



Impact Assessment of CSR Projects

Redington Limited

April 2026

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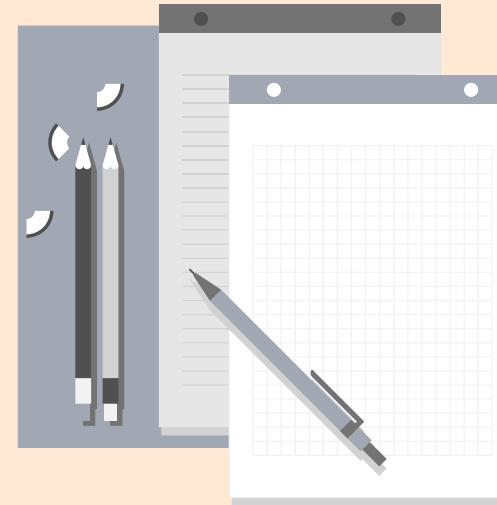
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01

Executive Summary



Executive Summary

Centre of Logistics Training for Excellence (COLTE)

Centre for Logistics Training Excellence (COLTE) was set up with the aim to impart training to help people i) build foundational logistics sector skills and provide them with access to high-quality, inclusive training and education which will enable them gain employment in the logistics sector, ii) provide opportunity for upskilling, iii) establish academia interface and logistics sector think tank ecosystem.

01

Project Overview

Review period:

June 2023 – March 2024

Reach and location

Unemployed youth in Chennai

Implementation partner

Logistics Sector Skill Council (LSSC)

Project outlay

INR 4.44 Cr.

Research Methodology

IRECS – Mixed Method Approach

Quantitative:

39 trainees

Qualitative:

3 IDIs with trainees; 1 IDI with trainer, 1 IDI with a professor from academia, 1 IDI with implementing partner

Key Findings

Access to an affordable training course

- The project focused on youth from disadvantaged economic backgrounds, giving them a sus option to acquire skills to gain formal sector employment. Nearly half of the trainees (44%) reported that they did not face any challenges in attending the course and this ensured that the attendance record on average was 92% (n=39).
- The course was free-of-charge for all trainees, saving them an average of INR 12,385 in tuition fees compared to what they would have spent at other institutes (n=39).

Provision of comprehensive training and skill development

- 95% of the trainees felt improved communication skills were highly important and 90% felt developing self-confidence was very important (n=39).
- 87% feeling the knowledge and efficacy of trainers was excellent and 79% feeling teaching methodologies were excellent (n=39)
- Key benefits included the practical experience received (69%) and quality of teaching and infrastructure (54%) (n=39).

Developed career readiness that led to improved job prospects

- 51% felt they were as knowledgeable and job ready as their peers at their workplace while 36% felt they were better prepared and more informed than their peers (n=39).
- 56% of the trainees felt the course was extremely effective in preparing them for career growth due to high technical and soft skills competency, which allowed them to settle into their job with ease.
- COLTE-placed trainees (n=32) reported an average monthly income of INR 4,594 before the course, INR 11,438 after completion, and currently INR 16,625. The short-term course led to a 4x income increase over two years.

Key Recommendations

- ❑ **Longer upskilling programmes:** Spreading courses over 2-3 days would provide deeper insights and more time to use COLTE's resources and simulators.
- ❑ **Expanded industry networks:** COLTE should broaden partnerships to offer placements that better match trainees' skills and experience, with improved pay and role levels.
- ❑ **Strategic partnerships:** Collaborating with public and private partners can help scale and replicate projects, creating more formal logistics jobs for youth across locations.

Executive Summary

Laptop Support for Needy Students

The project aims to provide laptops to students from rural backgrounds who receive scholarship support from SSN College of Engineering and Shiv Nadar University, Chennai with the aim of enhancing their learning experience.

02

Project Overview

Review period:

October 2023 – March 2024

Reach and location

30 students at SSN College

Implementation partner

SSN Trust

Project outlay

INR 0.17 Cr.

Research Methodology

IRECS - Mixed Method Approach

Quantitative:

30 students – laptop recipients

Qualitative:

1 FGD with laptop recipients

1 FGD with university representatives

Key Findings

Prior to the project, none of the recipients owned a laptop. Being first-generation learners from disadvantaged backgrounds, many shared that they lacked advanced knowledge of computers and access to digital tools and applications. The project had the following impacts on the recipients:

Access to a high-quality laptop

- 90% of the recipients agreed that the laptop was essential for their academic workload and to achieve their academic goals (n=30).
- Over a third of the recipients (37%) believed that the laptop they received was as good or better than laptops owned by their peers at college (n=30).
- The recipients rated the laptop highly on its storage (57%) and display (63%) and moderately on the range of software/ apps (57%), battery life (53%) and overall performance (70%) (n=30).

Holistic engagement in academic and other spheres

- 73% of the recipients have noticed significant positive changes in their academic performance and 77% felt they are able to complete homework and assignments on time as a result of having a personal laptop (n=30).
- 53% of the recipients felt the laptop makes a major positive difference in pursuing additional learning opportunities to upskill themselves in the form of certificate courses (n=30).
- 67% felt owning a laptop makes a significant difference to their participation in internships and competitions (n=30).

Increased confidence and career focus

- A significant change in confidence and self respect (80%) was noticed. Recipients felt a greater motivation to work harder in academics (80%) with better focus and time for studying (90%) (n=30).
- Recipients reported having reduced financial stress (80%) and reduced risk of dropping out of the course (77%), allowing them to focus on their careers (n=30).

Key Recommendations

- ❑ **Varied laptop specifications depending on course demands:** Redington can consider giving laptops with higher-end specifications to students of computer science so that they do not face issues when running machine learning applications.

Executive Summary

Digital Infrastructure Support to Rural Schools

The project aimed to strengthen the learning environment at Isha Vidhya Schools by integrating digital classrooms and improving access to safe drinking water. It sought to enhance classroom engagement, conceptual understanding, and student well-being through reliable digital infrastructure and clean water facilities.

03

Project Overview

Review period:

February 2024 – December 2024

Reach and location

3,871 students across Isha Vidhya schools in Tamil Nadu

Implementation partner

Learning Links Foundation

Project outlay

INR 0.30 Cr

Research Methodology

IRECS - Mixed Method Approach

Quantitative:

97 School Students

Qualitative:

4 FGDs with students, 4 IDIs with principal, 4 IDIs with teachers, 4 IDI with parents, 1 IDI with Isha Vidhya representative

Key Findings

Strengthening and standardising digital classrooms

- Digital infrastructure has expanded from limited availability to full classroom coverage, ensuring access to smartboards, projectors, and other tools across all sections.
- Majority of the students reported increased usage of digital tools, particularly in English (67%) and Science (57%), indicating stronger subject-level integration (n=97).

Enhanced conceptual understanding, spoken English and digital skills

- Most students reported improvement in lesson understanding (74%) and memory retention (52%), following the integration of digital learning tools (n=97).
- Nearly half of students (45%) indicated strengthened technology skills, with videos and animations emerging as the most engaging learning medium (n=97).

Long-term institutional impact: reliable, motivating and future-ready learning environment

- The proportion of students rating learning as “easy” or “very easy” increased significantly from 12% to 95% post intervention (n=97).
- A large number of students reported improved school environment (80%) and increased interest in studies (97%), indicating stronger motivation and engagement (n=97).

Improved access to safe and reliable drinking water

- Post intervention, 85% of students reported consistent availability of clean drinking water, with 68% rating water quality as “very good” (n=73).
- Many students (73%) indicated that water points are clean and well maintained, with reduced water-related health concerns (n=73).

Key Recommendations

- ❑ **Digital asset utilisation and need-based deployment:** A simple tracking mechanism (e.g., classroom usage register or monthly reporting format) may be introduced to record the usage of smartboards, projectors, and speakers. Additionally, a brief need assessment can be undertaken for future support to gauge classroom readiness particularly in relation to exiting functional assets.
- ❑ **Strengthen branding and visibility:** It is recommended to ensure consistent branding across digital classrooms, RO plants, and school display boards to enhance visibility of Redington’s support and improve stakeholder awareness.

Executive Summary

Equipment Support to Museum of Art and Photography (MAP)

The project aimed to strengthen MAP's digital and technological capabilities to support large scale digitisation, research, education, and immersive exhibition experiences. By enabling advanced digital and holographic tools, the project sought to enhance cultural storytelling, visitor engagement, and long-term institutional capacity.

04

Project Overview

Review period:
March 2024 – March 2024

Reach and location
Bengaluru, Karnataka

Implementation partner
Art and Photography

Project outlay
INR 0.74 Cr.

Research Methodology

IRECS – Qualitative Approach

Qualitative:

1 IDI with Director, technology and IT team, education and outreach team, collection and development team

Rapid Survey:

20 rapid surveys with museum visitors

Key Findings

Strengthened digital infrastructure and capabilities

- Upgraded systems improved efficiency in handling high-resolution media and 3D workloads, reducing delays and enabling faster digitisation and content production.

Creation of immersive digital and learning experiences

- Holographic storytelling and immersive projections became central to MAP's exhibitions, enhancing visitor engagement by presenting cultural narratives in dynamic, three-dimensional formats.
- These formats significantly improved learning outcomes, particularly for students, by increasing engagement, interaction time, and comprehension compared to traditional displays.

Strengthened institutional capacity and sustainability

- Digitised collections and shared digital infrastructure enhanced cross-departmental collaboration, improved programme design, reduced duplication, and enabled broader outreach engagement over 1,200 students from 25+ schools while reducing reliance on external vendors.
- Advanced digital systems, AI tools, and robust storage with backup mechanisms strengthened in-house capabilities, ensuring long-term preservation, operational continuity, and readiness to scale future digital exhibitions and engagement initiatives.

High visitor satisfaction and perceived value

- Visitors reported a strong overall experience, with an average rating of 4.7 out of 5, indicating high satisfaction with MAP's offerings.
- 85% of visitors felt that the quality of the museum experience justified the ticket price, reflecting strong perceived value.

Key Recommendation

- **Expanding immersive cultural content:** Build on strong visitor interest in holographic storytelling by expanding immersive digital content to include diverse regional art forms beyond Karnataka. Support this with periodic upgrades to photogrammetry and AI-based tools to ensure high-quality, engaging digital experiences.

Executive Summary

Integrated Water and Sanitation Project in Schools – I

The project aims to strengthen access to improved WASH facilities in schools and promote the behaviour change among all the stakeholders in Uluberia Town, Howrah district of West Bengal.

05

Project Overview

Review period:

April 2023 – March 2024

Reach and location

18 schools in Uluberia, West Bengal

Implementation partner

Water Sanitation and Hygiene Institute

Project outlay

INR 1.14 Cr.

Research Methodology

IRECS & SROI – Mixed Method Approach

Quantitative:

95 students in Uluberia, West Bengal

Qualitative:

2 IDIs with Child Cabinet Members, 2 IDIs with teachers, 1 KII with a parent, 1 KII with government official and 1 IDI with WASHI team

Key Findings

Improved availability and usability of sanitation facilities

- Almost all students (99%) surveyed (n=95) reported that toilets are easily accessible during school hours and 89% reported using the toilets regularly during school hours.
- Teachers and SMC members also noticed improvement in hygiene practices and increase in usage of WASH facilities, attributing the improvement to enhanced WASH Infrastructure.

Improved privacy and safety for adolescent girls

- 93% of girls surveyed (n=45) reported feeling comfortable attending school during menstruation, reflecting improved confidence and comfort levels. Teachers also noted that the availability of changing rooms and improved facilities has contributed to reduced absenteeism among girls during menstruation.

Improved access to safe drinking water

- The intervention has significantly improved access to safe drinking water in the surveyed schools through the installation of drinking water stations with UV filtration systems. 93% of the students (n=95) reported that clean drinking water is always available in their school.

Improved hygiene awareness and behavioural practices among students

- 75% of the students (n=95) reported washing their hands regularly with soap after using the toilet and before meals and 97% of the students (n=95) reported availability of soap and water for handwashing. Additionally, improved availability of WASH facilities has contributed to a healthier school environment.

Strengthened school level ownership leading to improved maintenance & sustainability of WASH Facilities

- The intervention has helped strengthen systems in schools by encouraging them to take ownership. Schools also partly contribute to the cleanliness worker's remuneration and have Child Cabinet members monitor the WASH facilities for better care and sustainability.

Key Recommendation

- ❑ **Strengthen operation and maintenance mechanisms for long-term sustainability:** While infrastructure created under the project has improved sanitation and safe drinking water access, its long-term sustainability and functionality will depend on regular maintenance. Redington may support schools in establishing a structured repair and maintenance plan for WASH facilities through Annual Maintenance Contracts with vendors leveraging the existing connections of the Implementation Team.

SROI Value

2.57

Executive Summary

Integrated Water and Sanitation Project in Schools – II

The project aims to strengthen access to improved WASH facilities in schools and promote improved WASH practices among stakeholders in Ballabhgarh block of Faridabad district in Haryana.

