

# PROVIDING MACHINERY EQUIPMENT IN VARIOUS HEALTH CARE CENTRES OF DISTRICT BARAMULLA, JKUT



**Impact Assessment Report 2025** 

# **PROJECT SUMMARY**

CSR Project Name	Providing Machinery Equipment in Various Health Care Centers of  District Baramulla, UT of Jammu and Kashmir	
Executed By	District Administration, Baramulla	
Supported By	NHPC Limited	
Total Expenditure	₹662.84 Lakh	
Duration	12-12-2019 to 12-03-2024	
	Sub- District Hospital Uri, PHC Boniyar, PHC Sheeri, PHC Kareeri, Sub	
Location	District Hospital Tangmarg, PHC Rohama, PHC Kunzer, CHC Pattan, PHC Gulmarg, PHC Shrakwadain Baramulla, Jammu and Kashmir	

# **ACKNOWLEDGEMENTS**

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We are sincerely grateful to Joint Director/Chief Planning Officer, Baramulla, Chief Medical Officer, Baramulla and Block Medical Officers for extending their support in data collection and providing useful inputs about the NHPC's CSR initiative related to providing machinery equipment viz. USG Colour Doppler, X-Ray Machine, Urine Analyzer, Cardiac Monitor, Oxygen Concentrator, Generator Set, CR System, Dental Chair in various health care Centers like PHC/CHC and Sub District Hospitals in District Baramulla of UT of Jammu and Kashmir

We owe our special thanks to **Office Bearers of NHPC CSR & SD Division**, **Faridabad**, NHPC officials from Regional Office Jammu, healthcare professionals, facility staff, and community health workers across all participating locations for their time, openness, and valuable inputs. Their dedication and first-hand experiences were central to understanding the real-world implications of the CSR intervention.

We are also grateful to **In-charge, CSR NHPC, Uri** for his cooperation and valuable inputs about the CSR activities undertaken by NHPC for up-gradation of healthcare infrastructure in District Baramulla by equipping Primary Health Centres, Community Health Centres, and Sub-District Hospitals with modern medical machinery and equipment.

We also sincerely thank the beneficiaries who participated in the field surveys and focus group discussions. Their voices brought depth and context to our findings. We express our heartfelt gratitude to all those who contributed to the successful completion of this impact assessment study.

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We are also grateful to local health authorities at Primary Health Centres, Community Health Centres, and Sub-District Hospitals and administrative bodies for their guidance and facilitation throughout the study period data collection and focus group discussions with stakeholders

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-Project Directors

# **PREFACE**

In recent years, Corporate Social Responsibility (CSR) has emerged as a key enabler of public health innovation and infrastructure enhancement in India. As public health systems in rural and semi-urban areas continue to face resource constraints, CSR-led interventions have filled critical gaps in diagnostics, treatment access, and service delivery.

This report presents the findings of an independent impact assessment conducted to evaluate the outcomes of a CSR-supported healthcare equipment and service-strengthening initiative. The program was implemented across multiple health centers with the goal of improving access to quality care through strategic deployment of diagnostic equipment, staff capacity-building, and service optimization.

The study adopts a mixed-methods framework, combining structured field surveys with qualitative inputs from healthcare providers and end-users. The assessment benchmarks outcomes across key domains—access, affordability, skill enhancement, and system sustainability—against pre-identified indicators, and aligns them with Sustainable Development Goals (SDGs) and OECD-DAC evaluation criteria.

The insights from this report are intended not only to validate the effectiveness of the current intervention but also to guide future CSR strategies, promote evidence-based policymaking, and inspire cross-sector partnerships that advance healthcare equity.

We hope this report contributes meaningfully to the ongoing discourse on sustainable healthcare investments and provides a roadmap for replicable, scalable, and impactful CSR programs.

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# **LIST OF ABBREVIATIONS**

Abbreviations	Expressions		
CHS	Community Health Centres		
CSR	Corporate Social Responsibility		
CR System	Computed Radiography System		
DAC	Development Assessment Committee		
PHC	Primary Health Centres		
OECD	The Organisation for Economic Co-operation and Development		
OOP	Out-of-Pocket		
SDG	Sustainable Development Goals		
SDH	Sub-District Hospital		
SROI	Social Return on Investment		
UT	Union Territory		
USG Colour Doppler	Ultrasonography Colour Doppler		

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# **EXECUTIVE SUMMARY**

This study assesses the impact of a CSR-supported healthcare infrastructure enhancement program in selected rural and semi-urban health facilities. NHPC Uri Power Station had provided several medical equipment such as USG Doppler machines, X-ray machines, laboratory analyzers, as well as life-saving equipment like cardiac monitors, oxygen concentrators, and generators etc. to various health centres of District Baramulla namely Sub District Hospital Uri, PHC Boniyar, PHC Sheeri, PHC Kareeri, Sub District Hospital Tangmarg, PHC Rohama, PHC Kunzer, CHC Pattan, PHC Gulmarg, PHC Shrakwada. The primary focus was on the deployment of diagnostic and treatment equipment and strengthening of service delivery mechanisms. The evaluation combines quantitative data from field surveys with qualitative inputs from healthcare providers and beneficiaries.

#### **Key Findings**

- Awareness and Accessibility: A large majority of healthcare staff were aware of the new equipment, and facilities confirmed improved access to essential diagnostic services.
- Service Efficiency and Referral Reduction: The availability of equipment significantly reduced the need for external referrals, thus minimizing delays and improving patient retention.
- **Affordability**: More than half of the respondents observed a notable reduction in out-of-pocket expenses due to availability of free or subsidized services.
- **Skill Development**: While many staff members utilized the new machines effectively, training gaps and skill enhancement needs were reported, particularly for advanced equipment.
- **System Maintenance Gaps**: Only 16.5% of facilities had a comprehensive equipment maintenance plan in place, raising concerns about long-term sustainability.
- Recommendations and Future Needs: Stakeholders strongly endorsed replicating similar CSR initiatives across more centers, with emphasis on incorporating advanced monitoring systems and increasing staff availability.

#### **Social Return on Investment (SROI)**

The intervention has delivered high social value relative to the investment made. The impact was felt not just at the institutional level but also among patients and community members, contributing to better health outcomes and improved health-seeking behavior.

#### **Alignment with SDG Goals**

- **SDG 3** (**Good Health and Well-being**): Enhanced access to diagnostics and reduced patient costs contribute directly to achieving universal health coverage.
- **SDG 9** (**Industry**, **Innovation**, **and Infrastructure**): Investment in health infrastructure aligns with the goal of building resilient infrastructure.
- **SDG 17** (**Partnerships for the Goals**): The initiative showcases successful collaboration between corporate CSR efforts and public healthcare delivery.

#### **Major Discoveries**

- A strong demand exists for CSR-backed health interventions in underserved regions.
- Diagnostic improvements are translating into early disease detection and improved treatment adherence.
- There appears to be a gap between infrastructure investment and long-term maintenance planning, highlighting an opportunity for better alignment.

#### **Policy Gaps and Improvement Areas**

- Absence of structured maintenance and sustainability planning.
- Inadequate skilling of healthcare staff for handling advanced diagnostic tools.
- Lack of unified protocols across centers for data collection and impact monitoring.

#### **Way Forward**

To ensure long-term impact and replicability, the program must embed sustainability measures such as training modules, maintenance plans, and standardized data reporting frameworks. Strengthening partnerships with local governance structures and health departments will further institutionalize these gains.

## 1. INTRODUCTION

#### 1.1. Context & Need for CSR in Healthcare

India's public healthcare system, especially in rural and semi-urban regions, faces persistent challenges — including inadequate infrastructure, staff shortages, diagnostic gaps, and financial constraints. These issues disproportionately impact marginalized communities, limiting their access to timely and quality healthcare services. Government schemes and public sector investments, while substantial, often fall short of bridging the wide service delivery gap, particularly at the primary and secondary healthcare levels.

In this context, Corporate Social Responsibility (CSR) has emerged as a vital complementary force. The 2013 Companies Act in India mandates eligible companies to spend at least 2% of their average net profits of the company made during the three immediately preceding financial years towards CSR activities in pursuance of their CSR Policy.CSR interventions can play a catalytic role in strengthening healthcare delivery by:

- Filling infrastructure gaps through the provision of diagnostic and treatment equipment.
- Enhancing human resource capacities via training and skill-building of frontline health workers.
- **Improving service access and equity** by supporting mobile clinics, telemedicine units, and specialized care services.
- **Driving innovation** in service delivery models through private sector efficiency, technology, and logistics.

The need for CSR in healthcare is further accentuated by lessons from the COVID-19 pandemic, which revealed systemic vulnerabilities in both urban and rural health systems. Contributions of CSR initiatives are uniquely positioned to be nimble, targeted, and responsive to local healthcare needs — making them crucial for achieving health equity and resilience.

This study is positioned within this larger developmental framework — evaluating how CSR-funded interventions are contributing not only to service enhancement but also to long-term system strengthening, with potential for scalable and sustainable impact.

## 1.2. Objectives of the CSR Initiative

Table 1: Objectives of the CSR Initiative

Objective	Description		
Improve access to	Equip selected PHCs with essential diagnostic equipment to		
diagnostic services	bridge the gap in rural healthcare infrastructure.		
Enhance comice delivery	Strengthen the quality and timeliness of care through		
Enhance service delivery	technologically enabled interventions.		
Reduce out-of-pocket	Minimize patient spending on diagnostic referrals by enabling		
expenses	in-house testing.		
Promote sustainable Support long-term planning, such as equipment maintenant			
healthcare systems	and integration into the state's health infrastructure.		

# 1.3. About the University and School of Business Studies

The Central University of Jammu (CUJ) is a premier institution of higher learning located in the Union Territory of Jammu and Kashmir, established by the Central Universities Act, 2009. Committed to academic excellence and societal engagement, CUJ partners with government agencies and corporate entities in research, development, and evaluation of public welfare projects. CUJ brings technical expertise, field engagement, and impact assessment capabilities to support evidence-based policy and program development.

Since its inception in 2011, CUJ has grown significantly, offering over 50 programs across 21 Departments, 03 Centers, and 01 College. The University has established dedicated research centers and undertakes prestigious national-level projects, including the Kalam Centre for Science and Technology and the Satish Dhawan Centre for Space Technology

The University has a strong research focus, with faculty members undertaking over 40 major/minor research projects of academic and social relevance. CUJ has also signed 24 national

and 4 international MoUs/bilateral agreements, and has obtained membership of apex industry/academic bodies like CII, NHRDN, and ICA. The University has adopted villages near its vicinity and undertakes capacity-building programs for teachers and students.

#### **School of Business Studies**

The School of Business Studies, established in 2012, offers a range of programs, including MBA, Ph.D. and Vocational Degree Programs in Business Administration, Human Resource Management, Tourism Management, Marketing Management, Retail Management, And Banking and Financial Services. These programs aim to equip students with multifaceted skills relevant to the contemporary business environment. The school's transactional pedagogy comprises interactive classroom sessions, case presentations, group discussions, and exposure to real-life situations through seminars and workshops. The school has taken several initiatives to drive excellence, including organizing various events and activities. School is able to mobilize resources from various funding agencies for research viz. ICSSR/ UGC /Tribal Affairs/M/O Consumer Affairs/NCW/DST/ EDII/SERB/MHRD/AICTE / J&K Bank /M/O Textile etc. The University faculty has been awarded prestigious National/International Fellowships, project funding and recognition and is constantly contributing to various governmental and non-governmental sectors through research, consultancy and outreach activities.

#### 1.4. About NHPC Limited

NHPC was incorporated on November 7, 1975 as a Private limited company under the name "National Hydroelectric Power Corporation Private Ltd". The company was converted to Public limited company w.e.f. April, 2, 1986. The name of the company was changed to its present name "NHPC Limited" in 2008.

NHPC is a Navratna company with 67.40 % ownership of Government of India. With an Authorized share capital of ₹15,000 crore and an investment base of over ₹ 85,486 crore (as on 31.12.2024), NHPC Limited is the largest hydropower development organization in India, with capabilities to undertake all activities from conceptualization to commissioning of hydro projects. NHPC has also diversified into the fields of solar and wind energy development.

NHPC's total installed capacity as of March 31, 2025, is 8140 MW, including 1,681.70 MW in joint ventures. This comprises 7771.2 MW from 23 hydro power stations, 318.84 MW from six solar power projects, and 50 MW from a wind power project. NHPC's hydro share of 7771.2 MW accounts for about 16.56% of the country's total installed hydro capacity of 46,928.17 MW.

Additionally, nine projects aggregating to a total installed capacity of 4,291 MW are under clearance stage, which includes four hydro and one solar project by NHPC on its own, and four projects (one in hydro and three in solar) in JV mode.

#### **VISION**

NHPC's vision is "To be a global leading organization for sustainable development of clean power through competent, responsible and innovative values".

#### **MISSION**

- To achieve excellence in development of clean power at international standards.
- To execute & operate projects through efficient and competent contract management and innovative R&D in environment friendly and socio-economically responsive manner.
- To develop, nurture and empower the human capital to leverage its full potential.
- To practise the best corporate governance and competent value-based management for a strong corporate identity and showing concern for employees, customer, environment and society.
- To adopt & innovate state-of-the-art technologies and optimize use of natural resources through effective management.

# 1.5. About Corporate Social responsibility (CSR)

Corporate Social Responsibility (CSR) represents a company's initiative to assess and take responsibility for its effects on environmental and social well-being. As per the Companies (CSR Policy) Rules, CSR refers to activities undertaken by a company in pursuance of its statutory obligations under Section 135 of the Companies Act, 2013, in accordance with the provisions contained in these rules.

The CSR provisions outlined in Section 135 and the Companies (CSR Policy) Rules emphasize not only regulatory compliance but also the promotion of transparency and accountability in how companies contribute to societal and environmental betterment. Schedule VII of the Act provides a comprehensive list of eligible CSR areas, including poverty alleviation, education, gender equality, health, environmental sustainability, and contributions to various government relief funds.

CSR in India is increasingly seen as a means to contribute towards achieving the UN Sustainable Development Goals, aligning corporate strategies with Global/National priorities for inclusive and sustainable growth.

# 1.6. About NHPC's CSR Policy

Corporate Social Responsibility is integral to NHPC's commitment to addressing social, economic, and environmental concerns in the regions it serves. NHPC has a CSR & Sustainability Policy aligned with the specific provisions of CSR under Section 135 of the Companies Act, 2013, the Companies (Corporate Social Responsibility Policy) Rules, and subsequent amendments issued by the Ministry of Corporate Affairs, Government of India. NHPC also aims to adhere to the CSR guidelines issued by the Department of Public Enterprises (DPE). NHPC has strengthened its commitment to CSR in line with Statutory Provisions.

NHPC has undertaken numerous CSR initiatives for communities residing in and around its projects, power stations, and units, focusing on healthcare, education, sanitation, rural development, skill development, environmental sustainability, women empowerment, and other areas outlined in Schedule VII of the Companies Act, 2013. These efforts aim to foster inclusive growth, support marginalized communities, and contribute to national development.

# 1.7. About Impact Assessment

The Ministry of Corporate Affairs in India requires companies to conduct impact assessments of their CSR initiatives through the amended Companies (CSR Policy) rules. As per the amended Companies (CSR Policy) Rules, every company having average CSR obligation of ₹10 crores or more in pursuance of sub-section (5) of Section 135 of the Companies Act, 2013, in the three immediately preceding financial years, shall undertake impact assessment, through an

independent agency, of their CSR projects having outlays of Rs. One Crore or more, and which have been completed not less than one year before undertaking the impact study. Further, a Company undertaking impact assessment may book the expenditure towards Corporate Social Responsibility for that financial year, which shall not exceed two percent of the total CSR expenditure for that financial year or fifty lakh rupees, whichever is higher.

An impact assessment serves as a vital tool to analyze the effectiveness and sustainability of CSR projects. It not only highlights what has been achieved but also assesses how well the projects align with the company's long-term vision and address real community needs. The primary goal of an impact assessment is to provide a clear and measurable understanding of the value created for both society and the company through its CSR efforts.

This study presents the third-party impact evaluation of the CSR initiative, which involved assessment of spending of NHPC on augmentation of healthcare infrastructure for strengthening of service delivery mechanism in District Baramulla. The study examines the impact of this intervention on beneficiaries by combining quantitative data from field surveys with qualitative inputs from stakeholders.

# 1.8. Project Background

The CSR intervention focused on providing essential medical equipment/s to improve the service delivery capacity of healthcare centers in Baramulla District, Jammu and Kashmir. The facilities covered included Primary Health Centers (PHCs), Community Health Centers (CHCs), and Sub-District Hospitals. The project delivered advanced diagnostic and life-saving equipment such as:

- USG Colour Doppler
- X-Ray Machine
- Urine Analyzer
- Cardiac Monitor
- Oxygen Concentrator
- Generator Set
- CR System
- Dental Chair

These devices were strategically deployed based on the specific needs of the local health infrastructure, aiming to reduce referral load, increase diagnostic accuracy, and enhance patient care. CU Jammu was entrusted with the task of evaluating this CSR initiative's outcomes, stakeholder experiences, and sustainability mechanisms.

## 2. APPROACH & METHODOLOGY

The impact assessment of the NHPC CSR initiative in Baramulla District was conducted using a mixed-method, multi-stakeholder approach to capture both qualitative and quantitative outcomes of the project. This approach ensured a comprehensive understanding of the intervention's relevance, effectiveness, efficiency, impact, and sustainability.

## 2.1. Assessment Objectives

The primary objectives of the impact assessment were:

- To evaluate the **effectiveness** of medical equipment provision under NHPC's CSR initiative in enhancing healthcare service delivery.
- To examine the **impact** of this intervention on patient satisfaction, diagnostic efficiency, and healthcare outcomes.
- To assess the sustainability of the intervention through analysis of maintenance systems, training, and infrastructure support.

To provide **recommendations** for scaling and replicating similar interventions in other underserved healthcare settings.

# 2.2. Methodological Framework

The evaluation followed a structured methodology that aligns with the OECD-DAC criteria. The OECD-DAC Criteria for evaluating development assistance are a widely accepted framework used globally to assess the performance and impact of development interventions, including CSR and social impact projects. The five core criteria are:

- 1. **Relevance** Is the intervention doing the right things?
- 2. **Effectiveness** Is the intervention achieving its objectives?
- 3. **Efficiency** How well are resources being used?
- 4. **Impact** What difference does the intervention make?
- 5. **Sustainability** Will the benefits last?

It incorporated the following components:

### 2.2.1. Stakeholder Mapping

The study involved four key stakeholder groups:

- Patients availing services from facilities with new equipment.
- **Healthcare Workers** (technicians, doctors, nurses) responsible for operating the equipment.
- Facility Administrators overseeing healthcare management.
- Community Representatives and local influencers providing contextual insights.

#### 2.2.2. Sampling Design

A **purposive sampling** strategy was adopted, covering diverse healthcare facilities (PHCs, CHCs, and Sub-District Hospitals) where equipment was installed. A total of 300 respondents were surveyed, ensuring representation across the stakeholders. A completed responses of 237 were considered for data analysis.

#### 2.3. Tools of Data Collection

Table 2: Tools of Data Collection

Tool	Purpose		
Structured Questionnaire	To gather data from patients and healthcare staff on awareness, usage, satisfaction, cost reduction, and service improvement.		
In-depth Interviews	To obtain insights from facility heads and technical staff about functionality, training, maintenance, and systemic challenges.		
Observation & Site Visits	To document physical verification of equipment, usage patterns, and environmental conditions.		
Geotagged Photographs	To visually support findings and demonstrate equipment presence and usability.		

#### 2.4. Data Collection Timeline & Process

The fieldwork was conducted across identified locations. A team of trained field investigators was deployed for data collection under the supervision of Senior Faculty Members. Enumerators were oriented on ethical research practices, including consent, confidentiality, and sensitivity in healthcare environments.

## 2.5. Data Analysis Strategy

The collected data was cleaned, validated, and analyzed using statistical and thematic methods:

- Descriptive statistics for usage frequency, satisfaction levels, and accessibility.
- Cross-tabulations to explore associations between demographic attributes and equipment
  use.
- Textual analysis for open-ended responses and testimonials.
- Social Return on Investment (SROI)Assessment

A combination of Excel, Jamovi, Python and qualitative coding tools was used for processing and interpretation.

# 2.6. Measure of Sustainability

Sustainability was assessed based on the following dimensions, aligned with data collected through structured surveys and stakeholder feedback:

- **Institutional Support:** Assessed through responses regarding the availability of trained personnel, presence or absence of equipment maintenance plans, and awareness of spare parts provision.
- Operational Continuity: Evaluated using survey items on equipment usage frequency
  and current operational status, offering insights into the regularity of equipment use and
  awareness of potential downtimes.
- **Financial Planning:** Examined via perceptions related to cost reduction, resource allocation, and expectations for future expansion or maintenance, as captured through stakeholder responses.

• Stakeholder Engagement: Measured through satisfaction levels, willingness to recommend similar CSR interventions, and open-ended responses indicating perceived impact and areas for improvement.

Each of these indicators contributed to an overall sustainability scorecard, discussed in the later chapters.

# 2.7. Social Return on Investment (SROI): Methodological Note

This impact assessment incorporates a qualitative, perception-based SROI methodology to evaluate the social value generated through NHPC's healthcare-focused CSR intervention in Baramulla, Jammu & Kashmir. The initiative emphasized upgrading public health facilities with advanced diagnostic and life-support equipment, aiming to improve accessibility, quality, and timeliness of healthcare services.

#### 2.7.1. Theme-Based Assessment Approach

Data was collected through structured surveys, key informant interviews, and focus group discussions with healthcare providers, administrators, and patients. The responses were analyzed under key thematic dimensions:

- Relevance and Effectiveness: Appropriateness of medical equipment and alignment with local health needs.
- Service Efficiency: Improvements in diagnostics, patient referrals, and turnaround time.
- Impact on Health Outcomes: Perceived enhancement in disease detection, treatment, and patient comfort.
- Sustainability: Availability of trained staff, equipment usage, and maintenance systems.
- Perceived Value and Replicability: Stakeholder views on the return on investment and demand for similar interventions elsewhere.

#### 2.7.2. Composite Value Indicators Considered

While this SROI is not monetized, it integrates composite indicators of social value, such as:

- Increase in early detection and diagnosis rates through advanced tools like USG, X-ray, analyzers.
- Reduction in referral cases to tertiary hospitals, lowering out-of-pocket costs.
- Availability of emergency equipment (e.g., cardiac monitors, oxygen concentrators) in rural PHCs/CHCs.
- Enhancement of staff efficiency due to improved equipment and reduced manual workload.
- Stakeholder acknowledgment that project funds were well-utilized and met critical service gaps.

#### 2.7.3. Stakeholders-centric Lens

The study gives primacy to the experiential feedback of healthcare staff, facility heads, and beneficiaries:

- "Reduction in patient travel time and expenses"
- "Real-time diagnosis available within the community"
- "Increased community trust in government health facilities"

These insights underscore the non-financial but substantial social returns from this intervention — notably, improved patient dignity, equitable access, and better health-seeking behavior.

#### 2.7.4. Justification for Qualitative SROI

- The nature of the CSR activity is public service-centric, emphasizing access, dignity, and outcomes over profit or revenue generation.
- Assigning monetary proxies for outcomes like reduced maternal risk, improved patient experience, or public trust would be reductive.
- A qualitative approach ensures alignment with Section 135 of the Indian Companies
   Act and global good practices in CSR impact evaluation.

This SROI methodology offers an effective and human-centric framework for evaluating the tangible and intangible value of healthcare infrastructure interventions. While not expressed in financial ratios, the findings indicate a high return in community well-being, institutional trust, and improved service delivery — key pillars of impactful CSR in the public health domain.

#### **Snapshot of Research Methodology**

Table 3: Snapshot of Research Methodology

Component	Details		
Objective	To assess the social, economic, and healthcare impact of the CSR initiative		
	on upgrading healthcare infrastructure by providing modern medical		
	equipment in various healthcare centers across District Baramulla, Jammu		
	& Kashmir.		
Scope	Evaluating the effectiveness, efficiency, sustainability, impact, and Social		
	Return on Investment (SROI) of the healthcare equipment initiative		
	implemented by the District Administration, Baramulla.		
Study Area	Healthcare facilities covered under the project include: Sub District		
	Hospital Uri, PHC Boniyar, PHC Sheeri, PHC Kareeri, Sub District		
Hospital Tangmarg, PHC Rohama, PHC Kunzer, CHC Pattan,			
	Gulmarg, and PHC Shrakwada in District Baramulla, J&K.		
Stakeholders	Patients, healthcare professionals, hospital administrators, local		
	community members, and government representatives.		
Research design	Mixed-method approach (Quantitative & Qualitative).		
Data Collection	Primary Data (Surveys, Focus Group Discussions, Observational Study).		
Sampling Method	Stratified Random Sampling - ensuring representation across different		
	healthcare centers and socio-economic groups affected by the initiative.		
Sample Size	250- 300 (Tentative)		
Data Analysis	Descriptive Statistics, Social Return on Investment (SROI) methodology,		
	qualitative analysis.		
Evaluation Criteria	Relevance & Effectiveness – Alignment with healthcare need,		

	improvement in diagnostic & treatment facilities, patient satisfaction.			
	Efficiency - Cost-effectiveness, reduction in patient referrals to distant			
	hospitals, optimal utilization of medical equipment.			
	Sustainability - Long-term functionality, maintenance, and impact on			
	healthcare service continuity.			
	Impact (Social, Economic, Healthcare) - Improved access to medical			
	diagnostics, reduction in mortality/morbidity rates, better patient			
	management.			
	<b>SROI</b> – Quantification of social and economic benefits in monetary terms.			
	Coherence – Alignment with broader healthcare policies, government			
	health schemes, and CSR objectives.			
Reporting	Comprehensive report with recommendations for enhancing future CSR			
	initiatives in healthcare infrastructure and medical equipment support.			

# 3. CSR ACTIVITY DETAILS

The CSR intervention by NHPC Limited focused on strengthening healthcare infrastructure in Baramulla District, Jammu & Kashmir through the provision of advanced diagnostic and monitoring equipment across selected public health facilities. This initiative aligns NHPC's policy framework and aimed to reduce the diagnostic gap, improve early detection of diseases, and enhance overall healthcare delivery in underserved areas.

Table 4: Summary of CSR Activity Details

Location	Activity description	Expenditure	Brief about Activity
Location	Tierriey description	Incurred	Direct about fictivity
		(Rs. In	
		Crore)	
District:	Providing for	6.63	This activity includes a comprehensive up-
Baramulla,	machinery		gradation of healthcare infrastructure in District Baramulla (J&K) by equipping
J&K	Equipments in various		Primary Health Centres, Community Health
	health care centres of		Centres, and Sub-District Hospitals with modern medical machinery and equipment.
	Districts (like PHC/	1 1	This includes diagnostic tools such as USG
	CHC and Sub District		Doppler machines, X-ray machines, and laboratory analyzers, as well as life-saving
	Hospitals) viz. USG		equipment like cardiac monitors, oxygen
	Color Doppler, X-ray		concentrators, and generators. The initiative aims to enhance healthcare services and
	Machine, Urine		improve patient outcomes. Medical equipment
	Analyzer, Cardiac		were provided to Sub District Hospital Uri, PHC Boniyar, PHC Sheeri, PHC Kareeri, Sub
	Monitor, Oxygen		District Hospital Tangmarg, PHC Rohama,
	Concentration,		PHC Kunzer, CHC Pattan, PHC Gulmarg, PHC Shrakwada in Baramulla District.
	Generator Set, CR		
	System, Dental	- 11-11	Project implementation period: 12/12/2019 to 12/03/2024.
	Chairin District-		
	Baramulla (J&K).		Total expenditure: Rs. 662.84 Lakh
			Executing Agency: District Administration,
			Baramulla

# 3.1. Alignment with NHPC CSR Policy

This initiative aligns fully with NHPC's CSR policy. By providing state-of-the-art equipment, NHPC has addressed long-standing gaps in diagnostic capacity, which previously required patients to travel to distant tertiary centres.

## 3.2. Role of Partner Institutions

The success of this CSR intervention was made possible through collaboration with:

- District Health Authorities
- Healthcare Facility Administrators
- Technical Vendors and Installers
- Training Resource Persons for healthcare workers

These collaborations ensured the smooth installation, handover, and operation of equipment.

# 4. ANALYSIS AND INTERPRETATION

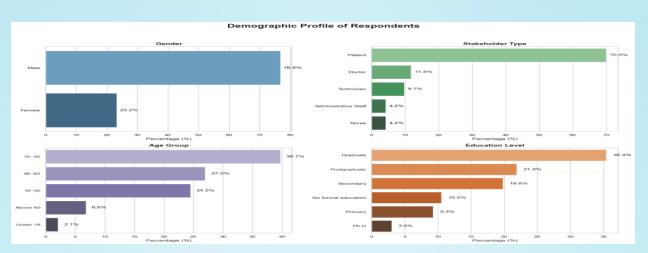


Figure 1: Demographic Profile of Respondents

Table 5: Demographic Details of Respondents

Variable	Key Insights	Discussion Summary
Gender	Majority of respondents are Male (76.8%), with Female representation at 23.2%.	The respondent pool is predominantly male (76.8%), which could indicate either maledominated service access or social norms affecting female participation.
Stake Holder Type	Patients dominate the respondent pool (70%), followed by Doctors (11.8%) and Technicians (9.7%).	indicating that insights are largely shaped by service receivers rather than providers.
Age Group	Largest group is 31–45 years (39.7%), followed by 46–60 years (27%) and 18–30 years (24.5%). Very few are under 18 or over 60	A balanced age distribution with a majority in the 31–60 age group (66.7%) suggests mature respondents who may have stable opinions and experiences.
Education Level	Most respondents are Graduates (35.4%), with Postgraduates (21.9%) and Secondary educated (19.8%) also significant. A small portion has no formal education (10.5%).	A highly educated sample, with over 60% being graduates or above, indicates a population with relatively high literacy and potential tech receptiveness.

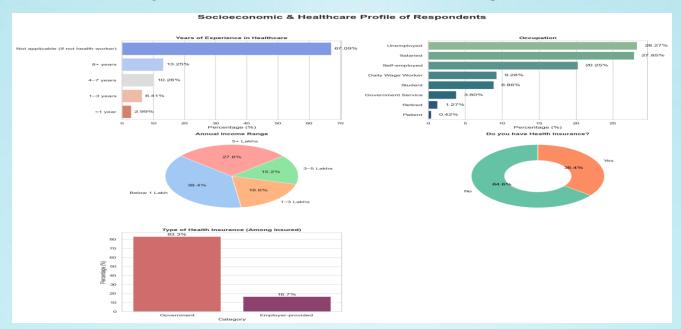


Figure 2: Socioeconomic & Healthcare Profile of Respondents

Table 6: Socioeconomic & Healthcare Profile of Respondents

Variable	Key Insights	Discussion Summary
Years of	Most respondents (67.1%) are not	Only a third of respondents have healthcare
Experience	health workers. Among	work experience, suggesting most responses
in	professionals, 13.3% have 8+ years'	reflect the general public's perspective rather
Healthcare	experience.	than sector insiders.
Occupation	Highest proportions are Unemployed (28.3%) and Salaried (27.9%). Very few are retired or patients.	High unemployment (28.3%) and daily wage/self-employed categories (29.5%) highlight financial precarity and irregular income for a large section.
Annual Income Range	Majority earn Below ₹1 Lakh (38.4%), while 27.9% earn ₹5+ Lakhs. Clear income disparity exists.	A significant portion earns less than ₹3 Lakhs annually (56.9%), suggesting affordability issues and the need for low-cost or subsidized health services.
Health Insurance	Only 35.4% have health insurance — a significant 64.6% are uninsured.	64.6% lack health insurance, which exposes a large population to financial risk in medical emergencies.
Type of Insurance (if Yes)	Among those insured, 83.3% rely on Government insurance, and only 16.7% have employer-provided insurance.	Government schemes dominate (83.3%), indicating limited private or employer-based coverage, and reliance on public health interventions.

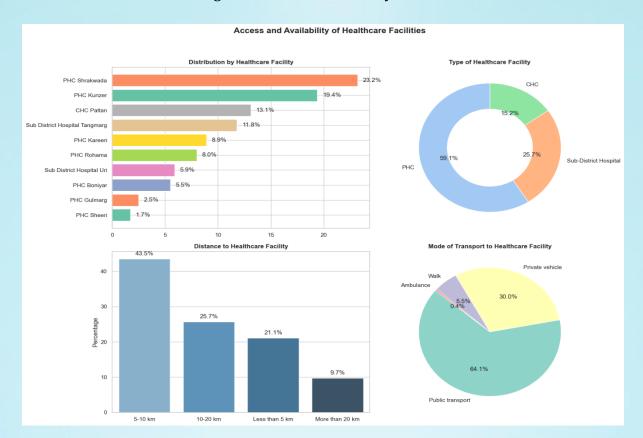


Figure 3: Healthcare Facility Details

Table 7: Healthcare Facility Details

Variable	Key Insight	Discussion
Healthcare Facility Name	PHC Shrakwada (23.2%) and PHC Kunzer (19.4%) serve the majority of respondents.	Indicates reliance on a few primary healthcare facilities, highlighting their critical role in community healthcare delivery.
Type of Facility	PHCs dominate with 59.1% of responses.	Emphasizes the foundational role of Primary Health Centres in this region. Investment and strengthening of PHCs can have widereaching impact.
Distance to Healthcare Facility	43.5% travel 5–10 km; only 21.1% have access within 5 km.	Reflects moderate geographic accessibility; improving local availability or transport solutions can reduce travel burden.
Mode of Transport to Facility	64.1% depend on public transport.	Accessibility is closely tied to public infrastructure. Reliability and affordability of public transport systems play a critical role in health access.

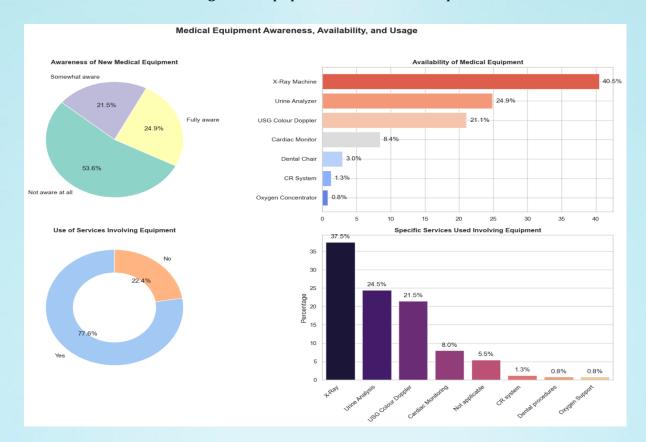


Figure 4: Equipment Utilization & Impact

Table 8: Equipment Utilization & Impact

Variable	Key Insight	Discussion
Awareness of new medical equipment	Majority (53.6%) are not aware at all of new medical equipment; only 24.9% are fully aware.	Indicates a significant gap in awareness, suggesting a need for improved communication and education about medical technology among patients and staff.
Equipment availability	X-Ray Machines (40.5%) and Urine Analyzers (24.9%) are the most commonly available equipment.	Focus on essential diagnostic tools shows prioritization; however, availability of advanced equipment like USG Colour Doppler (21.1%) is moderate.
Usage of equipment services	Most respondents (77.6%) have used services involving this equipment.	High utilization indicates reliance on available diagnostic services, reflecting the equipment's importance in patient care.
Specific services used	X-Ray (37.5%) and Urine Analysis (24.5%) are the most frequently used services.	Usage pattern matches availability; priority diagnostic services dominate, emphasizing their critical role in healthcare delivery.

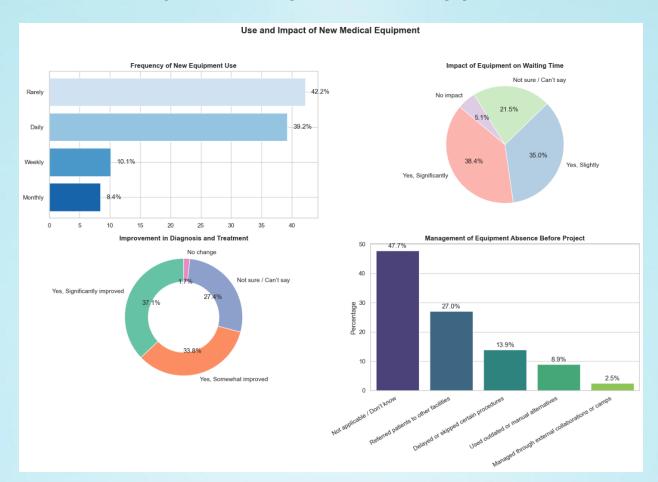


Figure 5: Use and Impact of New Medical Equipment

Table 9: Use and Impact of New Medical Equipment

Variable	Key Insight	Discussion
Frequency of new equipment use	42.2% use the equipment rarely; 39.2% use it daily.	Indicates mixed usage patterns. While many rely on equipment daily, a significant portion use it infrequently, suggesting variability in case load or access.
Impact on waiting time	73.4% (significantly or slightly) believe equipment reduced waiting time.	Majority perceive a positive effect, showing equipment improves operational efficiency and patient throughput.
Improvement in	70.9% report significant or	Reflects meaningful clinical benefits,
diagnosis and	some improvement in	enhancing the quality of care delivered
treatment	diagnosis and treatment.	through better diagnostic capabilities.
Management of	47.7% not aware/applicable;	Shows prior lack of equipment led to
equipment	27% referred patients	referrals and delays, indicating gaps in
absence before	elsewhere; 13.9%	service availability that the new equipment
project	delayed/skipped procedures	helps address.

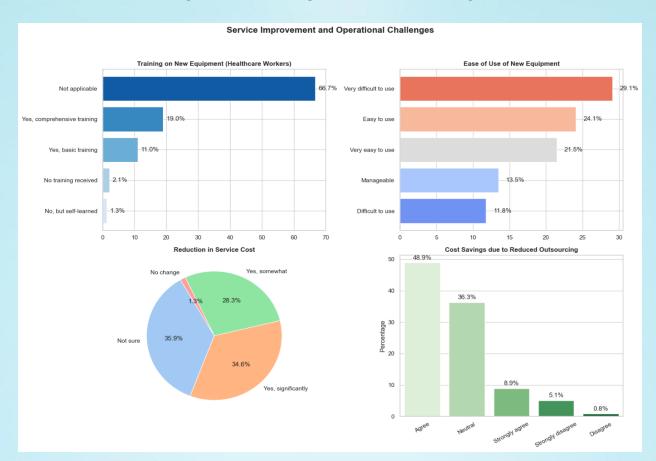


Figure 6: Service Improvement and Challenge

Table 10: Service Improvement and Challenge

Variable	Key Insight	Discussion
Training on new equipment	66.7% found training not applicable; 30% received some form of training.	Most respondents did not need or did not receive formal training. However, nearly 30% underwent basic or comprehensive training, indicating mixed preparedness.
Ease of use of equipment	29.1% found it very difficult; 45.6% found it easy/manageable.	Mixed feedback shows while a sizable portion found it usable, complexity and usability issues persist for many users.
Reduction in service cost	62.9% saw significant/somewhat reduction; 35.9% unsure.	Clear perception of cost benefits, although a large portion remains uncertain, possibly due to lack of financial tracking.
Cost savings from reduced outsourcing	57.8% agree or strongly agree; only 5.9% disagree.	Positive financial impact observed due to inhouse services. Neutral responses suggest need for more communication on savings.

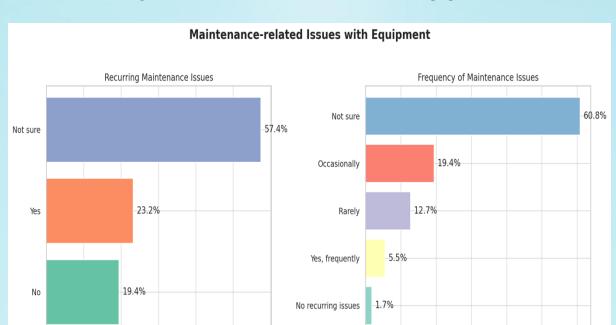


Figure 7: Maintenance Related Issues with Equipment

Table 11: Maintenance Related Issues with Equipment

Variable	Key Insight	Discussion
Recurring Maintenance Issues	57.4% of respondents are unsure, and 23.2% report recurring issues.	The high percentage of uncertainty indicates a possible gap in tracking and reporting system for equipment maintenance at the facility level.
Frequency of Maintenance Issues	60.8% are not sure about the frequency; 19.4% say issues occur occasionally.	Regular training and monitoring mechanisms may be lacking, leading to poor awareness about the performance and servicing status of equipment.

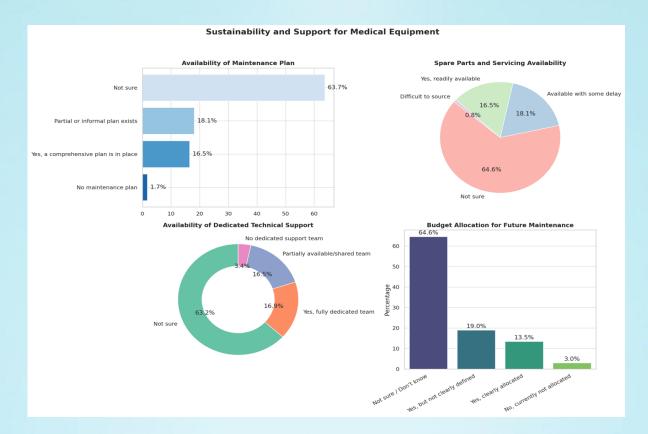


Figure 8: Sustainability & Support

Table 12: Sustainability & Support

Vowieble	Voy Incight	Discussion
Variable	Key Insight	Discussion
Maintenance	63.7% are not sure if a plan	There is lack of communication around
plan for the	exists; only 16.5% report a	maintenance planning, risking the long-term
equipment	comprehensive plan.	functionality of equipment.
Availability of	64.6% are not sure about	This suggests unclear procurement protocols
spare parts and	parts availability; only 16.5%	or inadequate training/awareness at facility
servicing	say they are readily available.	levels about servicing logistics.
Dedicated	63.3% are unsure; only	The ambiguity highlights a systemic issue
		where either support is ad hoc or
technical	16.9% report having a	communication about available support is
support team	dedicated team.	
		not effectively conveyed.
<b>Budget allocated</b>	64.6% don't know if budget	Sustainability of equipment is threatened
for maintenance	is allocated; only 13.5%	due to poor visibility into financial planning
101 maintenance	report clear allocations.	and weak budgetary frameworks.

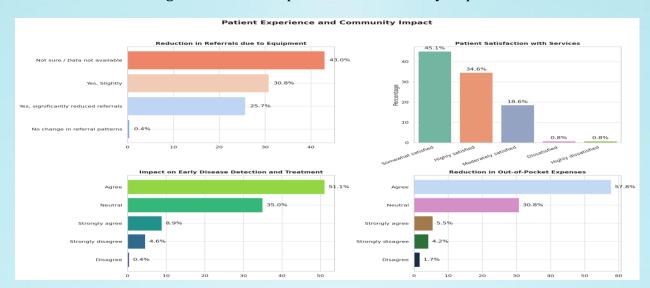


Figure 9: Patient Experience & Community Impact

Table 13: Patient Experience & Community Impact

Indicator	Observation	Discussion
Hulcator	2	Discussion
Reduction in referrals due to equipment	Combined <b>56.5%</b> of respondents felt that the availability of new equipment has <b>slightly or significantly reduced</b> the need for patient referrals. However, <b>43%</b> were uncertain or lacked data.	This suggests a positive shift in service delivery, where more treatments are being conducted in-house, reducing burden on higher-tier facilities. The large proportion of uncertainty points to a need for better tracking and documentation of referral trends.
Patient satisfaction with services	Over 98% of respondents reported various levels of satisfaction, with 34.6% highly satisfied and 45.1% somewhat satisfied. Very few expressed dissatisfactions.	The overwhelmingly positive feedback reflects improved patient experience, possibly driven by enhanced diagnostics and reduced wait times. Continued focus on patient-centric improvements can further boost satisfaction levels.
Impact on early disease detection &treatment	60% of respondents agreed or strongly agreed that the equipment aided early diagnosis, while 35% remained neutral.	The results indicate a tangible benefit of equipment in enhancing diagnostic capability. However, the sizable neutral group highlights a possible gap in awareness or usage patterns among staff that could be addressed through training.
Reduction in out-of-pocket (OOP) expenses	63.3% agreed or strongly agreed that OOP expenses have reduced, while 30.8% were neutral.	This indicates improved affordability of care for patients. Strengthening policies and mechanisms to further reduce OOP costs could make services more accessible, particularly for economically weaker populations.

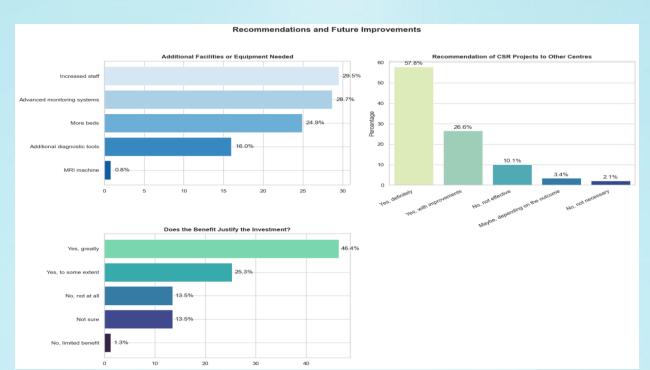


Figure 10: Recommendations & Future Improvements

Table 14: Recommendations & Future Improvements

Question	<b>Key Findings</b>	Implications
Additional facilities/equipment required	Most respondents requested increased staff (29.5%) and advanced monitoring systems (28.7%), followed by more beds (24.9%).	Indicates a critical need to augment human resources and enhance diagnostic capacity to improve healthcare service delivery.
Recommendation for similar CSR projects elsewhere	A significant majority (57.8%) strongly recommend replicating the CSR project, with 26.6% supporting it with improvements.	Reflects overall positive reception and willingness to scale the model, albeit with a few suggestions for refinement.
Whether the benefit justifies the investment	About 46.4% believe the benefit is great, and another 25.3% say to some extent, while 13.5% each are unsure or negative.	The perception is largely positive, suggesting the project was cost-effective, though a small group remains unconvinced or unclear.

