postgraduate degrees, and undergraduate degrees, were less common, collectively making up a small percentage of respondents had attained lower to middle levels of education, with relatively few achieving higher education degrees.

The majority of respondents, 60%, indicated that they were presently members of an FPO. Meanwhile, 24% of respondents reported that they had never been members of an FPO. Additionally, 15% stated that they were members in the past but are no longer part of an FPO.

11.6 Study Findings

The survey assessed the respondent's perception of prevalence of crop residue burning in their villages. A notable 49% of respondents indicated that their village was largely free of crop residue burning. Another 33% felt that crop residue burning was somewhat controlled in their village. On the other hand, 9% of respondents were unsure or didn't know about the crop residue burning status in their village. Similarly, 9% reported that some farmers in their village still burn crop residue.

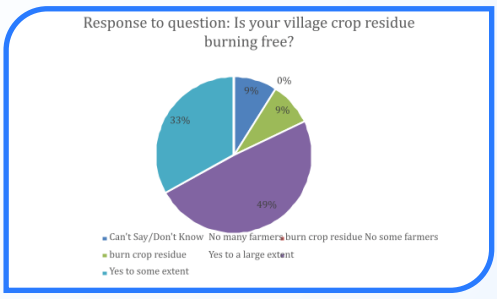

Figure 22: Responses of the beneficiaries for crop residue burning

The survey captured access and usage of implements for crop residue management (CRM) across the project villages. These include harrow and rotavator (for both rice and wheat) ; mulcher and happy seeder for wheat only; baler/raker for rice only and potato planter for potato only. The survey reveals that the predominant source is the Farmer Producer Organization (FPO) within the village that was set up under the project.

The survey reveals that FPOs play a crucial role, supplying tools for Crop residue management. The reported percentage of respondents who obtain: harrow for rice (71%) and wheat cultivation (47%); rotavator for rice (45%) and wheat cultivation (47%) and happy seeder for wheat (50%) confirms this observation.

Additionally, the survey highlights a significant ownership of CRM equipment among wheat farmers 22% of respondents owning rotavators and another 20% owning large equipment such as happy seeders.

Overall, the data highlights the crucial role of project-sponsored Farmer Producer Organizations (FPOs) in facilitating access to essential Crop Residue Management (CRM) machinery. These FPOs not only assist in the procurement of machinery but also play a vital role in maintaining the equipment during the off-season. This includes tasks such as storage, regular maintenance after use, and preparations before reusing the machinery after prolonged periods.

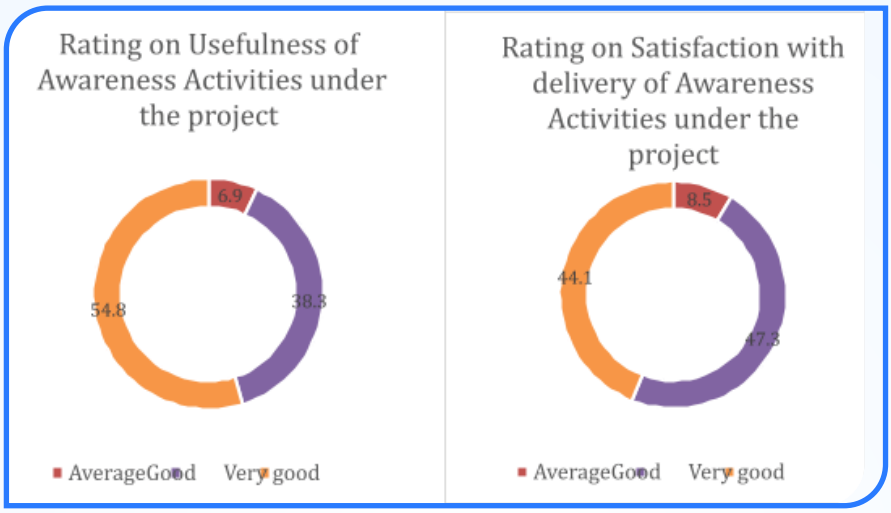

Figure 23: Ratings on the usefulness of the awareness activities under the project
Figure 24: Rating on satisfaction with delivery of awareness activities under the project

The subjective ratings on two aspects of attending awareness activities under the CRM project indicate positive perceptions overall. Regarding the usefulness of the activities, the majority of respondents rated them as either "Good" (38.3%) or "Very good" (54.8%), with only a small percentage giving an "Average" rating (6.9%).

Similarly, the delivery of the activities was highly regarded, with the highest percentage of respondents rating it as "Very good" (44.1%), followed by "Good" (47.3%), and again a small percentage rating it as "Average" (8.5%).

Of those who could recall participating in the COVID-19 related activities conducted under the project, majority reported benefiting through receiving information regarding the management and protection during the pandemic.

11.7 Ex-Situ Pilot of Crop Residue Management- Case Study

Ajmer Singh, a farmer from Sehbajpur village in Raikot block of Ludhiana district, Punjab, has implemented a biogas plant on his household premises as a pilot initiative under this project. This plant utilizes crop residue and cow dung as inputs to produce biogas through anaerobic digestion. The family, consisting of three members, now benefits from 3-4 cubic meters of clean cooking fuel daily, along with organic compost for their fields, all at no cost.

Paddy straw undergoes anaerobic digestion, a process where organic waste breaks down in the absence of oxygen, generating biogas suitable for cooking and lighting. This method requires minimal labor and yields significant biogas output over a three-month period when straw or stubble is available. The digested material serves as high-quality manure for agricultural use and is easily removed from the plant using a semi-automatic system.

The digester is sealed to create an airtight environment, and water is introduced to moisten the paddy straw, initiating anaerobic digestion within the digester. Biogas production begins approximately 7-10 days after setup, stored in a gas holder connected to the digester via a HDPE pipe near the gas outlet.

Once every 6 months, the mixture of paddy straw and cattle dung needs to be removed, shredded, and applied to agricultural fields. The process of emptying the plant is straightforward and does not incur additional costs. Furthermore, constructing the biogas plant does not require skilled labor, making it accessible and cost-effective for farmers like Ajmer Singh to implement and manage effectively. The technical details of the project are as follows:

Components	Measurement
Volume of Digester	20 Cum
Diameter of Digester	3.00 m (10 feet)
Height of Digester	3.00 m (10 feet)
Diameter of Well	1.80 m (6 feet)
Depth of Well	1.50 m (5 feet)
Paddy straw required per batch	16 quintal (1.6 MT)
Cattle dung required per batch	4 quintal (0.40 MT)
Paddy straw utilization per year	64 quintal (6.4 MT)
Paddy straw collection area	2.5 acre/1.0 hectare
Bio gas generation	3-4 Cum/day (Equivalent to 2.5-3 cylinders of LPG per 3 months

Figure 23 Beneficiary of Bio gas plant pilot intervention along with wife cooking(left)

Figure 24 Training in progress

Figure 25 Public announcement system for awareness generation

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