06

Project Overview

Review period:

April 2023 – March 2024

Reach and location

16 schools in Ballabhgarh, Haryana

Implementation partner

Water Sanitation and Hygiene Institute

Project outlay

INR 1.25 Cr.

Research Methodology

IRECS & SROI – Mixed Method Approach

Quantitative:

98 students in Ballabhgarh, Haryana

Qualitative:

2 IDIs with Child Cabinet Members, 2 IDIs with teachers, 1 KII with a parent, 1 KII with government official and 1 IDI with WASHI Team

Key Findings

Improved availability and usability of sanitation facilities

- All the surveyed students (n=98) reported using school toilets regularly, demonstrating high utilisation of the facilities. In addition, all the surveyed students (n=98) also reported that toilets are easily accessible during school hours post intervention.
- Respondents also noted that the provision of well-designed toilets and handwashing stations has encouraged students to use the facilities more regularly as compared to earlier.

Improved privacy and safety for adolescent girls

- 99% of girls surveyed (n=57) reported feeling comfortable attending school during menstruation, reflecting improved confidence and comfort levels. Teachers also noted that the availability of changing rooms and improved facilities has contributed to reduced absenteeism among girls during menstruation.

Improved access to safe drinking water

- The intervention has significantly improved access to safe drinking water in the surveyed schools through the construction and installation of drinking water stations with filtration systems. 99% of the students (n=98) reported that clean drinking water is always available in their school.

Improved hygiene awareness and behavioural practices among students

- All students (n=98) reported washing their hands regularly with soap after using the toilet and before meals. Additionally, 99% of students (n=98) reported a reduction in school absenteeism due to illness following improvements in WASH facilities.

Strengthened school level ownership leading to improved maintenance & sustainability of WASH Facilities

- The intervention helped strengthen systems in schools by encouraging them to take ownership. Schools now help pay the Swacchata Bandhu's salary and have Child Cabinet Members monitor the facilities, ensuring better care and long-term sustainability of WASH services.

Key Recommendations

- ❑ **Strengthen operation and maintenance mechanisms for long-term sustainability:** Redington may support schools in establishing a structured repair and maintenance plan for WASH facilities through Annual Maintenance Contracts with vendors leveraging the existing connections of the Implementation Team.
- ❑ **Facilitate access to affordable menstrual hygiene products for adolescent girls:** While the project strengthened menstrual hygiene awareness and provided sanitation facilities, ensuring consistent access to menstrual hygiene products remains important for sustaining these outcomes. This could further support adolescent girls in managing menstruation safely and comfortably.

SROI Value

2.24

Executive Summary

Augmenting Water at Kurinji Ecosystem for Improved Wellbeing of Tribals

The project aims to augment water availability in the Kurinji ecosystem for improved well-being of Tribals at Kalvarayan Hills & Jawadhu Hills, Tamil Nadu

07

Project Overview

Review period:

November 2023 – March 2024

Reach and location

1264 households in Kalvarayan and Jawadhu Hills

Implementation partner

DHAN Foundation

Project outlay

INR 0.90 Cr

Research Methodology

IRECS & SROI – Mixed Method Approach

Quantitative:

108 community members

Qualitative:

4 FGDs with community members, 1 KII with panchayat member, 1 IDI with head of school, 1 FGD with school students, 1 IDI with project head of DHAN Foundation

Key Findings

Improved access to safe and reliable drinking water – community wells and storage tanks

- Post intervention, 93% (n=54) of community members rated the condition of wells as “very good,” indicating significant improvement in functionality and reliability.
- Average time spent fetching water reduced from 15 minutes to 5 minutes per household, easing daily burden and improving access.

Impact of solar lighting

- All beneficiary households (100%, n=70) reported daily usage of solar lights, with a majority using them for 5–7 hours or more, indicating high adoption.
- Households reported a reduction in electricity expenses by approximately INR 130 per month, along with decreased dependence on kerosene.

Organic manure support to farmers

- A majority of farmers (78%, n=41) observed improved plant growth following application of organic manure.
- Households reported average annual savings of INR 1,325 due to reduced use of chemical fertilisers and pesticides.

Strengthening water security in schools through roof rainwater harvesting (RWH)

- Installation of RWH systems ensured continuous water availability, benefiting approximately 346 students across two schools.
- The intervention improved hygiene practices and increased student confidence and regular attendance, particularly among girls.

Key Recommendations

- Form community groups to maintain water structures** and ensure regular maintenance and long-term functionality.
- Promote advanced water conservation practices** such as water harvesting and groundwater recharge techniques, supported by short technical orientations to strengthen water security.
- Train communities on use and maintenance of project assets** through sessions on maintenance of solar lights, use of organic manure, and basic care of water infrastructure to maximise benefits.
- Strengthening convergence with government schemes** such as Jal Jeevan Mission to improve efficiency and expand outreach.

SROI Value

2.47

Executive Summary

R. Srinivasan International Visiting Chair at IIT Madras

The project objectives, as stated in the MoU were: 1.1 To recognize the outstanding Institute faculty in research, collaborating with Industry in R&D, innovation, and implementation of state-of-the-art solutions through academic, training, and research activities. 1.2 This International Visiting Chair occupant will strive to excel in the broad fields of activity relevant to IIT Madras including topics like – “Supply Chain Management, Logistics, Digitization of supply chain and logistics, Usage of AI and ML in supply chains, delivery logistics and overall management.”

08

Project Overview

Review period:

December 2023 – December 2024

Reach and location

Students, academia and industry

Implementation partner

Indian Institute of Technology Madras

Project outlay

INR 1 Cr.

Research Methodology

Qualitative Approach

1 IDI with the International Visiting Chair Professor, IIT Madras
1 IDI with a Professor, Department of Management Studies, IIT Madras
1 IDI with a research scholar, Department of Management Studies, IIT Madras

Key Findings

As the activities under this position commenced from 2025 onward, there was limited project-level activity to assess for this study.

Bringing together those with expertise and research inclinations in supply chain and logistics

- A rigorous identification and nomination process, along with approvals from IIT Madras and Redington, finalised a 25-year tenure visiting chair position for a U.S. academician with extensive expertise in supply chain and logistics. Due to appointment delays, activities began in 2025.
- The visiting chair's 25+ years of experience helps support a research scholar in supply chain resilience at the Department of Management Studies, encouraging more young scholars to pursue this field.

Conceptualising platforms to develop analyses that can optimise and improve the supply chain industry

- The Chair stressed that engaging stakeholders from diverse perspectives in the logistics sector enhances discussions and expands shared knowledge, fostering expertise and comparative insights.
- The position offers mentorship to the logistics industry, facilitating research and bridging the industry-academia gap. By aligning academic insights with industry experiences, it aims to improve research frameworks and deliver practical benefits to the industry.
- The research scholar shared that through his review paper, industries can understand how to survive multi-regional disruptions better; handle risk-mitigation in a proactive way; and use strategies like adaptation and reconfiguration to reduce the impact of disruptions. Unlike earlier research that focuses on parts of the issue, this chair position takes on a holistic approach and covers all industry sectors.

Key Recommendations

- ❑ **Clearly defined objectives for key stakeholders:** Broad objectives can be broken down into clearly defined goals to be achieved, activities to be undertaken, and KRAs for key stakeholders. This will ensure greater efficiency in outcomes. Additionally, set processes for periodic stakeholder interaction will help avoid delays in execution resulting from the geographic spread of key stakeholders.
- ❑ **Wider range of support to enhance dialogue on supply chain and logistics:** bring together researchers and industry representatives through seminars, webinars, conferences, roundtables, collaborative projects, and so on.

Executive Summary

Mobile Health Unit in Rural Areas

The project aims to provide healthcare to the underprivileged and poor, rural and tribal populations belonging to economically challenged families through a Mobile Health Programme.

09

Project Overview

Review period:

November 2023 – March 2024

Reach and location

2584 villagers in Gummidipoondi

Implementation partner

HelpAge India

Project outlay

INR 0.59 Cr.

Research Methodology

IRECS – Mixed Method Approach

Quantitative:

108 community members

Qualitative:

2 FGDs with community, 2 IDIs with panchayat/ ward member, 1 KII with District Health Officer, 1 IDI with Social Protection Officer and 1 IDI with State Programme Manager, HelpAge India

Key Findings

Accessible and convenient healthcare services

- The district health representative stated that underserved villages far from government health facilities were selected for MHU services
- The time saved (94%), promptness of service (82%) and early diagnosis (76%) were highlighted as the main benefits of the MHU (n=108).
- All beneficiaries (100%) found the duration of visits convenient and MHU van adequately equipped and nearly all were highly satisfied with the treatment (95%) and counselling provided (94%) (n=108).
- 97% (n=108) of the respondents reported that they did not have to miss work or lose earnings to avail services at the MHU van

Time and expenditure saved in seeking health services

- Beneficiaries noted several constraints with accessing government health services, notably the expenditure incurred for travel (90%) and the lack of convenient transport options (90%) (n=108).
- In comparison to accessing government health facilities, which involved on average 174 minutes of time spent and INR 803 travel expenditure, respondents shared that the wait time at the MHU was 19 minutes on average and there is no expenditure involved (n=108).

Greater health seeking behaviour and community wellbeing

- By eliminating the dependence on family members to take them to health facilities, the MHU has helped elderly patients become more conscious of their health and seek regular treatment.
- Beneficiaries strongly agreed with statements that the MHU services were aligned with the community's health needs (78%), helped them address health issues proactively (66%) and increased their awareness of health issues (64%) (n=108).

Key Recommendations

- ❑ **Diagnostic facility provision:** the MHU can be upgraded with a diagnostic facility and a lab technician to conduct detailed investigations when required, reducing the need for community members to travel to district facilities for tests.
- ❑ **Speciality camps and awareness sessions:** Camps that bring in specialists such as physiotherapists, gynaecologists, and ophthalmologist and awareness sessions on the importance of nutrition, preventative health and handling outbreaks can be included as part of MHU services.
- ❑ **Pictorial prescriptions:** as many patients are non-literate and have difficulty identifying medication and understanding schedules at home, a picture and colour-based prescription format can be developed to ensure that medication is taken appropriately.

Executive Summary

Medical Equipment to Support Hospitals

The project aims to augment healthcare at hospitals that serve the urban poor in Chennai by contributing critical medical equipment and devices.

10

Project Overview

Review period:
January 2024 – March 2024

Reach and location
5 hospitals in Chennai

Implementation partner
Rotary Club of Madras Charitable Trust

Project outlay
INR 1.11 Cr.

Research Methodology

IRECS – Qualitative Approach

Childs Trust Hospital: IDI with 2 doctors and 2 patients; **Hindu Mission Health Services:** IDI with an administrator, a doctor, a technician and 2 patients; **Hindu Mission Hospital:** IDI with an administrator, a doctor and 2 patients; **RSRM Hospital:** IDI with the medical superintendent and the ambulance driver; **Voluntary Health Services:** IDI with 2 doctors and 3 patients

Key Findings

Child's Trust Hospital: 2 electrosurgical generators and 1 video laryngoscope

- **High quality outcomes and steady performance:** As the electrosurgical generators minimised blood loss, surgeons had better visibility during surgery, improving the quality of surgery. They eliminated the need to transfer devices between theatres due to mid-surgery equipment failure.
- **Faster recovery:** Scarring, burns and pain associated with greater bleeding from the earlier equipment was reduced with the new electrosurgical generators

Hindu Mission Health Services: 5 dialysis machines

- **Higher footfall:** The hospital went from running 300 cycles per month (with 7 machines) to 450-480 cycles a month with 12 machines, reducing wait time and allowed the hospital to serve more patients.
- **Elimination of overtime:** By running two shifts instead of three, technicians now work reasonable hours, increasing their job satisfaction.

Hindu Mission Hospital: 1 Continuous Renal Replacement Therapy Machine

- **Increased patient support:** After the donation of the second machine, 5-6 therapies were done in total each month, compared to 2-3 therapies earlier.
- **Reliable support:** The machine installed was standard and world-class, known for its reliability, long life and good after-sales service.

Government RSRM Hospital: 1 Patient Ambulance

- **Efficient transportation of patients:** The ambulance accommodates a large number of patients (9-10) at a time, reducing trips and decreasing turnaround time from 4 hours to 1 hour.
- **Greater reach for blood collection:** A larger vehicle that is in good condition meant that it could access colleges located at farther distances for blood donation camps

Voluntary Health Services: 17 Smart Vision Glasses

- **Greater independence in learning:** It assists in exam and interview preparation. The reading mode offers flexible study options, identified as the main benefit by recipients.
- **Higher self-reliance in mobility:** A doctor noted that the Smart Vision Glasses improved recipients' navigation both at home and outside.

Key Recommendations

- ❑ **Provision of extended support:** As warranty and maintenance are significant expenditure for institutions that work with marginalised communities, it is recommended that Redington provide extended warranty and CMC along with its support of medical equipment to ensure that the equipment is utilised for a long duration of time through formal support from the vendor.
- ❑ **Systematic data collection to inform decision making:** Redington can request hospitals it is supporting to maintain monthly records on the usage of the equipment, and where possible, collect background data on the beneficiaries. This will allow Redington to understand whether their support is going to marginalised populations and being used optimally by the hospital, helping inform decisions around future support.