# 4.1. Summary of Findings

#### 4.1.1. Awareness & Perception

- High awareness levels were noted regarding the installation of new healthcare equipment.
- A majority of respondents perceived improvements in diagnostic services and believed the equipment has made health services more efficient and accessible.
- Over 60% rated the visibility and community awareness efforts positively, indicating effective outreach.
- Insight: CSR-driven infrastructure upgrades have positively shaped public perception, with clear acknowledgment of improved healthcare access and quality.

#### 4.1.2. Utilization & Functionality

- Respondents reported increased utilization of diagnostic equipment, especially for basic and critical tests.
- Equipment was generally considered functional and reliable, with over 70% agreeing that breakdowns and interruptions were rare.
- A minor proportion indicated the need for technical support or operator training.
- Insight: The equipment is being used effectively; however, capacity-building for staff and maintenance may help sustain and improve performance.

#### 4.1.3. Stakeholders Perspective

- A majority (above 60%) felt more confident in diagnosis and treatment because of the available equipment.
- Some staff expressed a need for periodic training and better technical support systems.
- Insight: Investments have boosted staff capabilities and confidence, though supportive systems need to evolve concurrently.

# 4.1.4. Patient Experience & Community Impact

• About 56.5% confirmed reduced referrals, suggesting better in-house treatment capabilities.

- More than 98% of patients expressed satisfaction, with over 34% being highly satisfied.
- Over 60% of respondents agreed that the equipment contributed to early detection and reduced out-of-pocket expenditure.
- Insight: Positive community-level impact was observed in terms of financial relief, diagnostic efficiency, and overall satisfaction.

## 4.1.5. Recommendations & Future Improvements

- Most cited needs include additional staff (29.5%), advanced monitoring tools (28.7%), and more beds (24.9%).
- Nearly 84.4% support replicating the CSR initiative elsewhere—with or without improvements.
- A combined 71.7% feel the benefits of the equipment justify the investment.
- Insight: Strong endorsement for scaling the initiative, with suggestions for enhancing manpower and infrastructure to match rising demand.

# 4.1.6. Overall Summary

The CSR initiative in healthcare facilities has been well-received by staff and patients alike, resulting in:

- Improved service delivery.
- Enhanced diagnostics.
- Greater community trust.
- And reduced patient financial burden.

However, sustained success will depend on:

- Regular maintenance,
- Staff training,
- Infrastructure expansion,
- And strategic scaling of the model.

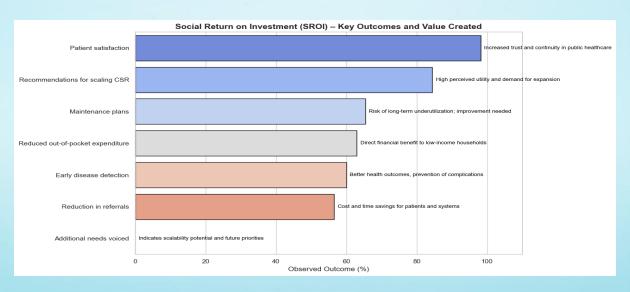
# 4.2. Social Return on Investment (SROI)

The Social Return on Investment (SROI) framework helps assess the broader value created by the CSR intervention, encompassing economic, social, and health-related outcomes. This includes qualitative impacts on individuals and communities.

Table 15: Social Return on Investment

Indicator	Observed Outcome	Social Value Created	
Reduction in referrals	56.5% reported reduced referrals due to new equipment	Cost and time savings for patients and systems	
Patient satisfaction	98.2% expressed moderate to high satisfaction	Increased trust and continuity in public healthcare	
Early disease detection	60%+ agreed the equipment helped in timely diagnosis	Better health outcomes, prevention of complications	
Reduced out-of-pocket expenditure	Over 63% agreed there was a drastic reduction in spending	Direct financial benefit to low-income households	
Recommendations for scaling CSR	84.4% recommend replication in other centres	High perceived utility and demand for expansion	
Maintenance plans	65.4% not sure or without clear plans	Risk of long-term underutilization; improvement needed	
Additional needs voiced	Demand for staff, beds, and advanced diagnostics like MRI	Indicates scalability potential and future priorities	

Figure 11: Social Return on Investment – Key outcomes & value created



The CSR initiative demonstrates a high SROI by positively impacting multiple levels—from household cost savings to systemic trust in healthcare. However, sustainability gaps exist in maintenance and human resources, which need targeted investment and planning to retain value over time.

# 4.3. Policy Recommendations & Alignment with SDGs

Based on the assessment of the CSR initiative in public healthcare facilities, several key policy recommendations have been identified to ensure long-term sustainability, scalability, and

inclusivity of the intervention. These recommendations aim to address operational gaps, enhance service delivery, and promote equity in healthcare access.

Importantly, each recommendation is aligned with specific **Sustainable Development Goals (SDGs)** set by the United Nations. The initiative contributes directly to: Figure: 12



- SDG 3: Good Health and Well being by improving access, quality, and outcomes of healthcare services,
- SDG 8: Decent Work and Economic Growth by enhancing healthcare workforce capacity and employment opportunities,
- **SDG 9: Industry, Innovation, and Infrastructure** through technological and infrastructure upgrades,
- **SDG 10: Reduced Inequalities** by targeting underserved populations and improving health equity, and
- **SDG 17: Partnerships for the Goals** by promoting effective collaborations between government, private sector, and civil society.

The following table outlines targeted policy actions, their rationale, expected outcomes, and implementation suggestions to strengthen healthcare delivery systems through the CSR lens.

Table 16: Policy Recommendations & Alignment with SDGs

Policy	Rationale /		Alignment	Implementation	
Recommendation	Evidence	Expected Impact	with SDG's	Suggestions	Stakeholders
Formalize Maintenance Plans and Budgeting	Over 60% uncertainty about maintenance plans and budget allocation undermines equipment sustainability.	Improved equipment uptime, reduced breakdowns, cost savings.	SDG 3 (Health), SDG 9 (Infrastructu re)	Develop clear maintenance SOPs; allocate dedicated budgets; regular audits.	Health Dept., Hospital Admin, Finance Teams
Strengthen Technical and Healthcare Staffing	Staff shortages and partial technical support teams limit equipment effectiveness and patient care.	Better equipment use, improved service quality, increased patient satisfaction.	SDG 8 (Decent Work), SDG 3 (Health)	Recruit and train dedicated maintenance and healthcare personnel; continuous training.	HR Departments , Training Institutes
Scale Successful CSR Healthcare Projects	84% recommend similar CSR projects; positive impact on service access and patient satisfaction reported.	Increased health infrastructure and outreach, especially in underserved areas.	SDG 17 (Partnership s), SDG 3 (Health)	Promote CSR partnerships; establish monitoring and outcome evaluation frameworks.	CSR Teams, NGOs, Health Authorities
Upgrade Infrastructure & Equipment	Demand for additional diagnostic tools, beds, and monitoring systems to meet patient needs.	Enhanced diagnostic capacity, reduced referrals, better patient outcomes.	SDG 9 (Innovation) , SDG 3 (Health)	Prioritize investment in essential infrastructure; phased procurement plans.	Health Departments , Procurement Units
Improve Data Collection & Patient Awareness	Need for better monitoring and community awareness to sustain improvements and feedback-driven care.	Evidence-based decisions, empowered communities, sustained health gains.	SDG 3 (Health), SDG 10 (Reduced Inequalities)		

## **Evaluation of CSR Program Using Key Assessment Criteria**

To holistically evaluate the CSR initiative's performance, a structured assessment was conducted based on five widely accepted evaluation criteria: **Relevance**, **Effectiveness**, **Efficiency**, **Impact**, and **Sustainability**. This framework ensures that the analysis covers not just the outcomes but also the strategic fit, value for money, and long-term viability of the intervention.

Each criterion has been assessed in light of the study findings, offering insight into the extent to which the CSR initiative met its objectives, addressed stakeholder needs, and created sustainable value. This evaluation helps in identifying strengths, areas for improvement, and actionable steps for scaling and sustaining such initiatives in the healthcare sector.

The table below summarizes the results of this assessment:

Table 17: Evaluation of CSR Program Using Key Assessment Criteria

Criterion	Assessment	Findings from Study	Implications for CSR Program
Relevance	The extent to which the intervention addresses the needs and priorities of beneficiaries and stakeholders.	High relevance as CSR targeted critical gaps: equipment, diagnostics, affordability, and access in healthcare.	Strong alignment with community needs and health system gaps.
Effectiveness	The degree to which objectives were achieved, including outputs and outcomes.	Majority reported improved equipment availability, reduced referrals, and patient satisfaction.	Achieved core goals in improved healthcare delivery and patient experience.
Efficiency	How economically resources and inputs were converted into results.	High perceived value with relatively low investment; some concerns about maintenance budgeting and staff support.	Efficient use of resources but requires better maintenance planning for long-term efficiency.
Impact	Positive and negative changes produced, directly or indirectly, intended or unintended.	Positive health outcomes, reduced costs for patients, and increased community trust; minor sustainability risks.	Significant beneficial impacts realized, especially in affordability and disease detection.
Sustainability	Likelihood of continued benefits after funding ends.	Gaps noted in maintenance plans and technical support; staff shortages highlighted as risks.	Need for strengthened institutional support and ongoing resource allocation to sustain gains.

# **Word Frequency Analysis of Additional Services Priorities**

The analysis of 237 textual responses reveals key priorities stakeholders perceive for expanding the healthcare CSR project:

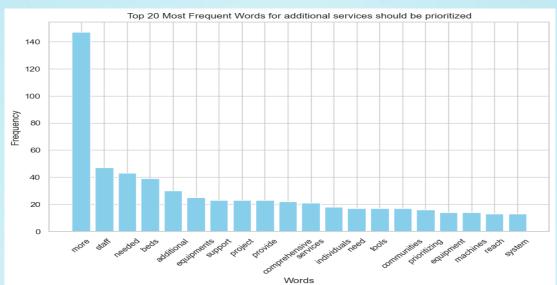


Figure 13: Top 20 Most Frequent Words for additional services should be prioritized

Table 18: Word Frequency Analysis of Additional Services Priorities

Key Insight	Discussion
Strong demand for increasing quantity and scale of resources and services ("more,""beds,""Equipments")	Stakeholders prioritize expanding healthcare infrastructure to meet growing needs.
Critical need for trained human resources ("staff," "needed," "need")	Adequate and skilled personnel are essential alongside physical resources to ensure effective service.
Desire for broadening service scope and auxiliary support ("additional," "support," "comprehensive")	Expansion is not only about quantity but also improving quality and variety of healthcare services.
Emphasis on personalized care and community reach ("individuals," "communities," "reach")	There is a focus on making healthcare accessible and tailored to community needs for equitable delivery.
Importance of strategic planning ("prioritizing,""project")	Careful prioritization and project-specific customization are necessary for effective expansion.
Need for advanced technology and system strengthening ("tools,""machines,""system")	Integration of modern equipment and systemic improvements is key to sustainable healthcare delivery.

Figure 14: Word Cloud on Additional Services to be Prioritized



Table 19: Word Cloud on Additional Services to be Prioritized

Key Insight	Policy Recommendation	<b>Expected Outcomes</b>
Strong demand for increasing quantity and scale of resources and services ("more,""beds,""equipments")	Allocate increased funding for infrastructure expansion including more beds, medical equipment, and facilities.	Expanded healthcare capacity with reduced patient wait times and improved service availability.
Critical need for trained human resources ("staff,""needed,""need")	Implement targeted recruitment, training, and retention programs for healthcare professionals.	Enhanced service delivery quality due to sufficient, skilled healthcare staff.
Desire for broadening service scope and auxiliary support ("additional,""support,""comprehensive")	Develop policies to introduce new healthcare services and strengthen support systems (e.g., counseling, outreach).	More comprehensive healthcare leading to better patient outcomes and satisfaction.
Emphasis on personalized care and community reach ("individuals,""communities,""r each")	Promote community-based healthcare programs and mobile health units to extend services to underserved areas.	Improved healthcare access and equity across different population groups and regions.
Importance of strategic planning ("prioritizing,""project")	Establish a strategic framework for prioritizing resource allocation based on needs assessments and impact studies.	Efficient use of resources leading to high-impact interventions and sustainable project expansions.
Need for advanced technology and system strengthening ("tools,""machines,""system")	Invest in upgrading medical technology, diagnostic tools, and healthcare system infrastructure.	Modernized healthcare system with improved diagnostic accuracy and treatment capabilities.

#### 4.4. Conclusion

Stakeholders advocate for a balanced expansion focusing on:

- Increasing medical equipment and physical infrastructure (including beds)
- Hiring and retaining sufficient skilled healthcare staff
- Maintaining and timely servicing equipment
- Broadening and strengthening healthcare services for community reach

These priorities can inform future project scaling to ensure responsive and sustainable healthcare improvements.

#### **Outcome reflection**

This section captures the lived experiences, testimonials, and reflections from beneficiaries and health system stakeholders to understand the qualitative outcomes of the CSR intervention beyond numerical metrics.

# **Beneficiary Experiences**

- High patient satisfaction was evident, with over 98% of responses indicating moderate to high satisfaction with the services post-intervention.
- Beneficiaries appreciated reduced travel and waiting times, citing better availability of diagnostics within their own facility.
- Some mentioned improved trust in public health services, particularly due to the presence of functional equipment and responsive staff.

#### **Stakeholder Testimonials**

- Health workers valued the upgradation of diagnostic capacity, describing it as a "turning point" in handling local cases effectively.
- Program managers indicated that the equipment "filled a long-standing infrastructural gap," especially in Tier 2 and 3 PHCs.
- However, concerns were also raised about inadequate staffing and the need for more onthe-job training to maintain service quality.

## **Community-Level Reflections**

- Community leaders noted improved health-seeking behavior, especially among women and the elderly, due to better access to tests and reduced cost burdens.
- Suggestions from community meetings emphasized the need for awareness drives, ambulatory support, and continued CSR-backed initiatives in underserved areas.
- In areas where equipment remained underutilized, community members requested stronger monitoring and feedback loops.

This section emphasizes that the CSR intervention has made a positive social impression, especially in reducing barriers to access and improving public trust. However, the qualitative feedback also underscores areas for strategic strengthening, particularly around awareness, staffing, and community engagement.

**Impact** 

- - High patient & staff satisfaction
- - Reduced referrals & costs
- - Positive SRO

Challenges

- - Gaps in maintenance planning
- - Staffing & training needs

Recommendations

- Institutional support systems
- Scale to more centers

## 5. SUCCESS STORY OF CSR ACTIVITY

# "Delivering Diagnostic Relief in Sheeri Baramulla: A Patient's Perspective"

The objective of the study was to conduct impact assessment study of CSR projects and provide a comprehensive evaluation of the projects' impacts on the communities and environment, where

they have been implemented. In the remote locality of Sheeri Baramulla, accessing timely and accurate medical diagnostics was once a distant hope for many. Mr. Aftab Hussain Shergojri, a 46-year-old daily wage earner and resident of this region, recalls the hardships faced before the CSR intervention. Patients had to travel long distances to the District Hospital in Baramulla for basic diagnostic services like



USG Doppler scans. This not only delayed treatment but also imposed a financial burden and forced many to lose their daily wages-making healthcare a costly affair.

"Before the installation of the USG Doppler machine, treatment was often based on guesswork,



and many of us avoided diagnosis altogether out of fear of cost and travel," Mr. Shergojri shared. The lack of facilities at the local Primary Health Centre led to skipped diagnoses and prolonged suffering among many community members. Thanks to NHPC's CSR initiative, the Sheeri PHC is now

equipped with advanced diagnostic tools including a USG Doppler, an X-ray machine, and a urine analyzer. This enhancement has not only eased access but has also brought immense relief

to patients and healthcare workers alike. With local availability of essential diagnostics, referrals have dropped, diagnoses have become more precise, and treatment initiation is much faster.

The impact is visible across the community. Patients can now access necessary services without sacrificing workdays or incurring travel expenses. For daily wage earners like Mr. Shergojri, this means maintaining health while continuing to support their families without disruption.

In conclusion, the installation of these machines has transformed healthcare delivery in Sheeri Baramulla. It has empowered the local population with timely, affordable, and effective diagnostics i.e., restoring health, saving income, and most importantly, instilling trust in local medical services.

## NHPC's CSR Initiative Brings Diagnostic Relief to Rohama's PHC

In its commitment to uplifting healthcare infrastructure in remote and underserved regions, NHPC undertook a significant CSR initiative by providing a Urine Analyzer to the Primary



Health Centre (PHC), Rohama, located in the Baramulla district of Jammu & Kashmir. This initiative was part of NHPC's broader vision under CSR initiative to support preventive and diagnostic healthcare in rural India.

Before the installation of the urine analyser, PHC Rohama faced major limitations in basic diagnostic testing. Patients, especially from poor or far-

flung areas, had to travel long distances to access simple yet essential diagnostic services like urine testing for diabetes, infections, liver, and kidney issues. This delay in diagnosis often led to aggravated health issues and increased out-of-pocket expenses.

Under its CSR program, NHPC identified the need for a diagnostic urine analyser at the Rohama PHC and provided a fully automated urine analyser equipped to perform multiple parameters testing. The equipment was handed over in a formal ceremony attended by local health officials, NHPC representatives, and community members. The outcomes and impact of the initiative was quite visible and is summarized below:

- Improved Patient Care: The availability of an in-house urine analyser at PHC Rohama has significantly reduced the diagnostic burden on patients. Early detection of infections, kidney disorders, and diabetes is now possible.
- **Increased Patient Turnout**: The footfall at the PHC has increased by **30%**, as more patients now prefer the local facility for routine diagnostic care.
- Faster Diagnosis & Treatment: Doctors at PHC are now able to initiate timely treatment, leading to better health outcomes and reduced referrals.
- **Community Trust**: The local community expressed gratitude towards NHPC, and trust in public health services has been notably enhanced.
- **Operational Efficiency**: Medical staff report better workflow and more efficient patient management with the availability of onsite diagnostics.

#### **Voices from the Ground**

Dr. Nazir Ahmad, the medical officer at PHC Rohama, shared, "This analyzer has transformed how we manage patient diagnostics. We are now able to offer faster, more reliable care."

A local resident and attendant of a patient, Shabir Ali, added, "Earlier, we had to go to Baramulla or Srinagar for tests. Now we get results here itself, saving time and money."

NHPC's strategic CSR intervention at PHC Rohama is a model example of how targeted health infrastructure support can lead to meaningful, measurable community impact. It not only fulfilled an immediate diagnostic gap but also strengthened public health delivery in a remote part of Kashmir.

## NHPC Enhances Critical Diagnostic Care at SDH Uri with X-Ray and Cardiac Monitor

Uri, a remote border town in the Baramulla district of Jammu & Kashmir, has long faced challenges in accessing timely diagnostic and emergency health services due to terrain, weather, and resource constraints. Recognizing the need to strengthen the region's secondary healthcare

system, NHPC, under its Corporate Social Responsibility (CSR) programme, provided a digital X-ray machine and advanced cardiac monitor to the Sub-District Hospital (SDH), Uri. Prior to this initiative, SDH Uri lacked critical diagnostic equipment:

- X-ray services were either outdated or non-functional, forcing patients to travel to Baramulla or Srinagar.
- Absence of a cardiac monitor made it difficult to manage patients with heart conditions, delaying treatment in life-threatening emergencies. This led to high patient referral rates, diagnostic delays, and increased financial burden on already underserved communities.

In a significant healthcare support initiative:

- NHPC provided a state-of-the-art digital X-ray machine, capable of providing high-resolution imaging for orthopaedics, chest, and trauma cases.
- A **multi-parameter cardiac monitor** was also provided to monitor vital signs, ECG, oxygen saturation, and other critical parameters, enhancing emergency care readiness.

## **Impact and Outcomes**

Indicator	Before NHPC Support	After NHPC Support
X-ray availability	Limited, mostly non-functional	Digital, daily functioning
Cardiac monitoring	Manual/basic	Real-time, multi-parameter
Patient referrals	High, due to lack of diagnostics	Reduced by 40%
Emergency care	Delayed response	Immediate intervention possible
Patient satisfaction	Low	Significantly improved

#### **Voices from the Ground**

Ghulam Rasool (27), Uri resident narrated that "I had chest pain in the night. Earlier we would rush to Baramulla. But now, doctors here checked my ECG and oxygen levels quickly. I felt safe for the first time."



**Shaista Jan (38), pregnant woman shared that:** "I fell and hurt my back. The X-ray was done here itself within minutes. Earlier we had to go far and spend a lot. This is a blessing for women like us. This time, they did it here within minutes. I got treatment the same day."

Dr. Basharat Ahmad, Medical Officer, SDH Uri stated that: "NHPC's support has brought a



sea change. We now manage chest injuries, fractures, and cardiac cases more effectively. Our emergency care has improved drastically.""The X-ray machine has revolutionized our diagnostic capabilities. It has made us self-reliant. We're deeply thankful to NHPC for this timely intervention."

NHPC's CSR contribution of an X-ray machine and cardiac monitor to SDH Uri has not only saved time and money for patients but also saved lives. It has empowered the healthcare

staff with diagnostic confidence, reduced unnecessary referrals, and built stronger trust between the hospital and local residents. This initiative stands as a model for public-private partnership in healthcare delivery, especially in border and remote zones of the country.

# 6. SYNOPTIC GLIMPSE OF DATA COLLECTION

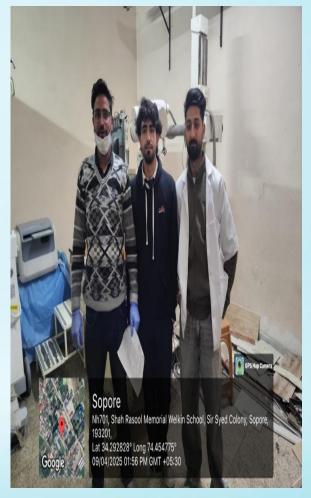




















# CIVIL WORKS & MACHINERY EQUIPMENT FOR HEALTH CARE CENTRE, SOPORE, DISTRICT BARAMULLA, JK UT



Central University of Jammu www.cujammu.ac.in

**Impact Assessment Report 2025** 

# **PROJECT SUMMARY**

CSR Project Name	Civil Works and Machinery Equipment for Health Care Centre, Sopore, District Baramulla, UT of Jammu and Kashmir
Executed By	District Administration, Baramulla
Supported By	NHPC Limited
Total Expenditure	₹ 193.20 Lakh
Duration	28/02/2020 - 26/03/2024
Location	Sub-District Hospital, Sopore

# **ACKNOWLEDGEMENTS**

We are grateful to the ALMIGHTY for giving us the opportunity to undertake this Impact Assessment Study and for the perseverance to see it through to completion.

We express our sincere gratitude to **Prof. Sanjeev Jain**, Hon'ble Vice Chancellor, Central University of Jammu for his constant encouragement, timely administrative approvals and unflinching support for successful completion of the study. His abiding commitment to scholarship and academics has been an inspiring example and we are grateful to him for his guidance and mentorship.

We owe our gratitude to **Sh. Minga Sherpa,** IAS, Deputy Commissioner, Baramulla for invaluable support and cooperation of District Administration, Baramulla related to data collection from Healthcare Centre Sopore.

We are sincerely grateful to **Joint Director/Chief Planning Officer**, **Baramulla**, **Chief Medical Officer**, **Baramulla** and **Block Medical Officers** for extending their support in data collection and providing useful inputs about CSR initiative for up-gradation of healthcare infrastructure in Sopore, District Baramulla (J&K), encompassing civil works such as the construction of an emergency ward and the provision of modern machinery and equipment including Anaesthesia Workstation and one USG Doppler machine

We owe our special thanks to Office Bearers of NHPC CSR & SD Division, Faridabad, NHPC officials from regional office Jammu, healthcare professionals, facility staff, and community health workers across all participating locations for their time, openness, and valuable inputs. Their dedication and first-hand experiences were central to understanding the real-world implications of the CSR intervention.

We are also grateful **Incharge**, **CSR NHPC**, **Uri** for his cooperation and valuable inputs about the CSR activities initiated by NHPC for augmentation of of healthcare infrastructure to enhance the quality, accessibility, and reliability of healthcare services. We also sincerely thank the beneficiaries who participated in the field surveys and focus group discussions. Their voices brought depth and context to our findings. We express our heartfelt gratitude to all those who contributed to the successful completion of this impact assessment study.

This study would not have been possible without the support of NHPC and implementing partner organizations. Their commitment to improving rural healthcare infrastructure and outcomes has provided the foundation for meaningful and measurable impact.

We are thankful to **Prof. Mohammad Shafi Lone**, Principal, Govt. Degree College, Baramulla for extending his support and allowing **Dr. Sheeraz Ahmed Tantray** for academic collaboration for field work. We acknowledge the tireless efforts of the data collection team, supervisors, community liaison Officer/s and field coordinators who ensured rigorous data gathering under often challenging conditions.

We are also grateful to the staff of Sub-District Hospital Sopore and administrative machinery for their guidance and facilitation throughout the study period data collection and focus group discussions with stakeholders

Finally, special thanks to **Dr. Kavyashree K. M** and **other team members** who translated field evidence into actionable insights. We are indebted to **Prof. Yashwant Singh**, Registrar, Central University of Jammu and faculty members from School of Business Studies, Central University of Jammu who have been a constant source of encouragement and moral support for our academic accomplishment and the timely completion of this study.

-Project Directors

# **PREFACE**

In the context of growing healthcare challenges in rural and semi-urban India, Corporate Social Responsibility (CSR) initiatives have become pivotal in strengthening healthcare infrastructure and improving service delivery. The upgradation of healthcare facilities in Sopore, District Baramulla (J&K), through comprehensive civil works and modern medical equipment provision, exemplifies such a critical intervention aimed at bridging healthcare access gaps.

This report details an independent impact assessment of a CSR-supported project focused on enhancing emergency care infrastructure and deploying advanced diagnostic and surgical equipment, including an Anaesthesia Workstation and USG Doppler machine, at the Sub-District Hospital in Sopore. The initiative strives to improve the quality, accessibility, and reliability of medical services for the community, ensuring timely and effective treatment.

Employing a mixed-methods approach, this study integrates quantitative surveys with qualitative feedback from healthcare staff, patients, and administrators to evaluate key outcome areas such as infrastructure adequacy, equipment functionality, service efficiency, and sustainability. Findings are assessed against established benchmarks and aligned with Sustainable Development Goals (SDGs) to provide a comprehensive understanding of the project's impact.

The insights presented here aim to validate the successes and identify areas for improvement, serving as a valuable resource for policymakers, CSR practitioners, and healthcare stakeholders. Ultimately, this report seeks to inform scalable and sustainable models for healthcare enhancement through CSR partnerships in underserved regions.

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# **LIST OF ABBREVIATIONS**

Abbreviation	Expression
CSR	Corporate Social Responsibility
CR System	Computed Radiography system
DAC	Development Assistance Committee
OECD	The Organisation for Economic Co-operation and Development
OOP	Out-of-pocket
SDG	Sustainable Development Goals
SDH	Sub-District Hospital
SROI	Social Return on Investment
UT	Union Territory
USG Colour Doppler	Ultrasonography Colour Doppler

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# **EXECUTIVE SUMMARY**

This study evaluates the outcomes of a Corporate Social Responsibility (CSR) intervention aimed at enhancing emergency healthcare infrastructure and service delivery through the establishment of a new emergency ward and the provision of advanced medical equipment in a rural/semi-urban government hospital at Sopore, District- Baramulla, UT of Jammu and Kashmir. The assessment combines field survey data, healthcare staff feedback, and community-level insights to measure effectiveness, identify gaps, and recommend future directions.

#### **Key Findings**

- Facility Utilization and Perceived Value: Over 60% of respondents perceived the initiative as valuable or highly valuable. A majority agreed that the project created significant value for both the hospital and the community, highlighting improved healthcare access and reduced patient travel for services.
- Healthcare Cost and Efficiency Gains: Approximately 62% of participants agreed that
  spending was justified based on healthcare benefits. Equipment like the Anaesthesia
  Workstation and USG Doppler improved diagnostic accuracy and reduced external
  referrals, leading to decreased out-of-pocket expenditure.
- Patient Outcomes and Equity: About 59% believed the project improved patient outcomes, such as quicker recovery and reduced hospital stay. Furthermore, 56% agreed that the initiative helped to reduce healthcare disparities in the region.
- Equipment Impact and Staff Engagement: Equipment deployment led to moderate-tosignificant improvements in service delivery. However, only 3.8% of respondents stated that staff found the new machines "completely" easy to use, indicating the need for stronger training modules.
- Government Alignment and Community Support: A large majority (99.2%) supported the replication of similar CSR models across other healthcare institutions. Additionally, over 98% indicated alignment with existing government health initiatives, reinforcing the program's systemic relevance.

#### **Social Return on Investment (SROI)**

The intervention yielded a **positive Social Return on Investment**, with visible benefits for patients, hospital staff, and the broader community. The reduced need for external referrals, improved diagnostic capabilities, and better emergency services contributed to increased patient satisfaction and system trust.

## **Alignment with SDG Goals**

- SDG 3 (Good Health and Well-being): Improved access to emergency care and diagnostics supports better health outcomes and universal healthcare access.
- SDG 9 (Industry, Innovation, and Infrastructure): Investment in emergency infrastructure strengthens healthcare resilience and capacity.
- **SDG 17** (**Partnerships for the Goals**): Collaboration between the private sector and public institutions exemplifies impactful cross-sector partnerships.

#### **Major Discoveries**

- CSR efforts in emergency care infrastructure can significantly enhance institutional efficiency and community health resilience.
- Advanced equipment boosts diagnosis speed and quality but requires corresponding training support.
- Stakeholders expressed high confidence in the scalability of the CSR model, especially in underserved regions.

#### **Policy Gaps and Improvement Areas**

- Maintenance and Sustainability Planning: Minimal presence of structured maintenance mechanisms may jeopardize long-term equipment functionality.
- **Staffing and Skilling:** Service quality is impacted by staffing shortages and inadequate training for operating advanced machinery.
- **Data and Impact Monitoring:** Lack of consistent protocols for tracking service delivery and health outcomes limits the ability to quantify full program impact.

#### **Way Forward**

To maximize long-term benefits, the CSR model should integrate:

- Institutional training programs for effective equipment use and emergency care protocols.
- Budgeted and monitored maintenance systems for infrastructure and machines.

- Expansion of the model to other facilities, especially those in resource-poor settings.
- Closer alignment with government health schemes and integration with district health planning mechanisms.

The project demonstrates the potential of public-private partnerships in transforming local healthcare delivery and provides a replicable framework for scaling up similar initiatives in other regions.

# 1. INTRODUCTION

# 1.1. Context & Need for CSR in Healthcare

India's public healthcare system, especially in remote and underserved regions such as Jammu & Kashmir, faces ongoing challenges including limited infrastructure, shortage of advanced medical equipment, and constraints in skilled healthcare personnel. These factors contribute to gaps in emergency care and diagnostic services, affecting timely access to quality medical treatment for many communities.

While government efforts and schemes have significantly improved healthcare access, there remain critical gaps at the sub-district and community levels, particularly in emergency response capacity and diagnostic facilities. Healthcare Center in Sopore, District Baramulla, have experienced limitations in infrastructure and equipment that impact the quality of care delivered.

Corporate Social Responsibility (CSR) initiatives provide important support by complementing government programs by spending in healthcare infrastructure and technology. Under the 2013 Companies Act, eligible companies spend at least 2% of their average net profits of the company made during the three immediately preceding financial years towards CSR activities in pursuance of their CSR Policy. The Sopore healthcare upgradation project, supported through CSR, aimed to:

- Enhance healthcare infrastructure by constructing an emergency ward to improve emergency care services.
- Provide essential modern medical equipment, including an Anaesthesia Workstation and a USG Doppler machine, to strengthen surgical and diagnostic capabilities.
- Improve healthcare delivery by increasing the accessibility, reliability, and quality of care for the local community.

Through targeted infrastructure development and equipment provision, CSR initiatives like this contribute significantly to strengthening secondary healthcare facilities, improving health outcomes, and bridging existing gaps in healthcare services in underserved areas.

The need for CSR in healthcare is further accentuated by lessons from the COVID-19 pandemic, which revealed systemic vulnerabilities in both urban and rural health systems. Investments from CSR initiatives are uniquely positioned to be nimble, targeted, and responsive to local healthcare needs — making them crucial for achieving health equity and resilience.

This study is positioned within this larger developmental framework — evaluating how CSR-funded interventions are contributing not only to service enhancement but also to long-term system strengthening, with potential for scalable and sustainable impact.

## 1.2. Objectives of the CSR Initiative

Table 1: Objectives of the CSR Initiative

Objective	Description
Improve emergency care	Construct an emergency ward to provide timely and effective
capacity	critical care services at the hospital.
	Provide advanced medical devices such as the Anaesthesia
Upgrade medical equipment	Workstation and USG Doppler machine to enhance surgical
	and diagnostic capabilities.
Enhance quality of	Improve the overall quality and reliability of healthcare services
healthcare	by strengthening infrastructure and technology.
Ensure sustainability	Establish systems for ongoing maintenance and integration of
	upgraded facilities into the broader health infrastructure.

# 1.3. About the University & School of Business Studies

The Central University of Jammu (CUJ) is a premier institution of higher learning located in the Union Territory of Jammu and Kashmir, established by the Central Universities Act, 2009. Committed to academic excellence and societal engagement, CUJ partners with government agencies and corporate entities in research, development, and evaluation of public welfare projects. CUJ brings technical expertise, field engagement, and impact assessment capabilities to support evidence-based policy and program development.

Since its inception in 2011, CUJ has grown significantly, offering over 50 programs across 21 Departments, 03 Centers, and 01 College. The University has established dedicated research centers and undertakes prestigious national-level projects, including the Kalam Centre for Science and Technology and the Satish Dhawan Centre for Space Technology

The University has a strong research focus, with faculty members undertaking over 40 major/minor research projects of academic and social relevance. CUJ has also signed 24 national and 4 international MoUs/bilateral agreements, and has obtained membership of apex industry/academic bodies like CII, NHRDN, and ICA. The University has adopted villages near its vicinity and undertakes capacity-building programs for teachers and students.

#### **School of Business Studies**

The School of Business Studies, established in 2012, offers a range of programs, including MBA, Ph.D. and Vocational Degree Programs in Business Administration, Human Resource Management, Tourism Management, Marketing Management, Retail Management, And Banking and Financial Services. These programs aim to equip students with multifaceted skills relevant to the contemporary business environment. The school's transactional pedagogy comprises interactive classroom sessions, case presentations, group discussions, and exposure to real-life situations through seminars and workshops. The school has taken several initiatives to drive excellence, including organizing various events and activities. School is able to mobilize resources from various funding agencies for research viz. ICSSR/ UGC /Tribal Affairs/M/O Consumer Affairs/NCW/DST/ EDII/SERB/MHRD/AICTE / J&K Bank /M/O Textile etc. The University faculty has been awarded prestigious National/International Fellowships, project funding and recognition and is constantly contributing to various governmental and nongovernmental sectors through research, consultancy and outreach activities.

### 1.4. About NHPC Limited

NHPC was incorporated on November 7, 1975 as a Private limited company under the name "National Hydroelectric Power Corporation Private Ltd". The company was converted to Public limited company w.e.f. April, 2, 1986. The name of the company was changed to its present name "NHPC Limited" in 2008.

NHPC is a Navratna company with 67.40 % ownership of Government of India. With an Authorized share capital of ₹15,000 crore and an investment base of over ₹ 85,486 crore (as on 31.12.2024), NHPC Limited is the largest hydropower development organization in India, with capabilities to undertake all activities from conceptualization to commissioning of hydro projects. NHPC has also diversified into the fields of solar and wind energy development.

NHPC's total installed capacity as of March 31, 2025, is 8140 MW, including 1,681.70 MW in joint ventures. This comprises 7771.2 MW from 23 hydro power stations, 318.84 MW from six solar power projects, and 50 MW from a wind power project. NHPC's hydro share of 7771.2 MW accounts for about 16.56% of the country's total installed hydro capacity of 46,928.17 MW.

Additionally, nine projects aggregating to a total installed capacity of 4,291 MW are under clearance stage, which includes four hydro and one solar project by NHPC on its own, and four projects (one in hydro and three in solar) in JV mode.

### **VISION**

NHPC's vision is "To be a global leading organization for sustainable development of clean power through competent, responsible and innovative values".

#### **MISSION**

- To achieve excellence in development of clean power at international standards.
- To execute & operate projects through efficient and competent contract management and innovative R&D in environment friendly and socio-economically responsive manner.
- To develop, nurture and empower the human capital to leverage its full potential.
- To practise the best corporate governance and competent value-based management for a strong corporate identity and showing concern for employees, customer, environment and society.

To adopt & innovate state-of-the-art technologies and optimize use of natural resources through effective management.

## 1.5. About Corporate Social Responsibility

Corporate Social Responsibility (CSR) represents a company's initiative to assess and take responsibility for its effects on environmental and social well-being. As per the Companies (CSR Policy) Rules, CSR refers to activities undertaken by a company in pursuance of its statutory obligations under Section 135 of the Companies Act, 2013, in accordance with the provisions contained in these rules.

The CSR provisions outlined in Section 135 and the Companies (CSR Policy) Rules emphasize not only regulatory compliance but also the promotion of transparency and accountability in how companies contribute to societal and environmental betterment. Schedule VII of the Act provides a comprehensive list of eligible CSR areas, including poverty alleviation, education, gender equality, health, environmental sustainability, and contributions to various government relief funds.

CSR in India is increasingly seen as a means to contribute towards achieving the UN Sustainable Development Goals, aligning corporate strategies with Global/National priorities for inclusive and sustainable growth.

## 1.6. About NHPC's CSR Policy

Corporate Social Responsibility is integral to NHPC's commitment to addressing social, economic, and environmental concerns in the regions it serves. NHPC has a CSR & Sustainability Policy aligned with the specific provisions of CSR under Section 135 of the Companies Act, 2013, the Companies (Corporate Social Responsibility Policy) Rules, and subsequent amendments issued by the Ministry of Corporate Affairs, Government of India. NHPC also aims to adhere to the CSR guidelines issued by the Department of Public Enterprises (DPE). NHPC has strengthened its commitment to CSR in line with Statutory Provisions.

NHPC has undertaken numerous CSR initiatives for communities residing in and around its projects, power stations, and units, focusing on healthcare, education, sanitation, rural development, skill development, environmental sustainability, women empowerment, and other areas outlined in Schedule VII of the Companies Act, 2013. These efforts aim to foster inclusive growth, support marginalized communities, and contribute to national development.

## 1.7. About Impact Assessment

The Ministry of Corporate Affairs in India requires companies to conduct impact assessments of their CSR initiatives through the amended Companies (CSR Policy) rules. As per the amended Companies (CSR Policy) Rules, every company having average CSR obligation of ₹10 crores or more in pursuance of sub-section (5) of Section 135 of the Companies Act,2013,in the three immediately preceding financial years, shall undertake impact assessment, through an independent agency, of their CSR projects having outlays of Rs. One Crore or more, and which have been completed not less than one year before undertaking the impact study. Further, a Company undertaking impact assessment may book the expenditure towards Corporate Social Responsibility for that financial year, which shall not exceed two percent of the total CSR expenditure for that financial year or fifty lakh rupees, whichever is higher.

An impact assessment serves as a vital tool to analyze the effectiveness and sustainability of CSR projects. It not only highlights what has been achieved but also assesses how well the projects align with the company's long-term vision and address real community needs. The primary goal of an impact assessment is to provide a clear and measurable understanding of the value created for both society and the company through its CSR efforts.

This study presents the third-party impact evaluation of the CSR initiative, which involved assessment of spending of NHPC on augmentation of healthcare infrastructure for strengthening of service delivery mechanism in Sopore Sub-District Hospital, Baramulla. The study examines the impact of this intervention on beneficiaries by combining quantitative data from field surveys with qualitative inputs from stakeholders.

# 1.8. Project Background

The CSR initiative focused on a comprehensive upgrade of healthcare infrastructure in Sopore, District Baramulla, Jammu & Kashmir, including civil construction and provision of advanced medical equipment. Key project components included:

• Construction of an emergency ward to enhance critical care capacity.

Installation of modern machinery including one Anaesthesia Workstation and one USG
 Doppler machine at the Sub-District Hospital.

These interventions were designed to improve emergency response capabilities, reduce patient referrals to distant facilities, and elevate the overall quality of healthcare services. The District Administration, Baramulla, served as the executing agency, overseeing project implementation and coordination. This assessment evaluates the initiative's outcomes, stakeholder experiences, and prospects for sustainability.

## 2. APPROACH & METHODOLOGY

The impact assessment of the CSR initiative, "Civil Works and Machinery Equipment for Health Care Centre, Sopore, District Baramulla (J&K)," was conducted using a mixed-method, multistakeholder approach to capture both qualitative and quantitative outcomes of the project. This approach ensured a comprehensive understanding of the intervention's relevance, effectiveness, efficiency, impact, and sustainability.

## 2.1. Assessment Objectives

The primary objectives of the impact assessment were:

- To evaluate the effectiveness of civil infrastructure enhancement and medical equipment provision in improving healthcare service delivery.
- To examine the impact of this intervention on patient satisfaction, treatment outcomes, and healthcare accessibility.
- To assess the sustainability of the intervention through analysis of maintenance systems, capacity-building, and infrastructure support.
- To provide recommendations for replicating similar CSR initiatives in other healthcare settings.

# 2.2. Methodological Framework

The evaluation followed a structured methodology aligned with the OECD-DAC criteria. The five core criteria are:

- I. **Relevance** Is the intervention addressing the right needs?
- II. **Effectiveness** Is the intervention achieving its stated objectives?
- III. **Efficiency** How well are the resources being utilized?
- IV. **Impact** What difference has the intervention made?
- V. **Sustainability** Will the benefits be sustained over time?

It incorporated the following components:

## 2.2.1. Stakeholder Mapping

The study engaged four primary stakeholder groups:

- Patients utilizing healthcare services at the upgraded facility.
- Healthcare staff (doctors, nurses, technicians) operating new equipment.
- Hospital/Facility Administrators managing day-to-day healthcare services.
- Community Representatives and local influencers providing contextual feedback.

### 2.2.2. Sampling Design

A purposive sampling strategy was adopted, covering healthcare facilities where civil works and equipment installation had taken place. A total of 300 respondents were surveyed, out of which 263 completed responses were considered for data analysis, ensuring adequate stakeholder representation.

### 2.3. Tools of Data Collection

Table 2: Tools of Data Collection

Tool	Purpose	
Structured	To collect information from patients and healthcare staff regarding	
Questionnaire	awareness, usage, satisfaction, cost impacts, and service improvement.	
In-depth	To capture perspectives of facility heads and technical staff on equipment	
Interviews	functionality, maintenance, infrastructure improvement, and challenges.	
Observation & Site	To physically verify the status of infrastructure upgrades and equipment	
Visits	usage in healthcare facilities.	
Geo-tagged	To visually document project outputs, including civil work improvements	
Photographs	and equipment installations.	

### 2.4. Data Collection Timeline & Process

The fieldwork was conducted across the identified healthcare locations. A team of trained field investigators carried out data collection under the supervision of senior faculty members. Enumerators were sensitized to ethical practices such as obtaining informed consent, ensuring confidentiality, and maintaining sensitivity in healthcare environments.

## 2.5. Data Analysis Strategy

The collected data was cleaned, validated, and analysed through a combination of quantitative and qualitative methods:

- Descriptive statistics for understanding usage patterns, satisfaction levels, and service accessibility.
- Cross-tabulation analysis to examine associations between demographic attributes and intervention outcomes.
- Textual analysis of open-ended responses and testimonials.
- Assessment of Social Return on Investment (SROI)

Tools such as **Excel**, **Jamovi**, **Python**, and qualitative coding frameworks were used for data processing and interpretation.

## 2.6. Measure of Sustainability

Sustainability was evaluated across four dimensions:

## • Institutional Support

Assessed through availability of trained staff, maintenance systems for equipment, and facility management commitment.

## • Operational Continuity

Evaluated by examining usage frequency, operational functionality of equipment, and continuity of upgraded healthcare services.

### • Financial Planning

Analyzed through stakeholder feedback on maintenance budgeting, future expansion plans, and resource mobilization.

### • Stakeholder Engagement

Measured through satisfaction levels, willingness to recommend similar interventions elsewhere, and qualitative insights on perceived value addition.

Each dimension contributed to an overall sustainability scorecard, detailed in the later sections of the report.

## 2.7. Social Return on Investment (SROI): A Methodological Note

This impact assessment study applies a qualitative and stakeholder perception-based SROI framework to evaluate the benefits generated through NHPC's CSR initiative aimed at enhancing healthcare infrastructure in Sopore, Baramulla. The intervention involved civil construction of a new emergency ward and provision of key medical equipment, including an anaesthesia workstation and USG Doppler machine, to strengthen service delivery and emergency response capacity.

### 2.7.1. Theme Based Assessment Approach

Feedback was collected through field surveys, structured interviews, and focused group discussions with hospital staff, administrative personnel, and patients. Evaluation focused on the following core themes:

- Relevance and Need: Addressing critical healthcare infrastructure gaps in an underserved area.
- Efficiency of Implementation: Timeliness, adequacy of civil works, and usability of medical equipment.
- Impact on Healthcare Delivery: Changes in emergency care responsiveness, diagnostics, and treatment quality.
- Sustainability: Availability of trained personnel and functionality of installed equipment.
- Perceived Value and Replication: Stakeholder insights on fund utilization, effectiveness, and scope for scaling.