Executive Summary

Creation of Smart and Sustainable Villages

The project aims to improve the lives of tribal households by providing reliable power through solar panels to homes and an Anganwadi building. The project also provided saplings to improve the overall environment and quality of life of tribal households and a home for orphaned boys.

11

Project Overview

Review period:

January 2024 – March 2024

Reach and location

37 tribal homes, 120 children in “Boys Town Society”

Implementation partner

Rotary Club of Madras Charitable Trust

Project outlay

INR 0.41 Cr.

Research Methodology

IRECS – Qualitative Approach

Qualitative:

3 IDIs with beneficiaries of solar lights and saplings, 1 KII with a Panchayat representative, 1 FGD with residents of “Boys Town Society”, 1 KII with the manager at “Boys Town Society”, 1 IDI with Rotary representative

Key Findings

Safe and reliable power at all times for tribal households

- Residents of the tribal community reported that the solar panels, installed in 2024, provide consistent power, ensuring reliable lighting and a secure home. A fully charged panel provided sufficient power to run a fan and light for the entire night. This has protected them from snake and insect bites, crucial due to the lack of nearby health facilities. Families with children appreciated the increased safety at night.
- With solar panels, residents were secure in the knowledge that they could run a fan and light even in the monsoon season. The Anganwadi centre could also run without any hindrances due to the availability of solar-powered lighting.
- Aside from fans and lights, residents found the solar panels useful to charge their mobile devices which were needed for work and study purposes.

Green and healthy living environment

- Residents of the Irular community shared that they were given 4 saplings each of 10 feet height – the two shade giving ones were planted in front of their home and the fruit bearing ones (mango and guava) were planted behind. The fruit bearing trees at the back have grown well and started fruiting,
- 28 trees were planted around the Anganwadi in anticipation of providing a green and shaded environment to children and providing fruit to enhance their nutritional intake in the future, some of which have survived.
- Residents of “Boys Town Society” shared that the planting of native shade trees and fruit trees made it feel like a home and gave the environment a green and peaceful nature. The manager of the facility highlighted that in the initial period, there was a maintenance team to look after the saplings, and beyond that, the boys participate in the maintenance through regular watering and applying of manure.

Key Recommendations

- ❑ **Periodic training support** to ensure that the community uses the solar panels optimally. This will reduce the need for repairs and improve the life of the panels. The community also needs adequate training on appropriate usage of the panels to reduce repairs and replacements caused by overloading the system.
- ❑ **Additional provisions for project sustainability:** fencing to protect saplings can be provided until they reach a reasonable size. Support measures to strengthen community ownership are also required so that the residents take greater care to maintain the trees.
- ❑ **Wider range of support for community wellbeing:** Additional support can be provided to Boys Town Society that improve the immediate wellbeing of the residents, such as the provision of sports and supplementary teaching facilities.

2

Introduction and Background



About Redington Limited and its CSR Initiatives

Redington Limited, headquartered in Chennai, India, operates across over 40 emerging markets, partnering hundreds of global brands to supply Information Technology (IT) hardware, mobility products, cloud services, enterprise solutions, digital printing, and solar technology. Originally focused on IT distribution, the company has evolved into a broader technology solutions provider spanning digital transformation platforms, and supply chain solutions that help accelerate adoption of new technologies across businesses in Asia, the Middle East, Africa and South Asia. Redington Foundation is a CSR arm of the Redington Group, driving meaningful change across communities and unlocking impact through grassroots engagement.

Skill Development



- Providing **skill-development programmes** for both underserved youth and existing workforce across logistics industry.
- Equipping rural youth and school dropouts with **job-ready skills** across solar energy sector achieving clean energy goals and rural development.
- Building a strong **foundation in trending and future technologies** for students and unemployed youth from Tier 2/3 towns.
- Increasing opportunities for underprivileged and unemployed youth through **job-oriented training** in computer hardware, peripherals, and mobile phone repair.

Education



- Upgrading **basic sanitation facilities** in government schools, better menstrual hygiene facilities, and clean water, and foster sustainable hygiene practices.
- Minimising the urban-rural digital divide with the help of **digital literacy programmes** and use of technology to enhance the quality of education.
- Providing **financial support** to economically disadvantaged students for higher education.
- Integrating **art and technology** at Museum of Art & Photography (MAP) to enhance viewer experience and promote the accessibility of art.

Community Development



- Restoring ecological balance in vulnerable communities through **climate-resilient interventions**.
- Improving water shortage and driving behavioural changes in its use through **conservation initiatives** and **providing safe, and clean drinking water access** to rural communities.
- Donation of **specialised medical equipment** to enable early diagnosis and effective treatment at hospitals serving disadvantaged communities
- Providing **doorstep medical services** in the form basic healthcare solutions to the rural population.

Scope of Work

Redington Limited (Redington) engaged Price Waterhouse Chartered Accountants LLP (“PWCALLP” or “PW”) to carry out impact assessment of CSR Projects for the year 2023-24. As per the Engagement Letter signed with Redington Limited, this engagement included review of the Key performance indicators (KPIs) as defined by the Management of the Client under the framework for implementing the Projects for the outputs, outcomes and impact of the Projects. Inclusiveness, Relevance, Efficiency, Convergence, and Sustainability Framework (the ‘IRECS’) was utilised for all CSR Projects and Social Return on Investment (the ‘SROI’) for CSR projects 5, 6 and 7 and recommendations were provided on the Projects performance for further evaluation and consideration.

The scope of work included below activities:

- Understood the scope and boundary of the Projects to be evaluated and the assistance to be provided. Conducted desk review of the documentation provided by Redington and in consultation with their implementing partner “Foundation for CSR @ Redington” agreed with the management on the parameters to be assessed for IRECS-based and SROI-based studies.
- Mapped stakeholders to identify key individuals and groups to be interacted with during the assessment.
- Based on the above, developed the quantitative/ qualitative questionnaires (as relevant) used during the assessment for conducting on field/ virtual surveys including in-depth interviews, interactions, meetings with the stakeholders and beneficiaries of the CSR Projects.
- Undertook data collection through virtual/ in-person interactions (as relevant) based on the questionnaires developed and consultations done.
- Based on the field visits/ and interactions and discussions, analysed the information and assessed the outcome/ impact. Identified the list of technical and socio-economic benefit indicators and recorded information collected from the beneficiaries / stakeholders.
- Analysed the qualitative and quantitative information and assessed outcomes /impacts. Developed the report based on the overall findings including recommendations for management’s consideration.

For projects 5, 6 and 7 which involved SROI, the following additional steps were undertaken:

- Developed customised excel based SROI data sheets for capturing the quantitative benefits of the projects and analysed SROI basis assumptions, financial proxies and references.
- Calculated SROI ratio to understand the value of the impact/ benefit generated from each rupee of investment and developed report based on the overall findings including the recommendations for management’s consideration.



Note :The SROI for Project 1 (Centre of Logistics Training for Excellence) was not conducted, as the project is in early stages and its benefits will materialise in the coming years, making a current study premature.

Assumptions

General assumptions:

- The information transmitted, including any attachments, are intended only for the person or entity to which it is addressed and may contain confidential and/or privileged material. Any review, retransmission, dissemination, copying, paraphrasing, reproduction, or distribution in any manner or form, whether by photocopying, electronically, by internet, within another document or otherwise; or other use of or taking of any action in reliance upon this information by persons or entities other than the intended recipient or for purposes other than as stated in the Engagement Letter is prohibited. Further, any quotation, citation, or attribution of this publication, or any extract from it to any third party unless expressly agreed in the Engagement Letter is strictly prohibited. PWCALLP makes no representation or warranties regarding the information in the Deliverables and expressly disclaims any contractual or other duty, responsibility or liability to any person or entity other than you in accordance with the agreed terms of engagement.
- The nature of service provided under this engagement does not in any manner constitute provision of legal service or advice as the term is generally understood under various laws for the time being in force. The intent of PWCALLP was to provide assistance and support in accomplishing the stated objective of the assignment and as an adjunct activity may have included research of applicable laws, regulatory compliance requirements and an understanding of the process and procedure as per local statutory enactments without in any way rendering any specialist legal advice. Our report is not a substitute for legal advice, that may be provided by a duly qualified independent legal practitioner.
- Our scope of work, including any advice / assistance, was limited to the scope of services specifically defined in the Engagement Letter. We are not responsible for the implementation of our recommendations.
- By giving our consent to the publication of our report and opinion on the Company's website ('your website') we do not accept any duty of care and deny any liability.
- Redington Limited is responsible for the controls over and the security of their website and, where applicable, for establishing and controlling the process for electronically distributing Impact Assessment Report. We remind Redington Limited that the examination of controls over the maintenance and integrity of the website is beyond the scope of our examination. Accordingly, we accept no responsibility for the completeness and accuracy of the Impact Assessment Report as they appear on Redington Limited's website.



Projects Under Evaluation

Redington partnered with a range of non-governmental organisations (NGOs) in FY2023-24 to implement CSR initiatives aimed at social development, particularly in the areas of education, healthcare, skill-building, women-empowerment, art & culture and environmental sustainability. Among them, 11 projects have been selected for impact assessment, as outlined below:

Name of Project	Location	Brief Description of Project
Centre of Logistics Training for Excellence (COLTE)	Chennai	Establish world-class facilities and provide training for unemployed youth and existing workforce in the logistics and supply chain sector
Laptop Support to Needy Students	Chennai	Provision of high-quality laptops to underprivileged students attending SSN institutions
Digital Infrastructure Support to Rural Schools	Nagercoil, Tuticorin Salem, Dharmapuri	Provision of digital and drinking water infrastructure support to rural schools in Tamil Nadu
Equipment Support to Museum of Art and Photography (MAP)	Bengaluru	Provision of advanced digitisation, training and AI based tools to enhance the centre's functioning and visitor experience at MAP
Integrated Water and Sanitation Project in Schools – I	Uluberia	Upgradation of WASH facilities and conducting awareness programmes for urban-poor communities across West Bengal
Integrated Water and Sanitation Project in Schools – II	Faridabad	Upgradation of WASH facilities and conducting awareness programmes for urban-poor communities across Haryana
Augmenting Water at Kurinji Ecosystem for Improved Wellbeing of Tribals	Kalvarayan and Jawadhu Hills	Provision of capacity building, water access and clean energy solutions for tribal communities living in the Kurinji Hills
R. Srinivasan International Visiting Chair at IIT Madras	Chennai	Promotion of advanced research in logistics and supply chain management at IIT Madras
Mobile Healthcare Units	Gummidipoondi	Provision of mobile healthcare and awareness to rural areas in Gummidipoondi, Tamil Nadu
Medical Equipment Support to Hospitals	Chennai	Distribution of advanced medical equipment and treatment to underprivileged patients at charitable hospitals in Chennai
Creation of Smart and Sustainable Villages	Gummidipoondi	Provision of solar panels and saplings to promote sustainability and environmental awareness in Gummidipoondi, Chennai

3

Approach and Methodology



Approach and Methodology



Engagement Kick-Off and Desk Review

- An inception meeting was organised with Redington to introduce the PWCALLP engagement team and provide an overview of the roles and responsibilities of the project team members.
- Discussions were also held during the meeting to align on the scope of work and expectations of Redington from the impact assessment study, and further, to finalise sample, timelines, and deliverables.
- Basis the meeting, PWCALLP requested documents/ information relevant for conducting impact assessment to develop a deeper understanding of the Redington CSR projects.



Research Design and Tool Development

- PWCALLP developed the research design using a mixed method or qualitative approach (as appropriate) to undertake the assessment study in consultation with Redington for all projects.
- Quantitative research was used to capture the value of the selected indicators relating to various activities whereas qualitative research helped validate the quantitative findings and understand the rationale and reasoning behind them.
- PWCALLP identified key indicators based of the documents reviewed and finalised the impact map* which included the relationship between inputs, outputs, and expected outcomes associated with the project to capture the SROI component of the study.



Data Collection and Field Visit

- The field plan was finalised in discussion with Redington and its implementing partners.
- Tools were translated in local language (as applicable). The field team was trained to familiarise them with the project activities and the developed tools, to avoid any discrepancies in data collection.
- PWCALLP conducted field visits and stakeholders were mobilised with the help of implementing partners to capture perceptions towards the project activities.
- Surveys, in-depth interviews and focused group discussions were carried out at sample locations as per the finalised sampling framework.



Data Analysis and Report Writing

- Post data collection, entry and cleaning, analysis was carried out to arrive at the insightful findings for each of the projects.
- PWCALLP prepared a draft consolidated report detailing the process adopted, results, key findings and recommendations for each project. Simultaneously, the impact of the initiative was assessed using SROI framework for certain projects* and IRECS framework for all projects.
- PWCALLP presented the key findings to Redington, obtained their feedback, and incorporated the same in the consolidated report.
- The final report was submitted to Redington for the management's consideration.

*Step only applicable for the projects having SROI-based impact assessment

Project-Specific Sampling Framework

Project Name	Assessment Framework	Proposed Methodology	Quantitative Sample	Quantitative Sample Size Criteria	Qualitative sample^		
					FGD	IDI	KII
1. Centre of Logistics Training for Excellence (COLTE)	IRECS	Mixed	39	At least 50% of the trainees who benefitted in 2023-24	-	6	-
2. Laptop Support to Needy Students	IRECS	Mixed	30	All recipients who received support	2	-	-
3. Digital Infrastructure Support to Rural Schools	IRECS	Mixed	97	95% Confidence Level and a 10% Margin of Error	4	13	-
4. Equipment Support to Museum of Art and Photography (MAP)	IRECS	Qualitative	20 rapid surveys	-	-	5	-
5. Integrated Water and Sanitation Project in Schools – I	IRECS & SROI	Mixed	95	95% Confidence Level and a 10% Margin of Error	-	8	2
6. Integrated Water and Sanitation Project in Schools – II	IRECS & SROI	Mixed	98	95% Confidence Level and a 10% Margin of Error	-	8	2
7. Augmenting Water at Kurinji Ecosystem for Improved Wellbeing of Tribals	IRECS & SROI	Mixed	108	95% Confidence Level and a 10% Margin of Error	5	2	1
8. R. Srinivasan International Visiting Chair at IIT Madras	IRECS	Qualitative	-	-	-	3	-
9. Mobile Healthcare Units	IRECS	Mixed	108	95% Confidence Level and a 10% Margin of Error	2	4	1
10. Medical Equipment Support to Hospitals	IRECS	Qualitative	-	-	-	20	-
11. Creation of Smart and Sustainable Villages	IRECS	Qualitative	-	-	1	4	2

IRECS Framework

The impact of the project was assessed using the IRECS framework. IRECS is geared to provide an overall feedback on the efficacy of implementation as well, as its efficiency in terms of achievement of the desired project outputs with reference to inputs. IRECS framework measured the performance of programme on five parameters – Inclusiveness, Relevance, Effectiveness, Convergence and Sustainability. Overview of areas assessed under each of these five parameters is provided below:

Inclusiveness (I)	Ability of different stakeholders, particularly poorest and most marginalised - to access the benefits of activities, be part of institutions (healthcare / education/ skilling) and derive equitable benefits from the CSR initiatives	I
Relevance (R)	Are the services /inputs /institutions facilitated in the project able to meet community priorities? How was the planning done? Was it participatory? How were the success indicators developed? Was the community involved in development of project indicators?	R
Effectiveness (E)	Have the activities been able to effectively address community expectations? If the project is completed within the finalised time duration How efficiently have the resources been deployed, monitored and utilised? If there is a potential to replicate the solution in other states or districts?	E
Convergence (C)	Degree of convergence with government/other partnerships; relationship between individuals, community, institutions and other stakeholders.	C
Sustainability (S)	Do beneficiaries feel ownership over the assets created by the activities and/or will the Project initiated community interventions sustain even after the exit of the funding agency. Are the institutions strengthened adequately to effectively manage and sustain the activities after the completion of project? Has an exit strategy been drafted?	S

SROI Framework

The SROI framework is used to assign monetary value to impact

- **SROI (Social Return On Investment)** is a process for understanding, measuring, and reporting on the social, environmental, and economic value created by an organisation, programme, or policy
- **SROI is an Impact Assessment tool that evidences and measures qualitative and quantitative change – direct & indirect**
- It is an outcome-based measurement tool that helps organisations understand and quantify the social, environmental and economic value they are creating by investing in development programmes
- It establishes a relationship between value of investments, outputs, outcomes; and helps to map outcomes (tangible and intangible outputs) by developing Financial Proxies and Monetisation

A typical SROI study follows a 6-step process as follows. Our overall study process already incorporates and accounts for the SROI-specific steps:



Establishing scope and identifying stakeholders



Mapping the outcomes



Evidencing outcomes



Establishing the impact



Calculating the SROI



Reporting and embedding

Since the approach to SROI originates from social accounting and cost-benefit analysis, its principles involve:

1. Stakeholder's involvement
2. Impact through a programme
3. Value things that matter
4. Valuating what is in material sense
5. Pragmatic estimation
6. Transparency and result verification

It is calculated by using the formula:
 $SROI = (\sum NPV) / \sum Investment$
NPV = Net Present Value
Investment = Value of Inputs

4

Key Findings from CSR Projects



01

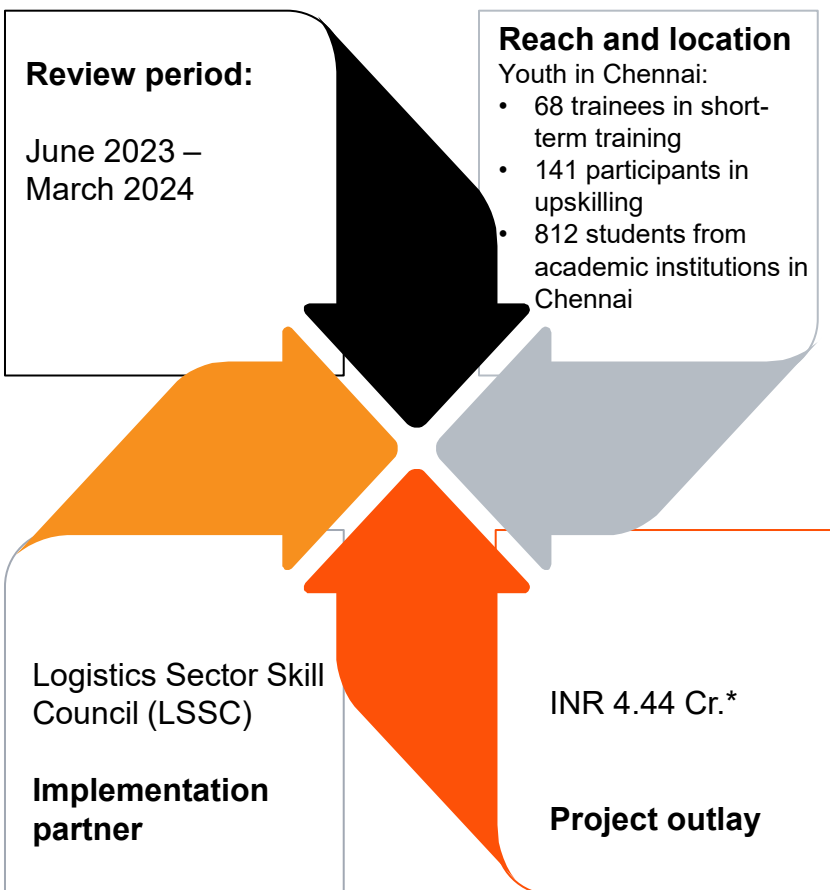
Centre of Logistics Training for Excellence (COLTE)



Project Overview, Approach and Methodology

Thematic Area: Skill Development

Project Overview



*As per the Project Annual Report, spend in FY24 was INR 2.41 Cr

Project Objective

Centre for Logistics Training Excellence (COLTE) for imparting training to help people i) build foundational logistics sector skills and provide them with access to high-quality, inclusive training and education which will enable them gain employment in the logistics sector, ii) provide opportunity for upskilling, iii) establish academia interface and logistics sector think tank ecosystem.

Project Activities

- ❑ Mobilisation and enrolment of candidates
 - ❑ Identifying, counselling and enrolling candidates for the short-term skilling programme
 - ❑ Approaching logistics companies and mobilising their existing workforce for required skill training
 - ❑ Approaching academic institutions and mobilising students to develop awareness about career options in logistics
- ❑ Conduct training programmes at the Centre of Logistics Training for Excellence (COLTE) for short-term training and upskilling and exposure visits for students from academic institutions and provide certification upon completion of assessment
- ❑ Provide job placement to unemployed youth in the logistics sector

Methodology: IRECS – Mixed Method Approach

Qualitative Interactions

- 3 In-Depth Interviews with **trainees of short-term skilling course**
- 1 In-Depth Interview with **a trainer**
- 1 In-Depth Interview with a **professor from academia**
- 1 In-Depth Interview with **the implementing partner**

Quantitative Interactions

39 trainees who attended the short-term course at COLTE in 2023-24

Analysis and Findings

Challenges Prior to the Project

The implementing partner and trainer shared the following challenges that existed prior to the project:

- **Unemployment and lack of awareness among the youth:** Although educational attainment has increased in Tamil Nadu, several youth are **unable to find jobs suitable** to their knowledge and skill levels and remain unemployed. Those who work earn insufficient incomes and are faced with **minimal career progression opportunities**. There is **less visibility** among youth of varied career options, particularly in emerging fields such as logistics and supply chain.
- **Insufficient options to develop technical and soft skills:** Those youth who wanted to improve their job readiness and employability found it hard to access training centres that were **affordable and have the latest equipment** and technologies that companies use in their operations. Further, there are no skills centres in India focused on the logistics sector. Youth from rural areas and first-generation learners are **hindered by their poor communication skills** and discomfort with English language and computers, which puts them at a disadvantage when seeking jobs.
- **Inadequacy of trained labour in the logistics sector:** Although logistics constitutes a significant part of all company's operations, youth are unaware of the scope and breadth of this sector, tending to prefer better known areas like information technology. This means that **companies in the logistics sector struggle to find trained workforce**, and those already employed lack the latest technology and know-how, leading to **operational inefficiencies**.

Details of Project Activities

- During interactions, the implementing partner shared that COLTE offers **three types of training options:** short-term training for unemployed youth; upskilling of those in the workforce and exposure visit for students in academic institutions.
- Short-term training is offered in **3 out of the 12 subsectors** in logistics, which are seen as high priority areas based on a needs assessment done by LSSC: warehouse, supply chain and export-imports (exim). The details are shared below:

SHORT TERM TRAINING

Course	Eligibility	Duration
Warehouse associate	10 th standard	49 days
Supply chain associate	12 th standard	53 days
Exim executive	Graduation	73 days

2023-24: Only warehousing course offered.
68 trainees were certified in 3 batches

UPSKILLING

One-day course for existing employees to address skill gaps
2023-24: **141 participants** completed the course






ACADEMIC EXPOSURE

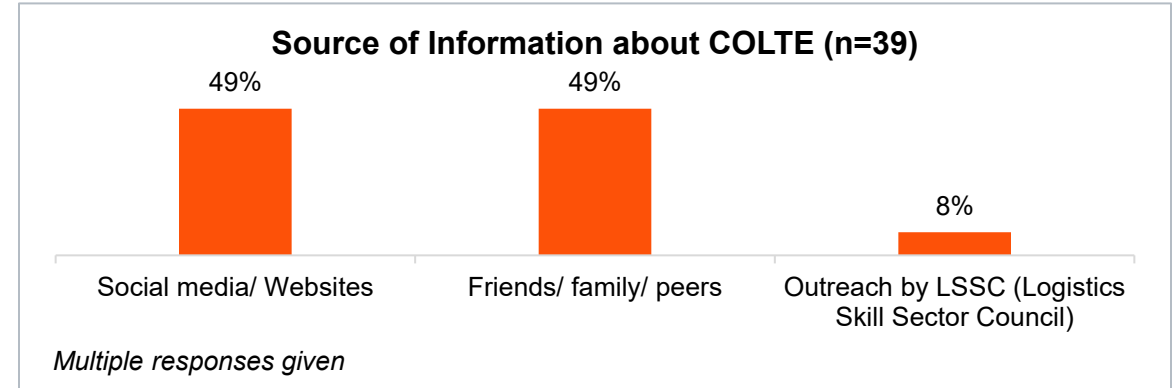
One day exposure programme on the logistics sector
2023-24: **812 students** completed the visit

Analysis and Findings

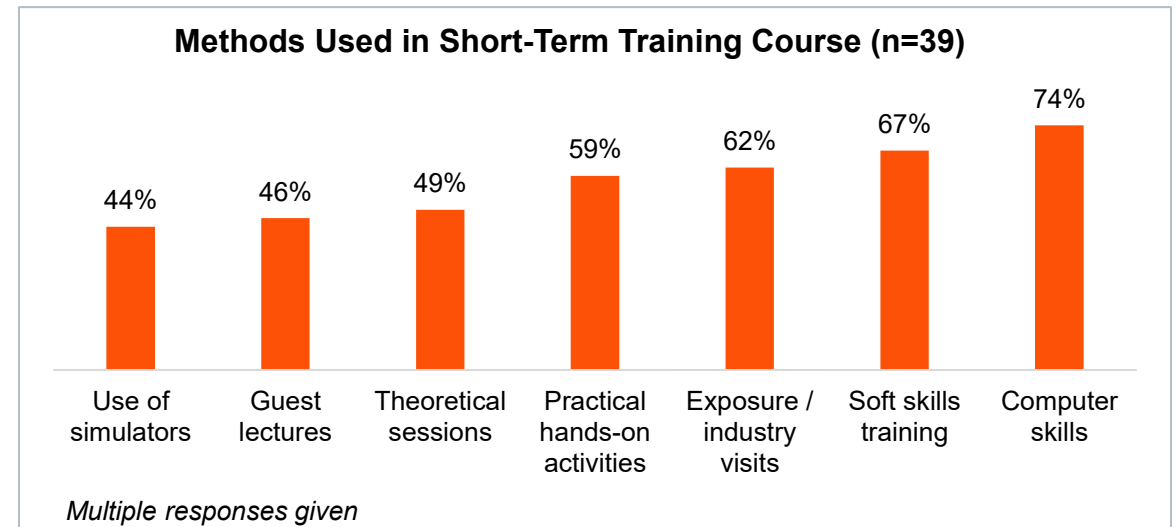
Profile of the Beneficiaries Sampled

Out of 68 trainees in the **short-term training** course, **39** responded to the quantitative survey conducted. Their background details are shared below:

	<p>82% were male and 18 % were female</p>
	<p>44% came from rural backgrounds and 56% from urban or semi-urban backgrounds</p> <p>31% were from Chennai district, 62% from other districts of Tamil Nadu and 7% from other states of India.</p>
	<p>61% reported a monthly household income less than INR 20,000</p> <p>92% said they could not have afforded the course fees if they had not been supported by Redington</p>
	<p>77% had completed their graduation or post graduation and 13% had completed high school or less.</p>
	<p>26% had earned an income or been employed prior to signing up for the course</p>



The top sources of information about the Short-Term Course at COLTE were **social media and websites** (Instagram, LinkedIn, YouTube, etc) (49%) and **word-of-mouth** through friends and family members (49%).