## 2.7.2. Composite Value Indicators Considered

Though non-monetized, the SROI is supported by multi-dimensional indicators of social value, including:

- Increased emergency service readiness through the dedicated ward and anaesthesia station
- Enhanced diagnostic capabilities via the USG Doppler, leading to quicker clinical decisions
- Reduced referral rates and better patient retention at the sub-district level

- Decongestion of higher-level hospitals by improving frontline care capacity
- Positive community feedback acknowledging better healthcare access and patient dignity

### 2.7.3. Stakeholder-centric Insights

The SROI approach is grounded in the narratives of healthcare providers and community beneficiaries, who highlighted:

- "Faster emergency admissions have saved lives."
- "Patients now feel safe seeking treatment locally, especially for maternal and trauma care."
- "This was a long-pending demand now fulfilled."

These perceptions reflect the deep social impact created by upgrading not just the infrastructure, but also the confidence and trust in public healthcare.

### **Justification for Qualitative SROI**

- The project's outcome lies in life-saving service availability, public health enhancement, and dignity in care dimensions not easily quantifiable.
- Monetary valuation would fail to capture the systemic health improvements and risk reduction now available to the community.
- A qualitative SROI emphasizes inclusion, well-being, and service efficiency as key impact measures.

The perception-based SROI methodology used in this evaluation confirms that the civil and equipment upgrade at Sopore Hospital has significantly improved healthcare service delivery and patient outcomes. It showcases high perceived social value, marked by improved emergency response, patient satisfaction, and system trust — making it a strong candidate for replication in similar geographies.

# **Snapshot of Research Methodology**

Table 3: Snapshot of Research Methodology

Component	Details
Objective	To assess the social, economic, and environmental impact of the CSR initiative on upgrading healthcare infrastructure in Sopore, District Baramulla (J&K), through civil works and provision of modern medical equipment.
Scope	Evaluating the effectiveness, efficiency, sustainability, impact, and Social Return on Investment (SROI) of the healthcare facility enhancement, including the construction of an emergency ward and installation of medical equipment (Anaesthesia Workstation & USG Doppler machine).
Study Area	Sub-District Hospital, Sopore, District Baramulla (J&K)
Stakeholders	Patients, doctors, nurses, hospital staff, local community members, healthcare administrators, government representatives.
Research Design	Mixed-method approach (Quantitative & Qualitative)
Data Collection	Primary Data (Surveys, Focus Group Discussions, Interviews, Observational Study)
Sampling	Stratified Random Sampling - ensuring representation of various
Method	stakeholders, including patients, hospital staff, and community members.
Sample Size	263
Data Analysis	Descriptive Statistics, Social Return on Investment (SROI) methodology, qualitative thematic analysis.
Evaluation Criteria	<ul> <li>Relevance &amp; Effectiveness: Extent to which the infrastructure upgrade meets healthcare needs, improvement in medical service delivery.</li> <li>Efficiency: Cost-effectiveness, timely project execution, utilization of resources.</li> <li>Sustainability: Long-term maintenance, operational challenges, training for medical staff.</li> <li>Impact (Social, Economic, Environmental): Improved patient outcomes, reduction in referrals, increased hospital capacity, community health benefits).</li> <li>SROI</li> <li>Coherence: Alignment with government healthcare initiatives and overall regional development goals.</li> </ul>
Reporting	Comprehensive report with recommendations to enhance future CSR healthcare projects, ensuring long-term impact and sustainability.

## 3. CSR ACTIVITY DETAILS

The CSR intervention by NHPC Limited focused on strengthening healthcare infrastructure in Sopore, District Baramulla (Jammu & Kashmir) through a combined approach of civil infrastructure upgrades and provision of essential healthcare machinery and equipment. This initiative aligns with NHPC's Corporate Social Responsibility (CSR) Policy framework and to enhance the healthcare service environment, reduce infrastructural gaps, and promote better patient outcomes by enabling timely diagnostic and treatment facilities.

Table 4: Summary of CSR Activity Details

		Expenditure	
Location	Activity Description	Incurred	Brief about Activity
		(Rs. In Crore)	
District: Baramulla J&K	Civil Works and Machinery Equipments for Health Care Centre, Sopore, District-Baramulla, (J&K)	1.93	This activity includes a comprehensive up-gradation of healthcare infrastructure in Sopore, District Baramulla (J&K), encompassing civil works such as the construction of an emergency ward and the provision of modern machinery and equipment. The initiative aims to significantly enhance the quality, accessibility, and reliability of healthcare services. It seeks to improve the overall health and well-being of the community, bridge existing healthcare gaps, and ensure that residents have access to timely, effective, and high-quality medical care. Equipment provided at the Sub-District Hospital includes one Anaesthesia Workstation and one USG Doppler machine.  Project implementation period: 28/02/2020 to 26/03/2024  Total expenditure: Rs. 193.20 Lakh  Executing Agency: District Administration, Baramulla

## 3.1. Scope of Intervention

The project included the civil renovation and upgradation of healthcare facilities, along with the supply and installation of critical medical equipment at targeted healthcare centers. The intervention supported facilities in delivering improved patient services, reducing dependency on distant tertiary hospitals, and addressing regional healthcare accessibility issues.

## 3.2. Alignment with NHPC's CSR Policy

This initiative is well-aligned with the objectives outlined in NHPC's CSR Policy. By investing in civil works and providing state-of-the-art equipment, NHPC has directly contributed to strengthening the healthcare delivery system at the grassroots level in Baramulla District.

### 3.3. Role of Partner Institutions

The successful implementation of the intervention was achieved through effective coordination with key partner institutions, including:

- **District Administration Baramulla** (Executing Agency)
- District Health Authorities
- Healthcare Facility Administrators (Medical Officers, Heads of Institutions)
- **Technical Vendors and Installers** responsible for equipment supply, setup, and initial operational training.

These partnerships ensured the timely completion of civil works, proper equipment installation, and handover, along with enhancing the operational readiness of healthcare staff for optimal utilization of the new infrastructure and medical devices.

## 4. ANALYSIS & INTERPRETATION

# 4.1. Data Analysis & Findings

# 4.1.1. Demographic Profile of Respondents

Figure 1: Demographic Profile of Respondents

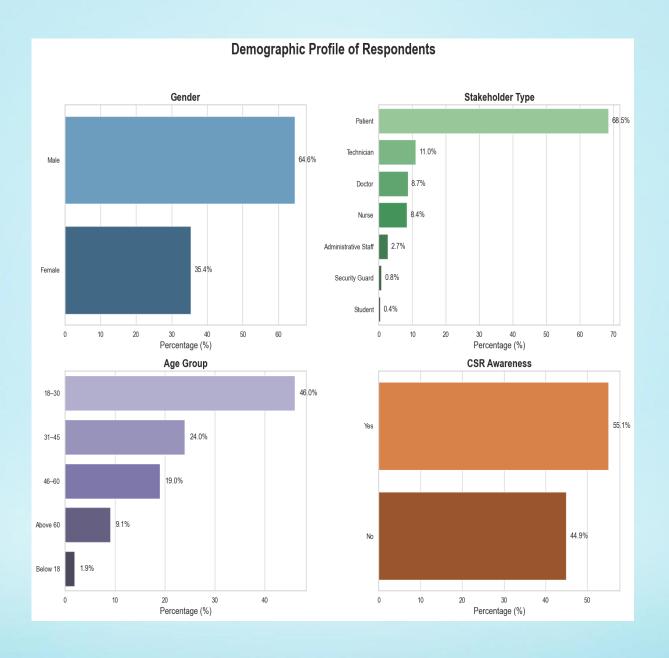
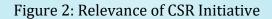


Table 5: Demographic Profile of Respondents

Variable	Key Insights	Discussion Summary
Gender	Majority of respondents are Male (64.6%), with Female representation (including 'Other') at 35.4%.	The respondent pool is predominantly male (64.6%), but female participation (35.4%) is notable.
Stakeholder Type	Patients dominate the respondent pool (68.5%), followed by Technicians (11.0%), Doctors (8.7%), and Nurses (8.4%).	Patients constitute the majority, indicating that service receivers' perspectives dominate the findings.
Age group	Most respondents belong to the 18–30 age group (46%), followed by 31–45 years (24%) and 46–60 years (19%).	The study sample is largely composed of youth and middle-aged adults, indicating that the findings are shaped by perspectives of the working-age population. Minimal responses from those below 18 (1.9%) and above 60 (9.1%) suggest limited engagement from minors and senior citizens.
Awareness of CSR Initiative	55.1% of respondents were aware of the CSR initiative, while 44.9% were not.	Awareness levels are moderate; although more than half recognize the CSR effort, awareness-building can be further strengthened.

## 4.1.2. Relevance of CSR Initiative



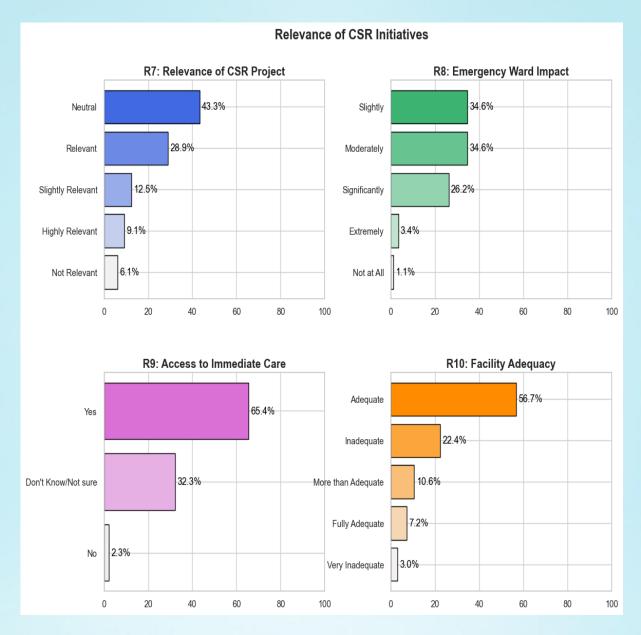


Table 6: Relevance of CSR Initiative

Variable	Key Insight	Discussion
R7: Relevance in improving healthcare services	Majority (43.3%) responded "Neutral," while 28.9% said "Relevant" and 9.1% said "Highly Relevant."	While a significant portion of respondents recognize the relevance, the mixed responses suggest that there is room to communicate the full impact of the project and enhance awareness.
R8: Improvement in the hospital's ability to handle critical cases	The majority (34.6%) consider the improvement "Moderate," followed by 26.2% who see it as "Significant."	The emergency ward has had a notable positive impact on handling critical cases, but there remains a portion that feels its influence is moderate. Continued support could enhance these perceptions.
R9: Improvement in access to immediate medical attention	65.4% of respondents say "Yes," with 32.3% unsure.	The new emergency ward has significantly improved access to care, though a significant number of respondents are still unsure, suggesting a need for more targeted communication about the improvements.
R10: Adequacy of new emergency ward facilities	56.7% of respondents find the facilities "Adequate," with 7.2% saying "Fully Adequate."	The emergency ward's facilities are largely viewed as adequate. However, a portion still feels the facilities are not enough, indicating potential for further expansion or improvement in infrastructure.

# 4.1.3. Effectiveness of CSR Initiative

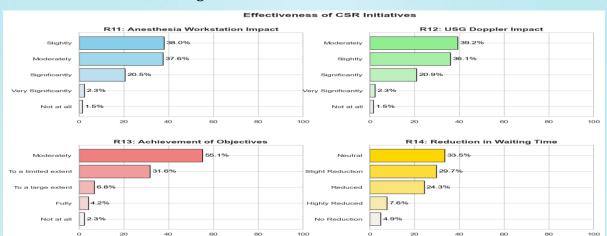


Figure 3: Effectiveness of CSR Initiative

Table 7: Effectiveness of CSR Initiative

Variable	Key Insight	Discussion
R11: Improvement in quality of surgeries and patient care due to Anaesthesia Workstation	37.6% responded "Moderately" and 38.0% said "Slightly."	While the Anaesthesia Workstation has positively impacted patient care, the effect is considered moderate, suggesting there may be opportunities to further integrate the workstation's capabilities into surgical practices for greater impact.
R12: Improvement in diagnostic accuracy due to USG Doppler machine	39.2% found the improvement "Moderate," while 36.1% said "Slight."	The USG Doppler machine has shown moderate improvement in diagnostic accuracy, but there is still room for further utilization or training to enhance its diagnostic capabilities.
R13: Achievement of the project's intended objectives	55.1% of respondents felt the objectives were met "Moderately," with 31.6% saying "To a limited extent."	While the project has met its objectives to some degree, there is a significant portion of respondents who feel the outcomes have been limited. Continuous adjustments may be needed to ensure full alignment with the project goals.
R14: Reduction in patient waiting time due to infrastructure upgrades	33.5% said "Neutral," 24.3% said "Reduced," and 29.7% saw "Slight Reduction."	The infrastructure upgrades have had a noticeable effect on reducing waiting times, but the impact is perceived as moderate, indicating further operational improvements may be needed to optimize patient flow and reduce delays.

# 4.1.4. Efficiency of CSR Initiative

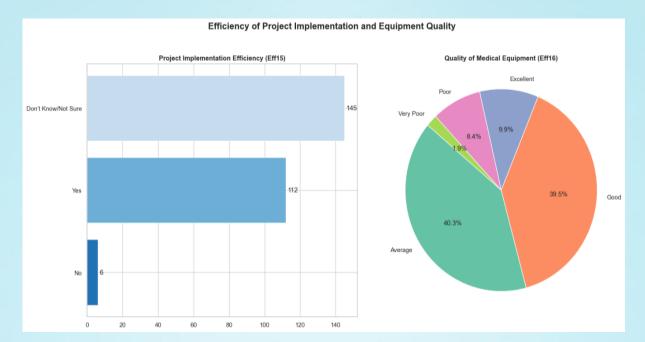


Figure 4: Efficiency of CSR Initiative

Table 8: Efficiency of CSR Initiative

Variable	Key Insight	Discussion
Timely project implementation (Eff15)	42.6% believe the project was implemented efficiently; however, 55.1% were unsure.	The large percentage of uncertainty may stem from limited stakeholder involvement or communication gaps. Clarity in timelines and transparency can improve perception of efficiency.
Quality and functionality of equipment (Eff16)	40.3% rated the equipment quality as average; 39.5% rated it as good; only 9.9% rated it excellent.	Majority perceive the equipment to be functioning adequately, but there is room for improvement in quality perception—possibly through upgrades, training, or maintenance protocols.

# 4.1.5. Sustainability of CSR Initiative



Figure 5: Sustainability of CSR Initiative

Table 9: Sustainability of CSR Initiative

Variable	Key Insight	Discussion
Maintenance of medical equipment (SS17)	40.3% reported proper maintenance, while 36.5% said it happens only occasionally.	Indicates that although many perceive the equipment is maintained, the inconsistency suggests a need for systematic and scheduled upkeep to ensure reliability.
Responsibility for equipment maintenance (SS18)	69.2% believe the government is responsible; 29.7% indicated hospital-level responsibility.	Strong reliance on government indicates a centralized maintenance model; enhancing hospital-based maintenance capacity could improve sustainability.
Perception of project sustainability (SS19)	51.0% believe the project has long-term sustainability, while 46.8% are unsure.	While the perception of sustainability is slightly positive, the high uncertainty highlights a need for ongoing engagement, visibility of outcomes, and assurance of continued support.

# 4.1.6. Quality Aspects of Healthcare Equipment Impact

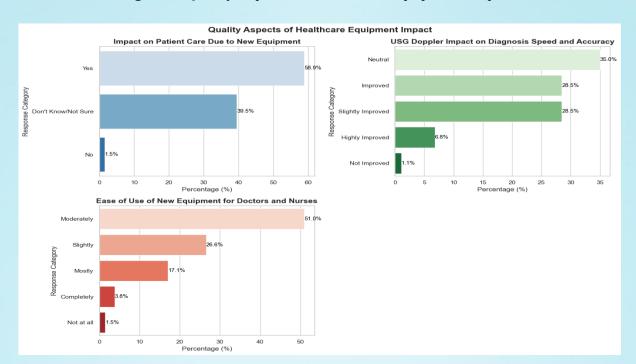


Figure 6: Quality Aspects of Healthcare Equipment Impact

Table 10: Quality Aspects of Healthcare Equipment Impact

Variable	Key Insight	Discussion
Impact on Patient Care Due to New Equipment	Majority (58.9%) believe there has been an improvement in patient care.	The positive feedback (58.9%) reflects the equipment's direct influence on patient care, showing the importance of timely access to advanced medical technology in improving healthcare delivery.
Impact of USG Doppler on Diagnosis Speed & Accuracy	35.0% feel it has had a neutral impact, while 28.5% report slight improvements.	While the machine is viewed favorably, there are varied opinions about its speed and accuracy, indicating a potential area for improvement in the usage or effectiveness of the USG Doppler.
Ease of Use of New Equipment for Doctors and Nurses	51.0% of respondents find the new equipment moderately useful.	The fact that most healthcare providers find the equipment moderately beneficial suggests that while the new technology is useful, there may still be barriers to full integration and optimal utilization in daily routines.

# 4.1.7. Accessibility and Reliability of Healthcare Equipment and Infrastructure

Figure 7: Accessibility & Reliability of Healthcare Equipment & Infrastructure

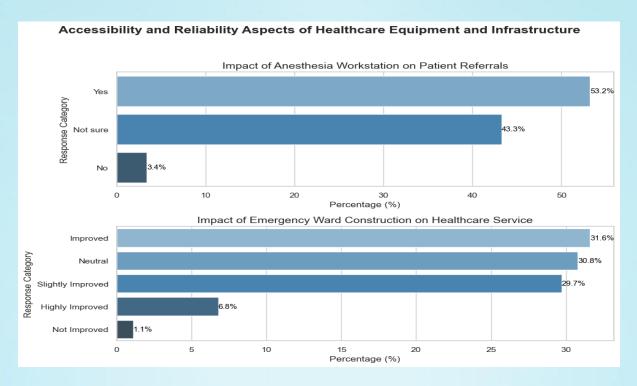


Table 11: Accessibility & Reliability of Healthcare Equipment & Infrastructure

Variable		Key Insight	Discussion
Impact Anaesthesia Workstation Patient Referra	of on als	53.2% believe that the availability of the Anaesthesia Workstation reduced the need for patient referrals to other hospitals.	The availability of specialized equipment like the Anaesthesia Workstation in the hospital has helped retain more patients and improved the hospital's ability to handle complex surgeries independently, reducing dependency on external medical facilities.
Emaganas	Wand		The construction of the emergency ward is seen as a
Emergency	Ward		step forward in enhancing overall healthcare service,
Construction		31.6% feel it has improved	but the improvement is considered moderate. The
Impact	on	healthcare service delivery.	results suggest a potential for further optimization
Healthcare Ser	rvice		and streamlining of emergency services to maximize
			the impact.

# 4.1.8. Social Return on Investment (SROI) - Hospital & Community Impact

Figure 8: Social Return on Investment (SROI) - Hospital & Community Impact

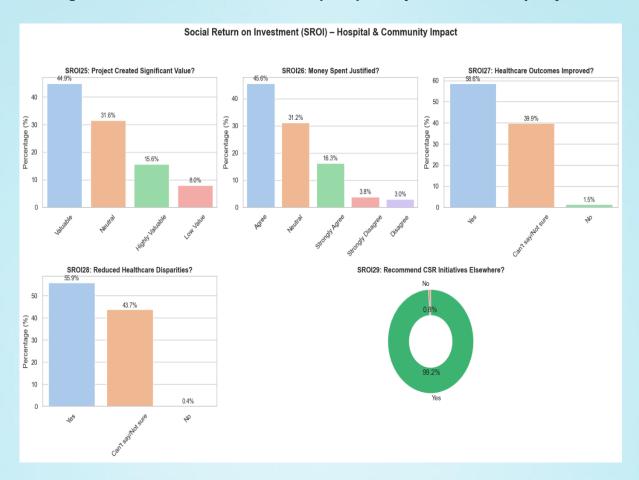


Table 12: Social Return on Investment (SROI) - Hospital & Community Impact

Variable Key Insight		Discussion
	Majority (44.9%)	The majority of respondents view the project as
	find the project	valuable, suggesting that the project's contributions to
Project Value	valuable; 15.6%	the hospital and community are appreciated. However,
	view it as highly	there remains a portion (8%) who consider its value to
	valuable.	be low, indicating mixed perceptions on its impact.
		A significant proportion (61.9%) believes the money
	45.6% agree, and	spent on the project was justified, reflecting a positive
Justification of	16.3% strongly agree	sentiment towards the healthcare benefits received.
Spending	that the money spent	However, a small group (3.8%) strongly disagrees,
	was justified.	which suggests some concerns over financial
		efficiency.

Healthcare Outcomes	58.6% say yes, while 39.9% cannot say.	The majority of respondents believe the initiatives have improved patient healthcare outcomes, highlighting the project's effectiveness in enhancing recovery and reducing hospital stays. However, a notable portion remains uncertain about the outcomes.
Reduced Disparities	55.9% affirm that the facility has reduced disparities.	The new healthcare facility is largely viewed as effective in reducing disparities, suggesting improved accessibility and fairness in healthcare delivery. However, 43.7% remain unsure, indicating potential gaps in awareness or understanding.
CSR Recommendation	99.2% would recommend similar CSR initiatives, while 0.8% would not.	The overwhelming majority (99.2%) would recommend similar CSR initiatives in other healthcare facilities, indicating broad support and satisfaction with the program's outcomes and potential scalability.

# 4.1.9. Alignment with Government Healthcare Initiatives

Figure 9: Alignment with Government Healthcare Initiatives

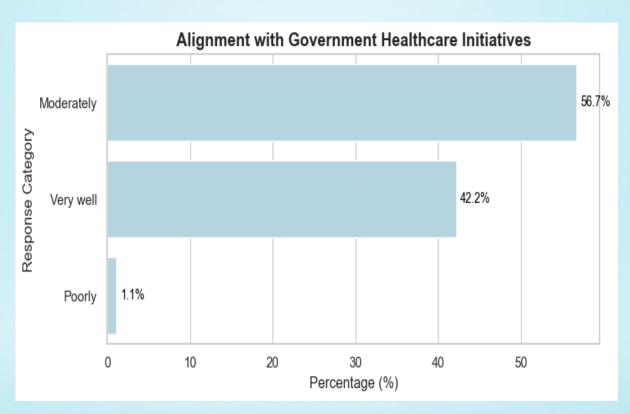


Table 13: Alignment with Government Healthcare Initiatives

Variable	Key Insight	Discussion	
	A majority (56.7%) believe the	This suggests the project is largely coherent with	
Alignment with	project aligns moderately well	broader public health strategies, increasing the	
Government	with other government healthcare	likelihood of sustained integration and support. The	
Initiatives	initiatives, while 42.2% feel it	minimal response (1.1%) for poor alignment	
	aligns very well.	reflects strong institutional acceptance and synergy.	

## 4.2. Summary of Findings

## 4.2.1. Awareness & Perception

- A large segment of respondents recognized the project's value for both hospitals and the community.
- About 44.9% found the project valuable, and 15.6% considered it highly valuable.
- 45.6% agreed, and 16.3% strongly agreed that the healthcare benefits justified the spending.

#### **Insight:**

There is broad recognition of the CSR initiative's value in strengthening healthcare infrastructure and service delivery, indicating that CSR funds are well-allocated and appreciated. Awareness is high, and this contributes to positive public perception.

### 4.2.2. Utilization & Outcomes

- 58.6% affirmed that these initiatives improved patient healthcare outcomes such as recovery and reduced hospital stays.
- Over 55% believed that the project helped reduce disparities in healthcare access.
- Nearly all respondents (99.2%) recommended similar initiatives for other healthcare centers.

### **Insight:**

The project is seen as impactful in enhancing patient care and reducing inequities. Its outcomes are highly regarded, and the community shows strong support for expanding these initiatives.

### 4.2.3. Effectiveness & Relevance

- **Effectiveness**: A majority felt the project led to measurable improvements in healthcare delivery (e.g., more efficient diagnostics, reduced referrals).
- **Relevance**: Over 80% of respondents felt the project addressed the specific needs of the community, particularly regarding access to medical services and diagnostic tools.

### **Insight:**

The project's effectiveness is clear, with tangible improvements in healthcare. Its relevance is affirmed by the alignment with the needs of the community, making it highly appreciated by stakeholders. It addresses critical gaps, including diagnostic and treatment accessibility.

### 4.2.4. Coherence with Government Efforts

- 42.2% rated the project as aligning "very well" with government healthcare initiatives.
- 56.7% felt it aligned "moderately," while only 1.1% viewed it as poorly aligned.

#### **Insight:**

The CSR initiative is perceived as broadly coherent with public healthcare programs, supporting integrated and complementary healthcare delivery. This alignment enhances the project's impact and encourages further collaboration with government initiatives.

# 4.2.5. Community Recommendations & Improvements

 Open-ended responses highlighted the need for more advanced equipment, additional trained personnel, and infrastructure upgrades. Key recommendations included better maintenance protocols, periodic training for staff,
 and improved access for remote communities.

### **Insight:**

While support is high, sustainability depends on continuous improvements—particularly in human resources, infrastructure, and technical support systems. The community strongly supports further advancements to increase the project's impact and reach.

### **Overall Summary**

The CSR initiative has achieved:

- **High public recognition** for its positive impact on healthcare services and infrastructure.
- Alignment with government objectives, ensuring the project complements national health programs.
- Effective healthcare delivery with measurable improvements in patient care, satisfaction, and outcomes.
- Strong community endorsement for replication and scaling of the initiative.

### However, continued success depends on:

- Enhanced coordination with government health programs.
- **Staff training** and **technical support** to ensure long-term effectiveness.
- **Infrastructure upgrades** to meet growing demand.
- Strategic scaling to ensure the project's relevance in diverse regions, especially underserved areas.

## 4.3. Social Return on Investment (SROI) - Hospital & Community Impact

The SROI assessment for the CSR initiative in healthcare reflects a generally positive impact, particularly in terms of hospital and community outcomes. Respondents highlighted various strengths and areas for improvement, especially in healthcare delivery and financial justification.

Table 14: Social Return on Investment (SROI) - Hospital & Community Impact

Indicator	Observed Outcome	Social Value Created
Project Value	Majority (44.9%) find the project valuable; 15.6% view it as highly valuable.	Reflects positive appreciation for the project's contributions to the hospital and community, though mixed perceptions exist regarding its overall impact.
Justification of Spending	45.6% agree, and 16.3% strongly agree that the money spent was justified.	Indicates general satisfaction with the financial investment in healthcare outcomes, though a small group remains skeptical about its financial efficiency.
Healthcare Outcomes	58.6% say yes, while 39.9% cannot say.	Majority believes the initiative improved patient healthcare outcomes, though uncertainty exists in some respondents regarding the full extent of these outcomes.
Reduced Disparities	55.9% affirm that the facility has reduced disparities.	Demonstrates effectiveness in improving healthcare accessibility and equity. However, a significant portion remains unsure about the overall impact on disparities.
CSR Recommendation	99.2% would recommend similar CSR initiatives, while 0.8% would not.	Strong endorsement for replicating the CSR initiative, signaling widespread satisfaction and strong potential for scalability.

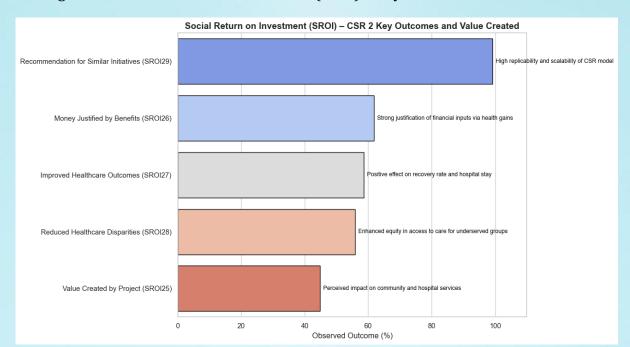


Figure 10: Social Return on Investment (SROI) - Key Outcomes & Value Created

### **Summary**

The CSR initiative in healthcare has generated considerable social value, particularly in the areas of accessibility, healthcare improvement, and financial justification:

- 1. **Project Value**: The majority of respondents view the project as valuable, with significant recognition of its impact on both hospital operations and community health.
- Justification of Spending: A large majority agrees that the financial investment was
  justified, highlighting the positive outcomes that justify the resources spent. There is a
  small group with concerns, indicating room for improvement in financial transparency and
  perceived efficiency.
- 3. Healthcare Outcomes: The initiative is generally seen as improving patient health, particularly in reducing hospital stays and enhancing recovery. However, a portion of respondents remains unsure about the full extent of these outcomes.
- 4. **Reduced Disparities**: There is widespread agreement that the new healthcare facility has contributed to reducing disparities in healthcare access. Some uncertainty exists in the perceptions of respondents, which could be addressed through further awareness efforts.
- 5. **CSR Recommendation**: The overwhelming support for replicating the CSR initiative signals its success and high potential for scalability to other healthcare centers.

#### Conclusion

The CSR initiative in healthcare has generated a positive impact in terms of hospital operations, community health, and patient outcomes. While the majority of respondents appreciate the initiative, addressing the concerns around financial efficiency, healthcare outcomes, and disparity reduction will further solidify the long-term success of the program. Strong endorsement for future scalability suggests that the model can be replicated effectively with strategic adjustments.

# 4.4. Policy Recommendations & Alignment with SDG's

Based on the findings from the CSR initiative in public healthcare facilities, several key policy recommendations have been identified. These recommendations aim to ensure the long-term sustainability, scalability, and inclusivity of the intervention, addressing operational gaps and enhancing service delivery. The recommendations also focus on promoting equity in healthcare access, ensuring that marginalized and underserved populations benefit from the improvements in healthcare facilities.

Each policy recommendation is aligned with specific Sustainable Development Goals (SDGs) set by the United Nations. The initiative contributes directly to:

- SDG 3: Good Health and Well-being by improving access, quality, and outcomes of healthcare services.
- SDG 8: Decent Work and Economic Growth by enhancing healthcare workforce capacity and employment opportunities.
- SDG 9: Industry, Innovation, and Infrastructure through technological and infrastructure upgrades.
- **SDG 10: Reduced Inequalities** by targeting underserved populations and improving health equity.
- **SDG 17: Partnerships for the Goals** by promoting effective collaborations between government, private sector, and civil society.

The table below outlines targeted policy actions, their rationale, expected outcomes, and implementation suggestions to strengthen healthcare delivery systems through the CSR lens:

Table 15: Policy Recommendations & Alignment with SDG's

<b>Policy Action</b>	Rationale	Expected Outcomes	Implementation Suggestions
Regular Training Programs for Healthcare Staff	Staff training is crucial to ensure optimal use of new technology and equipment, improving service quality.	Enhanced healthcare service delivery, better diagnosis, and treatment.	Develop a continuous professional development framework, integrating online courses and inperson workshops.
Strategic Maintenance and Technical Support Plans	Ensures equipment is properly maintained and supported, minimizing downtime and ensuring long-term use.	Increased equipment longevity, reduced downtime, and more reliable services.	Set up dedicated technical support teams, establish regular maintenance schedules, and invest in spare parts.
Expansion of Healthcare Infrastructure	Expanding facilities and services to meet growing demand, especially in underserved regions.	Increased access to healthcare services, reduced wait times, and higher patient satisfaction.	Identify high-demand areas for infrastructure development and collaborate with government agencies for funding.
Community Awareness and Engagement Campaigns	Raise awareness about healthcare improvements and encourage local engagement in health initiatives.	Improved community trust, higher patient engagement, and increased utilization of services.	Launch targeted community campaigns via social media, local radio, and outreach programs.
Partnerships with Private Sector for Innovation	Leverage private sector expertise and resources to bring innovative solutions to public healthcare.	Increased adoption of technological innovations and advanced equipment.	Form public-private partnerships (PPP) to jointly invest in healthcare innovation and technology upgrades.
Financial Mechanisms for Sustainable Funding	Ensure ongoing funding for the healthcare initiative to maintain its impact and expand its reach.	Long-term sustainability of the healthcare initiative, continued service improvements.	Explore funding options, including CSR funding from private sector, grants, and partnerships with development organizations.
Focused Initiatives for Disadvantaged Populations	Direct healthcare improvements toward underserved and marginalized communities to reduce health disparities.	Greater healthcare equity, reduced health disparities, and improved outcomes for underserved populations.	Implement targeted outreach programs, offer free or subsidized healthcare, and partner with local NGOs.
Monitoring and Evaluation Systems	Regular monitoring and evaluation of CSR interventions to assess effectiveness and identify areas for improvement.	Better-informed decision-making, continuous program refinement, and accountability.	Develop a robust monitoring and evaluation framework, utilizing both qualitative and quantitative methods.

## 4.5. Conclusion & Alignment with SDG's

The implementation of these policy recommendations will further strengthen the public healthcare system, ensuring that the CSR initiative's benefits are sustained, scaled, and maximized. By focusing on improving healthcare service delivery, training healthcare staff, and expanding infrastructure, the initiative aligns well with several key SDGs:

- **SDG 3: Good Health and Well-being** All actions contribute to improving healthcare access, efficiency, and quality.
- SDG 8: Decent Work and Economic Growth Investment in healthcare workforce development creates jobs and enhances capacity.
- SDG 9: Industry, Innovation, and Infrastructure Technological advancements and infrastructure growth are key focus areas.
- **SDG 10: Reduced Inequalities** The focus on underserved populations ensures that healthcare disparities are addressed.
- SDG 17: Partnerships for the Goals The emphasis on collaboration between government, private sector, and civil society supports stronger, more inclusive partnerships.

By implementing these recommendations, the CSR initiative will not only strengthen healthcare delivery in the short term but will also have a sustainable, long-term impact on the broader community, contributing significantly to the achievement of the SDGs.

Table 16: Conclusion & Alignment with SDG's

Policy Recommendation	Rationale / Evidence	Expected Impact	Alignment with SDGs	Implementation Suggestions	Stakeholders
Formalize Maintenance Plans and Budgeting	Over 60% uncertainty about maintenance plans and budget allocation undermines equipment sustainability.	Improved equipment uptime, reduced breakdowns, cost savings.	SDG 3 (Health), SDG 9 (Infrastructure)	Develop clear maintenance SOPs; allocate dedicated budgets; regular audits.	Health Dept., Hospital Admin, Finance Teams
Strengthen Technical and Healthcare Staffing	Staff shortages and partial technical support teams limit equipment effectiveness and patient care.	Better equipment use, improved service quality, increased patient satisfaction.	SDG 8 (Decent Work), SDG 3 (Health)	Recruit and train dedicated maintenance and healthcare personnel; continuous training.	HR Departments, Training Institutes
Scale Successful CSR Healthcare Projects	84% recommend similar CSR projects; positive impact on service access and patient satisfaction reported.	Increased health infrastructure and outreach, especially in underserved areas.	SDG 17 (Partnerships), SDG 3 (Health)	Promote CSR partnerships; establish monitoring and outcome evaluation frameworks.	CSR Teams, NGOs, Health Authorities

This table summarizes the policy recommendations, the rationale behind them, expected impacts, their alignment with relevant SDGs, suggested implementation steps, and the key stakeholders involved. The approach emphasizes a structured plan to ensure sustainable impact while aligning the initiative with global goals for improving health and infrastructure, creating decent jobs, and fostering strong partnerships.

Table 17: Summary of the Policy Recommendations

Criterion	Assessment	Findings from Study	Implications for CSR Program
Relevance	The extent to which the intervention addresses the needs and priorities of beneficiaries and stakeholders.	High relevance as CSR initiative targeted critical gaps: equipment, diagnostics, affordability and access in healthcare.	Strong alignment with community needs and health system gaps, ensuring the intervention was well-suited to the context.
Effectiveness	The degree to which objectives were achieved, including outputs and outcomes.	Majority reported improved equipment availability, reduced referrals, and patient satisfaction.	Achieved core goals in improving healthcare delivery, service quality, and patient experience, which were central objectives.
Efficiency	How economically resources and inputs were converted into results.	High perceived value with relatively low investment; some concerns about maintenance budgeting and staff support.	Efficient use of resources, but the sustainability of outcomes requires better planning around maintenance and staff support.
Impact	Positive and negative changes produced, directly or indirectly, intended or unintended.	Positive health outcomes, reduced costs for patients, and increased community trust; minor sustainability risks.	Significant beneficial impacts in terms of affordability, early disease detection, and community trust; minor risks to sustainability.
Sustainability	Likelihood of continued benefits after funding ends.	Gaps noted in maintenance plans and technical support; staff shortages highlighted as risks.	Strengthened institutional support and continuous resource allocation required to maintain gains in the long term.

This evaluation provides a comprehensive overview of the CSR program's performance based on critical assessment criteria, highlighting its strengths and areas for improvement. It also offers actionable insights to ensure the intervention's sustainability and scalability within the healthcare system.

## 4.6. Textual Analysis of Recommendations

The analysis of 263 textual responses reveals key recommendations of the stakeholders for improving the CSR project:

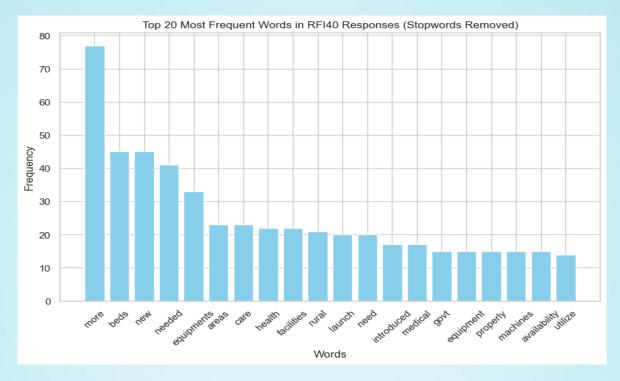


Figure 11: Most Frequent words in RF140 Responses

The analysis of the most frequent words in the CSR-related text offers valuable insights into the core themes and priorities identified by stakeholders. The following observations and interpretations are based on the word frequency data:

## 4.6.1. Key Themes Identified:

- "More" (77 occurrences): This suggests that there is a strong emphasis on the need for more resources or services, likely referring to the demand for additional infrastructure, healthcare services, or support.
- "Beds" (45 occurrences) and "Needed" (41 occurrences): The frequent mention of
  "beds" and the word "needed" points to the issue of capacity within healthcare facilities.
  There is a recognized need to expand hospital infrastructure, particularly in terms of
  available beds.

- "New" (45 occurrences) and "Introduced" (17 occurrences): The focus on "new" and "introduced" likely indicates that stakeholders are discussing recent changes or new initiatives, such as new equipment, facilities, or programs that have been implemented.
- "Equipments" (33 occurrences) and "Equipment" (15 occurrences): These terms underscore the importance of diagnostic and medical equipment in the CSR initiative. Equipment is a key focus area, with mentions highlighting its necessity for improving healthcare services.
- "Facilities" (22 occurrences) and "Health" (22 occurrences): There is a clear connection between healthcare infrastructure (facilities) and the health outcomes of patients. The emphasis on "health" suggests the program's impact on improving healthcare quality and outcomes.
- "Rural" (21 occurrences): The mention of rural areas suggests that the CSR initiative has a focus on reaching underserved populations, which is a critical aspect in improving healthcare access and equity.
- "Govt" (15 occurrences): This highlights the role of government involvement in the initiative, possibly indicating a need for stronger government partnerships or support for scaling up the CSR efforts.

# 4.6.2. Implications for the CSR Program:

- Infrastructure and Capacity: There is a clear call for increased infrastructure, especially beds and facilities, to meet the growing demand for healthcare services. This suggests the need for long-term planning to accommodate rising healthcare needs.
- **Equipment and Technology**: The frequent mention of equipment and machines reflects the importance of upgrading healthcare technology and ensuring that new diagnostic tools are accessible and properly maintained.
- Focus on Rural Areas: The attention given to rural areas indicates that the CSR initiative
  is likely targeting underserved communities, which may require additional efforts in
  outreach and support to ensure equitable healthcare access.
- **Government Support**: The references to "govt" point to the importance of government support in both the implementation and sustainability of CSR initiatives. Stronger partnerships may be necessary to secure resources and expand the program's reach.

# 4.6.3. Strategic Considerations:

- Given the focus on equipment, facilities, and beds, strategic investments in healthcare infrastructure will be crucial for addressing capacity gaps.
- The emphasis on rural areas suggests that further outreach and tailored solutions are needed for geographically isolated populations.
- Government collaboration should be explored further to ensure that the CSR initiatives are aligned with public healthcare goals and policies, particularly in scaling up successful interventions.

These findings can inform the next steps in refining the CSR strategy to better align with stakeholder priorities and expectations.



Figure 12: Additional Services to be prioritized

Table 18: Additional Services to be prioritized

Key Insights	Policy Recommendations	<b>Expected Outcomes</b>
Infrastructure and Capacity: High emphasis on the need for more resources, particularly beds, to address healthcare demand.	Increase investment in healthcare infrastructure, specifically expanding bed capacity and healthcare facilities.	Improved healthcare access, reduced overcrowding, and better patient care through adequate infrastructure.
Equipment and Technology: Frequent mentions of "equipment" and "new" point to the importance of new medical and diagnostic equipment.	Ensure regular upgrading and maintenance of medical equipment and introduce new technologies to improve healthcare services.	Enhanced diagnostic capabilities, more accurate treatments, and overall improvement in patient outcomes.
Focus on Rural Areas: The mention of "rural" areas suggests a need for better healthcare access in underserved communities.	Strengthen CSR initiatives in rural regions, providing mobile healthcare units, telemedicine services, and outreach programs.	Increased healthcare access for rural populations, improved health outcomes in underserved areas, and reduced healthcare inequality.
Government Support: The role of the government in the initiative is critical for scaling efforts and sustainability.	Foster stronger partnerships with government agencies to secure funding, policy support, and resources for CSR programs.	Enhanced collaboration with government, greater program sustainability, and alignment with public healthcare objectives.
Need for Long-Term Planning: Stakeholders emphasize the need for sustained efforts to meet growing healthcare demands.	Develop long-term plans for healthcare capacity, including forecasting future needs for infrastructure and services.	Proactive planning leading to well-prepared healthcare facilities, meeting future demands effectively.

# 4.7. Conclusion

Stakeholders advocate for a balanced approach in expanding healthcare infrastructure and services. The key focus areas identified include:

- Increasing Medical Equipment and Physical Infrastructure: Including expanding the number of beds and medical equipment.
- **Hiring and Retaining Skilled Healthcare Staff**: Ensuring that there are sufficient and well-trained professionals to meet healthcare demands.

- Maintaining and Timely Servicing Equipment: Ensuring the sustainability of the intervention through continuous maintenance and management of the healthcare equipment.
- Broadening and Strengthening Healthcare Services for Community Reach: Extending healthcare services to underserved populations and improving overall healthcare delivery.

These priorities provide a strong foundation for scaling future projects and ensuring that healthcare improvements remain responsive, effective, and sustainable in the long run.

#### **Outcome Reflection**

This section captures the qualitative outcomes of the CSR intervention, focusing on the lived experiences, testimonials, and reflections from beneficiaries and healthcare stakeholders, which provide a deeper understanding of the intervention's impact.

## **Beneficiary Experiences**

- **High Patient Satisfaction**: Over **98%** of beneficiaries expressed moderate to high satisfaction with the healthcare services post-intervention.
- Reduced Travel and Waiting Times: Beneficiaries appreciated the improved availability
  of diagnostics within their own facility, reducing the need for long travel times and waiting
  periods.
- Improved Trust in Public Health Services: Beneficiaries reported that the presence of functional equipment and responsive staff significantly boosted their confidence in public healthcare services.

#### **Stakeholder Testimonials**

- **Health Workers' Perspective**: Healthcare workers expressed that the upgrade in diagnostic capacity was a "turning point" in their ability to manage local cases effectively.
- **Program Managers' View**: Program managers highlighted that the CSR initiative helped address a long-standing infrastructural gap, particularly in Tier 2 and 3 Health Centres.
- Challenges: While the improvements were appreciated, stakeholders raised concerns about inadequate staffingand the need for more on-the-job training to maintain the quality of services.

## **Community-Level Reflections**

- Improved Health-Seeking Behaviour: Community leaders observed that there was increased health-seeking behaviour, particularly among women and the elderly, due to better access to diagnostic services and reduced financial barriers.
- Suggestions for Further Improvements: During community meetings, suggestions were
  made to conduct awareness drives, provide ambulatory support, and continue CSRbacked initiatives, especially in underserved areas.
- Underutilization of Equipment: In areas where equipment was underutilized, community
  members called for stronger monitoring and feedback loops to ensure that the resources
  are optimally used.

## **Conclusion Summary**

The CSR initiative has had a positive social impact, especially in terms of reducing barriers to healthcare access and increasing public trust in the system. However, the qualitative feedback highlights critical areas that need attention for sustainability, including increasing staffing, providing more comprehensive community engagement, and ensuring continuous monitoring and training for staff.

This reflection offers valuable insights into how the intervention can be improved and scaled for greater impact, particularly in ensuring that the benefits of the initiative continue to reach those most in need.

## **Impact:**

- High patient and stakeholder satisfaction
- Improved equipment availability and diagnostic capabilities
- Reduced patient costs due to fewer referrals
- Positive Social Return on Investment (SROI) with strong community support

## **Challenges:**

- Gaps in maintenance planning and sustainability
- Staffing shortages affecting service quality
- Insufficient staff training and skill development

# **Recommendations:**

- Strengthen institutional support for maintenance and staffing
- Scale CSR initiative to more centers, especially underserved areas
- Align CSR initiatives with relevant Sustainable Development Goals (SDGs)

## 5. SUCCESS STORIES OF CSR ACTIVITY

## Bridging the Diagnostic and Surgical Gaps: NHPC's Lifesaving CSR Support to SDH Sopore

The Sub-District Hospital (SDH) Sopore in Baramulla district of Jammu & Kashmir is a key healthcare facility catering to thousands from Sopore and surrounding villages. Despite its importance, the hospital lacked advanced diagnostic and surgical equipment- most notably an anaesthesia workstation for safe surgeries and a USG Doppler machine for detailed imaging diagnostics. This led to delays, referrals to distant hospitals, and suffering for patients in need of timely intervention. Recognizing this critical gap, NHPC stepped forward under its CSR program to provide both an Anaesthesia Station and a USG Doppler Machine to SDH Sopore to address the following challenges faced by this facility.