When asked to recollect the main methods used for training at COLTE, respondents highlighted **computer skills (74%)**, **soft skills training (67%)** and **exposure visits (62%)**.

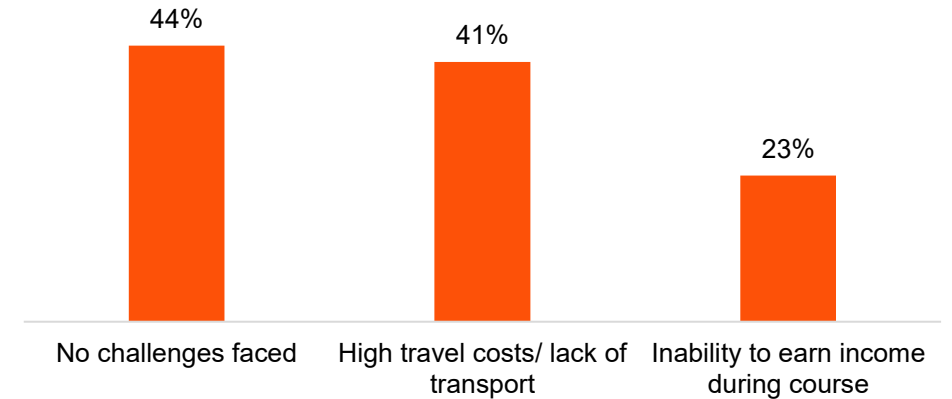
Analysis and Findings

Areas of Impact

Access to an affordable training course

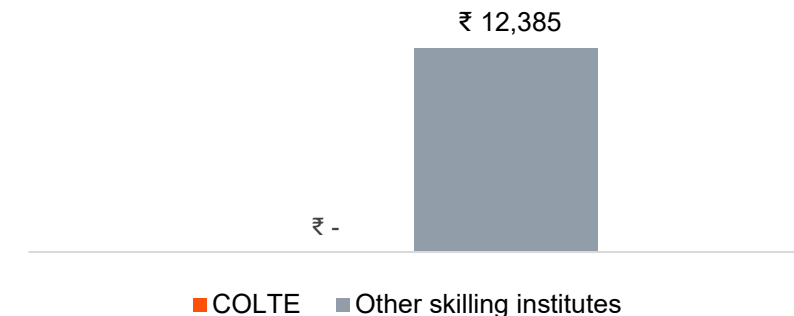
- According to a trainer, the eligibility criteria of a **household income less than INR 3 lakhs annually** ensured that the trainees for the short-term course came from **economically disadvantaged backgrounds**.
- Nearly half of the trainees (44%) reported that they **did not face any challenges** in attending the course and this ensured that the **attendance record** on average was **92%** (n=39). The implementing partner shared that **meals and snacks** were provided to trainees on a daily basis and this made it easier to attend the entire day.
- **41%** of the trainees felt that the **travel expenditure** and lack of transport options posed a challenge in attending the course (n=39). The course itself was **free-of-charge** to all trainees which was a **significant saving** when compared to **INR 12,385 on average** that they anticipated they would have spent just on tuition fees at another skilling institute (n=39).
- Despite the high affordability of the course, **23%** of the trainees (n=39) felt it was **challenging to forego income** during the course duration. The trainer shared that few trainees **took up part-time employment**, working in the evenings and nights to bring in some income during the course period.
- With the one-day upskilling course, the implementing partner felt that offering it free-of-charge made it a **win-win situation** for both employer and employee. For the former, COLTE provided exposure and understanding of **key developments and technologies** in the sector and for the latter, it offered **career progression** without any financial implications.

Challenges Faced in Attending the Course (n=39)



Multiple responses given

Comparison of course fees at COLTE and Anticipated Fees at Other Institutes (n=39)



Attendance record on average for short-term trainees in 2023-24 (n=39)

92%

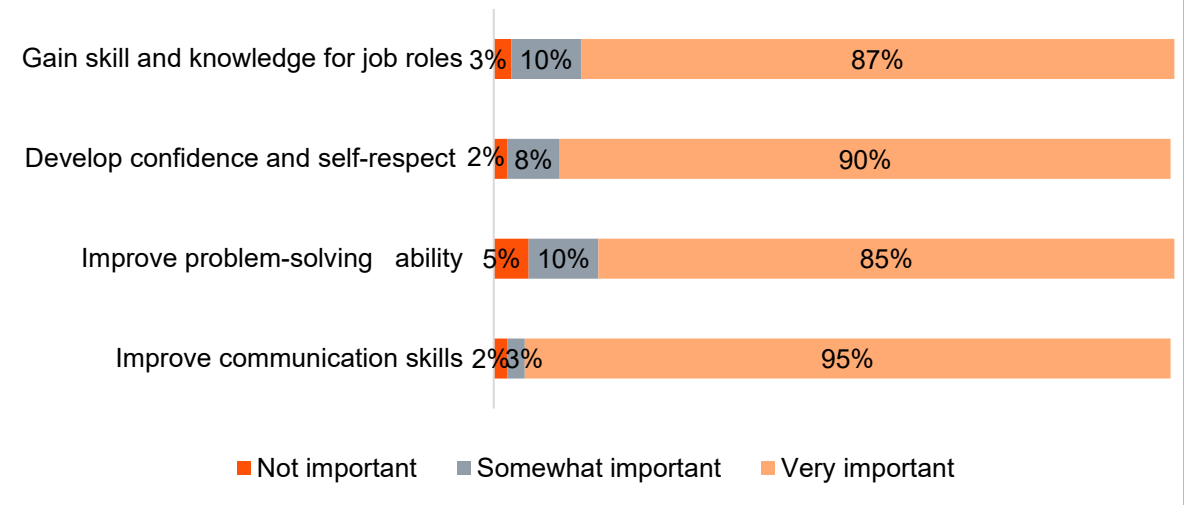
Analysis and Findings

Areas of Impact

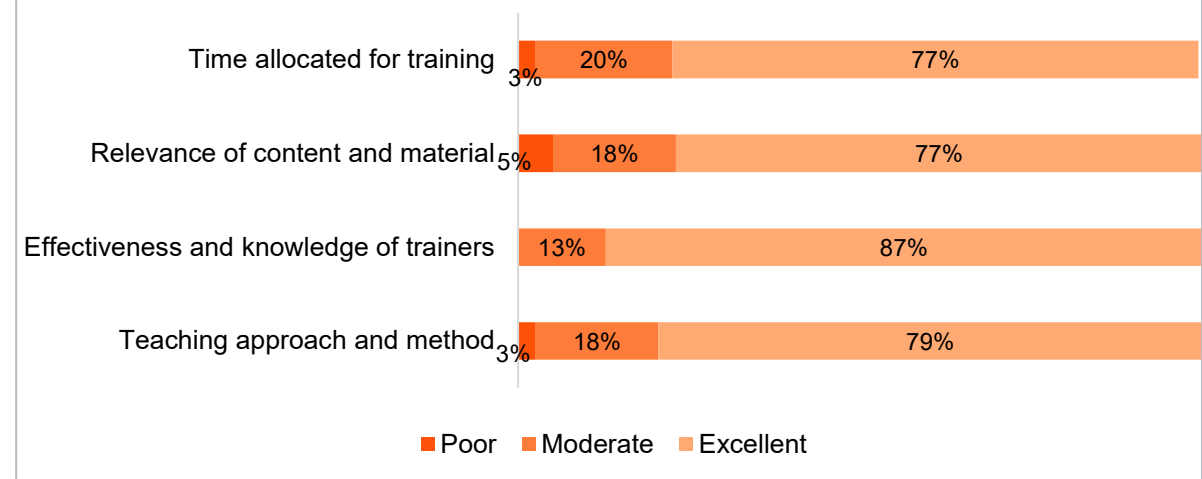
Provision of comprehensive training and skill development

- Trainees were asked to rate their perceptions of the importance of various outcomes of the course. As seen in the graph, **95%** of the trainees felt **improved communication skills** were highly important and **90%** felt **developing self-confidence** was very important (n=39).
- The trainer noted that since many trainees are first-generation learners from outside Chennai, the initial period focuses on making them **comfortable and engaged**. Practical, **hands-on projects** encourage teamwork, conversation skills in English, and boost their creativity and confidence. Respondents rated the different aspects of the course highly, with **87% feeling the knowledge and efficacy of trainers was excellent** and 79% feeling **teaching methodologies** were excellent (n=39), as seen in the graph below.
- According to the implementing partner, a dedicated team at LSSC analyses market trends and regularly communicates with employers to update the curriculum. Based on **feedback received** from trainees who gained employment, COLTE **ramped up its soft skills training** – giving more emphasis to speaking confidently in English and writing emails – and computer training – providing **more advanced training in Excel** such as use of pivots and VLOOKUP. Trainees valued these activities, citing **improved job interview readiness** and **real-world preparation**.

Expectations from Trainees Prior to the Course (n=39)



Rating of different aspects of the course (n=39)



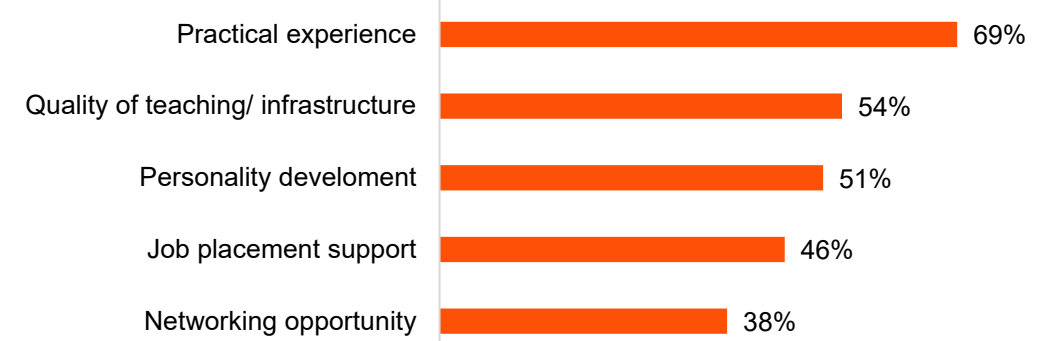
Analysis and Findings

Areas of Impact

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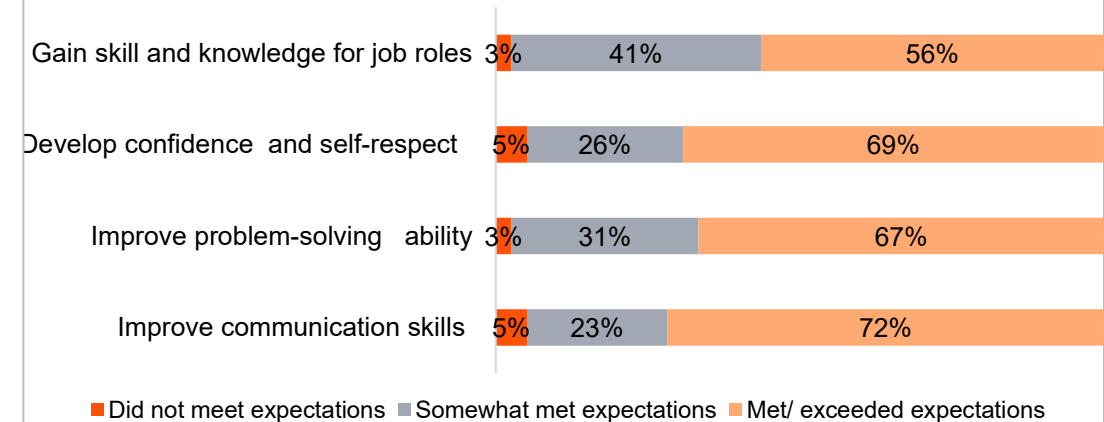
- Several benefits were highlighted by trainees, including the **practical experience received (69%)** and **quality of teaching and infrastructure (54%)** as seen in the graph (n=39).
- The implementing partner shared that **COLTE is a first-of-its-kind skilling centre** that offers training in logistics and supply chain using varied teaching methods and cutting-edge technologies. In addition to the simulators, classrooms are equipped with **Smart TVs** and trainees can use a **computer lab, a digital library** with over 2000 self-study courses and **in-house applications** which provide a 3D view of concepts essential to the logistics sector. While the centre has the **capacity to handle 90 trainees** per batch, these numbers were **under 30 in each of the first three batches** in 2023-24.
- In terms of their experience from the course, **72% felt the course met or exceeded their expectations** in terms of improved communication skills and 69% in terms of developing self-confidence. **Only 3% felt their expectations were not met** in terms of **gaining relevant skills** and knowledge for the job and improved problem-solving ability (n=39).
- COLTE uniquely offers **simulator-based training** for Heavy Machine Vehicles, Battery Operated Pellet Trucks, Forklifts, Warehouse Pickers and Telehandlers, which enhances students' understanding of warehouse operations. Trainees appreciated the **comprehensive simulation experience**, despite **limited access initially** due to new equipment. An Aviation Management professor, who brought 200+ students to COLTE for exposure visits highlighted **strong student interest** during these visits. However, the brief one-day visit **limited practical experience development**.