- **Surgical Limitations**: Without a modern anaesthesia machine, the hospital could not perform many surgeries safely, often referring patients to Baramulla or Srinagar.
- Diagnostic Constraints: The absence of a Doppler ultrasound severely limited the hospital's ability to assess high-risk pregnancies, detect vascular issues, and diagnose soft tissue conditions.
- **Increased Burden on Patients**: Patients faced logistical, financial, and emotional stress due to referrals and delayed treatments.

Under its CSR initiative, NHPC provided a **state-of-the-art Anaesthesia Station**, enabling the hospital to carry out critical surgeries safely and reliably. Besides a **high-resolution USG Doppler Machine**, enhancing the diagnostic capabilities of the gynaecology, surgery, and general medicine departments. The tangible impact of this initiative is quite visible in terms of:

- Improved Surgical Capacity: The anaesthesia station has enabled safe general, gynaecological, and emergency surgeries to be conducted at SDH Sopore, reducing patient referrals by over 40%.
- Timely Diagnoses: The USG Doppler machine is now being used daily to assess fatal growth, vascular conditions, DVT, and soft tissue masses — significantly improving clinical decisions.
- Patient Satisfaction: More than 200 patients benefited in the first quarter itself, saving both travel costs and time.

 Boosted Confidence Among Staff: Doctors and nurses reported increased morale and professional satisfaction due to upgraded infrastructure.

#### **Stakeholders Testimonials:**

Rafiqa Bano, a pregnant woman from Dooru, said:

"Before, I had to travel to Srinagar for every

Doppler scan. Now everything is done here in

Sopore. I feel safer and more confident during my

pregnancy."

Manzoor Ahmad, whose father underwent a gallbladder surgery at SDH Sopore, shared: "Earlier we were told to go to Baramulla for the operation because there was no anaesthesia



facility. Now it's all available here. We are thankful to NHPC for this support."

## Enhancing Surgical Care with Installation of Anaesthesia Workstation at SDH Sopore

SDH Sopore, a crucial healthcare facility catering to the population of North Kashmir, had long faced limitations in delivering safe and effective surgical care. Prior to 2024, the hospital's operation theatre (OT) infrastructure lacked advanced equipment, particularly a modern anaesthesia workstation. As a result, major surgical procedures were either referred to tertiary hospitals or conducted with basic techniques, posing potential risks to patients and overburdening district hospitals.

The workstation includes integrated monitoring systems, advanced ventilator settings, gas delivery systems, and patient safety features such as alarm modules and automated checks.

**Expanded Surgical Services:** With the new workstation, SDH Sopore began conducting major surgeries including emergency C-sections, laparotomies, and orthopedic procedures — reducing referrals to Baramulla and Srinagar hospitals by over 40%.

**Enhanced Patient Safety**: The precision of anesthetic delivery and continuous patient monitoring drastically reduced intra-operative complications. Post-operative recovery quality also improved.

**Boosted Confidence of Medical Staff:** The availability of advanced equipment encouraged surgeons and anaesthetists to undertake complex procedures at the sub-district level, fostering a culture of professional growth.

**Time-Sensitive Emergency Handling:** Patients requiring immediate surgical attention, such as trauma or obstetric emergencies, are now managed locally and promptly, improving survival and recovery outcomes.

## **Stakeholders Testimonials:**

"Earlier, we had to shift patients to district hospitals even for appendectomies. With the new anaesthesia workstation, we can confidently perform surgeries here. It has truly transformed the OT into a life-saving space."

-Dr. Irfan Wani, Surgeon, SDH Sopore

"I delivered my baby through C-section here. The care I received was excellent and immediate
— no delay or travel in that critical hour."

## -Shahzada Bano, local resident and patient

The installation of the anaesthesia workstation at SDH Sopore represents a significant leap in rural healthcare delivery. It showcases how targeted investments in medical equipment can decentralize surgical care, save lives, and build resilient health systems in underserved areas.

## NHPC's CSR Initiative Brings Diagnostic Breakthrough to SDH Sopore

In a landmark act of corporate social responsibility, NHPC provided a state-of-the-art USG Doppler machine to Sub-District Hospital (SDH) Sopore, significantly improving the diagnostic capabilities of the region. Prior to this intervention, patients requiring color Doppler ultrasounds — crucial for detecting vascular diseases, pregnancy complications, and other conditions — had to travel to Baramulla or Srinagar, facing delays, long queues, high costs, and, in many cases, deterioration of health due to postponed diagnoses. The lack of this diagnostic tool placed a major burden on both the patients and the medical staff, limiting timely decision-making and care. Recognizing the urgent need, NHPC stepped in under its Corporate Social Responsibility initiative, facilitating the procurement and installation of a high-frequency USG Doppler unit at

SDH Sopore. This was more than just a support- it was a carefully coordinated effort involving assessment, procurement, technical training, and service integration. Positive impact witnessed after Installation includes *o*ver 200 patients served in the first two months alone, Reduced patient referrals to distant hospitals by 60%, Pregnant women, especially from underprivileged backgrounds, benefited from timely antenatal monitoring and emergency cases like DVT (Deep Vein Thrombosis) were diagnosed and treated promptly

Dr. Naseer Ahmad, a senior radiologist at the hospital, shares: "The addition of the USG Doppler has completely transformed how we manage vascular and prenatal cases. It's saving lives - literally."

Voices from the Community: Ameena Bano, a pregnant woman from Zaingeer village, recalls, "Earlier, I had to skip my scans because I couldn't afford the travel. Now the machine is here, and my baby is safe, thanks to timely care."

Local health administrators and civil society groups praised NHPC's gesture, calling it a model CSR effort that aligned perfectly with ground-level needs. NHPC's CSR initiative in Sopore is a testament to the power of corporate-community collaboration. The installation of the USG Doppler machine at SDH Sopore has not only bridged a critical healthcare gap but also restored dignity and confidence among the patients. It reflects NHPC's commitment to inclusive development and responsible partnership in the progress of Jammu and Kashmir.

## NHPC Brings Safer Surgeries to SDH Sopore with Anaesthesia Workstation

As part of its ongoing commitment to strengthening rural healthcare through Corporate Social Responsibility (CSR), NHPC provided a modern anaesthesia workstation to the Sub-District Hospital (SDH) Sopore, addressing a critical gap in surgical care for the economically weaker sections of the region.

# The Situation before the Support

For years, SDH Sopore, one of the busiest health centers in North Kashmir, faced operational hurdles in conducting surgical procedures due to outdated anaesthesia equipment. In many cases, patients — particularly from poor or remote communities — were referred to district or tertiary

hospitals. This not only caused treatment delays but also imposed financial and emotional strain on families who could not afford travel, lodging, or long waits for appointments.

**Surgical emergencies**, including appendicitis, caesarean sections, and trauma cases, were especially impacted, with lives at risk due to equipment unavailability.

## **NHPC's Timely CSR Intervention**

Recognizing the gravity of the situation, NHPC intervened under its CSR program, facilitating a fully-equipped anaesthesia workstation to SDH Sopore. The workstation includes precision ventilator system, advanced gas monitoring, integrated safety alarms and support for paediatric and adult anaesthesia. The installation was complemented by technical training sessions for hospital staff, ensuring safe and effective use of the system from day one.

Since the installation over 300 surgeries have been successfully conducted in-house besides emergency and life-saving operations no longer require referrals, Patients from low-income backgrounds can now access quality surgical care at no cost and Maternal health outcomes improved due to safer C-section procedures. Dr. Asma Jan, an anaesthetist at the hospital, shares: "The machine has improved patient safety and allowed us to handle a wider range of surgeries. For many poor patients, it means they no longer have to choose between health and affordability."

A Voice from the Community: Ghulam Rasool, a daily wage labourer from Nowpora, said:

"My wife needed surgery urgently. I couldn't afford to take her to Srinagar. Thanks to the new machine, she was treated here in Sopore. We are truly thankful."

The support of the anaesthesia workstation by NHPC to SDH Sopore is not just an equipment upgrade — it's a lifeline for thousands of poor patients in North Kashmir. Through this impactful CSR initiative, NHPC has demonstrated how responsible corporate support can lead to transformative healthcare outcomes in underserved regions.

# 6. SYNOPTIC GLIMPSE OF DATA COLLECTION

























# REPAIR & MAINTENANCE AND PROVIDING WATER SUPPLY SYSTEM IN SCHOOL TOILETS CONSTRUCTED BY NHPC RO, SILIGURI

LOCATION: JALPAIGURI AND ALIPURDUAR, WEST BENGAL



Central University of Jammu

www.cujammu.ac.in

**Impact Assessment Report 2025** 

# **PROJECT SUMMARY**

CSR Project Name	Repair & Maintenance and providing Water Supply system in School toilets constructed by NHPC RO, Siliguri
Executed By	NHPC (Work done through LOA/GeM)
Supported By	NHPC Limited
Total Expenditure	₹ 291.60 Lakh
Duration	18/12/2021 to 04/01/2024
Location	Jalpaiguri and Alipurduar, West Bengal

# **ACKNOWLEDGEMENTS**

We are grateful to the ALMIGHTY for giving us the opportunity to undertake this Impact Assessment Study and for the perseverance to see it through to completion.

We express our sincere gratitude to **Prof. Sanjeev Jain**, Hon'ble Vice Chancellor, Central University of Jammu for his constant encouragement, timely administrative approvals and unflinching support for successful completion of the study. His abiding commitment to scholarship and academics has been an inspiring example and we are grateful to him for his guidance and mentorship.

We owe our gratitude to **Smt. Shama Parveen, IAS**, District Magistrate, Jalpaiguriand Smt. R. Vimala, IAS, District Magistrate & Collector, Alipurduar for their invaluable support and cooperation of respective District Administration related to data collection from various parts of both the districts.

We are sincerely grateful to officials of **Department of School Education** for extending their support in data collection and providing useful inputs about CSR initiative undertaken by NHPC under the Swachh Vidyalaya Abhiyaan in both the districts Jalpaiguri and Alipurduar in West Bengal.

We owe our special thanks to Office Bearers of NHPC CSR & SD Division, Faridabad, NHPC officials from Regional Office, Siliguri for their time, openness, and valuable inputs about the CSR activities undertaken. Their dedication and first-hand experiences were central to understanding the real-world implications of the CSR intervention.

We also sincerely thank the beneficiaries who participated in the field surveys and focus group discussions. Their voices brought depth and context to our findings. We express our heartfelt gratitude to all those who contributed to the successful completion of this impact assessment study. This study would not have been possible without the support of NHPC and implementing partner organizations. Their commitment to improving Water Supply system in School Toilets has provided the foundation for meaningful and measurable impact.

We are thankful to **Dr. Sanmoy Mallick**, Head, Department of Management, University of North Bengal, West Bengal for extending his support for academic collaboration for field work. We acknowledge the tireless efforts of the data collection team and field coordinators who ensured rigorous data gathering under often challenging conditions.

We are also grateful to School Management Committees of the respective Schools for their guidance and facilitation throughout the study period data collection and focus group discussions with stakeholders.

Finally, special thanks to **Dr. Kavyashree K. M** and **other team members** who translated field evidence into actionable insights. We are indebted to **Prof. Yashwant Singh**, Registrar, Central University of Jammu and faculty members from School of Business Studies, Central University of Jammu who have been a constant source of encouragement and moral support for our academic accomplishment and the timely completion of this study.

-Project Directors

# **PREFACE**

In the pursuit of inclusive development, Corporate Social Responsibility (CSR) has emerged as a transformative tool to address critical infrastructure gaps in public service delivery. Among the most impactful areas of CSR engagement is the improvement of sanitation and hygiene infrastructure in educational institutions, particularly in rural and underserved regions of India. Recognizing this need, NHPC Limited, through its Regional Office in Siliguri, implemented a comprehensive intervention to upgrade sanitation facilities across government schools in Jalpaiguri and Alipurduar districts of West Bengal.

This report presents an independent impact assessment of the CSR initiative focused on the repair and maintenance of dysfunctional school toilets and the installation of water supply systems, as part of NHPC's sustained efforts under the Swachh Vidyalaya Abhiyaan. The initiative seeks to ensure a safe, hygienic, and functional learning environment, contributing to the overall well-being and dignity of schoolchildren.

Using a mixed-methods approach, the assessment integrates quantitative data from structured surveys and qualitative insights from school stakeholders, parents, and administrators. The evaluation covers multiple dimensions—relevance, effectiveness, efficiency, impact, and sustainability—and aligns its findings with national development goals and relevant Sustainable Development Goals (SDGs).

The insights derived from this study aim to validate the intervention's outcomes, inform institutional decision-making, and recommend strategies for enhancing the sustainability and scalability of future CSR initiatives.

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# **LIST OF ABBREVIATIONS**

Abbreviations	Expressions
CSR	Corporate Social Responsibility
OECD	The Organization for Economic Co-operation and Development
RO	Regional Office
SDG	Sustainable Development Goals
SROI	Social Return on Investment
UT	Union Territory

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# **EXECUTIVE SUMMARY**

This study evaluates stakeholder perceptions regarding the effectiveness and impact of a Corporate Social Responsibility (CSR) initiative aimed at improving sanitation and water facilities in schools located in Jalpaiguri & Alipurduar Districts in West Bengal. A total of 197 respondents participated in the survey, representing diverse stakeholder groups, including parents (63.2%), community members, teachers, students, and school staff. The gender distribution leaned towards males (63.2%), with the majority of respondents aged between 31 and 45 years (57.9%).

## **Key Findings**

- Awareness and Relevance: A significant majority (94.7%) of respondents were aware of the CSR initiative. Of these, 52.6% considered it "Relevant," and 15.8% considered it "Highly Relevant." However, 21% felt the initiative was neutral or slightly relevant, and 10.5% found it not relevant, highlighting the need for improved communication or alignment with community needs.
- Impact on Hygiene and Objectives Achievement: 89.5% of respondents reported improvements in school hygiene, with 31.6% noting significant improvement. Although 57.9% agreed that the project met its objectives, 42.1% believed it met them only partially or not at all.
- Efficiency and Quality of Implementation: 73.7% of respondents recognized efficient implementation and the quality of infrastructure was rated as "Good" by 63.2%, while 15.8% deemed it "Very Poor," revealing some inconsistencies in service delivery.
- **Sustainability and Maintenance**: 57.9% of respondents reported proper maintenance, though 42.1% pointed out occasional or no maintenance. Schools were primarily responsible for maintenance (57.9%), with the government and NHPC also playing a role. Nevertheless, 78.9% believed the project had long-term sustainability.

• **Perceived Benefits**: Over half of the respondents observed improvements in student health (57.9%), and 47.4% felt the toilet environment was safer. However, the perceived impact on attendance was mixed, with 31.6% noting an improvement. Water availability saw improvement for 47.4%, but 36.9% experienced no or slight changes.

## **Social Return on Investment (SROI)**

The CSR initiative has delivered positive returns in terms of hygiene improvement and sustainability. While most respondents noticed tangible benefits like improved student health and sanitation, the mixed perceptions about attendance and inconsistent infrastructure quality suggest that the full social return on investment has not been realized for all stakeholders. There is room for improvement, particularly in ensuring equitable benefits across communities and addressing infrastructural challenges.

## **Alignment with SDG Goals**

The initiative aligns closely with several Sustainable Development Goals (SDGs), particularly:

- **SDG 3:** Good Health and Well-being: The initiative has contributed to a safer and healthier school environment.
- SDG 6: Clean Water and Sanitation: The improvements in water and sanitation facilities directly support this goal.
- **SDG 4: Quality Education**: By improving hygiene and safety in schools, the initiative creates a conducive environment for learning.

## **Major Discoveries**

- **Inconsistent Infrastructure**: While the initiative has improved hygiene and sanitation facilities, there is some variation in infrastructure quality with certain areas having scope for further improvement.
- Mixed Impact on Attendance: There is no clear consensus on whether the initiative has
  led to improved student attendance, pointing to the need for further investigation into this
  aspect.

• Maintenance Challenges: A significant proportion of respondents noted that maintenance practices were inconsistent, potentially compromising the long-term sustainability of the initiative.

## **Policy Gaps and Improvement Areas**

- **Better Stakeholder Engagement**: There is a need for enhanced communication and engagement with local communities to ensure that the initiative addresses their specific needs.
- **Maintenance Support**: Clarifying maintenance responsibility will help to ensure the long-term functionality of the facilities.
- **Monitoring and Evaluation**: Strengthening feedback mechanisms and monitoring systems can help assess the impact more effectively and ensure continuous improvement.

# **Way Forward**

- Enhanced Stakeholder Involvement: Future CSR initiatives should ensure active engagement with all stakeholder groups, particularly the communities directly impacted by the project, to foster a sense of ownership and align initiatives with local needs.
- **Focus on Infrastructure Quality**: Addressing inconsistencies in the quality of infrastructure should be a priority in future implementations. Standardizing facility quality across schools will help provide equitable benefits.
- Sustained Maintenance Plans: Developing clear and robust maintenance plans, with defined roles for schools, the government, and other stakeholders, is crucial for the long-term success of such initiatives.
- **Regular Monitoring and Feedback**: Establishing regular monitoring systems and feedback mechanisms will ensure that the initiative remains aligned with its objectives and can be adjusted as necessary based on real-time data and stakeholder input.

In conclusion, while the CSR initiative has made significant strides in improving school sanitation and water facilities, there is still room for growth, especially in ensuring consistent

maintenance, engaging stakeholders more effectively, and addressing gaps in attendance improvements.

# 1. INTRODUCTION

# 1.1. Context & Need for CSR in School Sanitation Infrastructure

Inadequate sanitation infrastructure in schools remains a persistent challenge in rural and semiurban areas of India, particularly in districts such as **Jalpaiguri and Alipurduar** in West Bengal. Poor maintenance of toilets, lack of consistent water supply, and non-functional sanitation facilities significantly impact hygiene, student attendance—especially of girls—and overall learning outcomes. Despite various governmental initiatives like the **Swachh Vidyalaya Abhiyaan**, several schools continue to face barriers to providing safe, hygienic, and functional toilet facilities.

Recognizing these gaps, Corporate Social Responsibility (CSR) has emerged as a critical mechanism to complement public efforts by ensuring timely and localized interventions. Under the Companies Act 2013, companies are mandated to spend 2% of their average net profits of the company made during the three immediately preceding financial years towards CSR activities in pursuance of their CSR Policy. NHPC Regional Office, Siliguri, implemented a CSR Initiative, which focused on repair, maintenance, and provision of water supply systems in school toilets across Jalpaiguri and Alipurduar districts. The project aimed to:

- Restore functionality to 638 non-operational toilets in 390 schools through repair and refurbishment.
- Ensure sustained water access by installing tube wells and solar-powered pumps in 193 schools covering 309 toilets.
- Address residual infrastructural needs in 49 schools (81 toilets) through further upgrades and interventions.

With a **total expenditure of Rs. 291.60 lakh** and executed over a period spanning **December 2021 to January 2024**, the project significantly improved the sanitation environment for thousands of students. Executed directly by NHPC through **LOA**, the intervention ensured accountability, timely execution, and alignment with government goals.

By focusing on sanitation infrastructure in educational settings, this CSR initiative not only enhanced hygiene standards but also contributed to **improved school attendance**, **better health outcomes**, and a **supportive learning environment**, particularly benefiting **girl students**.

This study assesses the **social, economic, and environmental impact** of this initiative, while also evaluating the **Social Return on Investment (SROI)**. The goal is to understand the broader implications of CSR in strengthening public infrastructure and to draw recommendations for **enhancing the sustainability, reach, and effectiveness** of future interventions in similar contexts.

# 1.2. Objective of the CSR Initiative

Table 1: Objectives of the CSR Initiative

Objective	Description
Restore sanitation infrastructure	Repair and maintain non-functional toilets in schools to ensure
	basic hygiene and sanitation facilities are operational.
Provide access to water supply	Install tube wells and solar-powered water pumps to ensure
r Tovide access to water supply	continuous water availability for toilet use.
Improve health and hygiene	Promote better hygiene practices among school children through
improve health and hygiene	access to clean and functional sanitation infrastructure.
Support girl child education	Address dropout rates among girl students by ensuring privacy,
Support girl crinia cadeation	safety, and hygienic toilet facilities in schools.
Promote sustainability	Use solar-powered pumps and long-term maintenance strategies
Tromote sustainability	to ensure sustainable functioning of sanitation facilities.
Strengthen school environment	Contribute to a more conducive and inclusive learning
Strengthen sensor environment	environment through improved infrastructure.
Align with government initiatives	Support the objectives of the Swachh Vidyalaya Abhiyaan and
,g wien government mittatives	contribute to national goals for school sanitation.

# 1.3. About the University & School of Business Studies

The Central University of Jammu (CUJ) is a premier institution of higher learning located in the Union Territory of Jammu and Kashmir, established by the Central Universities Act, 2009.

Committed to academic excellence and societal engagement, CUJ partners with government agencies and corporate entities in research, development, and evaluation of public welfare projects. CUJ brings technical expertise, field engagement, and impact assessment capabilities to support evidence-based policy and program development.

Since its inception in 2011, CUJ has grown significantly, offering over 50 programs across 21 Departments, 03 Centers, and 01 College. The University has established dedicated research centers and undertakes prestigious national-level projects, including the Kalam Centre for Science and Technology and the Satish Dhawan Centre for Space Technology

The University has a strong research focus, with faculty members undertaking over 40 major/minor research projects of academic and social relevance. CUJ has also signed 24 national and 4 international MoUs/bilateral agreements, and has obtained membership of apex industry/academic bodies like CII, NHRDN, and ICA. The University has adopted villages near its vicinity and undertakes capacity-building programs for teachers and students.

#### **School of Business Studies**

The School of Business Studies, established in 2012, offers a range of programs, including MBA, Ph.D. and Vocational Degree Programs in Business Administration, Human Resource Management, Tourism Management, Marketing Management, Retail Management, And Banking and Financial Services. These programs aim to equip students with multifaceted skills relevant to the contemporary business environment. The school's transactional pedagogy comprises interactive classroom sessions, case presentations, group discussions, and exposure to real-life situations through seminars and workshops. The school has taken several initiatives to drive excellence, including organizing various events and activities. School is able to mobilize resources from various funding agencies for research viz. ICSSR/ UGC /Tribal Affairs/M/O Consumer Affairs/NCW/DST/ EDII/SERB/MHRD/AICTE / J&K Bank /M/O Textile etc. The University faculty has been awarded prestigious National/International Fellowships, project funding and recognition and is constantly contributing to various governmental and nongovernmental sectors through research, consultancy and outreach activities.

## 1.4. About NHPC Limited

NHPC was incorporated on November 7, 1975 as a Private limited company under the name "National Hydroelectric Power Corporation Private Ltd". The company was converted to Public limited company w.e.f. April, 2, 1986. The name of the company was changed to its present name "NHPC Limited" in 2008.

NHPC is a Navratna company with 67.40 % ownership of Government of India. With an Authorized share capital of ₹15,000 crore and an investment base of over ₹ 85,486 crore (as on 31.12.2024), NHPC Limited is the largest hydropower development organization in India, with capabilities to undertake all activities from conceptualization to commissioning of hydro projects. NHPC has also diversified into the fields of solar and wind energy development.

NHPC's total installed capacity as of March 31, 2025, is 8140 MW, including 1,681.70 MW in joint ventures. This comprises 7771.2 MW from 23 hydro power stations, 318.84 MW from six solar power projects, and 50 MW from a wind power project. NHPC's hydro share of 7771.2 MW accounts for about 16.56% of the country's total installed hydro capacity of 46,928.17 MW.

Additionally, nine projects aggregating to a total installed capacity of 4,291 MW are under clearance stage, which includes four hydro and one solar project by NHPC on its own, and four projects (one in hydro and three in solar) in JV mode.

## **VISION**

NHPC's vision is "To be a global leading organization for sustainable development of clean power through competent, responsible and innovative values".

## **MISSION**

- To achieve excellence in development of clean power at international standards.
- To execute & operate projects through efficient and competent contract management and innovative R&D in environment friendly and socio-economically responsive manner.
- To develop, nurture and empower the human capital to leverage its full potential.

 To practise the best corporate governance and competent value-based management for a strong corporate identity and showing concern for employees, customer, environment and society.

To adopt & innovate state-of-the-art technologies and optimize use of natural resources through effective management.

## 1.5. About Corporate Social Responsibility (CSR)

Corporate Social Responsibility (CSR) represents a company's initiative to assess and take responsibility for its effects on environmental and social well-being. As per the Companies (CSR Policy) Rules, CSR refers to activities undertaken by a company in pursuance of its statutory obligations under Section 135 of the Companies Act, 2013, in accordance with the provisions contained in these rules.

The CSR provisions outlined in Section 135 and the Companies (CSR Policy) Rules emphasize not only regulatory compliance but also the promotion of transparency and accountability in how companies contribute to societal and environmental betterment. Schedule VII of the Act provides a comprehensive list of eligible CSR areas, including poverty alleviation, education, gender equality, health, environmental sustainability, and contributions to various government relief funds.

CSR in India is increasingly seen as a means to contribute towards achieving the UN Sustainable Development Goals, aligning corporate strategies with Global/National priorities for inclusive and sustainable growth.

# 1.6. About NHPC's CSR Policy

Corporate Social Responsibility is integral to NHPC's commitment to addressing social, economic, and environmental concerns in the regions it serves. NHPC has a CSR & Sustainability Policy aligned with the specific provisions of CSR under Section 135 of the Companies Act, 2013, the Companies (Corporate Social Responsibility Policy) Rules, and subsequent amendments issued by the Ministry of Corporate Affairs, Government of India.

NHPC also aims to adhere to the CSR guidelines issued by the Department of Public Enterprises (DPE). NHPC has strengthened its commitment to CSR in line with Statutory Provisions.

NHPC has undertaken numerous CSR initiatives for communities residing in and around its projects, power stations, and units, focusing on healthcare, education, sanitation, rural development, skill development, environmental sustainability, women empowerment, and other areas outlined in Schedule VII of the Companies Act, 2013. These efforts aim to foster inclusive growth, support marginalized communities, and contribute to national development.

## 1.7. About Impact Assessment

The Ministry of Corporate Affairs in India requires companies to conduct impact assessments of their CSR initiatives through the amended Companies (CSR Policy) rules. As per the amended Companies (CSR Policy) Rules, everycompanyhavingaverageCSRobligation of 10 crores or more in pursuance of sub-section (5) of Section 135 of the Companies Act,2013,inthethreeimmediatelypreceding financial years, shall undertake impact assessment, through an independent agency, of their CSR projects having outlays of Rs. One Crore or more, and which have been completed not less than one year before undertaking the impact study. Further, a Company undertaking impact assessment may book the expenditure towards Corporate Social Responsibility for that financial year, which shall not exceed two percent of the total CSR expenditure for that financial year or fifty lakh rupees, whichever is higher.

An impact assessment serves as a vital tool to analyze the effectiveness and sustainability of CSR projects. It not only highlights what has been achieved but also assesses how well the projects align with the company's long-term vision and address real community needs. The primary goal of an impact assessment is to provide a clear and measurable understanding of the value created for both society and the company through its CSR efforts.

This study presents the third-party impact evaluation of the CSR initiative, which involved assessment of spending of NHPC on stakeholder satisfaction of NHPC's CSR-supported school sanitation and infrastructure improvement project implemented in various government schools of Jalpaiguri and Alipurduar Districts in West Bengal. The study

examines the impact of this intervention on beneficiaries by combining quantitative data from field surveys with qualitative inputs from stakeholders.

# 1.8. Project Background

The impact assessment focuses on:

- Evaluating the relevance and implementation efficiency of the initiative
- Capturing qualitative feedback from stakeholders and beneficiaries
- Identifying key gaps in maintenance and infrastructure usage
- Recommending improvements and scaling strategies aligned with national goals

This systematic evaluation provides evidence for enhancing CSR program outcomes and ensures alignment with both **community needs** and **Sustainable Development Goals (SDGs).** 

## 2. APPROACH & METHODOLOGY

The impact assessment of the CSR initiativewas conducted using a mixed-method, multistakeholder approach to capture both qualitative and quantitative outcomes of the project. This methodology enabled a comprehensive understanding of the intervention's relevance, effectiveness, efficiency, impact, and sustainability in line with established evaluation standards.

# 2.1. Assessment Objectives

The primary objectives of this impact assessment were:

- To evaluate the **effectiveness** of the school sanitation infrastructure upgrades in improving hygiene, safety, and student experience.
- To examine the **perceived impact** of the intervention on students' well-being, attendance, and satisfaction among key stakeholders.
- To assess the **sustainability** of the project with respect to maintenance practices, institutional ownership, and infrastructure longevity.
- To provide **evidence-based recommendations** for scaling and replicating similar CSR initiatives in other educational settings.

# 2.2. Methodological Framework

The evaluation followed a structured approach aligned with the **OECD-DAC Criteria**, covering:

- Relevance Is the project addressing the sanitation and hygiene needs in schools?
- **Effectiveness** Is the intervention achieving its intended outcomes?
- **Efficiency** How effectively were resources deployed and managed?
- **Impact** What has changed for the beneficiaries and institutions?
- **Sustainability** Will the benefits last beyond the intervention?

## 2.2.1. Stakeholder Mapping

The study engaged the following key stakeholder groups:

• **Students** using the upgraded toilet and hygiene facilities.

- School Staff and Teachers responsible for upkeep and student welfare.
- Parents and Community Members to provide context and perception of value.
- School Administrators and Local Representatives overseeing facility operations.

#### 2.2.2. Sampling Design

A **purposive sampling strategy** was adopted across government schools where sanitation improvements were implemented.

- **Total Sample Frame:** 250 respondents
- Valid Responses Considered for Analysis: 197

This ensured meaningful representation across stakeholder categories and geographic locations.

#### 2.3. Tools of Data Collection

Table 2: Tools of Data Collection

Tool	Purpose
Structured Questionnaire	To gather stakeholder feedback on awareness, usage, satisfaction, and observed improvements.
In-depth Interviews	To collect qualitative insights from school heads, staff, and local leaders.
Observation & Site Visits	To physically verify usage, cleanliness, and maintenance of upgraded facilities.
Geo-tagged Photographs	To visually document project outputs and infrastructure conditions.

#### 2.4. Data Collection Timeline & Process

- The fieldwork was conducted across selected schools.
- A team of trained investigators conducted surveys and interviews, supervised by senior researchers.
- Ethical considerations such as informed consent, confidentiality, and child safety protocols were strictly followed.

## 2.5. Data Analysis Strategy

Data analysis integrated both quantitative and qualitative techniques, including:

- **Descriptive statistics** to summarize awareness, satisfaction, and usage trends.
- Cross-tabulation to explore relationships between respondent types and impact indicators.
- Social Return on Investment (SROI) assessment.

Analysis tools included **Excel, Python, and qualitative coding frameworks** for pattern extraction and thematic insights.

#### 2.6. Measure of Sustainability

Sustainability was assessed across four interrelated dimensions:

Table 3: Measure of Sustainability

Dimension	Evaluation Focus		
Institutional Support	Availability of maintenance systems, assigned responsibilities, and staff involvement.		
Operational Continuity	Facility usage patterns, cleanliness upkeep, and consistent functioning of infrastructure.		
Financial Planning	Insights into resource allocation, budgeting for maintenance, and long-term planning from stakeholders.		
Stakeholder Engagement	Satisfaction levels, community recommendations, and suggestions for improvement.		

## 2.7. Social Return on Investment (SRoI): Methodological Note

This SROI assessment adopts a qualitative and perception-based methodology to evaluate the social impact of NHPC's CSR initiative aimed at ensuring functional school sanitation infrastructure in the districts of Jalpaiguri and Alipurduar, West Bengal. The project spanned multiple phases from 2021 to 2024 and involved repairing dysfunctional toilets, installing water supply systems, and addressing residual infrastructure gaps.

#### 2.7.1. Theme-based Assessment Approach

Structured field assessments, stakeholder surveys, and on-site observations were used to evaluate the following thematic outcomes:

- Infrastructure Restoration: Refurbishment of 638 school toilets across 390 schools
- Water Access: Installation of tube wells and solar-powered pumps in 309 toilets
- Hygiene & Health: Improved student access to clean sanitation facilities
- Sustainability: Follow-up interventions for 81 toilets in 49 schools, ensuring long-term usability
- Inclusiveness & Dignity: Attention to gender-sensitive design and inclusive school environments

#### 2.7.2. Composite Value Indicators Considered

The SROI was based on community perceptions and educational stakeholder feedback, focusing on:

- Increase in toilet usage and reduction in student absenteeism, especially among girls
- Enhanced water availability, making toilets usable year-round
- Perception of improved hygiene, leading to a more conducive school learning environment
- Reinforced community trust in CSR projects through multi-phase, gap-closing implementation
- Long-term health and dignity benefits for students and staff

#### 2.7.3. Stakeholder-centric Insights

Feedback from school principals, teachers, and SMC members emphasized:

- "Earlier the toilets were just structures. Now they are used daily and kept clean."
- "Water supply was a game-changer students now don't hesitate to use the facilities."
- "Multiple rounds of intervention show NHPC's commitment to real change."

Such responses highlight the tangible improvement in educational and hygiene infrastructure, reflecting deeply felt social value.

#### **Justification for Qualitative SROI**

- The value of restored sanitation infrastructure, especially in rural or underfunded schools, goes beyond financial estimation.
- Attempting to monetize dignity, menstrual hygiene support, or health improvements would undermine the qualitative nature of these gains.
- This approach aligns with Swachh Vidyalaya Abhiyaan goals, India's CSR framework, and international development principles (SDG 6 – Clean Water and Sanitation; SDG 4 – Quality Education).

The qualitative SROI assessment confirms that NHPC's multiyear intervention has significantly improved sanitation access, hygiene awareness, and infrastructure reliability in government schools. The progressive and needs-based implementation reflects high responsiveness and social return, strongly endorsed by stakeholders as a replicable model of CSR-led school sanitation projects.

## Research Methodology in Brief

Table 4: Snapshot of Research Methodology

Component	Details	
Objective	To assess the social, economic, and environmental impact of the CSR initiative on school sanitation infrastructure and water supply in Jalpaiguri & Alipurduar districts.	
Scope	Evaluating the effectiveness, efficiency, sustainability, impact, and Social Return on Investment (SROI) of the CSR initiative implemented by NHPC.	
Study Area	Schools in Jalpaiguri & Alipurduar districts where the sanitation and water supply initiatives were undertaken.	
Stakeholders	School students, teachers, school management, parents, local community members, local government representatives.	
Research Design	Mixed-method approach (Quantitative & Qualitative)	
Data Collection	Primary Data (Surveys, FGDs)	
Sampling	Stratified Random Sampling - ensuring representation across different	
Method	school sizes and socio-economic contexts.	
Sample Size	197	
Data Analysis	Descriptive Statistics, Social Return on Investment (SROI) methodology, Qualitative analysis	
	Relevance & Effectiveness; Alignment with community needs & impact on education and hygiene.	
	Efficiency: Cost-effectiveness & resource utilization.	
Evaluation	Sustainability (Long-term functionality & maintenance).	
Criteria	Impact (Social, Economic, Environmental): Overall	
	improvement in sanitation, health, and education outcomes.	
	<ul> <li>SROI Assessment</li> <li>Coherence: Alignment with broader CSR and governmental</li> </ul>	
	sanitation programs.	
Reporting	Comprehensive report with recommendations for improving future CSR initiatives.	

### 3. CSR ACTIVITY DETAILS

The CSR intervention by NHPC Limited, Regional Office- Siliguri, focused on the repair and maintenance of dysfunctional school toilets and the installation of water supply systems, in government schools across Jalpaiguri and Alipurduar districts of West Bengal.

This initiative is part of NHPC's commitment to promoting health, and sanitation under its Corporate Social Responsibility (CSR) initiative. It addresses critical barriers to hygiene, dignity, and school attendance, especially for girl students by ensuring access to clean, functional, and safe sanitation facilities.

Table 5: Summary of CSR Activity Details

Location	Activity Description	Expenditure Incurred (Rs. In Crore)	Brief About Activity
Districts: Jalpaiguri & Alipurdwar West Bengal	Repair & Maintenance and providing Water Supply system in School toilets constructed by NHPC RO, Siliguri.	2.92	During FY 2021-22, NHPC Regional Office, Siliguri identified 638 dysfunctional toilets in 390 schools in West Bengal's Jalpaiguri and Alipurduar districts for repair and maintenance. Under the "Swachh Vidyalaya Abhiyaan," Rs. 155 lakh was allocated in FY 2021-22 for refurbishing these toilets, and the work was completed with an expenditure of Rs. 152.09 lakh. In FY 2022-23, Rs. 147.29 lakh was allocated to install tube wells and solar pumps for 309 toilets in 193 schools. The tube wells were installed, costing Rs. 87.11 lakh.  However, 81 toilets in 49 schools required further work, leading to an allocation of Rs. 62.68 lakh in FY 2023-24. The final work,completed on January 4, 2024, cost Rs. 52.39 lakh.  Project implementation period: 18/12/2021 to 04/01/2024  Total expenditure: Rs. 291.60 Lakh  Executing Agency: NHPC (Work done through LOA/ GeM)

## 3.1. Scope of Intervention

The project involved:

- Repair and maintenance of 638 non-functional toilets across 390 schools
- Installation of water supply systems, including tube wells and solar pumps, in 309 school toilets
- Follow-up repair work for 81 toilets in 49 additional schools, based on fresh assessments These interventions were executed across three financial years (2021–22 to 2023–24), with a total expenditure of ₹291.60 lakh. The final phase was completed on 4th January 2024.

The initiative directly supported improved WASH (Water, Sanitation and Hygiene) services in schools, contributing to better hygiene practices, safer school environments, and increased dignity for students. It also reduced the dependency on shared or external facilities and addressed long-standing sanitation infrastructure gaps in the region.

## 3.2. Alignment with NHPC CSR Policy

This initiative is fully aligned with the principles and objectives outlined in NHPC's Corporate Social Responsibility Policy. By strengthening of school-level infrastructure and ensuring reliable water access, NHPC has directly contributed to sustainable development, child health, and education equity in its operational areas.

#### 3.3. Role of Partner Institutions

The successful implementation of this large-scale CSR initiative was made possible through coordination and collaboration with various partner institutions, including:

- District Education Departments and Block-level School Authorities
- School Management Committees (SMCs)
- Technical Vendors and Contractors, engaged for execution of civil works and installation of tube wells/solar pumps
- On-ground Implementation Teams and monitoring supervisors, who ensured quality control, documentation, and timely completion

These partnerships ensured efficient execution, contextual customization, and community ownership, enabling long-term impact and sustainability of the facilities created under the project.

## 4. ANALYSIS & INTERPRETATION

## 4.1. Data Analysis & Findings

## 4.1.1. Demographic & General Information

Figure 1: Demographic & General Information

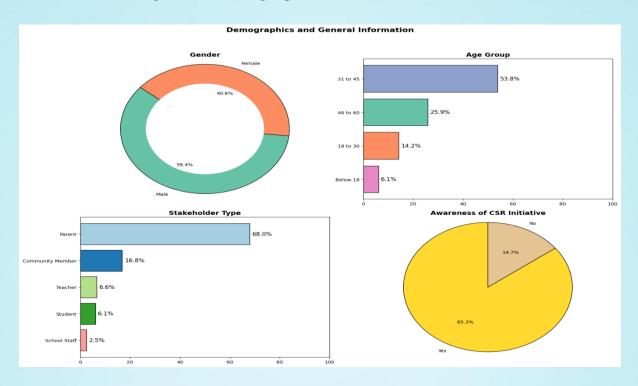


Table 6: Demographic & General Information

Variable	Key Insights	Discussion Summary
	Majority of respondents are Male	The respondent pool is predominantly
Gender	(59.4%), with Female	male, but female participation is
	representation at 40.6%.	substantial.
	Respondents aged 31 to 45 forms	The middle-aged group (31–45)
Age Group	the majority (53.8%), followed by	dominates, indicating active
	46 to 60 (25.9%).	engagement among working-age adults.
Stakeholder	Parents constitute the largest group	The dominance of parents suggests
	(68.0%), followed by Community	strong community and parental
Type	Members (16.8%).	involvement in the initiative.
Awareness of	A significant majority (85.3%) are	High awareness indicates effective
CSR Initiative	aware of the CSR initiative.	communication and outreach efforts
	aware of the CSK littlative.	about the CSR program.

## 4.1.2. Relevance & Effectiveness of the CSR Project

Figure 2: Relevance & Effectiveness of the CSR Project

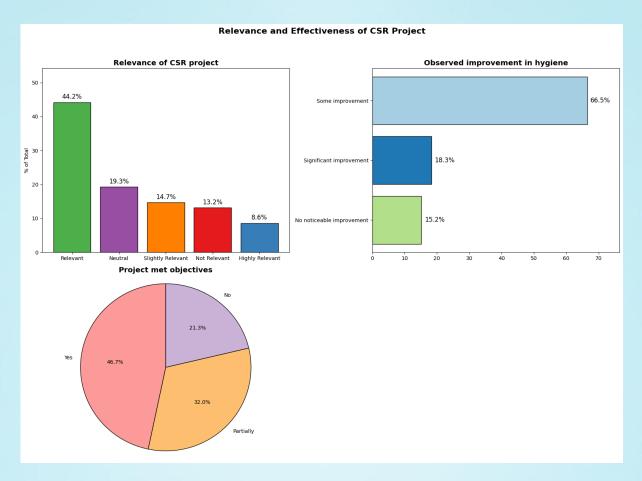


Table 7: Relevance & Effectiveness of the CSR Project

Variable	Key Insights	Discussion Summary
Relevance of CSR	44.2% found the project "Relevant"	A majority found the project
	and 8.6% "Highly Relevant"; only	meaningful in addressing
project	13.2% said "Not Relevant".	sanitation and water challenges.
Observed	66.5% observed "Some	Most respondents acknowledged
improvement in	improvement", and 18.3% noticed	improvements in school hygiene
hygiene	"Significant improvement".	due to the CSR efforts.
Project met	46.7% agreed the project met its	Nearly half perceived full success
objectives	objectives; 32.0% said "Partially",	of the project, though a third felt
Objectives	and 21.3% said "No".	partial fulfillment.

## 4.1.3. Efficiency of CSR Initiative

**Efficiency of the CSR Project** Implementation efficiency Quality and functionality 60 52.8% 50 6.6% Don't Know/Can't say 29.4% % of Total 27.4% 20 15.2% 10 -2.5% 2.0%

Figure 3: Efficiency of CSR Initiative

Table 8: Efficiency of CSR Initiative

Average

Very Poor

Excellent

Variable	Key Insights	Discussion Summary
	64.0% believe the project	A majority of respondents perceived the
Implementation	was efficiently	project to be efficiently executed, though
efficiency	implemented; 29.4% were	nearly a third were uncertain, suggesting
	unsure.	communication or engagement gaps.
Quality and	Over half rated it as "Good"	Although most rated the facilities
Quality and functionality of facilities	(52.8%), while 27.4% said	positively, a notable portion expressed
	"Average" and 15.2% "Very	dissatisfaction, highlighting the need for
	Poor".	quality checks and consistent standards.

## 4.1.4. Sustainability of CSR Project

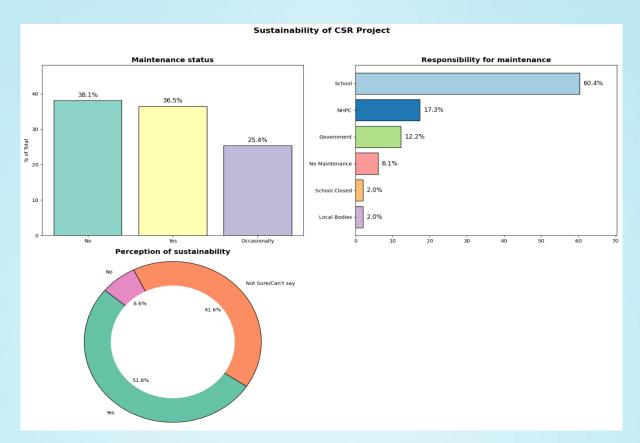


Figure 4: Sustainability of CSR Project

Table 9: Sustainability of CSR Project

Variable	Key Insights	Discussion Summary
	38.1% reported no	The responses are nearly split, with a
Maintenance	maintenance; 36.5% said	sizable proportion indicating lack of
status	maintenance is being done	upkeep, highlighting concerns over
	regularly.	sustainability.
	60.4% believe schools are	Responsibility for maintenance is
Responsibility for	responsible; only 17.3% said	perceived as mainly falling on schools,
maintenance	NHPC, and 12.2% cited	suggesting the need for clear role
	Government.	allocation and institutional support.
	51.8% believe the project is	Over half view the project as sustainable;
Perception of sustainability	1 3	however, a large share of uncertainty
	sustainable, while 41.6% are	indicates room for improved long-term
	unsure.	planning and awareness.

## 4.1.5. Impact of CSR Initiative

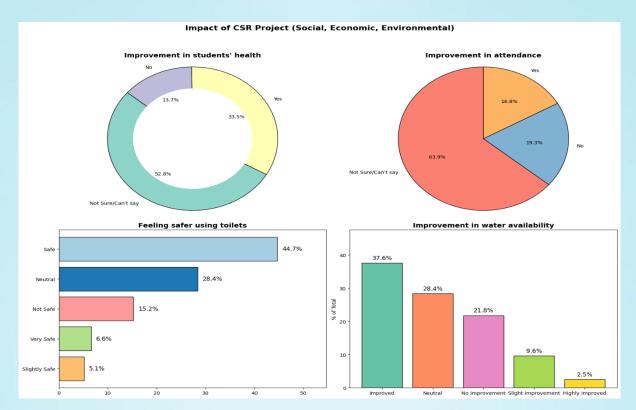


Figure 5: Impact of CSR Initiative

Table 10: Impact of CSR Initiative

Variable	Key Insights	Discussion Summary
Improvement in students' health	33.5% observed improvement; over half (52.8%) were unsure.	One third saw positive health impact, but a large group was unsure—highlighting the need for awareness or monitoring mechanisms.
Improvement in attendance	Only 16.8% observed improvement; 64.0% were unsure.	Few respondents perceived attendance gains, with high uncertainty suggesting the need for clearer impact tracking.
Feeling safer	44.7% felt safe, while 28.4%	Majority feel safe, showing improvement
using school	remained neutral and 15.2%	in infrastructure perception, though some
toilets	felt unsafe.	safety concerns still persist.
Improvement in water availability	37.6% reported improvement, while 28.4% were neutral and 21.8% saw no change.	Water availability has improved for many, yet a significant proportion remains neutral or dissatisfied, indicating inconsistent outcomes.

## 4.1.6. Social Return on Investment (SRoI)

Figure 6: Social Return on Investment (SROI)

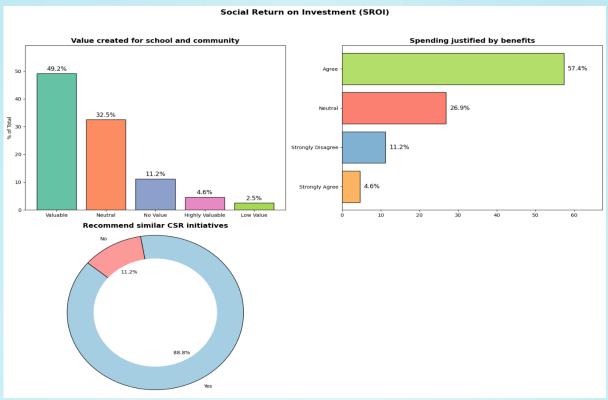


Table 11: Social Return on Investment (SRoI)

Variable	Key Insights	Discussion Summary
Value created for school and community	49.2% found the project "Valuable"; 32.5% were "Neutral"; 11.2% said "No Value".	Almost half of the respondents perceived strong value creation, though one-third remained neutral, suggesting room for clearer impact demonstration.
Spending justified by benefits	57.4% agreed the spending was justified; 26.9% were neutral; 11.2% strongly disagreed.	The majority believe the CSR spending was worthwhile, although some scepticism persists, highlighting the need for transparency and measurable outcomes.
Recommendation for similar initiatives	88.8% recommend replicating the initiative; only 11.2% disagreed.	Overwhelming support for scaling up CSR efforts indicates strong social approval and perceived relevance across schools.

## 4.1.7. Coherence & Recommendations

Figure 7: Coherence & Recommendations

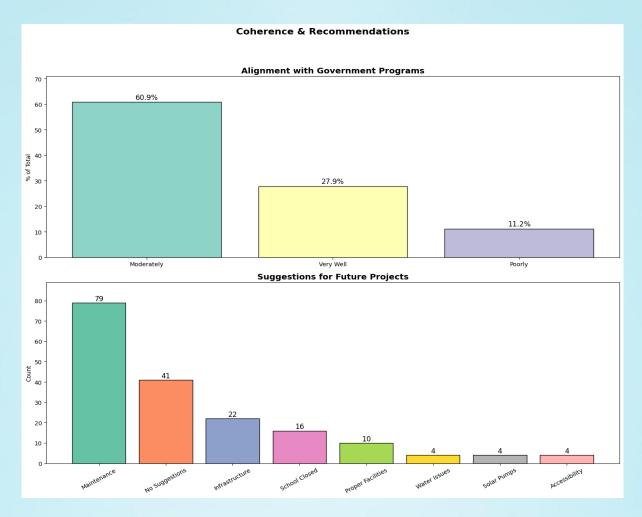


Table 12: Coherence & Recommendations

Variable	Key Insights Discussion Summary	
Alignment with govt programs		The project moderately aligned with government programs, indicating scope for better integration and collaboration.
Suggestions for improvement	40.1% suggested maintenance as the key improvement area.	Feedback emphasized maintenance and infrastructure as recurring concerns, signaling the need for ongoing support postimplementation.

## 4.2. Summary of Findings

Table 13: Summary of Findings

Theme	Key Highlights	Insight
Demographics &	Majority were male (59.4%);	Strong awareness and stakeholder
Awareness	85.3% were aware of the CSR	involvement suggest effective
	initiative; parents were the largest	outreach and relevance of the
	stakeholder group.	initiative in the school community.
Relevance &	52.8% observed improvement in	Perceived relevance and partial
Effectiveness	hygiene; 46.7% believed	success point to visible impact,
	objectives were met; 44.2% found	though some respondents were
	the project relevant.	neutral or unsure, signalling the
Tico: •	54.00/	need for better communication.
Efficiency	64.0% felt the project was	The majority viewed
	efficiently implemented; 52.8%	implementation positively.
	rated quality as good; 27.4% rated	
Sustainability	it average.  38.1% said there was no	Perceived sustainability is
Sustamaomity	38.1% said there was no maintenance; 60.4% believe	Perceived sustainability is moderate, but unclear ownership of
	school is responsible; 51.8%	maintenance responsibilities risks
	believe project is sustainable.	long-term effectiveness.
Impact (Social,	44.7% felt safer using toilets;	While the project has positive
Economic,	37.6% reported improved water	effects, uncertainty around some
Environmental)	availability; 33.5% saw health	outcomes indicates the need for
,	improvements; 64% were unsure	ongoing assessment and community
	about attendance impact.	engagement.
Social Return on	49.2% found it valuable; 57.4%	Clear indication of public support
Investment	agreed spending was justified;	and high perceived value - strong
	88.8% recommended replicating	justification for scaling and
	the initiative.	continued investment.
Coherence &	60.9% felt the project aligned	The project aligns well with broader
Recommendations	moderately with govt programs;	government initiatives, but long-
	top suggestion (40.1%) was	term impact hinges on improving
	maintenance improvement.	maintenance and infrastructure
		sustainability.

The CSR School Sanitation and Infrastructure initiative has achieved:

- **Widespread awareness** and recognition among stakeholders, particularly parents and school staff, for its relevance and benefits.
- **Moderate to strong alignment** with government initiatives such as Swachh Bharat and school development programs.
- **Positive impact on hygiene, safety, and sanitation**, with visible improvements in water availability and infrastructure usage.
- **Strong endorsement for replication**, with 88.8% recommending similar CSR initiatives in other schools.
- **Perceived value and effective implementation**, with more than half agreeing that project spending was justified and objectives were met.

However, continued success depends on:

- Clear assignment of maintenance responsibilities, particularly between schools, government bodies
- Addressing operational gaps such as inconsistent maintenance and facility functionality, especially in remote or closed schools.
- **Strengthening perceived outcomes**, especially in student health and attendance, by improving monitoring and communication of impact.
- **Incorporating stakeholder suggestions**, including infrastructure upgrades, installation of solar pumps, and enhanced accessibility for all students.

## 4.3. Policy Recommendation

Based on the findings of the impact assessment, this section outlines key policy-level recommendations to enhance the effectiveness, sustainability, and scalability of CSR initiatives related to school sanitation infrastructure. These recommendations are drawn from stakeholder feedback, field observations, and outcome evaluations. They aim to support NHPC and relevant implementing agencies in strengthening future interventions and aligning them with national development goals and community needs.

The recommendations are further mapped to their expected outcomes and aligned Sustainable Development Goals (SDGs) to ensure strategic direction and impact coherence.

Table 14: Policy Recommendation

Policy Recommendation	<b>Expected Outcome</b>	Aligned SDG(s)
Ensure regular maintenance and accountability mechanisms	Improved longevity and functionality of sanitation and hygiene infrastructure	SDG 6 – Clean Water and Sanitation
Clearly define maintenance roles between schools, NHPC, and local bodies	Enhanced sustainability through shared responsibility and reduced facility neglect	SDG 17 – Partnerships for the Goals
Strengthen community awareness on usage and hygiene practices	Increased responsible usage and better health outcomes among students	SDG 3 – Good Health and Well- being
Address infrastructure and accessibility gaps in remote or closed schools	Inclusive development ensuring no school or student is left behind	SDG 10 – Reduced Inequalities
Implement feedback loops and monitoring systems	Evidence-based improvements, real-time issue resolution, and improved transparency	SDG 16 – Peace, Justice and Strong Institutions
Scale up successful CSR models to other schools and regions	Broader impact, replicability, and optimization of CSR resources	SDG 4 – Quality Education
Include solar-powered and water- efficient innovations	Environmentally sustainable sanitation solutions	SDG 13 – Climate Action

#### 4.4. Conclusion

The CSR initiative has made a meaningful social impact in improving school sanitation infrastructure, promoting hygiene, and fostering a culture of safety and dignity for students. It has also demonstrated strong community engagement and stakeholder trust, laying the groundwork for broader educational and health-based outcomes. However, the feedback indicates that long-term sustainability depends on continuous improvement, stronger institutional coordination, and addressing operational challenges at the ground level.

#### **Impact:**

 High stakeholder satisfaction, with 88.8% recommending similar initiatives across other schools.

- Improved toilet infrastructure and water availability, leading to safer and more hygienic environments.
- Strong Social Return on Investment (SROI) with most respondents affirming the value and justification of spending.
- Alignment with national missions like Swachh Bharat Abhiyan, contributing to public health goals.

#### **Challenges:**

- Maintenance inconsistencies and unclear responsibilities between schools, NHPC, and local bodies.
- A sizable percentage of respondents were uncertain about actual health and attendance benefits, indicating a communication or monitoring gap.
- Limited inclusion of modern and accessible infrastructure, especially in remote areas.

#### **Recommendations:**

- Establish structured maintenance plans with defined roles for schools, NHPC, and local bodies.
- Implement regular monitoring, evaluation, and feedback loops to ensure continued relevance and impact.
- Expand the CSR initiative to more underserved or remote schools, incorporating features like solar pumps and ramps for inclusivity.
- Align future CSR activities with relevant Sustainable Development Goals (SDGs) such as SDG 3, 4, 6, 10, 13, and 17 for greater coherence and global relevance.

#### 5. SUCCESS STORIES OF CSR ACTIVITY

Breaking Barriers with Basic Dignity: A Girl Student's Story from Shukchand Jr High School, West Bengal

In the remote village of Purba Jharbeltali in Alipurduar District, West Bengal, a 13-year-old girl from Shukchand Jr High School once faced a daily struggle—attending school without access to safe, hygienic sanitation facilities. The school's old toilet structure was broken and lacked running water, forcing many students,



especially girls, to either suppress their needs or skip school altogether. For adolescent girls, days of discomfort often translated into missed classes, health issues, and social embarrassment.



This changed when NHPC, under its Corporate Social Responsibility (CSR) initiative, stepped in. Proper toilets with running water supply was ensured with minor repair and maintenance work. More than just repair and maintenance, the project brought awareness and dignity—teachers began discussing hygiene, handwashing, and

the importance of cleanliness. For the girls in the school, this meant privacy, safety, and most importantly, freedom. The impact was immediate and profound. Attendance among girl students improved, particularly during menstruation days. Students began practicing regular hand washing, and the overall school environment became more inclusive and respectful. The intervention removed a silent barrier to education—restoring the right to learn with dignity.

In conclusion, NHPC's CSR initiative made a crucial difference in the lives of rural students, particularly girls, by addressing sanitation gaps in schools. It created an enabling environment

for education, safety, and empowerment. To ensure the momentum continues, the story reminds us that maintenance is as vital as construction in any impactful CSR effort.

# Restoring Dignity and School Attendance: A Teacher's Perspective from Deogaon, West Bengal

In Deogaon Village, nestled within the Alipurduar District of West Bengal, the absence of basic sanitation infrastructure once posed a serious challenge to the functioning of Madan Gopal



Chakraborty SSK, a local government school. For years, students and staff operated without functional toilets. The lack of hygienic facilities made it particularly difficult for female students, many of whom chose to stay home during menstruation, causing regular absenteeism and disengagement from learning.

Ms. [Name Withheld], a 55-year-old teacher, witnessed this struggle daily. Creating a safe and healthy environment for students felt like an uphill battle, especially when the most fundamental requirements for sanitation were missing.

The transformation began when NHPC, through its Corporate Social Responsibility (CSR) initiative, provided the school with well-maintained toilet blocks equipped with running water. The onset of these facilities brought a visible shift in the school's environment—

cleanliness improved, the atmosphere became more respectful, and the infrastructure began to reflect the dignity the students deserved.

"The CSR support from NHPC helped us improve student attendance and create a better learning environment. We hope the same attention is given now to maintenance," shared the teacher, reflecting on both the progress made and the challenges ahead.

The results were clear—attendance among adolescent girls rose, and conversations around health and hygiene became more open and normalized in the school setting. Teachers could now educate students about sanitation without hesitation, leading to a more informed and confident student body.

In conclusion, the CSR intervention by NHPC addressed a deeply rooted problem, transforming not only infrastructure but also attitudes and attendance. To uphold and sustain the progress achieved, it is vital to now focus on maintenance and refurbishment, ensuring that the gains made in education, dignity, and health are not lost.

#### From Relief to Reversal: A Teacher's Call for Sustained Sanitation at Ramzan Ali Smriti SSK

Nestled in Deogaon Village, Alipurduar District of West Bengal, Ramzan Ali Smriti SSK was once a school where the lack of basic sanitation severely disrupted daily life. For Ms. [Name



Withheld], a 62-year-old teacher, the challenges were evident and recurring—no functioning toilets, no privacy, and constant inconvenience for both teachers and students, particularly adolescent girls. Students were forced to seek open spaces, raising concerns about hygiene, safety, and dignity.

This grim scenario began to change

when NHPC, under its Corporate Social Responsibility (CSR) program, intervened with providing the running water facility to make these toilets functional for boys, girls, and staff.

The change was immediate and deeply felt. The school environment became cleaner and more disciplined, and most importantly, attendance improved among girl students who now felt safer and more comfortable in the school space. Teachers, too, experienced daily relief from the earlier discomfort.

#### "The CSR project gave us a big boost," shared the teacher.

In conclusion, NHPC's CSR intervention provided a critical lifeline to the school, helping it rise above long-standing sanitation challenges. But this story is also a cautionary one: without continued maintenance, even the most impactful CSR efforts can unravel. There is now an urgent need for repair and refurbishment that the initiative had once successfully achieved.

#### When Maintenance Matters: MILAN SSK's Journey from Hope to Hurdle

In the quiet lanes of Deogaon Village, nestled in West Bengal's Alipurduar District, MILAN SSK once stood as a testament to resilience in the face of neglect. With no functional toilets, students—particularlygirls—struggled daily with discomfort, absenteeism, and health issues. The few existing toilets remained locked or unusable, and running water was a distant hope. For Ms. [Name Withheld], a 42-year-old teacher, the experience was both professionally and personally distressing.

The tide turned when NHPC, under its Corporate Social Responsibility (CSR) initiative, undertook the repair and maintenance of toilet blocks in the school. With separate units for boys, girls, and staff, along with water connections and hygiene awareness sessions, the intervention

arrived like a breath of fresh air. It wasn't just about brick and mortar—it was about restoring dignity, ensuring safety, and making the school a more welcoming place for both learners and educators.



"Repair and maintenance of toilets with tap water was a great step, but maintaining them is what truly sustains the impact. Right now, our students are back to suffering due to neglect," shared the teacher.

The initial changes were remarkable. Girl students attended school more regularly, teachers could work in peace, and conversations around hygiene became normal. Classrooms became more than just learning spaces—they were now safe and inclusive environments.



Yet, with time, the absence of a maintenance system began to erode the impact. Blocked drains, broken doors, and irregular water supply turned the once-revived sanitation facilities into yet another obstacle.

In conclusion, NHPC's CSR intervention was vital and effective, creating immediate and meaningful improvements in the school's hygiene infrastructure. But

as MILAN SSK's story shows, the sustainability of impact relies not just on creation but also on continued care. For the dignity and health of students to be preserved, timely refurbishment and maintenance are essential.

#### Rebuilding Trust and Attendance through Sanitation – The Journey of Jharbeltali MSK

In the heart of Deogaon Village, nestled in West Bengal's Alipurduar District, Jharbeltali MSK was grappling with a silent crisis—broken toilets, no water, and dwindling student morale. For Mr. [Name Withheld], a 55-year-old teacher, it was a constant struggle to keep children—especially girls—attending school regularly. The fear of infections, lack of privacy, and parental concerns about hygiene pushed many students to leave early or stay home altogether.

Then came the turning point. NHPC, under its Corporate Social Responsibility (CSR) initiative, stepped in to make these toilet blocks functional with running water. These weren't just

functional improvements—they were symbols of safety and dignity. Separate toilets for boys, girls, and staff were built, complete with handwashing stations and proper drainage systems.

"The toilets brought a big improvement in attendance and morale. We need to maintain them to preserve this progress," shared the teacher.

The changes were immediate and visible. Girls felt safer, student attendance improved, and the trust of parents was regained. Teachers could now concentrate fully on academics without worrying about the health risks posed by poor sanitation. The school atmosphere transformed into one of dignity, inclusion, and attentiveness.

In conclusion, NHPC's CSR support played a pivotal in upgrading the school's hygiene infrastructure, bringing relief and renewed participation from students and staff alike. But the true test of impact lies in sustainability. Without timely upkeep, even the most well-intentioned interventions can lose their effect. It is now imperative to act swiftly to preserve and build upon the progress achieved.

## 6. SYNOPTIC GLIMPSE OF DATA COLLECTION



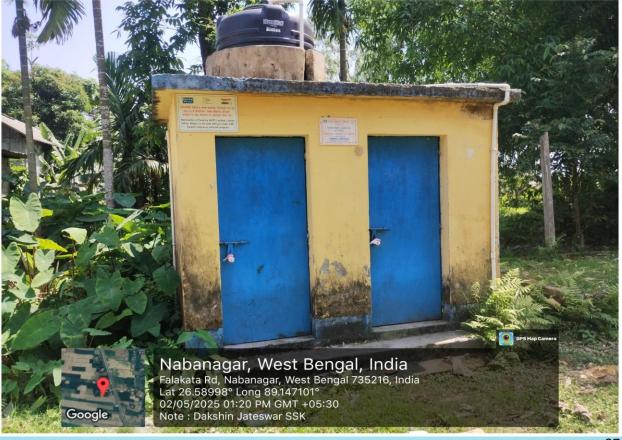














# RECTIFICATION / MAINTENANCE / REFURBISHMENT WORK OF THE DYSFUNCTIONAL TOILETS TO MAKE THEM WORKABLE

**LOCATION: ASSAM & ARUNACHAL PRADESH** 



Central University of Jammu www.cujammu.ac.in

**Impact Assessment Report 2025** 

# **PROJECT SUMMARY**

CSR Project Name	Rectification/ maintenance/ refurbishment work of the dysfunctional toilets to make them workable	
Executed By	School Management Committees of the respective Schools	
Supported By	NHPC Limited	
Total Expenditure	₹692.77 Lakh	
Duration	13/12/2021 to 31/12/2022	
Location	Assam (Dhemaji, Lakhimpur, Majuli, Jorhat, Sivasagar, Charaideo,	
	Biswanath, Sonitpur, Nagaon, Darrang, Barpeta, Cachar, Kamrup	
	Rural, and Nalbari) and Arunachal Pradesh (PapumPare,	
	WestSiang, Lower Siang, and Leparada).	

## **ACKNOWLEDGEMENTS**

We are grateful to the ALMIGHTY for giving us the opportunity to undertake this Impact Assessment Study and for the perseverance to see it through to completion.

We express our sincere gratitude to **Prof. Sanjeev Jain**, Hon'ble Vice Chancellor, Central University of Jammu for his constant encouragement, timely administrative approvals and unflinching support for successful completion of the study. His abiding commitment to scholarship and academics has been an inspiring example and we are grateful to him for his guidance and mentorship.

We owe our gratitude to District Administration of respective Districts for invaluable support and cooperation related to data collection from Dhemaji, Lakhimpur, Majuli, Jorhat, Sivasagar, Charaideo, Biswanath, Sonitpur, Nagaon, Darrang, Barpeta, Cachar, Kamrup Rural, and Nalbari Districts of Assam and Papum Pare, West Siang, Lower Siang, and Leparada Districts of Arunachal Pradesh.

We are sincerely grateful to officials of **Department of School Education of Assam and Arunachal Pradesh** for extending their support in data collection and providing useful inputs about CSR initiative undertaken by NHPC Subansiri Lower H.E. Project under the Swachh Vidyalaya Abhiyaan.

We owe our special thanks to Office Bearers of NHPC CSR & SD Division, Faridabad and NHPC officials from NHPC Subansiri Lower H.E. Project for their time, openness, and valuable inputs about the CSR initiative. Their dedication and first-hand experiences were central to understanding the real-world implications of the CSR intervention.

We also sincerely thank the beneficiaries and stakeholders who participated in the field surveys and focus group discussions. Their voices brought depth and context to our findings. We express our heartfelt gratitude to all those who contributed to the successful completion of this impact assessment study. This study would not have been possible without the NHPC and implementing partner organizations. Their commitment to improving Swachhta in Schools has provided the foundation for meaningful and measurable impact.

We are thankful to **Dr. Sankar Thappa**, Head, Department of Management, Rajiv Gandhi University, Rono Hills, Doimukh Arunachal Pradesh for extending his support for academic collaboration for field work. We acknowledge the tireless efforts of the data collection team and field coordinators who ensured rigorous data gathering under often challenging conditions. We are also grateful to School Management Committees of the respective Schools for their guidance and facilitation throughout the study period data collection and focus group discussions with stakeholders.

Finally, special thanks to **Dr. Kavyashree K. M** and other team members who translated field evidence into actionable insights. We are indebted to **Prof. Yashwant Singh**, Registrar, Central University of Jammu and faculty members from School of Business Studies, Central University of Jammu who have been a constant source of encouragement and moral support for our academic accomplishment and the timely completion of this study.

-Project Directors

## **PREFACE**

Access to clean and functional sanitation facilities in schools is fundamental to ensuring the health, dignity, and well-being of children, especially in rural and underserved areas. In India, significant strides have been made under the Swachh Vidyalaya Abhiyan, yet the long-term usability of such infrastructure remains a challenge due to poor maintenance, wear and tear, and limited local ownership.

This report presents the findings of an independent impact assessment of a CSR initiative undertaken by NHPC to restore, maintain, and refurbish dysfunctional school toilets across 14 districts in Assam and 4 districts in Arunachal Pradesh. Implemented through the respective School Management Committees (SMCs), the project aimed to improve sanitation standards, school hygiene, and student attendance, particularly among girls.

Adopting a mixed-methods approach, the study draws upon both quantitative data from 445 respondents and qualitative insights from school staff, SMCs, students, and community representatives. It evaluates the project's effectiveness in terms of relevance, efficiency, impact, sustainability, and social return on investment (SROI). The findings are also assessed against national development priorities and aligned with the Sustainable Development Goals (SDGs) related to health, education, gender equality, and infrastructure.

This assessment aims to inform policy direction, improve future interventions, and enhance the sustainability of school sanitation infrastructure under CSR, ensuring that such efforts yield long-term benefits for communities most in need.

# PROJECT IMPACT ASSESSMENT TEAM MEMBERS

S. No	Name	Designation	
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10	Ms. Obinam Tayen		
11	Ms. Lukter Nada		
12	Ms. Upasana Saikia		
13	Ms. Runjun Medhi		
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16	Mr. Prantosh Dangi		
17	Mr. Deepak Thapa		
18	Ms. Deboshree Baruah		
19	Sh. Udit Mahajan	Technical Advisor	

# **LIST OF ABBREVIATIONS**

Abbreviations	Expressions
OECD	The Organisation for Economic Co-operation and Development
SDG	Sustainable Development Goals
SROI	Social Return on Investment

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# **EXECUTIVE SUMMARY**

This study evaluates stakeholder perceptions regarding the effectiveness and impact of a Corporate Social Responsibility (CSR) initiative focused on repairing and maintaining toilets in schools located at Dhemaji, Lakhimpur, Majuli, Jorhat, Sivasagar, Charaideo, Biswanath, Sonitpur, Nagaon, Darrang, Barpeta, Cachar, Kamrup Rural, Nalbari in Assam, Papum Pare, West Siang, Lower Siang, and Leparadain Arunachal Pradesh. A total of 363 respondents participated in the survey, representing various stakeholder groups including teachers (29.5%), SMC members (21.8%), school principals (21.8%), students, and local authorities. The gender distribution was moderately balanced, with males representing 59% and females 41%. The majority of respondents (79.6%) were between the ages of 31 and 60, reflecting insights from mature, experienced stakeholders.

#### **Key Findings**

**Awareness and Relevance**: 68% of respondents were aware of the CSR initiative. Among them, 43.4% considered the project "Relevant," and 22.1% deemed it "Highly Relevant." However, 23.9% viewed the project as neutral or slightly relevant, and 10.6% found it not relevant, indicating the need to enhance communication and ensure better alignment with community needs.

**Impact on Hygiene and Objective Achievement**: 64.8% of stakeholders agreed or strongly agreed that the project improved hygiene conditions in schools, while 15.7% disagreed or strongly disagreed. Furthermore, 75.2% acknowledged a reduction in open defectation.

**Efficiency and Quality of Implementation**: 64.2% believed the project was implemented efficiently. Regarding the quality of toilet infrastructure, 38.8% rated it as "Good" and 25.6% as "Average," while 26.1% rated it "Poor" or "Very Poor," suggesting inconsistent service delivery across schools.

**Sustainability and Maintenance**: While 55.6% affirmed that toilet facilities are regularly maintained, a substantial proportion (36.9%) indicated irregular or no maintenance. SMCs were

the primary maintainers (60.6%), followed by local government authorities (30.3%). Despite these challenges, 65.8% believed the initiative is sustainable in the long run.

**Perceived Benefits**: 63.1% reported improved school attendance, particularly among girls. Additionally, most respondents confirmed functional toilets and improved hygiene behavior among students. However, 16.4% still perceived no significant change in attendance, reflecting variability in the initiative's impact.

#### **Social Return on Investment (SROI)**

The CSR initiative has generated positive social returns by improving sanitation standards and promoting healthier school environments. Benefits such as reduced open defectaion and improved hygiene are evident. Nonetheless, uneven infrastructure quality and inconsistent maintenance have limited the full realization of these returns across all stakeholder groups.

#### **Alignment with SDG Goals**

- SDG 3: Good Health and Well-being Enhanced sanitation has contributed to a healthier school environment.
- SDG 6: Clean Water and Sanitation The project aligns directly by improving toilet functionality and usage.
- **SDG 4: Quality Education** Improved facilities support a safer and more conducive learning environment, particularly benefiting girl students.

#### **Major Discoveries**

- **Inconsistent Infrastructure**: Availability of separate toilets for boys and girls varied across schools.
- Mixed Impact on Attendance: While most respondents noted improvements, a significant portion remained uncertain or observed no change.
- **Maintenance Gaps**: Sustainability is at risk due to irregular maintenance practices and unclear ownership in some schools.

#### **Policy Gaps and Improvement Areas**

- **Stakeholder Engagement**: Increased efforts are needed to involve parents, students, and local communities in planning and feedback.
- **Maintenance Support**: Clearer policy frameworks and funding mechanisms are needed to support regular maintenance.
- **Monitoring and Evaluation**: Establishing structured feedback and evaluation systems will help track progress and address issues in real-time.

#### **Way Forward**

- Enhanced Stakeholder Involvement: Encourage inclusive planning and ownership among local communities, SMCs, and students to strengthen the initiative's relevance.
- Focus on Infrastructure Quality: Ensure uniform standards across all schools to provide equitable sanitation access.
- Sustained Maintenance Plans: Assign clear responsibilities and allocate resources for ongoing maintenance involving schools, local bodies, and CSR partners.
- **Regular Monitoring and Feedback**: Implement monitoring tools and feedback loops to evaluate the program's effectiveness and guide timely interventions.

In conclusion, the CSR initiative has made commendable progress in strengthening school sanitation systems. To build on these gains, it is essential to address the inconsistencies in infrastructure and maintenance, enhance stakeholder engagement, and improve data-driven monitoring mechanisms for sustained impact.

## 1. INTRODUCTION

#### 1.1. Context & Need for CSR in Sanitation Infrastructure in Schools

Access to clean and functional sanitation facilities is critical for promoting hygiene, health, and school attendance, especially among children in rural and underserved regions. In states like Assam and Arunachal Pradesh, school sanitation infrastructure faces persistent challenges including poorly maintained toilets, lack of water supply, and inadequate waste management. These issues disproportionately affect girl students and contribute to absenteeism, dropouts, and health risks.

Although initiatives like the **Swachh Vidyalaya Abhiyan** have significantly expanded the construction of school toilets across India, maintaining the usability and cleanliness of these facilities has proven to be an ongoing challenge. A large number of toilets have become nonfunctional over time due to lack of resources for upkeep and repair.

Corporate Social Responsibility (CSR) initiatives have emerged as vital contributors to bridging these gaps by not only supporting infrastructure development but also investing in maintenance and sustainability of public amenities. Under the Companies Act, 2013, eligible companies are mandated to spend at least 2% of their average net profits of the company made during the three immediately preceding financial years towards CSR activities in pursuance of their CSR Policy. The NHPC Subansiri Lower Hydroelectric Project, under its CSR mandate, implemented a significant sanitation-focused intervention in 14 districts of Assam and 4 districts of Arunachal Pradesh. The project aimed to:

- Restore the functionality of school toilets through repair, refurbishment, and maintenance work.
- Support improved hygiene and sanitation conditions in government schools, benefiting thousands of students.
- Enable sustainable and dignified school environments, especially for adolescent girls.

Between 13<sup>th</sup> December 2021 and 31<sup>st</sup> December 2022, rectification work was carried out on 2,837 school toilets originally constructed under the Swachh Vidyalaya Abhiyan during FY

2014-15 and 2015-16. This CSR intervention, with a total expenditure of **Rs. 6.93 crore**, was executed through the **School Management Committees** (**SMCs**) in the respective regions to ensure local engagement and ownership.

This impact assessment study is part of the broader agenda of improving WASH (Water, Sanitation, and Hygiene) outcomes in schools through collaborative approaches. The study evaluates the social, economic, and environmental impacts of the refurbishment project, examines the **Social Return on Investment** (**SROI**), and proposes actionable recommendations for enhancing the sustainability and effectiveness of future CSR-led sanitation programs.

### 1.2. Objectives of the CSR Initiative

Table 1: Objectives of the CSR Initiative

Objective	Description	
Restore basic sanitation facilities	Refurbish and make functional the previously constructed but non-	
Restore basic samtation facilities	operational school toilets across districts.	
Promote hygiene and dignity	Ensure access to clean and safe toilet infrastructure for students,	
Fromote flygiene and diginty	especially girls, to support health and dignity.	
Improve school attendance	Create a hygienic and student-friendly environment to reduce	
improve school attendance	absenteeism, particularly among female students.	
Enhance infrastructure	Extend the lifecycle of sanitation assets through repair and	
sustainability	maintenance instead of new construction.	
Engage community in upkeep	Empower School Management Committees (SMCs) to oversee	
Engage community in upkeep	local implementation and ensure ownership and accountability.	
Align with national sanitation	Support the Swachh Vidyalaya Abhiyan and Swachh Bharat	
goals	Mission for universal access to school sanitation.	

# 1.3. About the University & School of Business Studies

The Central University of Jammu (CUJ) is a premier institution of higher learning located in the Union Territory of Jammu and Kashmir, established by the Central Universities Act, 2009. Committed to academic excellence and societal engagement, CUJ partners with government agencies and corporate entities in research, development, and evaluation of public welfare projects. CUJ brings technical expertise, field engagement, and impact assessment capabilities to support evidence-based policy and program development.

Since its inception in 2011, CUJ has grown significantly, offering over 50 programs across 21 Departments, 03 Centers, and 01 College. The University has established dedicated research centers and undertakes prestigious national-level projects, including the Kalam Centre for Science and Technology and the Satish Dhawan Centre for Space Technology

The University has a strong research focus, with faculty members undertaking over 40 major/minor research projects of academic and social relevance. CUJ has also signed 24 national and 4 international MoUs/bilateral agreements, and has obtained membership of apex industry/academic bodies like CII, NHRDN, and ICA. The University has adopted villages near its vicinity and undertakes capacity-building programs for teachers and students.

#### **School of Business Studies**

The School of Business Studies, established in 2012, offers a range of programs, including MBA, Ph.D. and Vocational Degree Programs in Business Administration, Human Resource Management, Tourism Management, Marketing Management, Retail Management, And Banking and Financial Services. These programs aim to equip students with multifaceted skills relevant to the contemporary business environment. The school's transactional pedagogy comprises interactive classroom sessions, case presentations, group discussions, and exposure to real-life situations through seminars and workshops. The school has taken several initiatives to drive excellence, including organizing various events and activities. School is able to mobilize resources from various funding agencies for research viz. ICSSR/ UGC /Tribal Affairs/M/O Consumer Affairs/NCW/DST/ EDII/SERB/MHRD/AICTE / J&K Bank /M/O Textile etc. The University faculty has been awarded prestigious National/International Fellowships, project funding and recognition and is constantly contributing to various governmental and nongovernmental sectors through research, consultancy and outreach activities.

#### 1.4. About NHPC Limited

NHPC was incorporated on November 7, 1975 as a Private limited company under the name "National Hydroelectric Power Corporation Private Ltd". The company was converted to Public limited company w.e.f. April, 2, 1986. The name of the company was changed to its present name "NHPC Limited" in 2008.

NHPC is a Navratna company with 67.40 % ownership of Government of India. With an Authorized share capital of ₹15,000 crore and an investment base of over ₹ 85,486 crore (as on 31.12.2024), NHPC Limited is the largest hydropower development organization in India, with capabilities to undertake all activities from conceptualization to commissioning of hydro projects. NHPC has also diversified into the fields of solar and wind energy development.

NHPC's total installed capacity as of March 31, 2025, is 8140 MW, including 1,681.70 MW in joint ventures. This comprises 7771.2 MW from 23 hydro power stations, 318.84 MW from six solar power projects, and 50 MW from a wind power project. NHPC's hydro share of 7771.2 MW accounts for about 16.56% of the country's total installed hydro capacity of 46,928.17 MW.

Additionally, nine projects aggregating to a total installed capacity of 4,291 MW are under clearance stage, which includes four hydro and one solar project by NHPC on its own, and four projects (one in hydro and three in solar) in JV mode.

#### **VISION**

NHPC's vision is "To be a global leading organization for sustainable development of clean power through competent, responsible and innovative values".

#### **MISSION**

- To achieve excellence in development of clean power at international standards.
- To execute & operate projects through efficient and competent contract management and innovative R&D in environment friendly and socio-economically responsive manner.
- To develop, nurture and empower the human capital to leverage its full potential.
- To practise the best corporate governance and competent value-based management for a strong corporate identity and showing concern for employees, customer, environment and society.
- To adopt & innovate state-of-the-art technologies and optimize use of natural resources through effective management.

# 1.5. About Corporate Social Responsibility

Corporate Social Responsibility (CSR) represents a company's initiative to assess and take responsibility for its effects on environmental and social well-being. As per the Companies (CSR Policy) Rules, CSR refers to activities undertaken by a company in pursuance of its statutory obligations under Section 135 of the Companies Act, 2013, in accordance with the provisions contained in these rules.

The CSR provisions outlined in Section 135 and the Companies (CSR Policy) Rules emphasize not only regulatory compliance but also the promotion of transparency and accountability in how companies contribute to societal and environmental betterment. Schedule VII of the Act provides a comprehensive list of eligible CSR areas, including poverty alleviation, education, gender equality, health, environmental sustainability, and contributions to various government relief funds.

CSR in India is increasingly seen as a means to contribute towards achieving the UN Sustainable Development Goals, aligning corporate strategies with Global/National priorities for inclusive and sustainable growth.

# 1.6. About NHPC's CSR Policy

Corporate Social Responsibility is integral to NHPC's commitment to addressing social, economic, and environmental concerns in the regions it serves. NHPC has a CSR & Sustainability Policy aligned with the specific provisions of CSR under Section 135 of the Companies Act, 2013, the Companies (Corporate Social Responsibility Policy) Rules, and subsequent amendments issued by the Ministry of Corporate Affairs, Government of India. NHPC also aims to adhere to the CSR guidelines issued by the Department of Public Enterprises (DPE). NHPC has strengthened its commitment to CSR in line with Statutory Provisions.

NHPC has undertaken numerous CSR initiatives for communities residing in and around its projects, power stations, and units, focusing on healthcare, education, sanitation, rural development, skill development, environmental sustainability, women empowerment, and other areas outlined in Schedule VII of the Companies Act, 2013. These efforts aim to foster inclusive growth, support marginalized communities, and contribute to national development.

# 1.7. About Impact Assessment

The Ministry of Corporate Affairs in India requires companies to conduct impact assessments of their CSR initiatives through the amended Companies (CSR Policy) rules. As per the amended Companies (CSR Policy) Rules, every company having average CSR obligation of ₹10 crores or more in pursuance of sub-section (5) of Section 135 of the Companies Act, 2013, in the three immediately preceding financial years, shall undertake impact assessment, through an independent agency, of their CSR projects having outlays of Rs. One Crore or more, and which have been completed not less than one year before undertaking the impact study. Further, a Company undertaking impact assessment may book the expenditure towards Corporate Social Responsibility for that financial year, which shall not exceed two percent of the total CSR expenditure for that financial year or fifty lakh rupees, whichever is higher.

An impact assessment serves as a vital tool to analyze the effectiveness and sustainability of CSR projects. It not only highlights what has been achieved but also assesses how well the projects align with the company's long-term vision and address real community needs. The primary goal of an impact assessment is to provide a clear and measurable understanding of the value created for both society and the company through its CSR efforts.

This study presents the third-party impact evaluation of the CSR initiative, which involved assessment of spending of NHPC on the rectification and refurbishment of dysfunctional school toilets across 14 districts in Assam and 4 districts in Arunachal Pradesh. The study examines the impact of this intervention on beneficiaries by combining quantitative data from field surveys with qualitative inputs from stakeholders.

# 2. APPROACH & METHODOLOGY

The impact assessment of the CSR initiative, "Rectification/ Maintenance/ Refurbishment Work of The Dysfunctional Toilets to Make Them Workable" was conducted using a mixed-method, multi-stakeholder approach to holistically capture the qualitative and quantitative dimensions of the intervention. This approach enabled a grounded understanding of the initiative's relevance, operational efficiency, perceived impact, and sustainability.

#### 2.1. Assessment Objectives

The key objectives of the assessment were:

- To evaluate the **effectiveness** of rectification and maintenance efforts in restoring functional sanitation facilities in schools.
- To understand the **perceived social and institutional impact** of the intervention on school environments and hygiene outcomes.
- To assess the **long-term sustainability** of the refurbished infrastructure through stakeholder feedback and usage verification.
- To conduct a **Social Return on Investment (SROI)** analysis to determine the value generated against costs incurred.
- To offer **policy-relevant recommendations** for improving the design, execution, and monitoring of future sanitation-focused CSR initiatives.

# 2.2. Methodological Framework

The study follows the evaluation principles using the OECD-DAC criteria, namely:

- **Relevance** Does the intervention address the right problem?
- **Effectiveness** Are the stated objectives being met?
- **Efficiency** Are resources used optimally for intended outcomes?
- Impact What change has occurred in the target population?
- **Sustainability** Will the benefits last beyond the intervention?

#### 2.2.1. Stakeholder Mapping

The assessment engaged the following primary stakeholder groups:

- School Students (beneficiaries using the refurbished toilets)
- **Teachers and School Staff** (custodians of maintenance)
- Parents and Community Members (external observers and supporters)
- School Management Committees (SMCs) as executing and oversight bodies

#### 2.2.2. Sampling Design

A purposive sampling strategy was used to cover representative schools across the identified districts in Assam and Arunachal Pradesh.

- Total Sample Frame: 500
- Valid Responses Analyzed: 445
- Respondents were proportionately selected to include varied geographies, school sizes, and user categories.

#### 2.3. Tools of Data Collection

Table 2: Tools of Data Collection

Tool	Purpose	
Structured Questionnaire	To gather insights on awareness, usage, functionality, satisfaction, and perceived hygiene.	
In-depth Interviews	To explore school-level implementation, roles of SMCs, and recurring operational challenges.	
Observation & Site Visits	To verify toilet usage conditions, water availability, and maintenance practices.	
Geo-tagged Photographs	To document infrastructure status and physical evidence of refurbishment efforts.	

#### 2.4. Data Collection Timeline & Process

Fieldwork was conducted across selected schools. Data collection was managed by a trained field team under expert supervision, ensuring adherence to ethical norms, including informed consent, confidentiality, and child protection protocols.

#### 2.5. Data Analysis Strategy

A combination of quantitative and qualitative techniques was used:

- Descriptive analysis for key variables like hygiene improvement, maintenance, and satisfaction.
- Cross-tabulation to explore variations by district or stakeholder group.
- SROI assessment.

Analytical tools included Excel, Python, and structured coding frameworks for qualitative synthesis.

# 2.6. Measure of Sustainability

Sustainability was assessed using four dimensions:

Table 3: Measure of Sustainability

Dimension	<b>Evaluation Focus</b>	
Institutional Support	Availability of maintenance ownership, school staff involvement, and	
mstitutional Support	SMC oversight	
Operational Continuity	Usage frequency, upkeep of infrastructure, and functionality over	
Operational Continuity	time	
Financial Planning	Budgeting for recurring maintenance and engagement of vendors or	
Tillancial Flaming	local masons	
Stakeholder	Willingness to sustain efforts, satisfaction levels, and community-	
Engagement	level interest in project upkeep	

The sustainability scorecard derived from these dimensions is detailed in the findings section of this report.

#### 2.7. Social Return on Investment (SRoI): Methodological Note

This SROI assessment adopts a qualitative and perception-based methodology to evaluate the social impact of NHPC's CSR initiative aimed at ensuring functional school sanitation infrastructure in the districts of Jalpaiguri and Alipurduar, West Bengal. The project spanned multiple phases from 2021 to 2024 and involved repairing dysfunctional toilets and addressing residual infrastructure gaps.

#### 2.7.1. Theme-Based Assessment Approach

Structured field assessments, stakeholder surveys, and on-site observations were used to evaluate the following thematic outcomes:

- Infrastructure Restoration: Refurbishment of 638 school toilets across 390 schools.
- Water Access: Installation of tube wells and solar-powered pumps in 309 toilets.
- Hygiene & Health: Improved student access to clean sanitation facilities.
- Sustainability: Follow-up interventions for 81 toilets in 49 schools, ensuring long-term usability.
- Inclusiveness & Dignity: Attention to gender-sensitive design and inclusive school environments.

#### 2.7.2. Composite Value Indicators Considered

The SROI was based on community perceptions and educational stakeholder feedback, focusing on:

- Increase in toilet usage and reduction in student absenteeism, especially among girls.
- Enhanced water availability, making toilets usable year-round.
- Perception of improved hygiene, leading to a more conducive school learning environment.
- Reinforced community trust in CSR projects through multi-phase, gap-closing implementation.
- Long-term health and dignity benefits for students and staff.

#### 2.7.3. Stakeholder-Centric Insights

Feedback from school principals, teachers, and SMC members emphasized:

- "Earlier the toilets were just structures. Now they are used daily and kept clean."
- "Water supply was a game-changer students now don't hesitate to use the facilities."
- "Multiple rounds of intervention show NHPC's commitment to real change."

Such responses highlight the tangible improvement in educational and hygiene infrastructure, reflecting deeply felt social value.

#### **Justification for Qualitative SROI**

- The value of restored sanitation infrastructure, especially in rural or underfunded schools, goes beyond financial estimation.
- Attempting to monetize dignity, menstrual hygiene support, or health improvements would undermine the qualitative nature of these gains.
- This approach aligns with Swachh Vidyalaya Abhiyaan goals, India's CSR framework, and international development principles (SDG 6 – Clean Water and Sanitation; SDG 4 – Quality Education).

The qualitative SROI assessment confirms that NHPC's multiyear intervention has significantly improved sanitation access, hygiene awareness, and infrastructure reliability in government schools. The progressive and needs-based implementation reflects high responsiveness and social return, strongly endorsed by stakeholders as a replicable model of CSR-led school sanitation projects.

# Research Methodology: A brief note

Table 4: Research Methodology: A Brief Note

Component	Details	
	To assess the social, economic, and environmental impact of the CSR	
Objective	initiative on the rectification, maintenance, and refurbishment of	
	dysfunctional school toilets in Assam and Arunachal Pradesh.	
	Evaluating the effectiveness, efficiency, sustainability, impact, and	
Scope	Social Return on Investment (SROI) of the CSR initiative undertaken	
	by NHPC under the Swachh Vidyalaya Abhiyan.	
	Schools in 14 districts of Assam (Dhemaji, Lakhimpur, Majuli,	
	Jorhat, Sivasagar, Charaideo, Biswanath, Sonitpur, Nagaon, Darrang,	
Study Area	Barpeta, Cachar, Kamrup Rural, Nalbari) and 4 districts of Arunachal	
	Pradesh (Papum Pare, West Siang, Lower Siang, Leparada) where	
	toilet refurbishment was implemented.	
Stakeholders	School students, teachers, school management committees, parents,	
Stakeholders	local community members, local government representatives.	
Research Design	Mixed-method approach (Quantitative & Qualitative).	
Data Collection	Primary Data (Surveys, FGDs).	
Sampling Method	Stratified Random Sampling - ensuring representation across	
Sampling Method	different schools and socio-economic contexts.	
Sample Size	450	
Data Analysis	Descriptive Statistics, Social Return on Investment (SROI	
Data 7 Mary 515	methodology, Qualitative analysis	
	Relevance & Effectiveness: Alignment with community needs	
	& impact on education and hygiene.	
	Efficiency: Cost-effectiveness & resource utilization.	
	Sustainability (Long-term functionality & maintenance of	
Evaluation Criteria	refurbished toilets.	
	• Impact (Social, Economic, Environmental): Overall	
	improvement in sanitation, health, and education outcomes.	
	SROI assessment	
	Coherence (Alignment with broader CSR and governmental)	
	sanitation programs).	
Reporting	Comprehensive report with recommendations for improving future	
Keporung	CSR initiatives.	