Benefits of the Course (n=39)



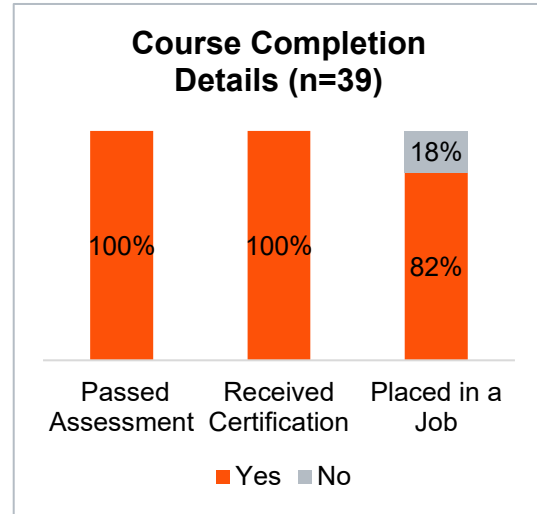
Multiple responses given

Skills Gained from Attending the Course (n=39)



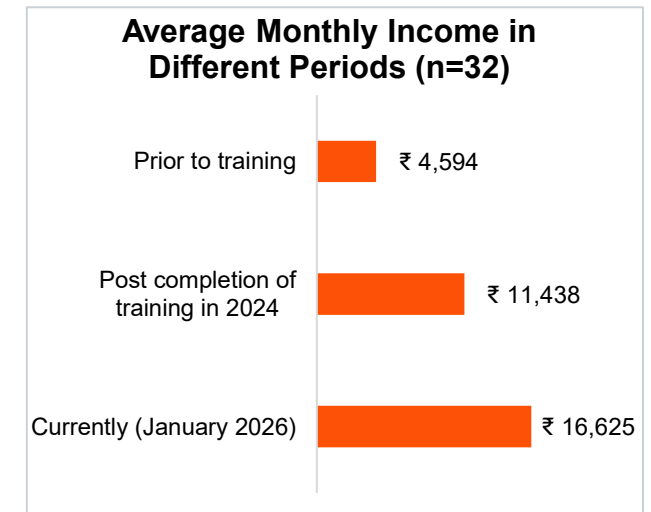
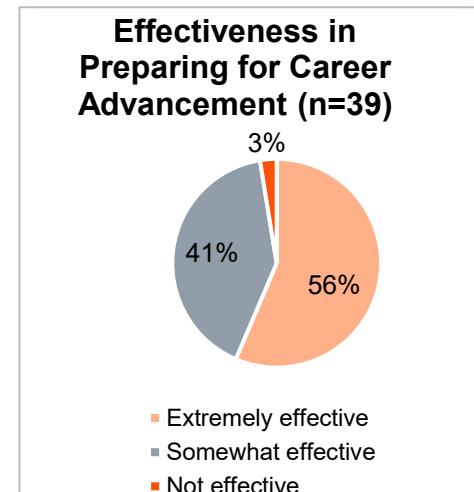
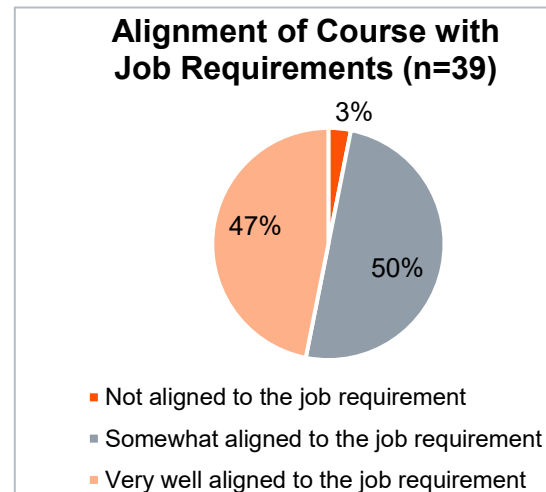
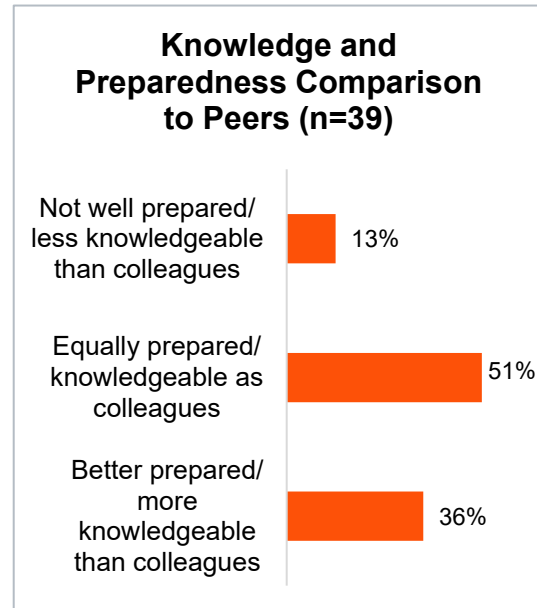
Analysis and Findings

Areas of Impact



Developed career readiness that led to improved job prospects

- **100%** of the trainees (n=39) reported that they **passed the assessment and received certification**, which is recognised by National Skill Development Corporation (NSDC) and National Council for Vocational Education and Training (NCVT). **82%** of the respondents opted for **job placement support from COLTE** (n=39).
- When asked to compare themselves to colleagues at their workplace, **51%** felt they were **as knowledgeable and job ready** while **36%** felt they were **better prepared and more informed** than their colleagues (n=39).
- **56%** of the trainees felt the course was **extremely effective in preparing them for career growth**. Trainees felt their technical skills and soft skills were competent, allowing them to **settle into their job with ease**.
- **47%** felt the course itself was **highly aligned with the requirements** of the job market (n=39).
- Those who were placed by COLTE reported that their monthly income prior to the course was INR 4,594 on average (n=32). **Post completion, monthly income was INR 11,438 and currently it is INR 16,625 on average** (n=32). The short-term course at COLTE was thus able to bring about **4x increase in the income of trainees** over a two-year period.



Analysis and Findings

Areas of Impact

...Continued

- Trainees were asked what their current work status is. As indicated in the graph below, **only 11% were working in the same job as they were placed** by COLTE in 2024 (n=39). One-third of the trainees were **not currently working** and the rest had moved to other jobs.
- The main reasons for switching jobs were **finding better opportunities elsewhere** (46%), **travel-related constraints** (23%) and **lack of job satisfaction** (23%) (n=32). Several trainees explained that the **placements given were not in line with their technical skills or knowledge levels** and most were for **entry-level positions or manual labour work**, bringing in INR 10,000-15,000 monthly. This was not sufficient given the long commute and travel-related expenses they bore to reach their workplace.
- The trainer felt that although the salaries were on the lower side, trainees were placed in **reputed companies with career growth prospects**. Those who stayed with their placements for more than 2 years were **able to advance their careers** by moving into **supervisory roles**, and this contributed to **greater household financial wellbeing**. Trainees acknowledged that the **skills developed were useful** to gain employment in other sectors, where the pay was better.

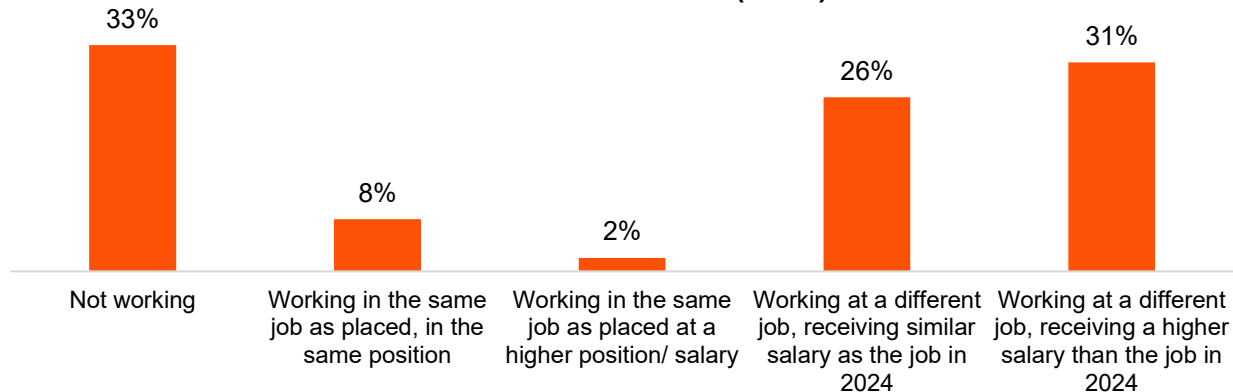


Trainees working on a module using augmented reality

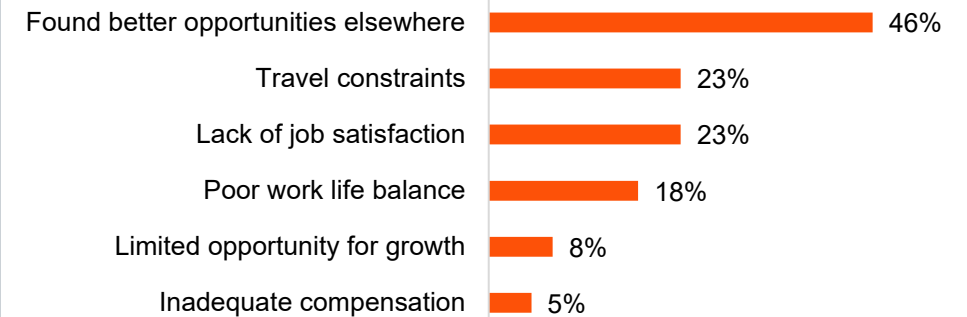


Group discussion in preparation for job interviews

Current Work Status (n=39)



Reason for switching jobs post-placement (n=32)



Multiple responses given

Analysis and Findings

Snapshots from the Field



Projects created by trainees of previous batches



Digital library with 2000+ courses and applications



Computer lab for theory and practical sessions



Bar codes that provide sector-specific terminology



HMV Simulator



Forklift Simulator



Telehandler

IRECS Analysis



INCLUSIVENESS

- The courses at COLTE were open to those with annual household income less than INR 3 lakh and the eligibility criteria of 10th standard pass made it accessible to unemployed youth.
- Majority of the respondents were first-generation learners and nearly half from rural areas (n=39).
- 92% of the respondents (n=39) said they could not have afforded the course if it wasn't free-of-charge.



RELEVANCE

- COLTE provided training to unemployed youth who were not able to secure stable employment. Focusing on communication and computer skills helped trainees overcome challenges they faced when seeking jobs.
- 56% of the trainees felt the course was extremely effective in preparing them for career growth and 47% felt the course itself was highly aligned with the requirements of the job market (n=39)



EFFECTIVENESS

- 100% of the trainees completed the course and received certification and 82% were placed at jobs by COLTE (n=39). Many trainees felt the placement did not align with their technical skills and the salaries post-placement could have been better.
- There was a noticeable difference in monthly income earned by trainees. Pre-course it was INR 4,594 on average; post completion in 2024, it was INR 11,438; and currently it is INR 16,625 (n=32)



CONVERGENCE

- COLTE courses are certified by National Skill Development Corporation (NSDC) and National Council for Vocational Education and Training
- The programme focuses on complementing government efforts in national skill development and enhancing the livelihoods and quality of life of youth in the area."