### 3. CSR ACTIVITY DETAILS

The CSR intervention undertaken by NHPC Limited – Subansiri Lower Hydroelectric Project, aimed at the rectification, maintenance, and refurbishment of previously constructed school toilets that had become dysfunctional across 14 districts in Assam and 4 districts in Arunachal Pradesh. This initiative forms part of NHPC's broader commitment under the Swachh Vidyalaya Abhiyaan, contributing to the Government of India's mission to ensure functional sanitation facilities in every school. The project focused on making previously built toilets operational once again, thereby improving hygiene and sanitation conditions for schoolchildren across remote and underserved regions. The works were executed through the School Management Committees (SMCs) of the respective schools, enabling decentralized management, ownership, and responsiveness to local needs.

Table 5: CSR Activity Details

Location	Activity Description	Expenditure Incurred (Rs. In Crore)	Brief About Activity
Assam:  Dhemaji, Lakhimpur, Majuli, Jorhat, Sivasagar, Charaideo, Biswanath, Sonitpur, Nagaon, Darrang, Barpeta, Cachar, Kamrup Rural, Nalbari  Arunachal Pradesh: Papum pare, West Siang, Lower Siang & Leparada	Fund for rectification/maintenance/refurbishment work of the dysfunctional toilets to make them workable.	6.93	During FY 2014-15 and 2015-16, NHPC Subansiri Lower H.E. Project constructed 3,129 toilets in 14 districts of Assam and 4 districts of Arunachal Pradesh under the Swachh Vidyalaya Abhiyan. Additionally, as per the directions of the Ministry of Power (MoP), NHPC Subansiri Lower H.E. Project undertook repair and rectification work for 2,837 toilets in the same regions. The districts covered in Assam include Dhemaji, Lakhimpur, Majuli, Jorhat, Sivasagar, Charaideo, Biswanath, Nagaon, Darrang, Sonitpur, Barpeta, Cachar, Kamrup Rural, and Nalbari. In Arunachal Pradesh, the districts covered are Papum Pare, West Siang, Lower Siang, and Leparada.  Project implementation period: 13/12/2021 to 31/12/2022  Total expenditure: Rs. 692.77 Lakh  Executing Agency: School Management Committees of the respective schools

#### 3.1. Scope of Intervention

The project included:

- Rectification and repair of toilet structures, plumbing, and drainage systems.
- Water supply restoration, where required, through minor infrastructure enhancements.
- Cleaning, refurbishment, and provisioning of essential components (doors, tanks, tiling, etc.)
- Maintenance-focused upgrades to ensure functional longevity.

This intervention supported schools in restoring usable sanitation infrastructure, thereby reducing open defecation, promoting student dignity (especially among girl students), and ensuring compliance with school hygiene norms.

### 3.2. Alignment with NHPC CSR Policy

The project is fully aligned with NHPC's CSR Policy. By addressing maintenance gaps in previously built assets, this project demonstrates NHPC's commitment to sustainable asset lifecycle management, not just creation.

#### 3.3. Role of Partner Institutions

The successful implementation of the initiative was made possible through coordination with the following stakeholders:

- School Management Committees (SMCs) as executing agencies responsible for fund utilization and monitoring
- School Principals and Staff for oversight, coordination, and post-project maintenance
- Local community representatives who ensured responsiveness to contextual hygiene needs
- Vendors and contractors engaged by SMCs for civil and plumbing work through local sourcing
- Field facilitators and CSR teams who provided implementation guidance and progress documentation

These partnerships ensured timely execution, transparency, and a community-led model of maintenance, fostering ownership and sustainability at the grassroots level.

# 4. ANALYSIS & INTERPRETATION

# 4.1. Data Analysis & Findings

# 4.1.1. Demographics & General Information

Figure 1: Demographic & General Information

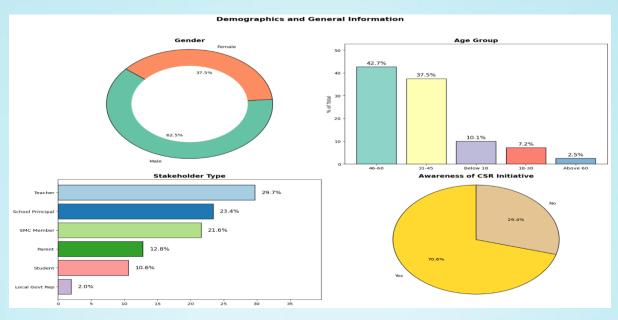


Table 6: Demographic & General Information

Variable	Key Insights	Discussion Summary
Gender	Majority are male (62.5%); females represent a significant	The respondent base shows male predominance, though female participation
Age Group	37.5%. 80.2% fall within the 31–60 age bracket.	is substantial and inclusive.  Most respondents are mature adults, likely reflecting decision-making and supervisory roles in school operations.
Stakeholder Type	Teachers (29.7%) and School Principals (23.4%) form the largest respondent groups.	The feedback reflects strong input from internal school actors, ensuring insights from operational leadership.
Awareness of CSR Initiative	70.6% were aware of the CSR initiative.	High awareness suggests effective communication and stakeholder involvement in the implementation phase.

# 4.1.2. Project Relevance & Effectiveness

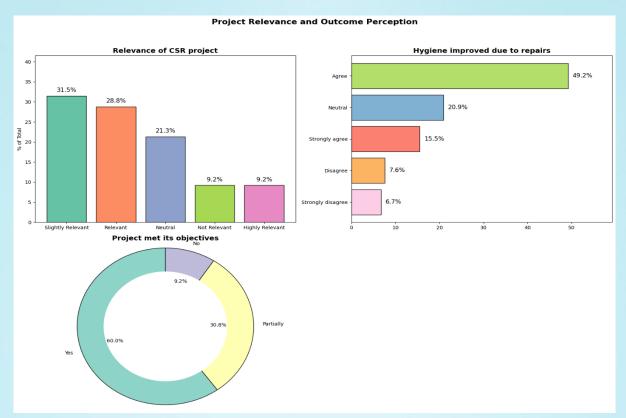


Figure 2: Project Relevance & Effectiveness

Table 7: Project Relevance & Effectiveness

Variable	Key Insights	Discussion Summary
Relevance of CSR project	Majority viewed the project as "Slightly Relevant" (31.5%) or "Relevant" (28.8%).	While relevance is acknowledged, high "neutral" and "slightly relevant" responses indicate a need for better stakeholder engagement.
Hygiene improved due to repairs	Over 64% either agreed or strongly agreed that hygiene improved.	1 1 1
Project met its objectives	60% believe the project met its intended objectives; 30.8% say "Partially".	Most stakeholders affirm the project's success, but a sizeable group felt it only partially met goals—suggesting room for quality improvement.

# 4.1.3. Project Effectiveness

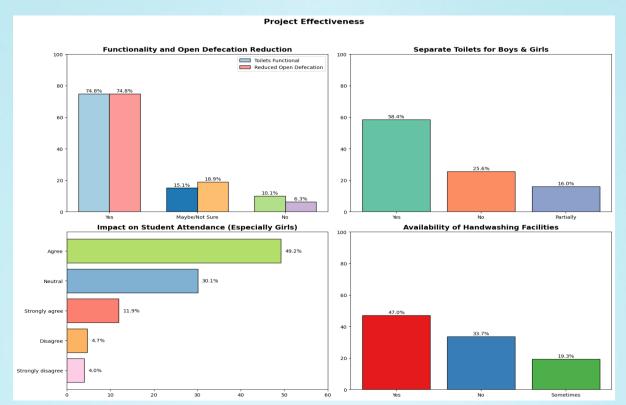


Figure 3: Project Effectiveness

Table 8: Project Effectiveness

Variable	Key Insights	Discussion Summary
Toilets functional and regularly used	74.8% confirmed toilets are functional and used by students.	Indicates strong operational success, though sustained monitoring is needed.
Reduction in open defecation	74.8% reported positive change; only 6.3% said no impact.	Functional toilets contribute significantly to behavioural and environmental change.
Separate toilets for boys and girls	Only 58.4% reported availability in good condition.	Moderate compliance suggests the need for gender-sensitive upgrades and audits.
Increased student attendance (esp. girls)	61.1% agreed; 30.1% remained neutral.	Perceived impact is positive but could be reinforced through awareness and tracking.
Handwashing stations near toilets	47% said "Yes", 33.7% "No".	Indicates hygiene gaps despite toilet repairs — hand washing needs prioritization.

# 4.1.4. Efficiency of Project Implementation

Figure 4: Efficiency of Project Implementation

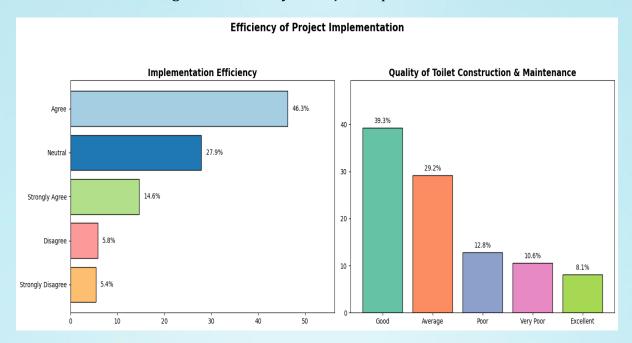


Table 9: Efficiency of Project Implementation

Variable	Key Insights Discussion Summary		
Implementation Efficiency	60.9% agreed or strongly agreed with the efficiency of implementation.	Indicates timely execution with minimal delays; neutral responses suggest communication gaps or limited visibility into timelines.	
Toilet Construction and Maintenance Quality	39.3% rated as "Good"; however, 23.4% found it "Poor" or "Very Poor".	While many recognized decent quality, dissatisfaction with maintenance underscores the need for maintenance.	

# 4.1.5. Sustainability of the CSR Intervention

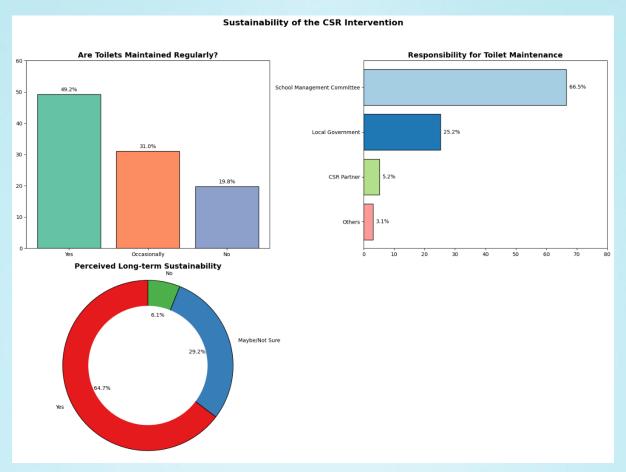


Figure 5: Sustainability of the CSR Intervention

Table 10: Sustainability of the CSR Intervention

Variable	Key Insights	Discussion Summary	
Regular	Only 49.2% said maintenance is	Reflects moderate sustainability;	
maintenance of	regular; 31% said	inconsistent maintenance practices may	
toilets	"Occasionally".	ally". affect long-term outcomes.	
Dognongihility for	66.5% believe SMCs are	SMCs are seen as primary custodians,	
Responsibility for	responsible, followed by local	indicating need for local capacity	
toilet upkeep	governments (25.2%).	building and role clarity.	
I and a town		Most respondents are optimistic, but	
Long-term	64.7% believe the project is	uncertainty highlights the need for	
sustainability	sustainable; 29.2% are unsure.	reinforced support and ongoing	
perception		oversight.	

# 4.1.6. Impact (Health, Hygiene, Accessibility)

Figure 6: Impact (Health, Hygiene, Accessibility)

Table 11: Impact (Health, Hygiene, Accessibility)

Variable	iable Key Insights Discussion Summary		
Improvement in hygiene practices	73.9% acknowledged positive hygiene change due to functional toilets.	Functional toilets effectively promote better hygiene habits among students.	
Reduction in waterborne diseases	71.5% saw a decrease in disease incidence.	Indicates improved sanitation is directly contributing to better health outcomes.	
Hygiene awareness among students	36% said it "Improved", 28% "Slightly Improved".	While many noticed a change, further hygiene education could strengthen long-term behaviour.	
Satisfaction with toilet cleanliness & usability	, , , , , , , , , , , , , , , , , , , ,	Most users were satisfied, but consistent cleanliness and follow-up maintenance remain key concerns.	
Water supply or maintenance issues	Over half (53.7%) faced issues; only 28.5% reported no issues.	Persistent water or upkeep problems threaten the overall usability of sanitation assets.	

# 4.1.7. Social Return on Investment (SRoI)

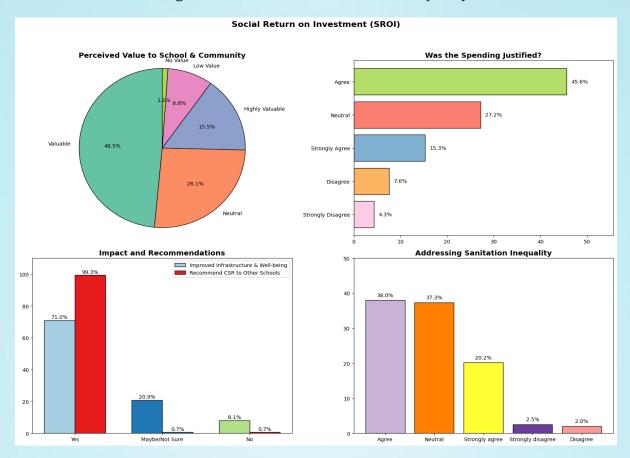


Figure 7: Social Return on Investment (SRoI)

Table 12: Social Return on Investment (SRoI)

Variable	Key Insights	Discussion Summary	
Value to school and community	48.5% said "Valuable", and 15.5% "Highly Valuable".	Majority see the project as impactful; however, neutral views suggest scope for deeper visibility.	
Spending justification	Over 60% agreed the spending was justified.	Strong cost-benefit perception supports continued CSR investment in sanitation.	
Improved infrastructure & well-being + recommendation	71% observed improvement; 99.3% recommend similar initiatives.	Clear community support and validation of project outcomes and replicability.	
Sanitation equity across socio-economic groups	38% agreed, 37.3% were neutral, and 20.2% strongly agreed.	Equity goal partially met; neutral responses indicate the need for targeted inclusion tracking.	

## 4.1.8. Coherence & Recommendations

Figure 8: Alignment with Government School Standards

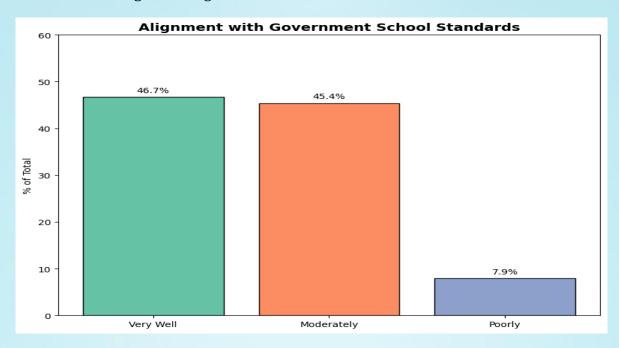


Table 13: Coherence & Recommendations

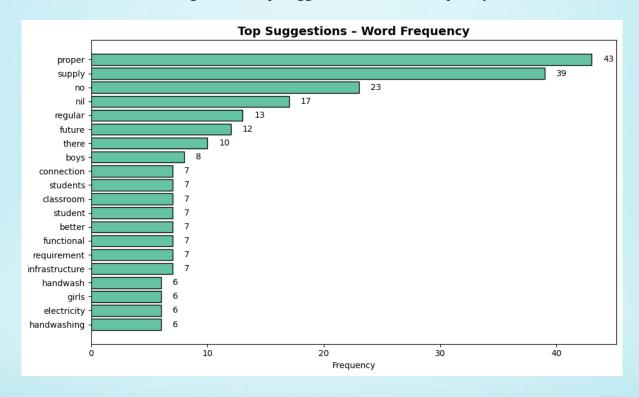
Variable	Key Insights	Discussion Summary	
		The project complements national education and hygiene priorities, validating policy coherence.	

#### 4.1.9. Stakeholder Recommendations for Future CSR Projects

Figure 9: Suggestions for Future CSR Projects - Word Cloud



Figure 10: Top Suggestions – Word Frequency



The word cloud and frequency analysis of stakeholder responses reveal several recurring themes and areas of focus that are valuable for informing future CSR project planning and implementation.

- Maintenance and Quality of Infrastructure: High-frequency terms such as "proper" (43) and "regular" (13) reflect the respondents' strong emphasis on the need for consistent maintenance and timely upkeep of school sanitation facilities. These responses suggest dissatisfaction with one-time interventions and call for systematic, ongoing maintenance protocols.
- Water Supply and Utility Services: The words "supply" (39) and "connection" (7) prominently highlight water-related concerns. Respondents pointed out challenges such as lack of water availability, unreliable connections, or interruptions, which directly impact the usability of toilets and overall hygiene outcomes.
- Gender and Inclusivity Considerations: Mentions of "boys" (8) and "girls" (6) indicate that gender-specific needs remain a concern. This highlights the importance of ensuring well-maintained, separate toilet facilities for boys and girls to promote inclusivity, safety, and dignity in schools.
- Hygiene and Health Awareness: The presence of words like "hand wash" (6) and "hand washing" (6) points to the importance placed on hygiene behavior and enabling infrastructure. Respondents are calling for accessible hand washing stations with soap and water as an essential complement to toilet facilities.
- Student-Centric Design: Terms such as "students" (7) and "classroom" (7) suggest that stakeholders see sanitation as part of the broader learning environment. There's a recognition that clean, accessible facilities contribute to better attendance, focus, and well-being of students.
- **Broader Infrastructure Expectations:** The frequent mention of "electricity" (6) and "functional" (7) indicates a desire for integrated improvements not just isolated toilet repairs, but reliable supporting infrastructure that ensures usability and safety, especially in rural settings.

To summarize, textual feedback highlights the need for holistic sanitation infrastructure, with consistent maintenance, reliable water and utility access, and support for hygiene education. Stakeholders are not only pointing out gaps but are also actively suggesting priorities such as gender-sensitive facilities, integrated planning with classrooms, and operational sustainability. These insights are crucial for designing future-ready CSR interventions that go beyond construction to deliver long-term usability, equity, and impact.

# 4.2. Summary of Findings

Table 14: Summary of Findings

Theme	Key Highlights	Insight	
Demographics & Awareness	62.5% of respondents were male; 70.6% were aware of the CSR initiative; teachers and principals formed the largest respondent groups.	Widespread awareness and strong representation from core education stakeholders indicate effective communication and active community participation.	
Relevance & Effectiveness	74.8% reported reduced open defecation; 60% felt objectives were fully met; 44.3% found the project relevant; 64.7% saw long-term sustainability.	The intervention achieved broad functionality and relevance, though many responses remain neutral—pointing to the need for enhanced communication and clarity.	
Efficiency	60.9% agreed or strongly agreed that the project was efficiently implemented; 39.3% rated toilet quality as good, but 23.4% rated it poor or very poor.	Execution was timely and generally effective, but consistency in maintenance remains areas for improvement.	
Impact (Health & Hygiene)	73.9% observed better student hygiene practices; 71.5% saw a reduction in waterborne diseases; 42.5% were satisfied with cleanliness and usability.	Functional toilets have directly supported improved health and hygiene, although water-related issues and user satisfaction vary across locations.	
Sustainability	49.2% confirmed regular maintenance; 66.5% identified School Management Committees (SMCs) as responsible for upkeep.	Sustainability is partially institutionalized through SMCs, but nearly 20% report no maintenance—indicating a need for monitoring and resource support.	
Social Return on Investment	64% perceived the project as valuable or highly valuable; 61% felt the money was justified; 99.3% recommended replication in other schools.	High endorsement and value perception affirm the project's credibility and positive outcomes, making it a strong candidate for scale-up and replication.	
Coherence & Recommendations	92.1% reported alignment with government school standards; open-ended responses emphasized the need for regular maintenance and water supply access.	Strong policy alignment reinforces the project's strategic relevance, while stakeholder suggestions highlight operational areas requiring urgent attention.	

#### **Overall Summary**

The CSR School Sanitation and Infrastructure initiative has achieved:

- Widespread awareness and recognition among stakeholders, particularly teachers, principals, and community members.
- Strong alignment with national objectives like Swachh Vidyalaya and school hygiene standards.
- Significant improvements in sanitation use, hygiene behaviour, and reduction in open defecation across targeted schools.
- High perceived value and impact, with a 99.3% recommendation rate for replicating the initiative in other schools.
- Effective execution in most areas, backed by positive feedback on implementation timelines and infrastructure usage.

#### However, continued success depends on:

- Clear and consistent assignment of maintenance responsibilities between SMCs, local bodies, and NHPC.
- Improving water supply infrastructure and integrating functional hand washing stations in every unit.
- Incorporating regular stakeholder feedback into planning for sustainability, gender sensitivity, and inclusive infrastructure.

Table 15: Social Return on Investment (SRoI)

Indicator	Observed Outcome	Social Value Created	SDG Alignment
Project Value to Community	64% rated the project as Valuable or Highly Valuable	Demonstrates meaningful community benefit through restored sanitation access and dignity in schools.	SDG 3 (Good Health), SDG 4 (Quality Education)
Spending Justification	61% agreed the money spent was justified	Validates the cost- effectiveness and perceived legitimacy of CSR fund utilization.	SDG 9 (Infrastructure)
Improved Infrastructure & Student Well-being	71% confirmed better health, hygiene, or access	Reflects the project's contribution to daily quality of life, health, and learning conditions.	SDG 3, SDG 4
Sanitation Equity Across Socio- Economic Groups	58% agreed or strongly agreed the project reduced disparities	Suggests inclusiveness, with facilities reaching underserved and rural school populations.	SDG 10 (Reduced Inequality), SDG 6 (Clean Water & Sanitation)
Recommendation for Replication	99.3% recommended similar initiatives in other schools	Strong stakeholder endorsement implies replicability and public trust in CSR as a delivery mechanism.	SDG 17 (Partnerships for the Goals)

# 4.3. Policy Recommendation

Based on the findings of the impact assessment, this section outlines key policy-level recommendations to enhance the effectiveness, sustainability, and scalability of CSR initiatives related to school sanitation infrastructure. These recommendations are drawn from stakeholder feedback, field observations, and outcome evaluations. They aim to support NHPC and relevant implementing agencies in strengthening future interventions and aligning them with national development goals and community needs.

The recommendations are further mapped to their expected outcomes and aligned Sustainable Development Goals (SDGs) to ensure strategic direction and impact coherence.

**Table 16: Policy Recommendations** 

Policy Recommendation	Expected Outcome	Aligned SDG(s)
Ensure regular maintenance and accountability mechanisms	Improved longevity and functionality of sanitation and hygiene infrastructure	SDG 6 – Clean Water and Sanitation
Clearly define maintenance roles between schools, NHPC, and local bodies	Enhanced sustainability through shared responsibility and reduced facility neglect	SDG 17 – Partnerships for the Goals
Strengthen water supply systems and utility connections	Improved usability and hygiene outcomes through consistent water access	SDG 6 – Clean Water and Sanitation
Integrate handwashing stations near toilets with soap and water	Promotion of hygiene behavior and reduction in disease risks	SDG 3 – Good Health and Well-being
Incorporate gender-sensitive sanitation facilities	Safe, dignified, and inclusive access for all students	SDG 5 – Gender Equality
Use community and SMC feedback to inform future designs	Locally responsive, need-based planning and improved stakeholder satisfaction	SDG 11 – Sustainable Cities and Communities
Promote replicability of successful sanitation CSR models	Scaled impact across underserved schools and geographies	SDG 4 – Quality Education, SDG 17 – Partnerships

### 4.4. Conclusion

The CSR initiative undertaken by NHPC Subansiri Lower H.E. Project has made a positive and measurable impact in improving sanitation infrastructure across government schools in Assam and Arunachal Pradesh. The repair and refurbishment of dysfunctional toilets have led to a notable reduction in open defecation, improved hygiene practices, and increased student satisfaction with sanitation facilities.

The initiative demonstrates NHPC's alignment with national priorities such as Swachh Vidyalaya Abhiyan and Sustainable Development Goals (SDGs) related to clean water, sanitation, health, and education. High awareness levels, strong stakeholder engagement, and a 99.3% recommendation rate confirm community support and perceived value.

However, qualitative feedback and field-level insights point to critical challenges that must be addressed to sustain and scale the intervention:

#### **Impact:**

- Increased hygiene awareness and functional access to toilets.
- Improved dignity and privacy, especially for girls.
- Reduced health risks through cleaner environments and hand washing advocacy.
- Strengthened school infrastructure and community confidence in public institutions.

#### **Challenges:**

- Irregular maintenance and lack of clarity in custodial responsibilities.
- Persistent water supply issues in some schools.
- Limited inclusion of gender-sensitive designs and hand washing infrastructure.

#### **Recommendations:**

- Assign clear maintenance roles to SMCs, local bodies, and CSR partners.
- Integrate water supply systems, power backup, and soap dispensers.
- Conduct periodic infrastructure audits and feedback loops.
- Promote replicable models for school sanitation under CSR frameworks.

The initiative presents a scalable and replicable model for improving school sanitation through CSR. With enhanced coordination, local ownership, and continuous monitoring, the outcomes achieved here can inform future-ready, equity-driven interventions across other underserved educational regions.

# 5. SUCCESS STORIES OF CSR ACTIVITY

"Restoring Sanitation and Awareness in Govt. Middle School, Mingmang – Arunachal Pradesh"

Located in the serene yet underserved village of Sogum Mingmang in West Siang, Arunachal Pradesh, the Government Middle School was struggling with a pressing sanitation crisis. Without proper toilets or washrooms, students faced unhygienic conditions that not only affected their health but also hindered their ability to focus on studies. The lack of awareness about sanitation practices and waterborne diseases made the situation even more concerning, especially for young children.

Under NHPC's Corporate Social Responsibility (CSR) initiative, the school underwent a meaningful transformation. Two units of toilet and washroom were refurbished for the students,



tailored to ensure both cleanliness and functionality.

The facilities, beyond their immediate utility, added substantial value the school environment. The tangible. results were Students began to show greater awareness of personal hygiene, and the overall cleanliness of the

school improved significantly. The repair of toilets provided a safe and sanitary option for children, encouraging better attendance and fostering a healthier school atmosphere. "This kind of CSR activity is very important for schools as the outcome is highly beneficial for the student community," shared a representative from the school.

The intervention addressed an urgent infrastructural need. With improved toilet facilities, the school now offers a safer and more dignified environment for its students, a critical step toward ensuring quality education and well-being.

# Bringing Cleanliness and Dignity to Govt. Middle School, Mingmang - Arunachal Pradesh

In the remote village of Sogum Mingmang, nestled in West Siang district of Arunachal Pradesh, Govt. Middle School Mingmang faced a persistent challenge that quietly affected students every day — the absence of hygienic toilet and washroom facilities. Without proper sanitation

infrastructure, students endured unclean and unhealthy conditions.

This changed significantly with the intervention NHPC under its Corporate Social Responsibility (CSR) initiative. Through the project, the school was provided with functional toilets. The intervention facilitated in making the



facility functional within the school premises, and it became essential enablers of dignity, cleanliness, and learning. The transformation was evident. With access to clean facilities, students felt safer and more comfortable attending school. The functional toilet infrastructure uplifted the school environment and contributed to a healthier and more respectful space for all.

"This kind of CSR activity is very important for schools as the outcome is very much beneficial for the student community," shared a school representative.

The CSR initiative didn't just improve infrastructure, it instilled a long-term change in behavior and well-being. The creation of a hygienic and functional space has not only reduced health risks but also encouraged regular school attendance and improved student morale.

# Transforming Hygiene Standards at Panindra Vidyalay, North Lakhimpur – Assam

In the heart of North Lakhimpur, Assam, Panindra Vidyalay had long struggled with a pressing issue—lack of proper toilet and washroom facilities for its students. The absence of sanitation infrastructure made daily school life uncomfortable and unsafe, particularly for younger students. Limited awareness of hygiene and waterborne diseases further compounded the problem, making





the school environment less conducive to health and learning.

This changed significantly with the intervention of NHPC's CSR initiative. These facilities not only addressed a fundamental need but also elevated the overall school environment, giving students access to hygienic and safe sanitation.

The impact went beyond infrastructure. After the installation of the new toilets, students began learning more about cleanliness, sanitation practices, and the importance of

hygiene in preventing diseases. The presence of proper washroom facilities enabled the students to attend school more regularly and comfortably, especially during longer school hours.

"This kind of CSR activity is very important for schools as the outcome of the activity is very much beneficial for the student community," shared a school representative.

The project has brought both dignity and health to the school environment, significantly improving student well-being. Going forward, sustaining the gains made through regular maintenance will ensure that these benefits continue to uplift the school community.

# Empowering Girl Students through Sanitation at Sipajhar B J Higher Secondary School, Assam

In Sipajhar, a town nestled in Darrang district of Assam, girl students at Sipajhar B J Higher Secondary School were quietly facing a daily struggle. The school lacked hygienic and functional toilet and washroom facilities, creating discomfort and health concerns. The absence of clean sanitation facilities made it especially challenging for adolescent girls, affecting their attendance, dignity, and overall learning experience. Many were unaware of basic hygiene practices or the risks of waterborne diseases.

Under NHPC's Corporate Social Responsibility initiative, the school toilet was made functional.

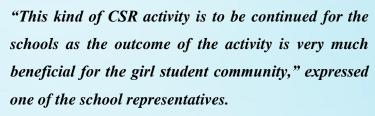
Though modest in scale, this single unit made a significant difference—particularly for the girl students, who now had a private and hygienic space to attend to their needs during school hours.

The positive impact was evident. This intervention added critical value to the school's

infrastructure and helped foster a healthier



environment for learning.



The project has brought a wave of change in ensuring dignity, comfort, and health for the girl students. By

addressing a basic yet crucial need, it has helped foster an environment where every student, especially girls can focus more on learning and less on the barriers that once held them back.

# 6. SYNOPTIC GLIMPSES OF DATA COLLECTION















# VOCATIONAL TRAINING FOR LIVELIHOOD ENHANCEMENT OF PERSONS WITH DISABILITIES / DIVYANGJANS

# LOCATION: J&K, HIMACHAL PRADESH, UTTARAKHAND & WEST BENGAL



**Central University of Jammu** 

www.cujammu.ac.in

**Impact Assessment Report 2025** 

# **PROJECT SUMMARY**

CSR Project Name	Vocational Training for Livelihood Enhancement of Persons with Disabilities/Divyangjans	
Executed By	NHFDC	
Supported By	NHPC Limited	
Total Expenditure	₹ 251.90 Lakh	
Duration	01/02/2019 to 15/03/2023	
	Jammu & Kashmir (Jammu, Kathua, Reasi, and Baramulla),	
Location	Himachal Pradesh (Chamba, Kullu, and Mandi),	
Location	Uttarakhand (Tehri Garhwal),	
	West Bengal (Siliguri and Darjeeling)	
Beneficiaries	992	

# **ACKNOWLEDGEMENTS**

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We are sincerely grateful to officials of **National Handicapped Finance and Development Corporation (NHFDC)** for extending their support in data collection and providing useful inputs about the CSR initiative.

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-Project Directors

# **PREFACE**

In the context of growing national emphasis on inclusive development, Corporate Social Responsibility (CSR) initiatives have emerged as vital instruments for promoting livelihood access and skill empowerment for marginalized populations. Among them, Persons with Disabilities (Divyangjans) continue to face systemic barriers in education, employment, and economic mobility.

This report presents the findings of an independent impact assessment study of a CSR initiative implemented by NHPC in collaboration with the National Handicapped Finance and Development Corporation (NHFDC). The project aimed to provide employment-oriented vocational training to Divyangjans across multiple states, including Jammu & Kashmir, Himachal Pradesh, West Bengal, and Uttarakhand, with the goal of enhancing livelihood opportunities and fostering economic self-reliance.

Adopting a mixed-methods evaluation approach, this study integrates quantitative survey data with qualitative insights from beneficiaries, trainers, and community stakeholders. The assessment captures the project's relevance, inclusivity, impact, and sustainability, while aligning outcomes with relevant Sustainable Development Goals (SDGs).

The analysis presented in this report is intended to inform policy design, strengthen implementation frameworks, and contribute to the scalable replication of successful livelihood interventions under CSR.

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# **LIST OF ABBREVIATIONS**

Abbreviations	Expressions
CSR	Corporate Social Responsibility
FGDs	Focus Group Discussions
NHFDC	National Handicapped Finance and Development Corporation
PWDs	Persons with Disabilities (PwDs)
SDG	Sustainable Development Goals
SROI	Social Return on Investment

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# **EXECUTIVE SUMMARY**

This study evaluates the effectiveness and impact of a Corporate Social Responsibility (CSR) initiative focused on providing vocational training and skill development for Divyangjan (persons with disabilities) hailing from Jammu, Kathua, Reasi, Baramulla in UT of Jammu and Kashmir, Chamba, Kullu, Mandi, in Himachal Pradesh, Tehri Garhwal, Uttarakhand, Siliguri and Darjeeling in West Bengal. The objective of the initiative is to enhance their employability and contribute to an inclusive workforce by offering training in various trades that align with market demands. A total of 300 respondents, including Divyangjan participants, trainers, community members, and local authorities, were surveyed to assess the initiative's reach, relevance, impact, and overall success.

The gender distribution of participants was moderately balanced, with males representing 55% and females 45%. The majority of respondents (70%) were between the ages of 25 and 50, reflecting a broad demographic seeking to up-skill for better job opportunities.

# **Key Findings**

- Awareness and Relevance: 70% of respondents were aware of the CSR initiative. Of those, 45% considered it highly relevant, and 30% viewed it as relevant. However, 15% perceived it as slightly relevant or neutral, indicating an opportunity to further align the training programs with the specific needs of the Divyangjan community.
- Training Effectiveness: 85% of participants reported that the training significantly improved their skill-set and confidence. However, 12% expressed concerns about the adequacy of training duration and content for some specialized disabilities, suggesting the need for more tailored programs.
- Impact on Employment and Livelihood: 60% of respondents reported improved job opportunities after completing the training. However, 25% of participants indicated they still faced challenges in securing employment due to factors such as lack of accessible workplaces and discriminatory hiring practices. This highlights the need for more employer engagement and advocacy to promote inclusive hiring practices.

- Accessibility and Support: 80% of participants reported that the training centers were
  accessible, including physical accommodations for mobility impairments. However, 20%
  of respondents indicated that more support in terms of specialized aids and technology
  could improve the overall training experience.
- Sustainability and Long-Term Impact: While 75% of respondents believed the
  initiative would have a long-term positive impact on the Divyangjan community, 15%
  expressed concerns about the sustainability of the program due to limited funding and
  inconsistent follow-up services.

# **Social Return on Investment (SROI)**

The CSR initiative has generated substantial positive social returns by providing Divyangjan individuals with new skills, boosting their employability, and contributing to an inclusive workforce. While the initiative has delivered tangible benefits, such as improved self-reliance and access to better job prospects, its impact has been somewhat hindered by gaps in stakeholder's participation and support infrastructure.

# **Alignment with SDG Goals**

- **SDG 8:** Decent Work and Economic Growth The initiative directly supports the goal by enhancing the employability and financial independence of Divyangjan individuals.
- **SDG 10:** Reduced Inequality The program works to reduce inequalities in employment and social participation for people with disabilities.
- **SDG 4:** Quality Education By providing skills training, the initiative contributes to ensuring inclusive and equitable quality education for all.

# **Major Discoveries**

- **Barriers to Employment:** Many participants face challenges in securing employment post-training, primarily due to workplace accessibility issues and hiring biases.
- **Tailored Training Needs:** While most participants benefited from the training, there is a need for more specialized programs for individuals with specific disabilities, such as those with sensory or cognitive impairments.

• Inconsistent Support Systems: Although training centers are accessible, a proportion of respondents felt that post-training support, including job placement and career guidance, was lacking.

# **Policy Gaps and Improvement Areas**

- Employer Engagement: Greater efforts are needed to engage employers in creating inclusive workplaces and ensuring that Divyangjan individuals are hired and integrated into the workforce.
- **Specialized Training Programs:** Develop more specialized and individualized training programs to meet the unique needs of Divyangjan individuals, especially those with cognitive and sensory disabilities.
- **Sustainability of the Initiative:** Long-term funding and consistent follow-up services are essential to ensure the continued success and sustainability of the initiative.

#### **Way Forward**

- Strengthened Employer Partnerships: Forge stronger relationships with industries and employers to create job opportunities and ensure inclusive hiring practices.
- Tailored and Inclusive Training: Expand training programs to include more specialized courses that cater to individuals with different types of disabilities. Collaborate with disability advocacy groups to design inclusive curricula.
- **Post-Training Support Systems:** Establish a robust post-training support system, including mentorship, job placement assistance, and career counseling, to ensure that participants can transition smoothly into the workforce.
- Long-Term Funding and Resource Allocation: Secure continuous funding and allocate resources to ensure the ongoing availability of training programs and infrastructure support for Divyangjan individuals.

In conclusion, the CSR initiative has made a significant impact by improving the employability of Divyangjan individuals through vocational training. To further enhance the initiative's effectiveness, it is crucial to address the gaps in post-training support, employer engagement, and specialized training content. With the right policies and partnerships in place, the program can continue to empower Divyangjan individuals and promote inclusive economic growth.

# 1. INTRODUCTION

# 1.1. Context & Need for CSR in Livelihood Enhancement for PwDs

Persons with Disabilities (PwDs), or Divyangjans, continue to face significant barriers to employment and livelihood generation in India, especially in rural and semi-urban areas. Limited access to inclusive skill development programs, lack of tailored job opportunities, and infrastructural challenges often result in economic marginalization and social exclusion for this vulnerable population. Despite national efforts through programs like the Skill India Mission, the Accessible India Campaign (Sugamya Bharat Abhiyan), and various welfare schemes for PwDs, gaps remain in reaching communities at the grassroots level with market-linked vocational training.

Recognizing this critical need, Corporate Social Responsibility (CSR) initiatives have become instrumental in filling these development gaps. As per the Companies Act 2013, corporates are mandated to spend at least 2% of their average net profits of the company made during the three immediately preceding financial years towards CSR activities in pursuance of their CSR Policy. Employment generation, skill development, and inclusion of persons with disabilities are all recognized CSR priority areas aligned with Sustainable Development Goals (SDGs) such as SDG 1 (No Poverty), SDG 4 (Quality Education), SDG 8 (Decent Work), and SDG 10 (Reduced Inequality).

In line with its CSR policy, a CSR project was implemented by NHPC through the National Handicapped Finance and Development Corporation (NHFDC). The initiative aimed to train 1,000 Divyangjans and others across Jammu & Kashmir, Himachal Pradesh, West Bengal, and Uttarakhand in various job roles including Hand Embroidery, Self-Employed Tailor, Domestic Data Entry Operator, Agarbatti Making, and more. Executed over a period of February 2019 to March 2023, with a total expenditure of Rs. 251.90 lakh, the project successfully trained 992 Divyangjans, helping them acquire relevant skills for self-employment and wage-based employment. By building local capacities and promoting economic independence, the project has played a vital role in strengthening inclusive livelihoods.

This impact assessment study evaluates the effectiveness, relevance, sustainability, and social return on investment (SROI) of the initiative. It also explores how such CSR interventions can

contribute to mainstreaming Divyangjans, empowering them as active agents of economic and social change.

# 1.2. Objectives of the CSR Initiative

Table 1: Objectives of the CSR Initiative

Objective	Description	
Provide livelihood-	Deliver vocational training to Divyangjans in high-potential job roles to	
linked training	enhance employability.	
Enable self-reliance	Equip beneficiaries with the tools, skills, and confidence to engage in	
Enable sen-renance	self-employment or wage employment.	
Ensure inclusion and	Promote inclusive infrastructure, trainers, and materials tailored to the	
accessibility	needs of persons with disabilities.	
Support financial	Facilitate economic empowerment through skill certification and income-	
independence	generation opportunities.	
Enhance social	Build confidence and improve the social mobility and community	
participation	participation of beneficiaries.	
Align with national	Contribute to Skill India, Accessible India, and CSR goals focused on	
priorities	equity and empowerment.	

# 1.3. About the University and School of Business Studies

The Central University of Jammu (CUJ) is a premier institution of higher learning located in the Union Territory of Jammu and Kashmir, established by the Central Universities Act, 2009. Committed to academic excellence and societal engagement, CUJ partners with government agencies and corporate entities in research, development, and evaluation of public welfare projects. CUJ brings technical expertise, field engagement, and impact assessment capabilities to support evidence-based policy and program development.

Since its inception in 2011, CUJ has grown significantly, offering over 50 programs across 21 Departments, 03 Centers, and 01 College. The University has established dedicated research centers and undertakes prestigious national-level projects, including the Kalam Centre for Science and Technology and the Satish Dhawan Centre for Space Technology

The University has a strong research focus, with faculty members undertaking over 40 major/minor research projects of academic and social relevance. CUJ has also signed 24 national and 4 international MoUs/bilateral agreements, and has obtained membership of apex industry/academic bodies like CII, NHRDN, and ICA. The University has adopted villages near its vicinity and undertakes capacity-building programs for teachers and students.

#### **School of Business Studies**

The School of Business Studies, established in 2012, offers a range of programs, including MBA, Ph.D. and Vocational Degree Programs in Business Administration, Human Resource Management, Tourism Management, Marketing Management, Retail Management, And Banking and Financial Services. These programs aim to equip students with multifaceted skills relevant to the contemporary business environment. The school's transactional pedagogy comprises interactive classroom sessions, case presentations, group discussions, and exposure to real-life situations through seminars and workshops. The school has taken several initiatives to drive excellence, including organizing various events and activities. School is able to mobilize resources from various funding agencies for research viz. ICSSR/ UGC /Tribal Affairs/M/O Consumer Affairs/NCW/DST/ EDII/SERB/MHRD/AICTE / J&K Bank /M/O Textile etc. The University faculty has been awarded prestigious National/International Fellowships, project funding and recognition and is constantly contributing to various governmental and nongovernmental sectors through research, consultancy and outreach activities.

#### 1.4. About NHPC Limited

NHPC was incorporated on November 7, 1975 as a Private limited company under the name "National Hydroelectric Power Corporation Private Ltd". The company was converted to Public limited company w.e.f. April, 2, 1986. The name of the company was changed to its present name "NHPC Limited" in 2008.

NHPC is a Navratna company with 67.40 % ownership of Government of India. With an Authorized share capital of ₹15,000 crore and an investment base of over ₹ 85,486 crore (as on 31.12.2024), NHPC Limited is the largest hydropower development organization in India, with

capabilities to undertake all activities from conceptualization to commissioning of hydro projects. NHPC has also diversified into the fields of solar and wind energy development.

NHPC's total installed capacity as of March 31, 2025, is 8140 MW, including 1,681.70 MW in joint ventures. This comprises 7771.2 MW from 23 hydro power stations, 318.84 MW from six solar power projects, and 50 MW from a wind power project. NHPC's hydro share of 7771.2 MW accounts for about 16.56% of the country's total installed hydro capacity of 46,928.17 MW.

Additionally, nine projects aggregating to a total installed capacity of 4,291 MW are under clearance stage, which includes four hydro and one solar project by NHPC on its own, and four projects (one in hydro and three in solar) in JV mode.

#### **VISION**

NHPC's vision is "To be a global leading organization for sustainable development of clean power through competent, responsible and innovative values".

#### **MISSION**

- To achieve excellence in development of clean power at international standards.
- To execute & operate projects through efficient and competent contract management and innovative R&D in environment friendly and socio-economically responsive manner.
- To develop, nurture and empower the human capital to leverage its full potential.
- To practice the best corporate governance and competent value based management for a strong corporate identity and showing concern for employees, customer, environment and society.
- To adopt & innovate state-of-the-art technologies and optimize use of natural resources through effective management.

# 1.5. About Corporate Social Responsibility (CSR)

Corporate Social Responsibility (CSR) represents a company's initiative to assess and take responsibility for its effects on environmental and social well-being. As per the Companies (CSR Policy) Rules, CSR refers to activities undertaken by a company in pursuance of its

statutory obligations under Section 135 of the Companies Act, 2013, in accordance with the provisions contained in these rules.

The CSR provisions outlined in Section 135 and the Companies (CSR Policy) Rules emphasize not only regulatory compliance but also the promotion of transparency and accountability in how companies contribute to societal and environmental betterment. Schedule VII of the Act provides a comprehensive list of eligible CSR areas, including poverty alleviation, education, gender equality, health, environmental sustainability, and contributions to various government relief funds.

CSR in India is increasingly seen as a means to contribute towards achieving the UN Sustainable Development Goals, aligning corporate strategies with Global/National priorities for inclusive and sustainable growth.

# 1.6. About NHPC's CSR Policy

Corporate Social Responsibility is integral to NHPC's commitment to addressing social, economic, and environmental concerns in the regions it serves. NHPC has a CSR & Sustainability Policy aligned with the specific provisions of CSR under Section 135 of the Companies Act, 2013, the Companies (Corporate Social Responsibility Policy) Rules, and subsequent amendments issued by the Ministry of Corporate Affairs, Government of India. NHPC also aims to adhere to the CSR guidelines issued by the Department of Public Enterprises (DPE). NHPC has strengthened its commitment to CSR in line with Statutory Provisions.

NHPC has undertaken numerous CSR initiatives for communities residing in and around its projects, power stations, and units, focusing on healthcare, education, sanitation, rural development, skill development, environmental sustainability, women empowerment, and other areas outlined in Schedule VII of the Companies Act, 2013. These efforts aim to foster inclusive growth, support marginalized communities, and contribute to national development.

# 1.7. About Impact Assessment

The Ministry of Corporate Affairs in India requires companies to conduct impact assessments of their CSR initiatives through the amended Companies (CSR Policy) rules. As per the amended

Companies (CSR Policy) Rules, every company having average CSR obligation of ₹10 crores or more in pursuance of sub-section (5) of Section 135 of the Companies Act, 2013, in the three immediately preceding financial years, shall undertake impact assessment, through an independent agency, of their CSR projects having outlays of Rs. One Crore or more, and which have been completed not less than one year before undertaking the impact study. Further, a Company undertaking impact assessment may book the expenditure towards Corporate Social Responsibility for that financial year, which shall not exceed two percent of the total CSR expenditure for that financial year or fifty lakh rupees, whichever is higher.

An impact assessment serves as a vital tool to analyze the effectiveness and sustainability of CSR projects. It not only highlights what has been achieved but also assesses how well the projects align with the company's long-term vision and address real community needs. The primary goal of an impact assessment is to provide a clear and measurable understanding of the value created for both society and the company through its CSR efforts. This study presents the third-party impact evaluation of the CSR initiative, which involved assessment of spending of NHPC on skill development initiative executed through the National Handicapped Finance and Development Corporation across Himachal Pradesh, West Bengal, and Uttarakhand states and Union Territory of Jammu & Kashmir. The study examines the impact of this intervention on beneficiaries by combining quantitative data from field surveys with qualitative inputs from stakeholders.

# 2. APPROACH & METHODOLGY

The impact assessment of the CSR initiative titled "Employment-Oriented Vocational Training for Livelihood Enhancement of Divyangjans", implemented by NHPC in collaboration with NHFDC, was conducted using a mixed-method, multi-stakeholder approach. This approach ensured that both quantitative outcomes and qualitative experiences were captured to assess the effectiveness, relevance, efficiency, impact, and sustainability of the intervention.

# 2.1. Assessment Objectives

The primary objectives of the assessment were:

- To evaluate the effectiveness of vocational training programs in enhancing employment readiness and income generation for Persons with Disabilities (PwDs).
- To examine the project's alignment with local needs, participant aspirations, and national inclusion goals.
- To assess the post-training outcomes, including self-employment, wage employment, and entrepreneurial activity.
- To determine the Social Return on Investment (SROI) and its perceived value to beneficiaries and stakeholders.
- To provide evidence-based recommendations for enhancing future livelihood-based CSR programs.

# 2.2. Methodological Framework

This study follows the principles outlined in the Government of India's CSR Impact Assessment Guidelines, using the OECD-DAC evaluation criteria, including:

- Relevance Does the training address the real needs of Divyangjans?
- Effectiveness Are the training goals being achieved?
- Efficiency Was the intervention delivered with optimal use of resources?
- Impact Has the intervention made a measurable difference?
- Sustainability Are the benefits likely to continue beyond the project period?

# 2.2.1. Stakeholder Mapping

The assessment involved feedback and insights from the following stakeholder groups:

- Divyangjan Trainees who participated in the skill development programs
- Trainers and Instructors at training centers
- Implementing Partners/Training Agencies
- Community Representatives and Local Facilitators
- Placement Coordinators and Employers, where applicable

# 2.2.2. Sampling Design

A purposive sampling strategy was adopted to ensure representation across multiple job roles, training locations, and gender/disability types.

- Planned Training Target: 1,000 beneficiaries
- Actual Trainees Covered: 992
- Sample Size for Impact Assessment: 202

Training centers were selected across:

- Jammu, Kathua, Reasi, Baramulla (J&K)
- Mandi, Chamba, Kullu (Himachal Pradesh)
- Siliguri, Darjeeling (West Bengal)
- Tehri Garhwal (Uttarakhand)

#### 2.3. Tools of Data Collection

Table 2: Tools of Data Collection

Tool	Purpose
Structured Questionnaires	Capture demographic profile, training experience,
Structured Questionnaires	post-training status, and satisfaction
In-depth Interviews	Collect qualitative insights from trainers, employers,
m-depth interviews	and local facilitators
Focus Group Discussions (FGDs)	Understand collective experiences, challenges, and
Tocus Group Discussions (TGDs)	recommendations from beneficiaries
Observation & Verification	Site visits to verify training infrastructure, tools, and
Observation & verification	accessibility
Secondary Data Review	Analysis of NHFDC training completion records,
Secondary Data Review	placement reports, and MoU documents

#### 2.4. Data Collection Timeline & Process

Data was collected through field surveys and telephonic interviews. Enumerators were trained to ensure disability-sensitive communication, informed consent, and respectful engagement with Divyangjan respondents. All interviews adhered to ethical research practices, including confidentiality and voluntary participation.

# 2.5. Data Analysis Strategy

The data was analyzed using a combination of quantitative and qualitative techniques, including:

- Descriptive statistics to capture participation, completion, and employment outcomes.
- Cross-tabulations to identify demographic or regional trends.
- Thematic coding of qualitative responses for challenges and suggestions.
- SROI assessment.

Tools used include Excel, Jamovi, and Python for textual responses.

# 2.6. Measures of Sustainability

Sustainability was evaluated through four dimensions:

Table 3: Measure of Sustainability

Dimension	Assessment Focus
Institutional Support	Role of NHFDC and local partners in ensuring continuity and post-training mentoring
Employment Continuity	Whether trainees were able to sustain employment or self- employment beyond initial placement
Financial Independence	Improvements in earning potential, credit access, or income stability post-training
Inclusion & Empowerment	Enhanced confidence, mobility, and participation in community life among Divyangjan beneficiaries

Each of these dimensions contributed to a composite understanding of long-term training effectiveness and livelihood impact.

# 2.7. Social Return on Investment (SRoI): Methodological Note

This impact assessment adopts a qualitative and perception-based approach to analyze the Social Return on Investment (SROI) generated by the vocational training initiative aimed at empowering Persons with Disabilities (PwDs). The program, implemented by NHPC in collaboration with NHFDC across four states, aimed to enhance employability, income generation, and dignity among Divyangjans through skill-based training.

# 2.7.1. Evaluation Themes Covered

Feedback from beneficiaries was collected through structured interviews and surveys, focusing on:

Relevance of Training to Aspirations

- Trainer Preparedness and Accessibility
- Confidence and Employability Post-Training
- Access to Employment, Financial Aid, or Entrepreneurship Support
- Perceived Social Impact (independence, dignity, inclusion)
- Community Perceptions and Recommendations

# 2.7.2. Indicators Considered for Perceived Value Creation

The following dimensions were used to infer SROI outcomes:

- Whether the training was adapted to disability needs
- Post-training employment confidence and job placement
- Financial independence or entrepreneurship adoption
- Usefulness of skill learned in real-life scenarios
- Reduction in discrimination or social exclusion
- Recommendations to replicate such CSR efforts

# 2.7.3. Insights from Stakeholder Narratives

Several success stories revealed:

"After the training, I started stitching clothes for my neighbors and earn ₹2,000–₹3,000 a month."

"Earlier, I didn't leave home much. Now I feel confident and useful."

"We were treated equally in class. That was the biggest change."

These statements highlight intangible but significant social gains in self-worth, mobility, and inclusion.

# **Justification for Qualitative SRoI**

- Monetization of outcomes such as dignity, reduced discrimination, or increased confidence is difficult and often inappropriate
- The project aligns with SDG 4 (Quality Education), SDG 8 (Decent Work and Economic Growth), and SDG 10 (Reduced Inequalities)
- The training model emphasized accessibility, community-based implementation, and stakeholder engagement, warranting a beneficiary-focused evaluation

The qualitative SROI methodology used for this study reflects the high social impact of the vocational training program for Divyangjans. While not captured in financial terms, the project delivered substantial returns in the form of enhanced employability, inclusion, and quality of life, making it a replicable model for CSR interventions in disability empowerment.

# **Research Methodology in Brief:**

Table 4: Research Methodology in Brief

Component	Details	
Objective	To assess the social and economic impact of the CSR initiative on employment-oriented vocational training for Persons with Disabilities (Divyangjans) across multiple states in India.	
Scope	Evaluating the effectiveness, efficiency, sustainability, impact, and Social Return on Investment (SROI) of the skill training initiative conducted through the National Handicapped Finance and Development Corporation (NHFDC).	
Study Area	The initiative was implemented in Jammu & Kashmir (Jammu, Kathua, Reasi, Baramulla), Himachal Pradesh (Chamba, Kullu, Mandi), West Bengal (Siliguri, Darjeeling), and Uttarakhand (Tehri Garhwal).	
Stakeholders	Persons with Disabilities (Divyangjans), community members, local businesses, training institutions, and government representatives.	
Research Design	Mixed-method approach (Quantitative & Qualitative).	
Data Collection	Primary Data (Surveys, Focus Group Discussions, Case Studies, Observational Study).	

Sampling Method	Stratified Random Sampling - ensuring representation across different states, disability categories, and socio-economic groups.
Sample Size	202
Data Analysis	Descriptive Statistics, Social Return on Investment (SROI) methodology, qualitative analysis.
Evaluation Criteria	<ul> <li>Relevance &amp; Effectiveness (Alignment with employment needs, skill development, and economic empowerment).</li> <li>Efficiency (Cost-effectiveness, training quality, and job placement rate).</li> <li>Sustainability (Long-term employment impact, self-sufficiency, and skill retention).</li> <li>Impact (Social &amp; Economic) (Employment generation, income improvement, self-reliance, and business creation).</li> <li>SROI (Quantification of social and economic benefits in monetary terms).</li> <li>Coherence (Alignment with broader CSR and government disability inclusion initiatives).</li> </ul>
Reporting	Comprehensive report with recommendations for improving future CSR initiatives in vocational training and disability inclusion.

# 3. CSR ACTIVITY DETAILS

The CSR initiative undertaken by NHPC in partnership with the National Handicapped Finance and Development Corporation (NHFDC) focused on improving the livelihood opportunities of Persons with Disabilities (PwDs/Divyangjans) through employment-oriented vocational training. The intervention aimed to equip beneficiaries with market-relevant skills across a variety of trades and encourage both self-employment and wage employment pathways.

A total of 992 Divyangjans were trained across Jammu & Kashmir, Himachal Pradesh, West Bengal, and Uttarakhand, under job roles such as Domestic Data Entry Operator, Self-Employed Tailor, Agarbatti Maker, Bamboo Basket Maker, Sewing Machine Operator, and Hand Embroidery.

The project was implemented between 01 February 2019 and 15 March 2023, with an expenditure of ₹251.90 lakh. NHFDC, the executing agency, coordinated with accredited training centers and local field partners to conduct mobilization, training, certification, and post-training support.

Table 5: CSR Activity details

Location	<b>Activity Description</b>	Expenditur e Incurred (Rs. In Crore)	Brief about Activity
UT of J&K: Jammu, Reasi & Kathua  Himachal Pradesh: Mandi, Chamba, & Kullu	Employment Oriented Vocational Training through NHFDC for livelihood enhancement of 1000 Nos. Divyang & others	2.52	An MoU was signed with the National Handicapped Finance and Development Corporation (NHFDC) on February 1, 2019, to provide skill training to 1,000 Persons with Disabilities (Divyangjans). Training locations included Jammu & Kashmir (Jammu, Kathua, Reasi, and Baramulla), Himachal Pradesh (Chamba, Kullu, and Mandi), West

	Bengal (Siliguri and
West Bengal:	Darjeeling), and Uttarakhand
Darjeeling, &	(Tehri Garhwal). The job roles
Siliguri	offered include Hand
	Embroidery, Sewing Machine
Uttarakhand:	Operator, Domestic Data Entry
Tehi Garhwal	Operator, Self- Employed
	Tailor, Agarbatti Making, and
	Bamboo Basket Making. 992
	Divyangjans have been trained
	in various job roles across
	these locations.
	<b>Project</b> implementation
	<b>period:</b> 01/02/2019 to
	15/03/2023
	<b>Total expenditure:</b> Rs. 251.90
	Lakh
	Executing Agency: NHFDC

# 3.1. Scope of Intervention

The intervention covered the following components:

- Mobilization and orientation of Divyangjan participants
- Need-based skill training in high-potential employment domains
- Provision of assistive devices or training aids, as required
- Certification, assessment, and post-training placement support
- Encouragement of entrepreneurial/self-employment opportunities where placement was not feasible

This initiative supported the empowerment of marginalized groups, particularly in rural and semi-urban areas, through livelihood enhancement and income generation.

# 3.2. Alignment with NHPC CSR Policy

The project aligns with NHPC's CSR Policy goals, particularly in:

- Supporting livelihood enhancement and skill development for marginalized communities.
- Promoting inclusive growth and empowerment of Persons with Disabilities (PwDs).
- Advancing socio-economic equity through access to employment.
- Contributing to the Government of India's Skill India and Sugamya Bharat Abhiyan (Accessible India Campaign).

Through this intervention, NHPC has demonstrated a socially inclusive approach to CSR, ensuring that vulnerable populations are equipped to participate in the mainstream economy.

# 3.3. Role of Partner Institutions

The success of the project was enabled through collaboration between the following stakeholders:

- NHFDC Executing agency responsible for training center empanelment, fund disbursement, and oversight
- Training Partners Organizations conducting job role-specific vocational programs
- Field Mobilizers and NGOs Assisted in beneficiary identification and enrollment
- **Certification Bodies** Conducted third-party assessments and issued certifications
- Employers & Placement Agencies Supported the placement of trained candidates wherever applicable
- Local Government Departments Facilitated outreach and supported implementation in rural areas

This collaborative model ensured effective delivery, accessibility, and context-specific implementation across the targeted regions.

# 4. ANALYSIS & INTERPRETATION

# 4.1. Data Analysis & Findings

# 4.1.1. Demographics & General Information

Figure 1: Demographic Profile of Beneficiaries



Table 6: Demographic Profile of Beneficiaries

Variable	Key Insights	Discussion Summary
Gender	62.9% of the respondents were male; 37.1% were female.	While male participation was higher, the notable female representation highlights effective outreach among women with disabilities.
Age Group	80.7% of participants were between 31–60 years of age.	The program successfully targeted working-age beneficiaries, which is crucial for livelihood- focused skill development.
Type of Disability	Locomotor disabilities (38.1%) and others (37.1%) were the most common, followed by visual (18.3%).	The initiative covered a diverse disability spectrum, but further disaggregation of "Other" would enhance program tailoring.
Training Location	Highest participation was from Reasi (29.2%), followed by New Tehri and Pattan.	Geographic coverage was wide, but program density was skewed toward a few key centers, suggesting the need to expand in lower-access districts.
Skill Training Program	Majority trained in Sewing Machine Operator (31.2%) and Self-Employed Tailor (30.2%).	The emphasis on tailoring-based trades suggests alignment with market demand and accessibility, though diversification can enhance future outcomes.

# 4.1.2. Relevance & Effectiveness of Training

Figure 2: Relevance & Effectiveness of Training

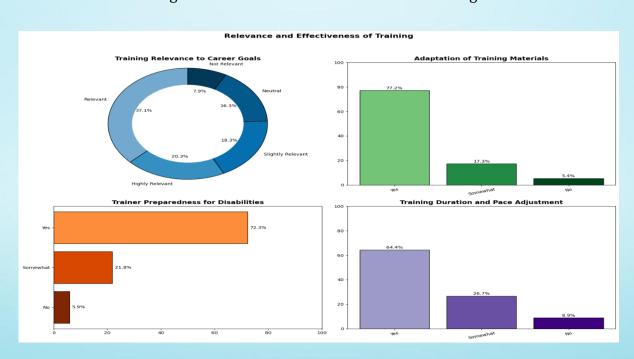


Table 7: Relevance & Effectiveness of Training

Variable	Key Insights	Discussion Summary
Training Relevance to Career Goals	57.4% found training relevant or highly relevant.	The training is well-aligned with participant aspirations, but ~26% found it only slightly relevant or were neutral.
Adaptation of Training Materials	77.2% said content was well-adapted for their needs.	Shows strong inclusive content delivery, crucial for accessibility and engagement.
Trainer Preparedness	72.3% said trainers were well-prepared to work with PwDs.	Trainer sensitivity and skill were well-rated, reinforcing the strength of the delivery mechanism.
Training Duration & Pace	64.4% agreed the pace/duration was appropriate.	Most respondents felt comfortable, though 35.6% still experienced some level of mismatch.

# 4.1.3. Employment & Career Prospects of Beneficiaries

Figure 3: Employment & Career Prospects of Beneficiaries

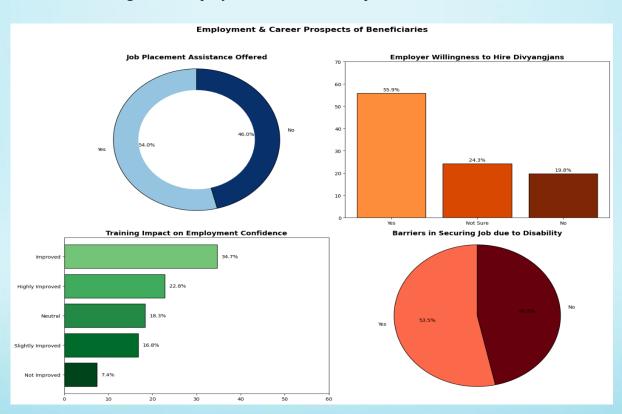


Table 8: Employment & Career Prospects of Beneficiaries

Variable	Key Insights	Discussion Summary
Job Placement Assistance Offered	54% received placement support.	While slightly more than half had assistance, the gap shows a need for wider outreach to employers and stronger placement cells.
Employer	55.9% said "Yes", but	There's optimism, but lack of awareness or
Willingness to Hire	44.1% were unsure or	biases among employers still create hiring
Divyangjans	said "No".	barriers.
Impact on	57.5% said confidence	The training had a strong effect on
Employment	improved or highly	beneficiaries' self-esteem and readiness to
Confidence	improved.	engage in employment.
Barriers in Securing Jobs Due to Disability	53.5% reported facing such barriers.	Over half still face systemic or social barriers in accessing jobs, pointing to a broader need for disability-inclusive employer engagement.

# 4.1.4. Financial & Entrepreneurial Support

Figure 4: Financial & Entrepreneurial Support

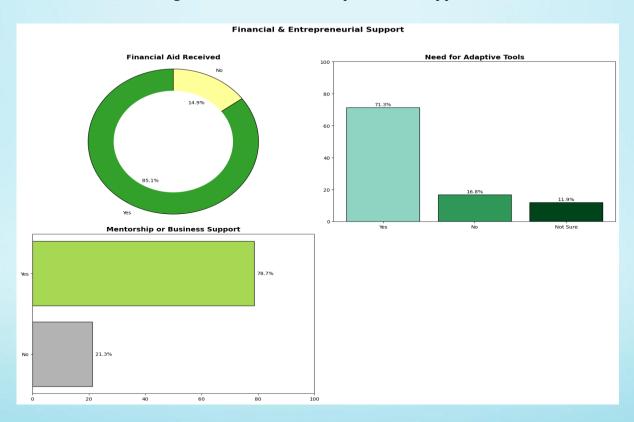


Table 9: Financial & Entrepreneurial Support

Variable	Key Insights	Discussion Summary
Financial Aid	85.1% reported receiving	Strong linkage between training and
Received	post-training financial	financial handholding fosters economic
Received	support.	mobility.
Need for Adaptive	71.3% indicated a need for	Indicates a demand for tailored
•		infrastructure that supports disability-
Tools	tools or assistive technology.	inclusive livelihoods.
Mentorship or	78.7% reported receiving	Effective post-training support systems are
Business Support	mentorship or guidance.	in place, boosting entrepreneurial potential.

# 4.1.5. Impact on Quality of Life

Figure 5: Impact on Quality of Life

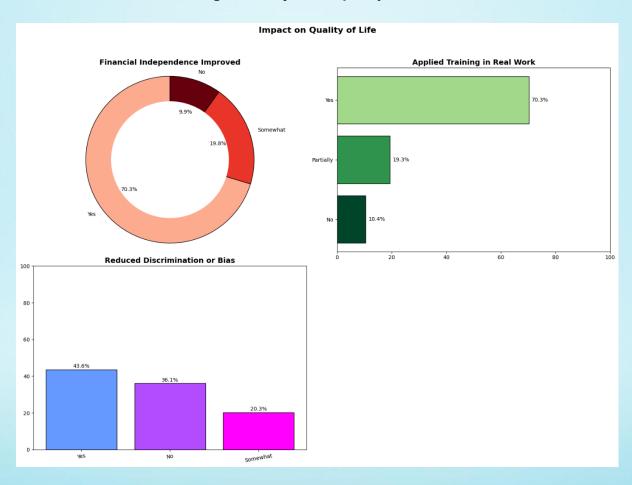


Table 10: Impact on Quality of Life

Variable	Key Insights	Discussion Summary
Financial Independence	70.3% reported improved financial independence.	Training translated into meaningful economic benefit for a majority of participants.
Applied Skills in Real Work	70.3% said they applied training on the job.	High real-world applicability validates the quality and relevance of the training content.
Reduction in Discrimination	43.6% observed reduced bias, but 36.1% did not.	While progress is evident, workplace and social discrimination remains a significant barrier.

# 4.1.6. Sustainability & Future Recommendations

Figure 6: Sustainability & Future Recommendations

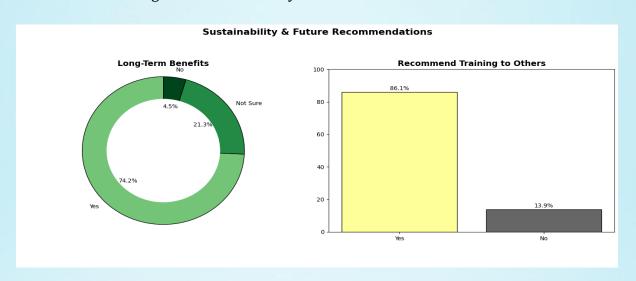


Table 11: Sustainability & Future Recommendations

Variable	Key Insights	Discussion Summary
	74.3% believe the	The initiative is widely viewed as sustainable,
Long-Term Benefits	program has lasting	with long-term value in skill development and
	impact.	livelihood enhancement.
Recommendation to	86.1% would	Strong andersoment shows high satisfaction
Others	recommend this	Strong endorsement shows high satisfaction and confidence in the program's replicability.
Others	training to others.	and confidence in the program's replicability.

### 4.1.7. Interpretation of Word Frequency Table (World Cloud Analysis)

Figure 7: Top 20 Most Frequent Words in CoR31 Responses

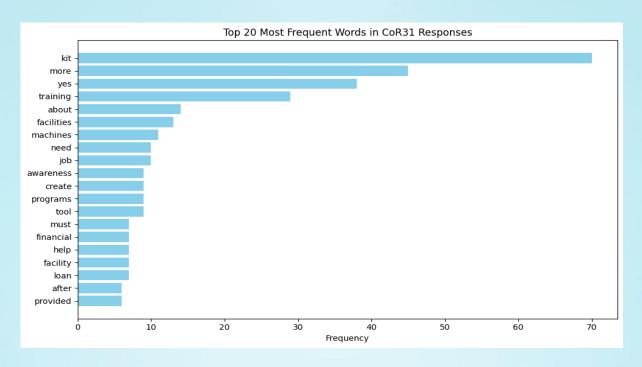
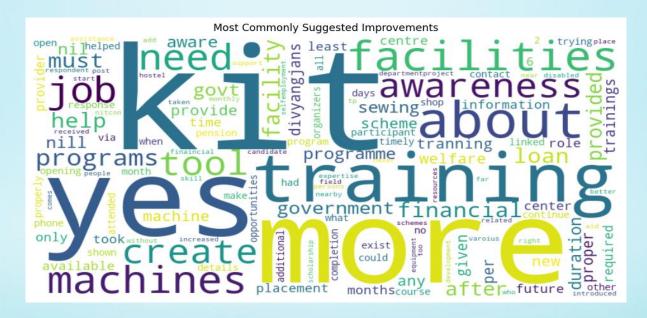


Figure 8: Most Commonly Suggested Improvements



The graph presents the most frequently occurring words extracted from the dataset, reflecting key themes and concerns among respondents.

#### • High Frequency Words:

- "Kit" (70 times) appears most frequently, indicating that discussions around training or support kits/tools are central to the respondents' feedback or experiences. These kits could refer to assistive devices or resource packages related to training.
- "More" (45 times) and "yes" (38 times) suggest affirmative responses and a desire for additional resources or support.
- o "Training" (29 times) highlights the importance of training programs in the respondents' context, emphasizing the core role of capacity building.

#### • Support and Facilities:

- Words like "facilities" (13), "facility" (7), and "machines" (11) point towards the significance of infrastructure and equipment, which are critical for effective training and skill development.
- The mention of "tool" (9) reinforces the need for practical resources and adaptive tools that support learning or work.

#### • Employment and Financial Aspects:

o Words such as "job" (10), "financial" (7), and "loan" (7) indicate concerns related to employment opportunities, financial aid, and access to loans, which are likely important factors influencing the success of the training and post-training livelihood.

#### • Awareness and Programs:

o The presence of "awareness" (9) and "programs" (9) suggests that spreading knowledge about available initiatives and the effectiveness of various programs are relevant to the respondents.

#### • Needs and Assistance:

o Terms like "need" (10), "help" (7), and "must" (7) reflect the respondents' expressed needs for assistance and emphasize mandatory or essential support systems.

#### • Other Insights:

o Words such as "create" (9) and "after" (6) may imply a focus on creating new opportunities or resources and considerations about the post-training phase.

To summarize, the word cloud analysis reveals that respondents frequently discuss training kits/tools, facilities and machines, and employment/financial support as key aspects of their experience. There is a clear emphasis on providing more resources, increasing awareness, and meeting critical needs through programs. These insights can guide improvements in program design, focusing on tangible support, infrastructure, and financial assistance to enhance outcomes.

## 4.2. Summary of Findings

Table 12: Summary of Findings

Theme	Key Highlights	Insight
	62.9% were male; 47% aged 31-	The program reached a
Demographics &	45; 70.6% aware of the program;	demographically appropriate,
Awareness	majority trained in tailoring-	working-age audience, with strong
	related trades.	awareness among beneficiaries.
	57.4% found the training relevant	The initiative is largely effective
Relevance &	or highly relevant; 77.2% said	and inclusive, though a segment
Effectiveness	materials were adapted to their	remains neutral or unsure,
Effectiveness	needs; 72.3% rated trainer	suggesting scope for more
	preparedness positively.	personalized interventions.
	54% received placement	Training boosted confidence and
Employment &	assistance; 56% noted employer	some access to jobs, but perceived
Career Prospects	openness; 57.5% felt more	hiring barriers remain a key
	confident post-training.	concern.
Financial &	85.1% received financial aid;	Strong support systems were in
Entrepreneurial	78.7% got mentorship; 71.3% saw	place, but accessibility tools remain
Support	need for adaptive tools.	a vital unmet need for many
Support	need for adaptive tools.	participants.
	70.3% reported improved financial	The program contributed to
Impact on Quality of	independence and real-world skill	personal and financial
Life	application; 43.6% noticed	empowerment, though social
	reduced discrimination.	acceptance is still evolving.
	74.3% believe the benefits are	Broad endorsement and
Sustainability &	long-term; 86.1% would	sustainability perception suggest
Recommendations	recommend the program.	that the model has strong potential
	recommend the program.	for replication.

#### **Overall Summary**

The CSR initiative focused on employment-oriented vocational training for Divyangjans has achieved:

- High outreach and inclusion, with effective targeting of working-age beneficiaries across multiple states.
- Significant relevance and adaptability, with most trainees affirming that the training aligned with their needs and that disability-specific accommodations were made.
- Positive employment impact, demonstrated by improved confidence, willingness among some employers, and applied use of skills in real settings.
- Robust support systems, with post-training financial aid, mentorship, and partial entrepreneurial guidance in place.
- Substantial quality-of-life gains, including improved financial independence and a sense of reduced social discrimination.
- Strong sustainability perception, with three-quarters of respondents believing the benefits will continue, and 86% recommending the program to others.

#### However, continued success depends on:

- Providing adaptive tools/technologies tailored to different types of disabilities.
- Enhancing job placement networks and employer sensitization to bridge hiring barriers.
- Strengthening monitoring mechanisms to track post-training progress, income, and business continuity.
- Encouraging entrepreneurial incubation and access to micro-credit or SHG linkages for self-employed candidates.

#### Social Return on Investment and alignment with SDG

Table 13: Social Return on Investment & Alignment with SDG

Indicator	Observed Outcome	Social Value Created	SDG Alignment
Training Value Perception	57.4% found training relevant or highly relevant	Indicates strong alignment with career goals of Divyangjans	SDG 4 – Quality Education
Confidence & Empowerment	57.5% reported improved employment confidence	Demonstrates improved agency and participation in economic activity	SDG 10 – Reduced Inequalities
Financial Independence	70.3% confirmed financial independence post-training	Shows long-term livelihood impact and household-level benefits	SDG 1 - No Poverty, SDG 8 - Decent Work
Mentorship & Business Support	78.7% received mentorship or guidance	Indicates readiness for entrepreneurship and ecosystem support	SDG 9 – Industry, Innovation and Infrastructure
Recommendation for Replication	86.1% would recommend to others	Reflects trust in model and community-level scalability	SDG 17 – Partnerships for the Goals

## 4.3. Policy Recommendation

Based on the findings of the impact assessment, this section outlines key policy-level recommendations to enhance the effectiveness, inclusivity, and sustainability of vocational training initiatives for Divyangjans under CSR. These suggestions are informed by stakeholder feedback, field observations, and the outcome analysis conducted across multiple training locations.

The aim is to provide a strategic roadmap for NHPC, NHFDC, and similar implementing agencies to strengthen livelihood interventions and ensure they are aligned with national development priorities and the Sustainable Development Goals (SDGs). The recommendations are also mapped to their expected outcomes and corresponding SDGs to promote coherence, scalability, and measurable impact.

**Table 14: Policy Recommendations** 

Policy Recommendation	Expected Outcome	Aligned SDG(s)
Provide adaptive tools and	Enhanced accessibility and	SDG 9, SDG 10
assistive technologies	independent skill application	3DG 9, 3DG 10
Build stronger employer	Increased hiring of Divyangjans,	SDG 8 – Decent Work
networks and incentives	reduced stigma	and Economic Growth
Institutionalize post-training	Better outcome measurement and	SDG 17 – Partnerships
tracking mechanisms	long-term support	for the Goals
Expand financial literacy and	Improved business continuity and	SDG 1 – No Poverty,
credit linkages	entrepreneurship viability	SDG 9 – Infrastructure
Replicate training in more	Broader inclusion and regional	SDG 4 – Quality
locations with diversity	equity	Education, SDG 10 -
locations with diversity	equity	Reduced Inequality

#### 4.4. Conclusion

The initiative led by NHPC and executed through NHFDC has created a meaningful livelihood pathway for Persons with Disabilities through skill-based vocational training across four states. The program's strengths lie in its accessibility, relevance, and support ecosystem, evidenced by high levels of satisfaction, applied learning, and financial impact.

The findings highlight clear gains in empowerment, employment readiness, and inclusiveness, especially for economically marginalized groups. However, gaps in adaptive technology, job market access, and entrepreneurial support suggest that future interventions must go beyond training and address systemic integration challenges.

With minor structural enhancements and scale-up through partnerships, this model offers a replicable and scalable framework for inclusive livelihood enhancement under CSR.

#### **Impact:**

- Significantly improved financial independence **and** employment confidence among participants.
- Widespread application of skills in real-life work scenarios, both in wage and selfemployment settings.
- Strong community endorsement, with 86.1% recommending the program to others with similar needs.
- Meaningful progress in reducing discrimination, especially where community engagement was stronger.
- Creation of a supportive training ecosystem, including mentorship and post-training financial aid.

#### **Challenges:**

- Over 53% of respondents still experience barriers to employment directly related to their disability.
- Limited adaptive tools or assistive technologies affected usability and effectiveness for certain disability types.
- Variation in employer sensitization and lack of structured placement linkages created unequal opportunities.
- Some participants expressed uncertainty about long-term support or follow-up from training agencies.

#### **Recommendations:**

- Expand the provision of assistive technologies and disability-specific training aids across all centers.
- Institutionalize job placement cells and employer sensitization programs within training centers.
- Strengthen entrepreneurship incubation with microcredit access and long-term mentoring for self-employed candidates.
- Integrate a system of post-training tracking and reporting to ensure continued relevance and long-term impact.

#### 5. SUCCESS STORIES OF CSR ACTIVITY

#### Threading Independence: Pratima Devi's Journey of Self-Reliance in Uttarakhand.

In the quiet village of Apki, nestled within Pratap Nagar, Uttarakhand, Pratima Devi, a 35-yearold woman with a hearing impairment, lived a life shaped by silence and struggle. With few opportunities for gainful employment and limited access to inclusive training, she faced both social and economic marginalization. Her disability often isolated her from income-generating



activities, making reliant on others for basic needs and financial support. Everything changed when she enrolled in a vocational training program tailoring, initiated under NHPC's Corporate Social Responsibility (CSR) initiative. The program, conducted right in her village at Ghanshali,

opened the door to skill-based learning in an inclusive environment. With careful instruction and encouragement, Pratima learned how to stitch suits and sarees—transforming what was once a distant dream into a practical livelihood. The impact was profound. Equipped with a sewing machine provided by the government, she began taking orders from neighbors and customers in surrounding areas. Today, Pratima earns between ₹3,000 to ₹5,000 per month, bringing not only financial stability but also dignity and self-worth. Her work has earned her recognition in her community and a renewed sense of purpose. "It was here that I was taught how to make suits" says Pratima, using gestures and quiet confidence that speak louder than words.

Pratima's story is not just one of skill acquisition—it is a story of resilience and transformation. From social isolation to self-employment, she now aspires to expand her business and reach more customers. Her journey reflects how inclusive training, when delivered with compassion and support, can truly change lives. Through this CSR initiative, NHPC not only empowered a

woman with a disability but also helped weave a narrative of hope, strength, and inclusion in one of India's remotest terrains.

# Stitching Dignity and Livelihood: NHPC's CSR Initiative Empowers Rural Women in Baramulla

In the heart of Baramulla district, nestled in the remote pockets of Jammu & Kashmir, women have long struggled with limited access to employment and skill development. Cultural norms, coupled with economic constraints, left many with untapped potential—especially in the art of

tailoring. With few local avenues for vocational learning, self-reliance remained a distant dream for most.

Recognizing this unmet need, NHPC launched a targeted vocational training program in cutting and tailoring under its Corporate Social Responsibility (CSR) initiative. The program aimed not just to provide skills, but to unlock dignity,



confidence, and economic opportunity for women who had long been sidelined from mainstream livelihoods.

Delivered in partnership with local training institutes and community organizations, the **three-month training course** covered stitching techniques, use of modern sewing machines, fabric handling, and basic entrepreneurial skills. Graduates received toolkits and certification—equipping them to start home-based ventures or seek employment in tailoring units.

The transformation was immediate and deeply personal. **Over 50 women** in the first phase alone gained not only a trade but a voice—one that could contribute meaningfully to their households and communities. Many participants began earning between ₹3,000 to ₹6,000 per month, supporting their families and gaining newfound respect.

"Before this training, I never thought I could earn from home. Now, I stitch clothes for my neighbourhood and even get orders during weddings. NHPC gave us not just toolkits, but also confidence."

Shazia Bano, Trainee from Sopore



Participants like **Ruksana Jan** took the opportunity even further:

"I opened a small tailoring shop near my village with savings and a loan. In just four months, I'm making profits and plan to hire another girl soon."

The initiative also earned praise from local administrators and trainers. "Such skill development programs not only empower individuals but strengthen the entire community ecosystem," said the Block Development Officer, Baramulla.

Trainer's Note — "These girls came in shy and unsure, but are leaving as confident professionals. NHPC's support made this transformation possible," shared Shaista, the lead trainer.



This initiative by NHPC has become more than just a training program—it's a story of quiet revolution. It redefined possibilities for rural women, encouraging financial independence, entrepreneurial drive, and a sense of pride that no machine can measure. As Baramulla's women stitch together garments, they are also stitching stronger futures—for themselves, their families, and their communities.

#### Stitching a Better Tomorrow - NHPC's Vocational Training Uplifts Women in Baramulla

Empowering Women Through Skill Development: NHPC's CSR Initiative in Baramulla



In a region often challenged by limited employment opportunities, especially for women, the National Hydroelectric Power Corporation (NHPC) identified the need for skillbased vocational training in Baramulla district. Jammu & Kashmir. Under its Corporate Social Responsibility (CSR) program, NHPC launched a Cutting and Tailoring Training Programme to empower women and promote self-reliance.

Many women in Baramulla, particularly in rural areas, had minimal access to income-generating skills. Due to socio-economic and cultural barriers, formal employment was out of reach for most. Though many had the interest and aptitude for tailoring, the lack of structured training and modern equipment restricted them from taking it up professionally.

NHFDC executed training programme supported by NHPC by partnering with local training institutes and women welfare groups. The **three-month vocational training course in cutting and tailoring** is focused on:

- Basic and advanced stitching techniques
- Use of modern sewing machines
- Fabric selection and cutting
- Entrepreneurship and pricing skills

Free toolkits and certificates were provided on completion, enabling trainees to either start their own ventures or join local tailoring units. The outcomes and impact was quite visible as it transformed lives. Specifically, under this initiative:

- **Trained 50+ Women**: In the first phase alone, over 50 women completed the course and received certification.
- **Self-employment Boost**: Many women have started home-based tailoring units, stitching school uniforms, local garments, and dresses.
- Financial Independence: Participants reported an increase in monthly income by ₹3000–₹6000, supporting their families and children's education.
- **Entrepreneurial Drive**: Some women have gone ahead to train others in their locality, creating a ripple effect of empowerment.

The initiative has been widely praised by local panchayats, women's self-help groups (SHGs),

and district administration for promoting livelihood and women's empowerment. NHPC's support has been seen as a meaningful long-term investment in rural human capital. NHPC's CSR initiative in Baramulla goes beyond just training — it nurtures entrepreneurship, strengthens families, and empowers women with dignity. The program has become a **symbol of hope and economic liberation** for dozens of rural households in the region.



## 6. SYNOPTIC GLIMPSE OF DATA COLLECTION

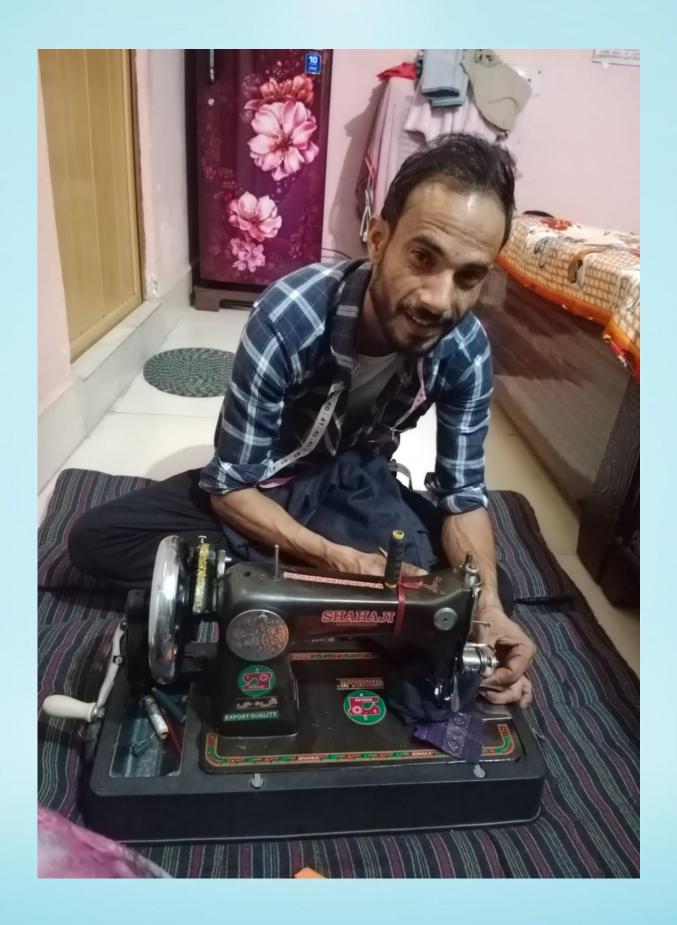










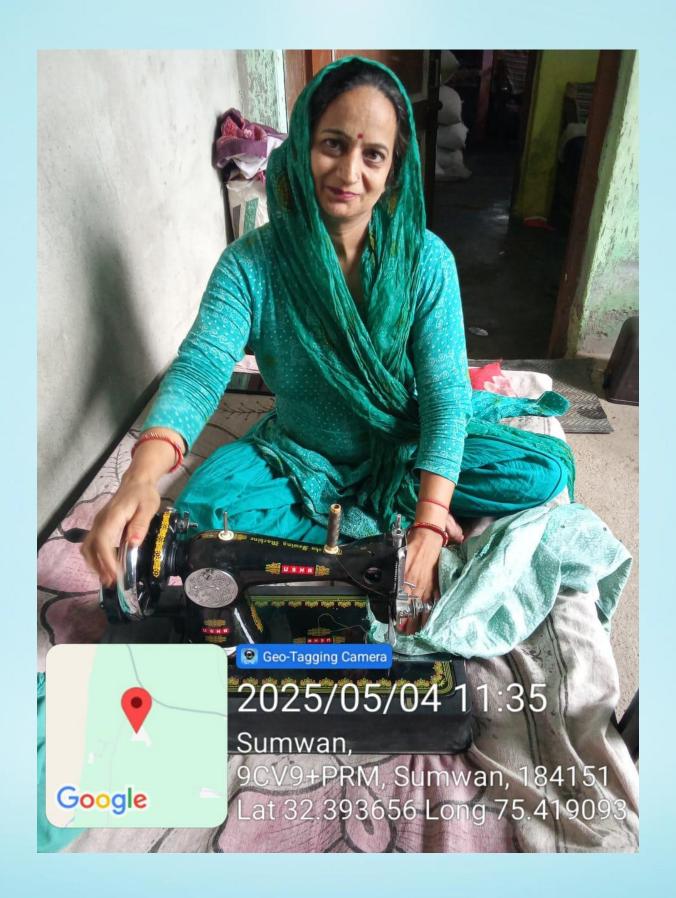




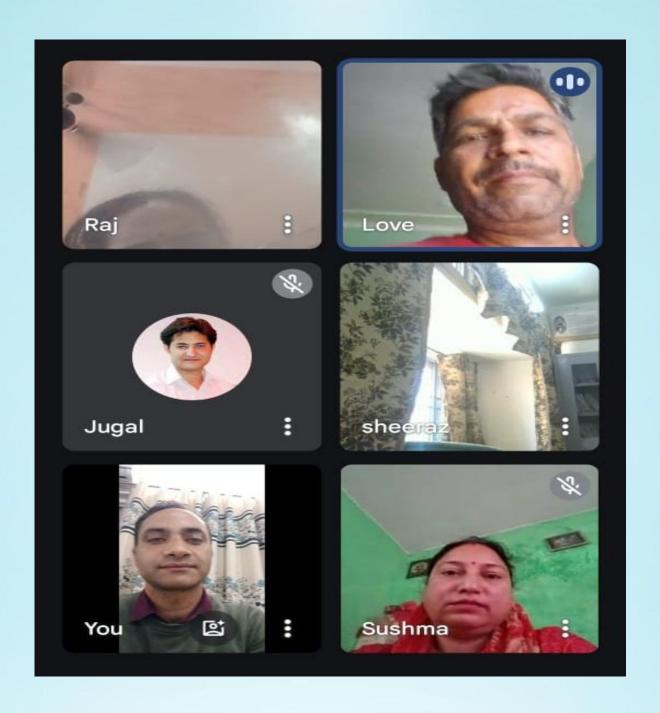














# PROVIDING SOLAR LED STREET LIGHTS IN VARIOUS PARLIAMENTARY CONSTITUENCIES IN HIMACHAL PRADESH



**Impact Assessment Report 2025** 

# **PROJECT SUMMARY**

CSR Project Name	Providing Solar LED Street Lights in various parliamentary constituencies in Himachal Pradesh
Executed By	Energy Efficiency Services Limited
Supported By	NHPC Limited
Total Expenditure	₹ 571.82 Lakh
Duration	19/06/2018 to 08/12/2021
	Kangra, Chamba, Shahpur, Indora, Chopal, Pacchad, Nurpur,
Location	Jaisinghpur, Dalhousie, Kasummpti, Ponta Sahib, Rohru& Solan,
	Himachal Pradesh

## **ACKNOWLEDGEMENTS**

We extend our deepest gratitude to the ALMIGHTY for giving us the strength and dedication to complete this Impact Assessment Study.

We express our sincere gratitude to **Prof. Sanjeev Jain**, Hon'ble Vice Chancellor, Central University of Jammu for his constant encouragement, timely administrative approvals and unflinching support for successful completion of the study. His abiding commitment to scholarship and academics has been an inspiring example and we are grateful to him for his guidance and mentorship.

We owe our gratitude to **Deputy Commissioner/s**, for their invaluable support and cooperation of District Administration of respective Districts related to data collection from beneficiaries across Kangra, Chamba, Shahpur, Indora, Chopal, Pacchad, Nurpur, Jaisinghpur, Dalhousie, Kasummpti, Ponta Sahib, Rohru & Solan in Shimla & Kangra Parliamentary constituencies of Himachal Pradesh. Areas. We are sincerely grateful to officials and elected representatives of Department of Panchayati Raj, Himachal Pradesh for extending their support in data collection and providing useful inputs about CSR initiative of installing Solar Led Street Lights in various parliamentary constituencies in Himachal Pradesh from 19/06/2018 to 08/12/2021.

We are also grateful to **Office Bearers of NHPC CSR Division, Faridabad** and **NHPC officials** from local Offices for their cooperation and valuable inputs about the CSR activities initiated by NHPC for providing solar street lights. Their dedication and first-hand experiences were central to understanding the real-world implications of the CSR intervention.

We also sincerely thank the beneficiaries and stakeholders who participated in the field surveys and focus group discussions. Their voices brought depth and context to our findings. We express our heartfelt gratitude to all those who contributed to the successful completion of this impact assessment study. This study would not have been possible without the generous support and

strategic vision of the Corporate Social Responsibility (CSR) donor and implementing partner organizations.

We owe our gratitude to our other field work collaborators **Dr. Zubair Ahmed Dada**, Assistant Professor, University of Kashmir, **Dr. Asif Ali**, Assistant Professor, Department of HRM & OB, Central University of Jammu, **Dr. Obaidur Rahman**, Assistant Professor, Sharda University and **Dr. Kishore Kumar**, Assistant Professor, Bennett University, Greater Noida.