SUSTAINABILITY

- As the project had commenced in 2023-24, the focus was on setting up and scaling up operations with complete support from Redington.
- The skills developed by trainees in the short-term course were found to be useful to gain employment in other sectors, suggesting that they contributed to sustainable career growth for trainees.

Alignment to UN SDGs, Recommendations and Limitations

Alignment with UN Sustainable Development Goals



The project aimed to develop the skills of disadvantaged youth, enabling employment prospects that would lead to greater financial wellbeing and reduced poverty.



By reducing unemployment among youth and improving their employability through technical and soft-skill development, the project promotes decent work for all and sustainable livelihoods.



Setting up a first-of-its-kind skilling centre that equips youth to find employment in the rapidly growing logistics sector contributes to economic development and human wellbeing

Recommendations

- **Longer duration for upskilling and academic exposure programmes:** Given the wide range of resources at COLTE and the large groups attending the one-day course, it would be better if programmes were spread over 2-3 days. This would give participants deeper insight into logistics and supply chain and allow more time to use simulators and other COLTE resources.
- **Better industry networks for a wider range of jobs:** Many trainees felt placements did not match their technical skills or offer adequate pay. COLTE should expand its industry network to provide placements at varied skill levels, including higher-level roles for experienced trainees.
- **Strategic partnerships to enhance impact:** Opportunities to collaborate with public and private contributors can be explored to scale and replicate projects across more locations, creating formal employment opportunities for more youth in the logistics sector.

Limitations

- It was not possible to collect quantitative or qualitative data from participants of the 2024 academic exposure program due to the long time elapsed since their visit to COLTE. Likewise, we were unable to engage with employers and HR executives from companies that sent employees for upskilling program.
- Since the program is still in its early stages and many of the anticipated outcomes are expected to materialize in the coming years, conducting the SROI study at this time was not feasible, as it would not fully capture the program's benefits.

Case Study

Exposure to a new field that provided promising career growth



I had completed my Bachelors in Business Administration and was working in a marketing job with minimal growth prospects. I was wondering what to do with my life, when I found out about COLTE's short-term training course from an ad on Instagram. I inquired with them and was told that the training would be in a new field – logistics – and at the end of the course, I would receive certification issued by the National Skill Development Corporation of India. As I wanted to develop my skills and explore a new area, I took up this training.

The course was free-of-charge, and they even provided daily meals to all trainees. The trainers were very supportive and well-informed and kept me motivated through the course. I would not have been able to enrol if I had to pay for the course as my financial situation was very tough then. In fact, it was difficult for me to forego income during the course duration, but I stuck to it as it offered me valuable learning compared to other skill centres.

The trainers helped us develop our creative thinking and communicate confidently, and this helped us prepare for job interviews. In fact, during a group discussion, I was given a similar role play as one I had already done during the COLTE training, so I could handle it with ease. Before the course, I knew basic computer use and Excel skills but I was able to develop advanced Excel skills at COLTE.

As a result, I received a placement in a logistics company with a salary offer of INR 26,000 per month. This was a huge leap for me! Thanks to COLTE, I was well prepared and could settle into the job easily. The company offered training to all new joiners but I found I was better prepared than my colleagues.

I can confidently say that COLTE turned my life around and gave me new direction for career advancement.

As shared by Ravi (name changed)

02

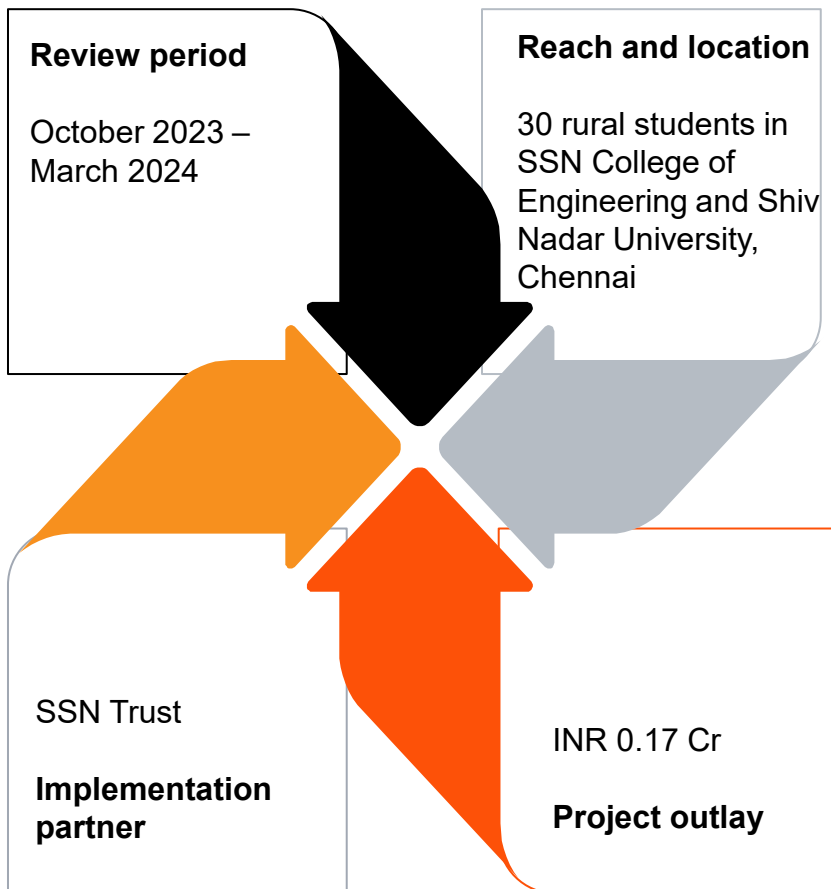
Laptop Support to Needy Students



Project Overview, Approach and Methodology

Thematic Area: Education

Project Overview



Project Objective

Provide laptops to students from rural backgrounds who receive scholarship support from SSN College of Engineering and Shiv Nadar University, Chennai with the aim of enhancing their learning experience.

Project Activities

- ❑ Laptops (Hewlett Packard 15 series) were distributed to 30 students studying in SSN College of Engineering and Shiv Nadar University, Chennai.
- ❑ The criteria for selection of the recipients were set by SSN Trust under their scholarship programme.
- ❑ The laptops were handed over to the students by Redington on 10th November 2023.

Methodology: IRECS – Mixed Method Approach

Qualitative Interactions

- Focused Group Discussion with **10 laptop recipients**
- Small Group Discussion with **university representatives**

Quantitative Interactions

All **30 students** who were recipients of the laptop

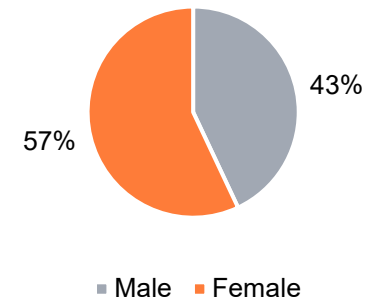
Analysis and Findings

Challenges Prior to the Project

- Prior to the intervention, recipients did not have a laptop of their own as they come from **disadvantaged backgrounds**. Being first-generation learners from rural areas, many shared that they **lacked advanced knowledge of computers** and **access to digital tools** and applications.
- Recipients would use the computer facility at the campus library; however, with **strict timings and high demand**, they often struggled to find available systems. This led to **rushed work, missed deadlines**, and reduced opportunities for **self-study and skill development**.
- Fixed timings also meant that recipients **could not study on their own** to revise concepts and explore additional learning resources beyond library hours,
- Additionally, students of computer science stated that complex machine learning tasks required a dedicated system due to the need to work on files saved earlier. Further, these tasks would take 2-3 hours to complete, which did not sync with library hours. These constraints led to **delays in submission of assignments** for those students.

Profile of the Beneficiaries Sampled

Gender of the recipients (n=30)

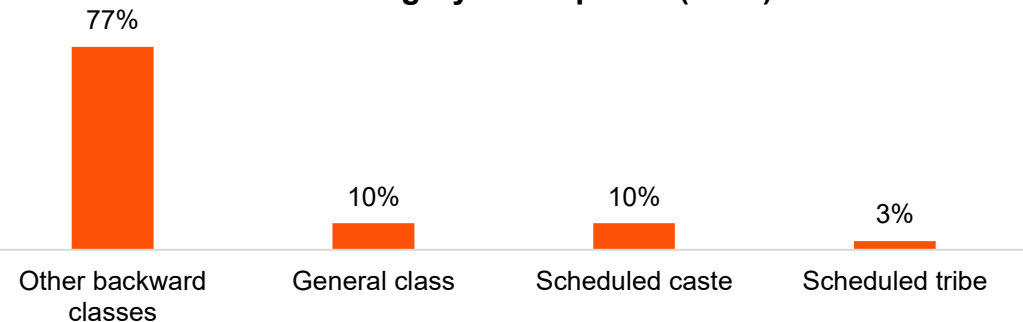


100% of the recipients (n=30) were from a rural background



100% of the recipients (n=30) did not have a laptop prior to the project

Social category of recipients (n=30)



- All (100%) of the laptop recipients were from **rural backgrounds** and **none of them** (100%) **owned a laptop** prior to this project (n=30).
- **57% were female** and **90% came from disadvantaged social groups** as seen in the graphs above (n=30).

Analysis and Findings

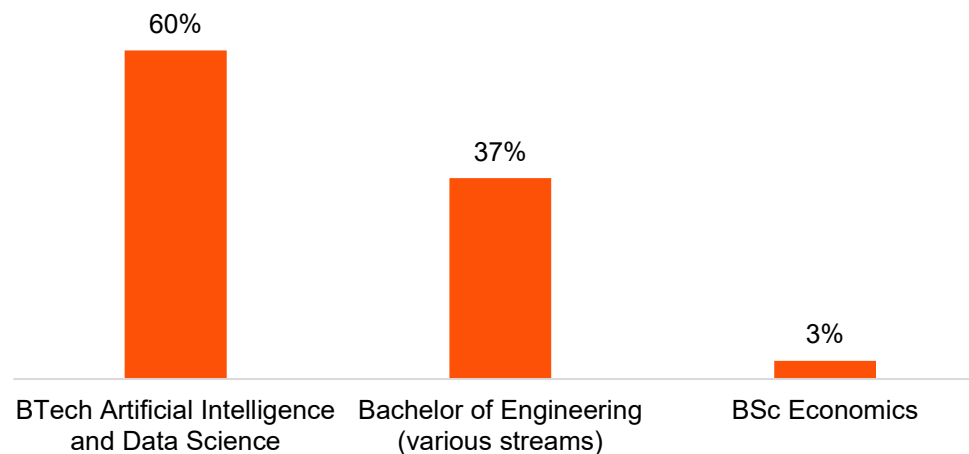
Profile of the Beneficiaries Sampled (n=30)

Out of the 30 recipients surveyed:

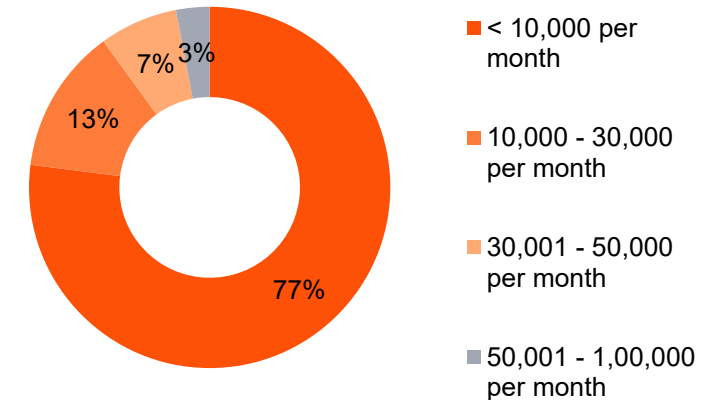
- 77% reported having a monthly household income of **less than INR 10,000**.
- 26% come from **single-parent households**.
- **87% are from Tamil Nadu** and the rest from Uttar Pradesh
- **93% are between the ages of 18-20** and 7% between 21 and 23 years.
- 60% are **pursuing Bachelor of Technology – Artificial Intelligence and Data Science** and 37% were pursuing Bachelor of Engineering (mechanical, civil, computer science, etc).