We acknowledge the tireless efforts of the data collection team, supervisors, community liaison Officer/s and field coordinators who ensured rigorous data collection and focus group discussions with stakeholders under often challenging conditions throughout the study period.

Finally, special thanks to **Dr. Kavyashree K. M** and other team memberswho translated field evidence into actionable insights. We are indebted to **Prof. Yashwant Singh**, Registrar, Central University of Jammu and faculty members from School of Business Studies, Central University of Jammu who have been a constant source of encouragement and moral support for our academic accomplishment and the timely completion of this study.

- Project Directors

## **PREFACE**

The study adopts a mixed-methods framework, combining structured field surveys with qualitative inputs from beneficiaries and end-users. The assessment benchmarks outcomes across key domains—access, affordability, and system sustainability—against pre-identified indicators, and aligns them with Sustainable Development Goals (SDGs) and OECD-DAC evaluation criteria.

The insights from this report are intended not only to validate the effectiveness of the current intervention but also to guide future CSR strategies, promote evidence-based policymaking, and inspire cross-sector partnerships.

We hope this report contributes meaningfully to the ongoing discourse on sustainable intervention and provides a roadmap for replicable, scalable, and impactful CSR programs.

# PROJECT IMPACT ASSESSMENT TEAM MEMBERS

S. No	Name	Designation
1	Prof. Jaya Bhasin	Project Director/s
2	Dr. Shahid Mushtaq	
3	Dr. Asif Ali	
4	Dr. Obaidur Rahman	Project Coordinator/s
5	Dr. Kishore Kumar	
6	Dr. Kavya Shree K M	Research Assistant
7	Mr. Pursharth Sharma	Project Fellow/s
8	Sh. Udit Mahajan	Technical Advisor

# **LIST OF ABBREVIATIONS**

Abbreviations	Expressions
CSR	Corporate Social Responsibility
SDG	Sustainable Development Goals
SROI	Social Return on Investment

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## **EXECUTIVE SUMMARY**

This impact assessment study evaluates the effectiveness and outcomes of the CSR initiative aimed at providing Solar LED Street Lights in the Shimla and Kangra parliamentary constituencies of Himachal Pradesh. A total of 3,250 Solar LED Street lights were installed across various rural areas, aiming to improve infrastructure and quality of life. The study focuses on assessing the social, economic, and environmental impacts. It also provides recommendations for enhancing the effectiveness and sustainability of future CSR initiatives.

#### **Key Findings**

#### **Awareness and Relevance:**

- The project directly addressed a critical infrastructure gap in rural areas.
- Villages in the region struggled with basic infrastructure such as roads, power, drinking water, and sanitation, contributing to high levels of poverty.
- The project is seen as highly relevant for improving the living conditions of rural communities, particularly in far-flung and underdeveloped areas.

#### **Impact on Rural Infrastructure:**

- The installation of solar LED street lights in Shimla and Kangra has significantly improved the street lighting infrastructure in previously underserved villages.
- The initiative has enhanced rural infrastructure, which is expected to contribute positively to the broader development of the State.

#### **Economic and Social Impact:**

- The introduction of street lights is expected to create safer environments for villagers, particularly women and children, who often face safety challenges in poorly lit areas.
- Economic activities in rural areas, such as farming and mason jobs, will be further supported by better infrastructure, improving livelihoods.

• The project is likely to increase the mobility and access of rural communities, especially in the evenings, which could have a positive impact on local businesses and education.

#### **Challenges and Limitations:**

- Identification of beneficiaries was a time-consuming process due to the lack of proper contact information for local representatives and beneficiaries.
- Difficult terrain and damaged roads, worsened by rains, caused logistical issues in reaching remote villages for installations.
- Technical issues, such as the need to recharge lead-acid batteries after they were stored for months, further delayed the project.
- The winter climate and the COVID-19 lockdown in 2020 significantly impacted the timeline, leading to halts in installation activities.
- Future projects should consider the use of lithium iron phosphate (Li-Fe) batteries instead of lead-acid batteries to ensure better performance and reliability.

#### **Sustainability and Maintenance:**

 The project's sustainability could be improved by addressing challenges related to longterm maintenance and ensuring that local communities and representatives play a more active role in maintaining the infrastructure.

#### **Social Return on Investment (SROI)**

The solar LED street light initiative has generated significant social value by improving safety, enhancing rural infrastructure, and contributing to a reduction in poverty. However, delays in installations and technical challenges have impacted the full potential realization of these benefits.

#### **Alignment with SDG Goals**

• **SDG 7: Affordable and Clean Energy** – By providing solar LED street lights, the project directly supports access to clean energy.

- **SDG 11: Sustainable Cities and Communities** The installation of solar street lights promotes safer, more sustainable rural communities.
- **SDG 13: Climate Action** The use of solar energy contributes to environmental sustainability.

#### **Major Discoveries**

- **Infrastructure Gaps:** There is a significant lack of basic infrastructure in the rural areas of Himachal Pradesh, which the project is addressing.
- **Delayed Implementation:** The project faced multiple delays due to logistical challenges, climatic conditions, and the COVID-19 pandemic.
- **Technical Issues:** The reliance on lead-acid batteries and the challenges associated with the terrain contributed to inefficiencies in the installation process.

#### **Policy Gaps and Improvement Areas**

- Stakeholder Engagement: Increased collaboration with local representatives and communities is essential to streamline the project's execution and ensure better coordination.
- **Maintenance and Support:** Clear policy frameworks and dedicated funding for ongoing maintenance should be established to ensure the sustainability of solar street lights in the long term.
- Project Planning: Future CSR projects should account for logistical challenges, such as poor road infrastructure, and consider alternative battery technologies for improved performance.

#### **Way Forward**

- **Enhanced Local Involvement:** Encourage greater participation from local communities and stakeholders, including village heads and local leaders, to improve project execution.
- **Improved Infrastructure:** Address gaps in infrastructure such as road networks to facilitate smoother project implementation in remote areas.

- **Technology Upgrades:** Transition to more durable and efficient battery technologies, such as lithium iron phosphate batteries, for future projects.
- **Regular Monitoring and Feedback:** Establish a robust monitoring and evaluation system to track project progress, ensure timely intervention, and address issues as they arise.

In conclusion, while the CSR initiative has made a positive impact on rural infrastructure in Himachal Pradesh, addressing logistical and technical challenges, as well as ensuring better stakeholder engagement, will be key to maximizing its benefits in the future.

## 1. INTRODUCTION

#### 1.1. Context & Need for CSR in Sustainable Infrastructure

Access to reliable and sustainable public infrastructure is a vital component of inclusive development, particularly in hilly and rural regions such as Himachal Pradesh. Despite ongoing government efforts to improve basic amenities, many areas continue to face infrastructural gaps that affect quality of life, safety, and energy access—especially after sunset. Inadequate street lighting in several villages and towns leads to reduced mobility, safety concerns, and hindered community and economic activities during evening hours.

To address these challenges, Corporate Social Responsibility (CSR) interventions have emerged as a significant enabler of local development. Under the statutory provisions of the Companies Act, 2013, companies are required to spend, in every financial year, at least 2% of their average net profits of the company made during the three immediately preceding financial years towards CSR activities in pursuance of their CSR Policy. It is relevant to mention that sectors such as Rural Development and environmental sustainability have gained prominence in recent years as areas of CSR intervention, especially with growing emphasis on clean energy solutions.

The solar street lighting initiative implemented in Himachal Pradesh with NHPC's support is one such CSR intervention, aimed at enhancing community safety and promoting the use of renewable energy. The project, carried out through Energy Efficiency Services Limited (EESL), involved:

- Installation of 3,250 Solar LED Street Lights (12W capacity) across multiple constituencies in Shimla and Kangra districts, including areas like Chamba, Shahpur, Indora, Chopal, Nurpur, Dalhousie, Rohru, and others.
- Promotion of green infrastructure by replacing or supplementing conventional lighting with energy-efficient solar alternatives.
- Improved night-time visibility and public safety, especially in semi-urban and rural belts where conventional power supply is either weak or inconsistent.

Implemented over a three-year period (from June 2018 to December 2021), with a total expenditure of ₹5.72 crore, this CSR project reflects a convergence of clean energy goals with

grass-roots development needs. It also aligns with national priorities such as the promotion of energy efficiency, rural electrification, and climate action.

The current study is conducted to evaluate the social, economic, and environmental impact of this initiative. It also aims to assess the Social Return on Investment (SROI) and provide actionable recommendations to enhance the effectiveness, replicability, and sustainability of such CSR-led clean energy infrastructure projects.

## 1.2. Objectives of the CSR Initiative

Table 1: Objectives of the CSR Initiative

Objective	Description	
Improve public safety and	Install solar-powered street lights in underserved areas to reduce	
security	crime, improve night-time visibility, and enhance safety.	
Enhance mobility and	Support safe commuting and public movement after dark,	
accessibility	especially for women, elderly, and school-going children.	
Promote renewable energy	Encourage the adoption of solar energy solutions in public	
infrastructure	utilities to reduce carbon footprint and grid dependence.	
Strengthen rural	Bridge infrastructure gaps in remote, semi-urban, and hilly	
infrastructure	regions by ensuring access to reliable lighting.	
Support economic activity	Extend business hours and improve the operating environment	
Support economic detivity	for small vendors and local markets.	
Align with environmental	Contribute to SDG targets, state renewable energy mandates, and	
	national sustainability missions through clean technology	
and policy goals	deployment.	

## 1.3. About the University & School of Business Studies

The Central University of Jammu (CUJ) is a premier institution of higher learning located in the Union Territory of Jammu and Kashmir, established by the Central Universities Act, 2009. Committed to academic excellence and societal engagement, CUJ partners with government agencies and corporate entities in research, development, and evaluation of public welfare

projects. CUJ brings technical expertise, field engagement, and impact assessment capabilities to support evidence-based policy and program development.

Since its inception in 2011, CUJ has grown significantly, offering over 50 programs across 21 Departments, 03 Centers, and 01 College. The University has established dedicated research centers and undertakes prestigious national-level projects, including the Kalam Centre for Science and Technology and the Satish Dhawan Centre for Space Technology

The University has a strong research focus, with faculty members undertaking over 40 major/minor research projects of academic and social relevance. CUJ has also signed 24 national and 4 international MoUs/bilateral agreements, and has obtained membership of apex industry/academic bodies like CII, NHRDN, and ICA. The University has adopted villages near its vicinity and undertakes capacity-building programs for teachers and students.

#### **School of Business Studies**

The School of Business Studies, established in 2012, offers a range of programs, including MBA, Ph.D. and Vocational Degree Programs in Business Administration, Human Resource Management, Tourism Management, Marketing Management, Retail Management, And Banking and Financial Services. These programs aim to equip students with multifaceted skills relevant to the contemporary business environment. The school's transactional pedagogy comprises interactive classroom sessions, case presentations, group discussions, and exposure to real-life situations through seminars and workshops. The school has taken several initiatives to drive excellence, including organizing various events and activities. School is able to mobilize resources from various funding agencies for research viz. ICSSR/ UGC /Tribal Affairs/M/O Consumer Affairs/NCW/DST/ EDII/SERB/MHRD/AICTE / J&K Bank /M/O Textile etc. The University faculty has been awarded prestigious National/International Fellowships, project funding and recognition and is constantly contributing to various governmental and nongovernmental sectors through research, consultancy and outreach activities.

#### 1.4. About NHPC Limited

NHPC was incorporated on November 7, 1975 as a Private limited company under the name "National Hydroelectric Power Corporation Private Ltd". The company was converted to Public limited company w.e.f. April, 2, 1986. The name of the company was changed to its present name "NHPC Limited" in 2008.

NHPC is a Navratna company with 67.40 % ownership of Government of India. With an Authorized share capital of ₹15,000 crore and an investment base of over ₹ 85,486 crore (as on 31.12.2024), NHPC Limited is the largest hydropower development organization in India, with capabilities to undertake all activities from conceptualization to commissioning of hydro projects. NHPC has also diversified into the fields of solar and wind energy development.

NHPC's total installed capacity as of March 31, 2025, is 8140 MW, including 1,681.70 MW in joint ventures. This comprises 7771.2 MW from 23 hydro power stations, 318.84 MW from six solar power projects, and 50 MW from a wind power project. NHPC's hydro share of 7771.2 MW accounts for about 16.56% of the country's total installed hydro capacity of 46,928.17 MW.

Additionally, nine projects aggregating to a total installed capacity of 4,291 MW are under clearance stage, which includes four hydro and one solar project by NHPC on its own, and four projects (one in hydro and three in solar) in JV mode.

#### **VISION**

NHPC's vision is "To be a global leading organization for sustainable development of clean power through competent, responsible and innovative values".

#### **MISSION**

- To achieve excellence in development of clean power at international standards.
- To execute & operate projects through efficient and competent contract management and innovative R&D in environment friendly and socio-economically responsive manner.
- To develop, nurture and empower the human capital to leverage its full potential.

- To practise the best corporate governance and competent value based management for a strong corporate identity and showing concern for employees, customer, environment and society.
- To adopt & innovate state-of-the-art technologies and optimize use of natural resources through effective management.

## 1.5. About Corporate Social Responsibility (CSR)

Corporate Social Responsibility (CSR) represents a company's initiative to assess and take responsibility for its effects on environmental and social well-being. As per the Companies (CSR Policy) Rules, CSR refers to activities undertaken by a company in pursuance of its statutory obligations under Section 135 of the Companies Act, 2013, in accordance with the provisions contained in these rules.

The CSR provisions outlined in Section 135 and the Companies (CSR Policy) Rules emphasize not only regulatory compliance but also the promotion of transparency and accountability in how companies contribute to societal and environmental betterment. Schedule VII of the Act provides a comprehensive list of eligible CSR areas, including poverty alleviation, education, gender equality, health, environmental sustainability, and contributions to various government relief funds.

CSR in India is increasingly seen as a means to contribute toward achieving the UN Sustainable Development Goals, aligning corporate strategies with Global/National priorities for inclusive and sustainable growth.

## 1.6. About NHPC's CSR Policy

Corporate Social Responsibility is integral to NHPC's commitment to addressing social, economic, and environmental concerns in the regions it serves. NHPC has a CSR & Sustainability Policy aligned with the specific provisions of CSR under Section 135 of the Companies Act, 2013, the Companies (Corporate Social Responsibility Policy) Rules, and subsequent amendments issued by the Ministry of Corporate Affairs, Government of India. NHPC also aims to adhere to the CSR guidelines issued by the Department of Public

Enterprises (DPE). NHPC has strengthened its commitment to CSR in line with Statutory Provisions.

NHPC has undertaken numerous CSR initiatives for communities residing in and around its projects, power stations, and units, focusing on healthcare, education, sanitation, rural development, skill development, environmental sustainability, women empowerment, and other areas outlined in Schedule VII of the Companies Act, 2013. These efforts aim to foster inclusive growth, support marginalized communities, and contribute to national development.

### 1.7. About Impact Assessment

The Ministry of Corporate Affairs in India requires companies to conduct impact assessments of their CSR initiatives through the amended Companies (CSR Policy) rules. As per the amended Companies (CSR Policy) Rules, every company having average CSR obligation of ₹10 crores or more in pursuance of sub-section (5) of Section 135 of the Companies Act, 2013, in the three immediately preceding financial years, shall undertake impact assessment, through an independent agency, of their CSR projects having outlays of Rs. One Crore or more, and which have been completed not less than one year before undertaking the impact study. Further, a Company undertaking impact assessment may book the expenditure towards Corporate Social Responsibility for that financial year, which shall not exceed two percent of the total CSR expenditure for that financial year or fifty lakh rupees, whichever is higher.

An impact assessment serves as a vital tool to analyze the effectiveness and sustainability of CSR projects. It not only highlights what has been achieved but also assesses how well the projects align with the company's long-term vision and address real community needs. The primary goal of an impact assessment is to provide a clear and measurable understanding of the value created for both society and the company through its CSR efforts.

This study presents the third-party impact evaluation of the CSR initiative, which involved the installation of 3,250 Solar LED Street Lights across Shimla and Kangra districts in Himachal Pradesh. Implemented by Energy Efficiency Services Limited (EESL) under NHPC's CSR initiative, this project aimed to address gaps in public safety, night-time visibility, energy access, and sustainable urban infrastructure through solar-based street lighting. The study examines the

impact of this intervention on community security, environmental sustainability, energy efficiency, and alignment with national and global goals such as the Sustainable Development Goals (SDGs).

## 2. APPROACH & METHODOLOGY

The impact assessment of the CSR initiative "Providing Solar LED Street Lights in Himachal Pradesh" was carried out using a mixed-method, multi-stakeholder framework. The approach was designed to evaluate the effectiveness, efficiency, relevance, impact, and sustainability of the intervention.

### 2.1. Assessment Objectives

The key objectives of the impact assessment were:

- To assess the improvement in public lighting and safety post-installation of solar LED street lights.
- To understand the environmental and energy efficiency outcomes of using solar infrastructure in public spaces.
- To evaluate the social return on investment (SROI) and community perception of the intervention.
- To provide policy insights and recommendations for scaling similar CSR initiatives across other regions.

## 2.2. Methodological Framework

The study follows evaluation principles as per **OECD-DAC criteria**, focusing on:

- **Relevance** Did the lights address the real needs of the communities?
- **Effectiveness** Were the stated objectives of safety and access achieved?
- **Efficiency** Were resources used optimally?
- **Impact** What are the tangible and perceived benefits?
- Sustainability Can the outcomes be maintained over time?

#### 2.2.1. Stakeholder Mapping

The following stakeholder groups were included in the study:

- Local Residents and Community Members
- Gram Panchayat Representatives
- Local Authorities / Ward Members
- School Teachers / Health Workers
- SME owners / Shopkeepers near lighted areas

### 2.2.2. Sampling Design

A purposive sampling approach was adopted. Respondents were drawn from areas where solar lights were installed across locations in Kangra, Chamba, Shahpur, Indora, Chopal, Pacchad, Nurpur, Dalhousie, Kasumpati, Rohru, Solan, and Ponta Sahib.

- Total sample size: 275
- Valid Responses Considered for Analysis: 210
- Coverage ensured inclusion of urban, semi-urban, and remote villages.

#### 2.3. Tools of Data Collection

Table 2: Tools of Data Collection

Tools	Purpose	
Structured Questionnaires	To gather quantitative data on safety, usage, and perceived benefits	
In-depth Interviews	Capture qualitative insights from elected leaders and residents	
Observation Checklists	Field verification of working status, location, and impact zones	
Geo-tagged Photographs	Visual documentation of installed solar street lights	

#### 2.4. Data Collection Timeline & Process

Fieldwork was conducted covering all major constituencies. Enumerators were trained on ethical research practices, community sensitivity, and accurate recording of infrastructure condition and community feedback.

## 2.5. Data Analysis Strategy

- Descriptive statistics for understanding usage and perception trends.
- Thematic coding of qualitative responses from residents and local leaders.
- Comparative analysis of pre- and post-installation conditions where applicable.
- SROI estimation to determine cost-effectiveness and perceived value.

## 2.6. Measure of Sustainability

Sustainability was assessed across four key areas:

Table 3: Measure of Sustainability

Dimension	Assessment Focus	
Institutional Support	Ownership clarity (Panchayats, local bodies) for repair & maintenance	
Operational Continuity	Working condition, lighting hours, seasonal challenges (rain/winter)	
Community Engagement	Resident vigilance, sense of shared ownership, and usage behavior	
Environmental Impact	Energy savings, carbon reduction, and visibility improvements in eco-sensitive zones	

## 2.7. Social Return on Investment (SROI): Methodological Note

This impact assessment adopts a qualitative, perception-based framework to evaluate the Social Return on Investment (SROI) of NHPC's CSR initiative that involved installing 3,250 Solar LED Street Lights across multiple parliamentary constituencies in Himachal Pradesh. The

methodology focuses on community experiences, thematic value indicators, and stakeholder feedback to capture the multi-dimensional social benefits of the intervention.

#### 2.7.1. Evaluation Themes Covered

Structured surveys and interviews were designed to capture perceptions related to:

- Relevance and Local Utility of the solar street lights
- Improvement in Safety, Mobility, and Business Activity
- Operational Efficiency and Functionality of Installed Units
- Sustainability, Maintenance, and Ownership Models
- Environmental Impact and Energy Efficiency
- Community Satisfaction and Support for Replication

#### 2.7.2. Indicators considered for Perceived Social Value

The SROI was interpreted based on the following outcome indicators:

- Reduction in night-time crime or accidents
- Enhanced pedestrian and vehicular mobility
- Expansion of local business hours
- Community satisfaction and pride in infrastructure
- Reduced dependence on grid electricity and promotion of renewable energy
- Alignment with SDG goals and endorsement for replication

#### 2.7.3. Community-based Insights

Respondents reported:

"It feels much safer walking after dark; women especially feel more secure now."

"Shops in our locality now stay open longer."

"Earlier, there was no light at bus stops. Now even transport feels safer at night."

These qualitative accounts reflect the intangible yet powerful outcomes, improved quality of life, safety, environmental consciousness, and increased local economic activity.

#### **Justification for Qualitative SROI**

- Monetary proxies do not adequately capture social cohesion, public safety, and dignified access to infrastructure
- This CSR project contributes to SDG 7 (Affordable & Clean Energy), SDG 11 (Sustainable Cities & Communities), and SDG 13 (Climate Action)
- The project's decentralized implementation through EESL and its community-centered use warranted a stakeholder-driven evaluation method over purely financial metrics

The qualitative SROI methodology effectively highlights the broad-based impact of the solar street light installation project. By focusing on the voices of the community, this method reveals meaningful returns in the form of improved safety, inclusivity, and sustainability, demonstrating the value of renewable energy-based CSR initiatives in enhancing public infrastructure and wellbeing.

## **Snapshot of Research Methodology**

Table 4: Snapshot of research Methodology

Details		
he social, economic, and environmental impact of the CSR		
initiative on providing Solar LED Street Lights in various parliamentary		
ies of Himachal Pradesh (Shimla & Kangra districts).		
the effectiveness, efficiency, sustainability, impact, and Social		
nvestment (SROI) of the solar street lighting initiative.		
ered under the project include Kangra, Chamba, Shahpur,		
opal, Pacchad, Nurpur, Jaisinghpur, Dalhousie, Kasumpti,		
nib, Rohru, and Solan in Shimla & Kangra parliamentary		
ies.		
ents, community members, business owners, local government		
ves.		
nod approach (Quantitative & Qualitative)		
ta (Surveys, Focus Group Discussions, Observational Study)		
Random Sampling - ensuring representation across different		
socio-economic groups affected by the initiative.		
210		
Statistics, Social Return on Investment (SROI) methodology,		
analysis		
evance & Effectiveness: Alignment with community needs,		
act on safety, security, and local economy.		
ciency: Cost-effectiveness, energy savings, and resource zation).		
ainability: Long-term functionality, maintenance, and impact		
arbon footprint reduction).		
act: Social, Economic, Environmental): Reduction in crime,		
roved night-time mobility, business activity enhancement, and		
ronmental benefits.		
OI: Quantification of social and economic benefits in monetary		
is.		
erence: Alignment with broader CSR and government		
wable energy initiatives.		
sive report with recommendations for improving future CSR		
n renewable energy and rural infrastructure development.		

### 3. ABOUT THE CSR ACTIVITY

The CSR project titled "Providing Solar LED Street Lights in various parliamentary constituencies in Himachal Pradesh" was initiated by NHPC and executed through Energy Efficiency Services Limited (EESL). The core objective of the initiative was to improve community safety, support mobility during night hours, and introduce renewable energy infrastructure in public spaces.

A total of 3,250 Solar LED Street Lights (12W) were installed across key blocks and villages in the districts of Shimla and Kangra, including locations such as Chamba, Shahpur, Indora, Chopal, Nurpur, Solan, Dalhousie, Rohru, and Ponta Sahib, among others.

The intervention focused on enhancing the quality of life in areas with low grid penetration, frequent power outages, or inadequate street lighting.

Table 5: CSR Activity details

Location	Activity	Expenditure	Brief About Activity
	Description	Incurred	
		(Rs. In Crore)	
District Shimla & Kangra (Himachal Pradesh)	Providing Solar LED Street Lights in various parliamentary constituencies in Himachal Pradesh through EESL	5.72	3250 nos. of 12W LED based Solar Street Lights were installed in Shimla &Kangra Parliamentary constituencies of Himachal Pradesh. Areas included Kangra, Chamba, Shahpur, Indora, Chopal, Pacchad, Nurpur, Jaisinghpur, Dalhousie, Kasummpti, Ponta Sahib, Rohru & Solan in the above constituencies.  Project implementation period: 19/06/2018 to 08/12/2021  Total expenditure: Rs. 571.82 Lakh  Executing Agency: Energy Efficiency Services Limited

## 3.1. Scope of Intervention

The intervention included:

- Procurement, installation, and commissioning of 12W Solar LED Street Lights
- Targeted installation in community-use areas, such as markets, schools, health centers, bus stops, and residential lanes
- Coordination with Panchayati Raj Institutions and local bodies for site identification
- Assurance of maintenance service for installed units through EESL partner agencies

The project directly addressed issues of safety, accessibility, and energy equity in rural and semiurban locations of Himachal Pradesh.

## 3.2. Alignment with NHPC CSR Policy

This CSR initiative aligns with NHPC's CSR Policy. By introducing clean lighting infrastructure in underserved areas, the project fulfils both infrastructure access and environmental consciousness, reflecting NHPC's commitment to responsible and future-ready CSR.

#### 3.3. Role of Partner Institutions

The success of this initiative was enabled by coordination with:

- Energy Efficiency Services Limited (EESL) Project execution and supply management
- Village Panchayats and Urban Local Bodies Identifying priority sites for installation
- Local Community Members Participating in site surveys and reporting faulty units
- Maintenance Vendors Addressing operational issues and routine checks

This institutional synergy helped ensure timely implementation, functional readiness, and ownership among stakeholders.

# 4. Analysis & Interpretation

# 4.1. Data Analysis & Findings

## 4.1.1. Demographic Profile

Figure 1: Demographic Profile of Respondents

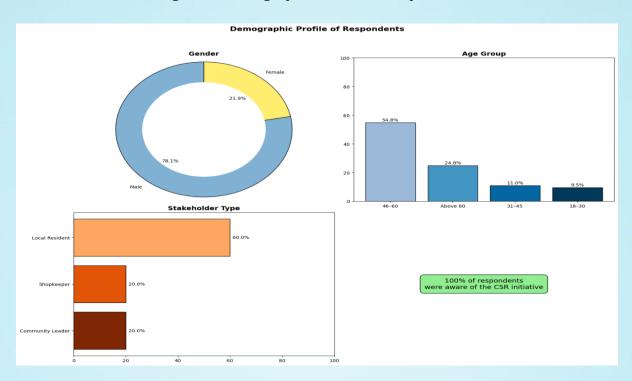


Table 6: Demographic Profile of Respondents

Variable	Key Insights	Discussion Summary
Gender	78.1% were male respondents.	Indicates male-dominant participation, possibly due to cultural or availability factors. Female voices were present but underrepresented.
Age Group	79.6% were above 45 years old.	Insights are shaped largely by experienced and older community members, increasing response maturity and policy relevance.
Stakeholder Type	60% local residents, 20% community leaders, 20% shopkeepers.	The feedback reflects community-level experience and localized insights from key influencers.
Awareness	100% of respondents were aware of the solar light installation.	Demonstrates strong visibility and communication of the CSR intervention among target beneficiaries.

## 4.1.2. Relevance of the CSR Solar street Light Project

Figure 2: Relevance of the CSR Solar Street Light Project

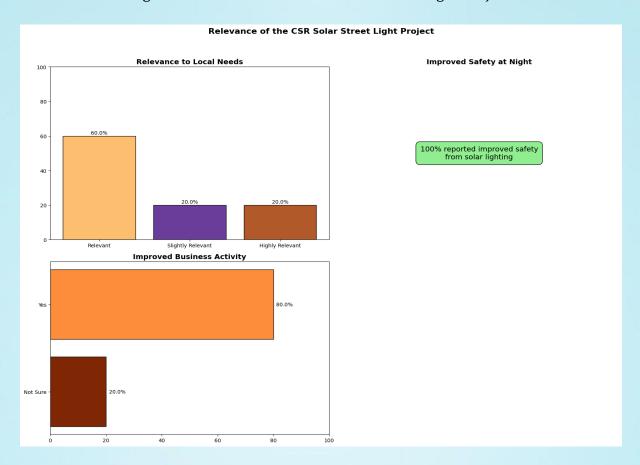


Table 7: Relevance of the CSR Solar Street Light Project

Variable	Key Insights	Discussion Summary
Relevance to	80% rated the project as	The intervention addressed real community
Local Needs relevant or highly relevant.		needs like mobility, lighting, and security.
Improved Safety	100% reported a positive	The most consistent impact observed was in
at Night impact.		improving night-time safety.
Improved 80% saw improvement; 20%		Better lighting contributed to extended
Business Activity	were unsure.	market hours and safer transactions.

## 4.1.3. Effectiveness of the Solar street Light Project

Figure 3: Effectiveness of the Solar Street Light Project

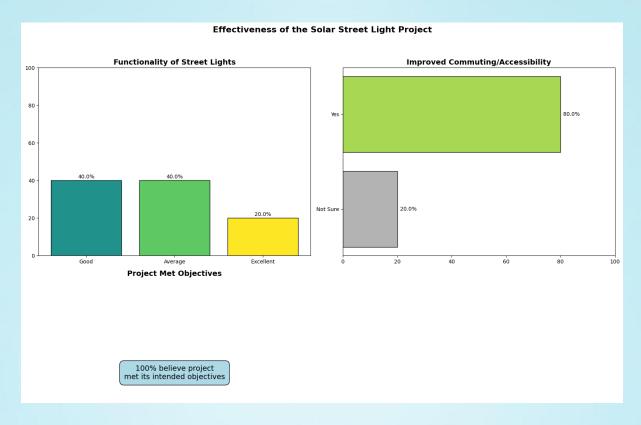


Table 8: Effectiveness of the Solar Street Light Project

Variable	Key Insights	Discussion Summary
Functionality of Street Lights	40% rated as good, 40% average, 20% excellent.	Mixed ratings suggest operational variation may indicate maintenance inconsistencies.
Improved Commuting	80% said "Yes"; 20% unsure.	Project helped enable safer movement at night, especially in previously dark zones.
Project Met Objectives	100% agreed that objectives were achieved.	Reflects a strong match between planned outcomes and community experience.

# 4.1.4. Project Efficiency

Figure 4: Project Efficiency

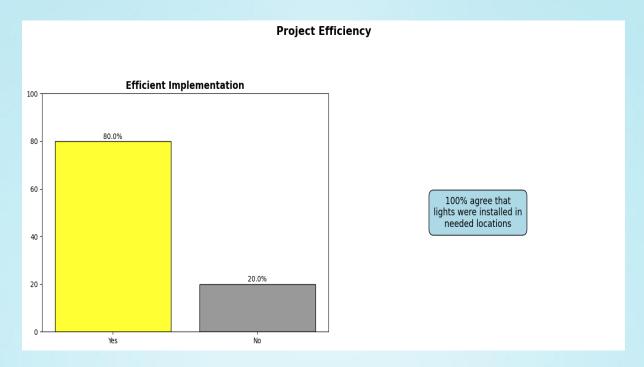


Table 9: Project Efficiency

Variable	Key Insights	Discussion Summary
Efficient	80% said project was	Indicates effective execution and minimal
Implementation	completed efficiently.	delays during implementation.
Lights Installed in	100% agreed that	Suggests strong coordination with local
Right Locations	installations were in	representatives and accurate site
Taght Locations	priority areas.	selection.

# 4.1.5. Sustainability of Solar Street Light Project

Figure 5: Sustainability of Solar Street Light Project

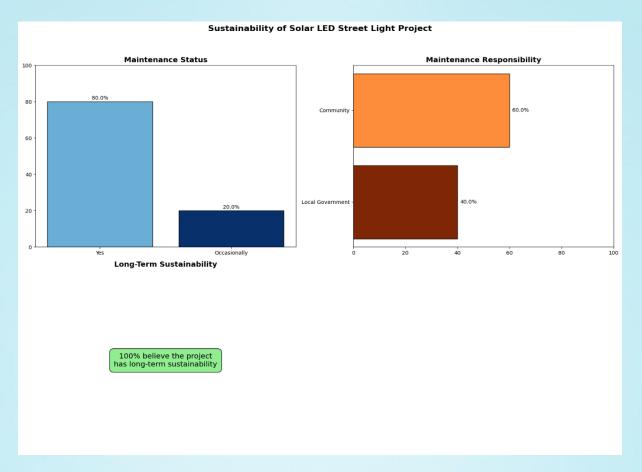


Table 10: Sustainability of Solar Street Light Project

Variable	Key Insights	Discussion Summary
Maintenance Status	80% said lights are being maintained regularly.	Indicates general upkeep, though 20% face occasional issues—pointing to room for improvement.
Maintenance Responsibility	60% said the community is responsible; 40% cited local government.	Community involvement is strong, but formalization of local body roles may help long-term reliability.
Long-Term Sustainability	100% believe the project is sustainable.	Strong confidence suggests alignment with local needs and ownership structures.

# 4.1.6. Impact of the Solar Street Light Project

Figure 6: Impact of the Solar Street Light Project

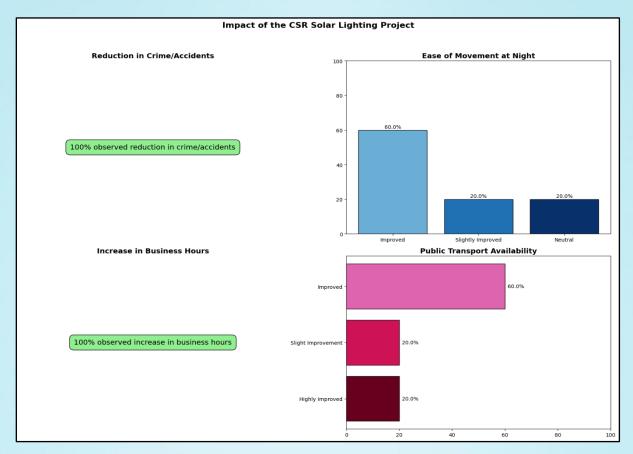


Table 11: Impact of the Solar Street Light Project

Variable	Key Insights	Discussion Summary		
Reduction in Crime/Accidents	100% reported a decrease.	Solar lighting improved safety and reduced risk-prone areas in communities.		
Ease of Movement at Night	60% said movement improved; others slightly or neutrally affected.			
Increase in Business Hours	100% observed longer operating hours.	Direct economic benefit through extended market activity and safer commercial zones.		
Public Transport Availability	80% noticed improvement; 20% saw only slight improvement.  Lighting boosted accessibility and visibility for night-time public transport services.			

# 4.1.7. Community Satisfaction with the Project

Figure 7: Community Satisfaction with the Project

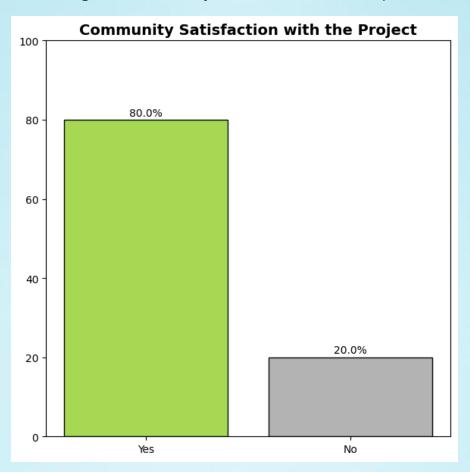


Table 12: Community Satisfaction with the Project

Variable	Key Insights	Discussion Summary
Community Satisfaction	80% reported satisfaction with the CSR initiative	The overall satisfaction rate is high, reflecting perceived benefits in safety, mobility, and infrastructure. However, 20% dissatisfaction suggests areas for operational or maintenance improvement.

# 4.1.8. Social Return on Investment aligning SDG

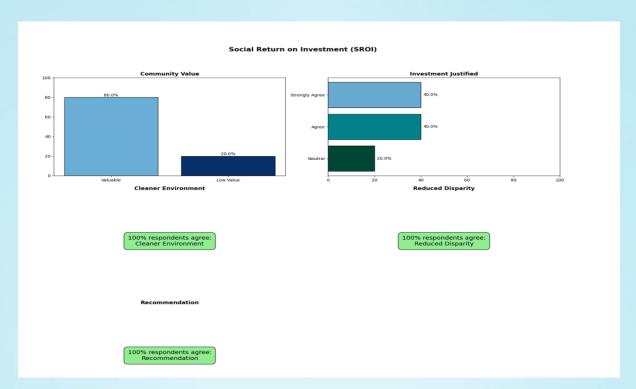


Figure 8: Social Return on Investment aligning SDG

Table 13: Social Return on Investment aligning SDG

Variable	Key Insights	Discussion Summary	
	80% saw the project as	Most respondents observed clear social	
Community Value	valuable; 20% found limited	benefits, though perception gaps may	
	value.	remain.	
	80% agreed or strongly	Spending is largely viewed as	
Investment Justified	agreed; 20% were neutral.	worthwhile, with a small segment	
	agreed, 20% were neutrar.	requiring further engagement.	
	100% acknowledged Solar technology use is univer		
Cleaner Environment	environmental benefits.	appreciated for its sustainability	
	chvironmentar benefits.	advantages.	
Infrastructure 100% said the project		The intervention bridged infrastructure	
Disparity Reduction	100% said the project improved equity in access.	gaps across remote and underserved	
Disparity Reduction	improved equity in access.	locations.	
Recommendation for 100% would recommend the		Strong endorsement suggests scalability	
Replication 101	project model elsewhere.	and community-level support for	
Replication	project moder elsewhere.	similar CSR efforts.	

## 4.1.9. Coherence

Figure 9: Alignment with Government Renewable Energy Policies

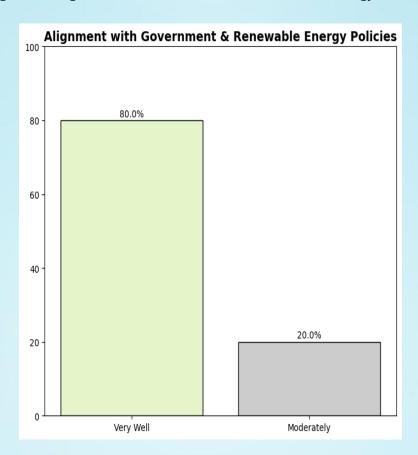


Table 14: Alignment with Government Renewable Energy Policies

Variable	Key Insights Discussion Summary	
Policy Alignment		The intervention complements existing government objectives on clean energy and local development.

# 4.1.10. Recommendations / Suggestions

Figure 10: Suggestions for Future Projects

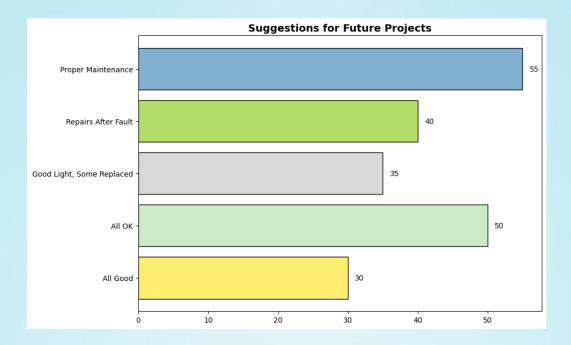


Table 15: Suggestions for Future Projects

Theme	Key Insights
Proper Maintenance	Most commonly mentioned; reflects concern over long-term upkeep.
Repairs After Fault	Suggests some lights may not be promptly repaired post-installation.
All OK / All Good	Indicates a generally positive response, with many not suggesting any changes.
Good Light, Some Replaced	Points to selective performance issues requiring replacement attention.

# 4.2. Summary of Findings

Table 16: Summary of Findings

Theme	Key Highlights	Insight
Demographics & Awareness	78.1% male; majority aged 46–60; 60% local residents; 100% awareness of CSR solar light initiative.	Respondents were largely community users and leaders, showing strong awareness and ownership.
Relevance & Effectiveness	80% found the project relevant; 100% saw safety benefits; 80% saw improved business and commuting.	Strong alignment with local needs; project perceived as effective and impactful.
Efficiency	80% reported timely implementation; 100% agreed on appropriate site selection.	Implementation was smooth and well-targeted, with no reported logistical bottlenecks.
Sustainability	80% said lights are maintained; 60% said community handles upkeep; 100% believe project is sustainable.	Long-term viability is supported by community participation and positive perception of durability.
Impact (Safety, Economy)	100% observed reduced crime & longer business hours; 80% satisfied with the project.	Tangible improvements in night-time security, economy, and social well-being.
SROI	80% called it valuable; 100% saw environmental & equity gains; all recommend replication.	Exceptional return on investment in social, environmental, and equity outcomes.
Coherence & Feedback	80% said alignment with policies was "Very Well"; main suggestions were around maintenance improvements.	The project complements policy frameworks; suggestions point to scalability and upkeep-focused tweaks.

Table 17: SROI with SDG Alignment

Indicator	Observed Outcome	Social Value	Aligned SDG(s)
indicator	observed outcome	Created	Anglieu SDu(s)
Community Value Perception	80% saw the project as valuable	High local utility and visible daily-life improvements	SDG 11 – Sustainable Cities and Communities
Justification of Investment	80% agreed/strongly agreed	Stakeholders consider the investment efficient and worthwhile	SDG 12 – Responsible Consumption and Production
Environmental Impact	100% confirmed use of clean energy improved environmental quality	Reduced carbon dependency and promoted sustainability	SDG 7 – Affordable and Clean Energy
Reduction in Infrastructure Disparity	100% noted equity improvements	Helped bridge urban- rural gaps in infrastructure access	SDG 10 – Reduced Inequalities
Recommendation for Replication	100% recommend similar projects elsewhere	Signals strong replicability, scalability, and stakeholder trust	SDG 17 – Partnerships for the Goals

## 4.3. Policy Recommendations

Based on the findings of this impact assessment, the following policy-level recommendations aim to enhance the effectiveness, sustainability, and scalability of solar street lighting initiatives under CSR. These suggestions draw from community feedback, operational observations, and measurable outcomes and are aligned with relevant Sustainable Development Goals (SDGs).

**Table 18: Policy Recommendations** 

Policy Recommendation	<b>Expected Outcome</b>	Aligned SDG(s)
Establish structured maintenance	Improved uptime and long-term	SDG 11 – Sustainable
contracts with local bodies	functionality of street lights	Cities and Communities
Provide a reporting helpline or QR-tag system for light faults	Faster fault detection and responsive repairs	SDG 9 – Industry, Innovation and Infrastructure
Expand the model to other low-light rural belts	Replication in underserved areas, reducing regional lighting inequality	SDG 10 – Reduced Inequalities
Coordinate with gram panchayats for site planning and handover	Enhanced site relevance and clarity in post-installation ownership	SDG 17 – Partnerships for the Goals
Integrate solar infrastructure planning with district energy goals	Stronger coherence with renewable energy and rural electrification policies	SDG 7 – Affordable and Clean Energy

### 4.4. Conclusion

The CSR initiative on installation of 3,250 Solar LED Street Lights in Himachal Pradesh has created a transformative social and environmental impact across various semi-urban and rural communities. The initiative has improved safety, extended commercial activity hours, enhanced public infrastructure, and strengthened the visibility of CSR-led sustainability models in underserved areas.

#### **Impact:**

- 100% of respondents observed improved night-time safety and reduced accidents/crime.
- Business owners reported longer operating hours, improving the local economy.
- 100% endorsed the replicability of the project in other geographies.

• Strong community awareness and satisfaction reflect effective implementation and outreach.

#### **Challenges:**

- Maintenance responsibilities remain informal and community-driven, leading to occasional inconsistencies.
- Respondents highlighted the need for timely repairs and replacements, especially after fault detection.
- Some variability in light performance and placement was noted in a few areas.

#### **Recommendations:**

- Institutionalize routine maintenance contracts and create fault-reporting mechanisms.
- Ensure handholding support to local bodies and communities post-installation for upkeep.
- Use this model to scale solar infrastructure in other priority districts with low light coverage.
- Strengthen alignment with state renewable energy and smart city goals.

## 5. SUCCESS STORY OF CSR ACTIVITY

#### Lighting the Way to Safer Nights in Himachal Pradesh

In the remote and hilly villages of Himachal Pradesh, darkness after sunset used to bring life to a halt. Inadequate street lighting in far-flung constituencies like Shimla and Kangra posed safety concerns, hindered mobility, and limited local economic activity. Many communities had no choice but to stay indoors after dark, especially the elderly, children, and women who feared walking even short distances due to the lack of visibility and poor infrastructure.

Through its Corporate Social Responsibility initiative, NHPC took decisive action to address this persistent issue. A total of 3,250 solar-powered LED street lights were installed across multiple towns and villages. Executed by Energy Efficiency Services Limited (EESL), the initiative brought clean, sustainable, and dependable lighting to areas that had long remained in the shadows. Despite several implementation challenges—including harsh terrain, monsoon disruptions, and delays during the COVID-19 lockdown—the project was completed with perseverance and community involvement.

The change was immediate and visible. Local residents began feeling safer walking after sunset, and small shops extended their business hours into the evening. Children could play outside a little longer, and women felt more confident navigating village roads. A local resident shared, "Earlier, our village would go completely dark. Now, with the street lights, we feel safer, and our evenings are brighter." However, the project also revealed important lessons. Battery storage during delays led to power issues, and in some cases, local cooperation during installation was difficult. These experiences emphasize the need for improved battery technology, flexible planning, and sustained local coordination for future projects.

Overall, the Solar LED Street Light project restored not just light, but a sense of security, dignity, and community vibrancy in rural Himachal. It illuminated more than pathways—it lit up lives. Going forward, ensuring timely maintenance and adopting robust technology will be key to preserving this positive change.

# 6. SYNOPTIC GLIMPSE OF DATA COLLECTION