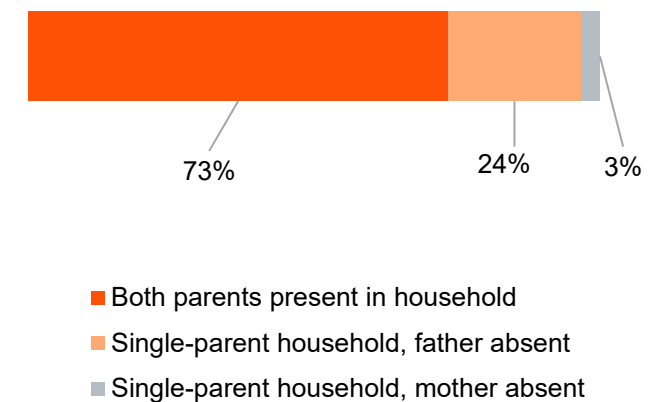
Courses pursued by recipients (n=30)



Monthly household income of recipients (INR) (n=30)



Family context of recipients (n=30)



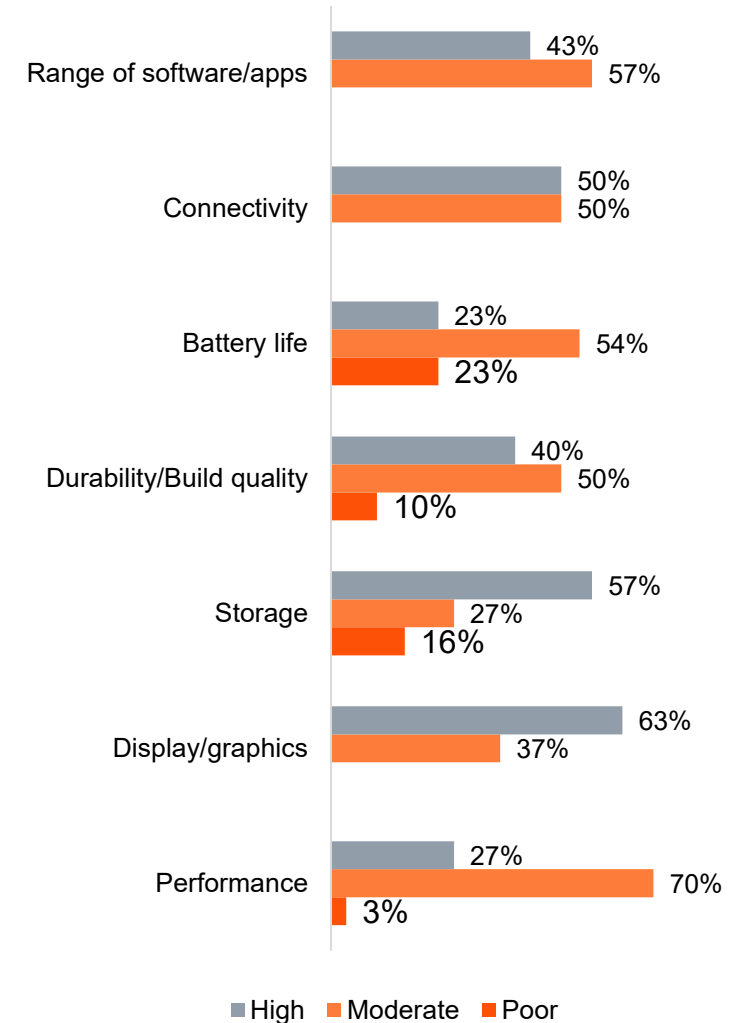
Analysis and Findings

Areas of Impact

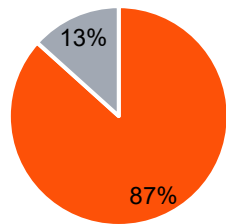
Access to a personal high-quality laptop

- 90% (n=30) of the recipients agreed that the laptop was **essential for their academic workload** and to **achieve their academic goals**.
- Over a third of the recipients (37%) believed that the **laptop they received was as good or better** than laptops owned by their peers at college (n=30).
- As seen in the graph on the right, the laptop was rated highly on its **storage (57%) and display (63%)** and moderately on the range of software/ apps (57%), battery life (53%) and overall performance (70%) (n=30). Computer science students shared that the **battery life was poor** when running **high level computer programmes** such as machine learning tasks.
- Laptop warranty was for **3 years**, after which the university provided technical support under an AMC with a vendor. **60%** of the recipients **faced no problems with their laptops**, with the remaining stating that their issues were resolved by the **technical team** within one day (n=30).
- **87%** of the recipients agreed that they **received the laptop in a timely manner** (n=30). During the discussion, however, recipients pointed out that while the course began in August, the **laptops were distributed only in November** that year. University administration stated that the issuance of laptops can only be done once all the admissions decisions are finalised.

Rating the features of the laptop (n=30)

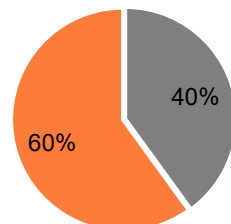


The laptop was delivered in a timely manner (n=30)



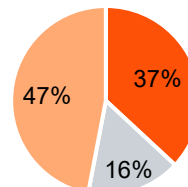
■ Agree ■ Neutral

Faced issues with the laptop (n=30)



■ Yes ■ No

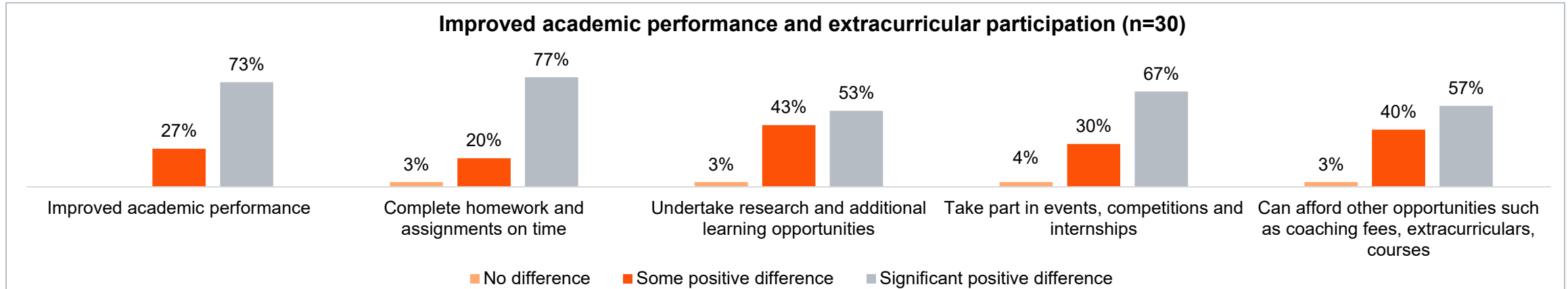
Laptop quality was equal to or better than peers' laptops (n=30)



■ Agree ■ Neutral ■ Disagree

Analysis and Findings

Areas of Impact



Holistic engagement in academic and other spheres

As seen in the chart above:

- **73%** of the recipients felt there has been **significant positive change in their academic performance** and 77% felt they are able to complete homework and assignments **on time** as a result of having a personal laptop (n=30). Recipients shared that they can **study efficiently** post-college hours and **refer to online study materials** provided by professors. Having a laptop has **given them freedom** due to the **ability to practice and prepare** multiple times at their own pace, even during semester holidays.
- **53%** of the recipients felt the laptop makes a major positive difference in **pursuing additional learning opportunities to upskill themselves** in the form of certificate courses (n=30).
- **67%** felt owning a laptop makes a significant difference to their **participation in internships and competitions** (n=30). The laptop empowers them to take part in **events, competitions and research projects** conducted at the university such as hackathons, coding competitions and internal funded projects.
- **57%** believed that expenditure saved on purchasing a laptop allows them to **invest in other key areas** of extracurricular development (n=30).

“I study biomedical engineering. With a premium quality laptop at my disposal, I have taken up courses in computer science to upskill myself and stay updated on the current digital requirements in industries. The quality of the laptop allows me to go beyond academics and gives me an opportunity to access multiple resources. I don't worry about maintenance as the IT team is ready to assist us.”

- As narrated by a recipient

Analysis and Findings

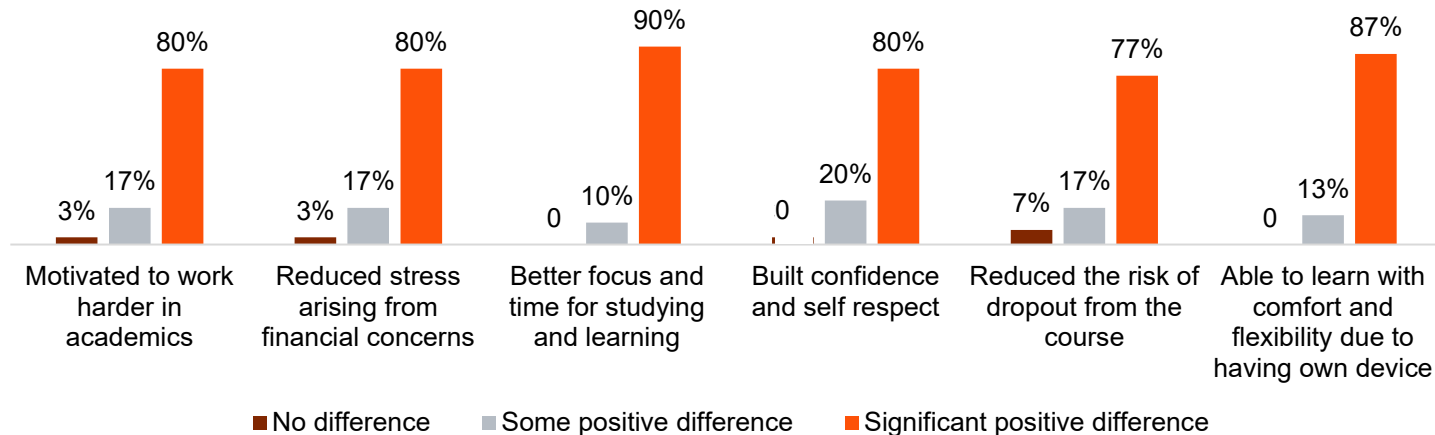
Areas of Impact

Increased confidence and career focus

As seen in the graph below:

- A significant positive difference was seen in recipients' **motivation to work harder in academics** (80%) with **better focus and time for studying** (90%) (n=30).
- Reduced financial stress** (80%) and **reduced risk of dropping out** from the course (77%) owing to the support provided also made a significant positive difference, allowing recipients to focus on their careers. Administrators noted that the laptop has aided in recipients in **cracking screening exams** and **getting placed in reputed companies** post graduation.
- A significant change in **confidence and self respect** (80%) was also noticed. Recipients articulated that they feel **on par with their peers** who are not from economically disadvantaged backgrounds.
- Recipients stated that are able **to learn with comfort due to having their own device** (87%). An added benefit for coding students is that they can **practice programming at their own pace**.

Difference in overall mindset of recipients (n=30)



Benefit of retaining the laptop post graduating (n=30)



77% of the respondents stated that it will be useful in applying for jobs



50% of the respondents believe that the laptop would help the prepare/apply for higher education



93% of the respondents stated that it would be useful in developing additional skills



"I was very weak in communicating in English and was worried about an upcoming internship interview. With this laptop, I could upskill myself. This gave me the confidence to present myself well at the interview, thereby securing the internship!"

- As narrated by a recipient

IRECS Analysis



INCLUSIVENESS

- The laptop support was given to students from rural backgrounds who are first generation learners.
- A large percentage of them come from socially and economically disadvantaged situations (n=30).



RELEVANCE

- 90% of the recipients (n=30) stated that the laptop support was essential to complete their course and better their academic performance.
- 100% of the recipients did not own a laptop prior to this project (n=30).



EFFECTIVENESS

- The project was effective academically – 73% agreed it improved their performance – and was also useful for additional learning and extracurricular activities (n=30).
- Recipients shared it was critical for their progress in their respective courses.



CONVERGENCE

- Redington collaborated with SSN Trust to provide laptop support to the students chosen under their scholarship programme. There were no convergences with government departments.



SUSTAINABILITY

- Recipients reported that the quality of the laptop was high overall.
- A few computer science students stated that it was slow during certain machine learning tasks.
- The laptop was covered under a 3 year warranty. Any issues that arose were efficiently handled by the university IT team, ensuring the usability of the laptop.

Alignment to UN SDGs, Recommendations and Limitations

Alignment with UN Sustainable Development Goals



UN Sustainable Development Goal 4 (Quality Education) focuses on ensuring inclusive and equitable access to quality education for all. The university laptop support project reduces the digital divide that disproportionately affects students from rural backgrounds, who often lack reliable access to technology. The project enables these students to fully participate in online learning, research, and academic collaboration.

Recommendations

- **Varied laptop specifications depending on course demands:** Although all recipients were satisfied with the laptop received, Redington can consider giving laptops with higher-end specifications to students of computer science so that they do not face issues when running machine learning applications.

Limitations

There were no study limitations

Case Study

A pathway for innovation



Sneha's* experience with the laptop support project has taken her **beyond the purpose of using the laptop for timely submissions of assignments and college level competitions**. Being a **first-generation learner**, access to quality digital tools was **not possible prior to joining college**, due to her economic background.

In the initial days (before the laptop was handed out to recipients), Sneha would rush to the computer system at the library and wait for her turn just to complete assignments. This would often lead to **stress and late submissions**. The **lack of personal facilities and time constraints** she faced took a toll on her ability to work freely and think about opportunities beyond assignment submissions.

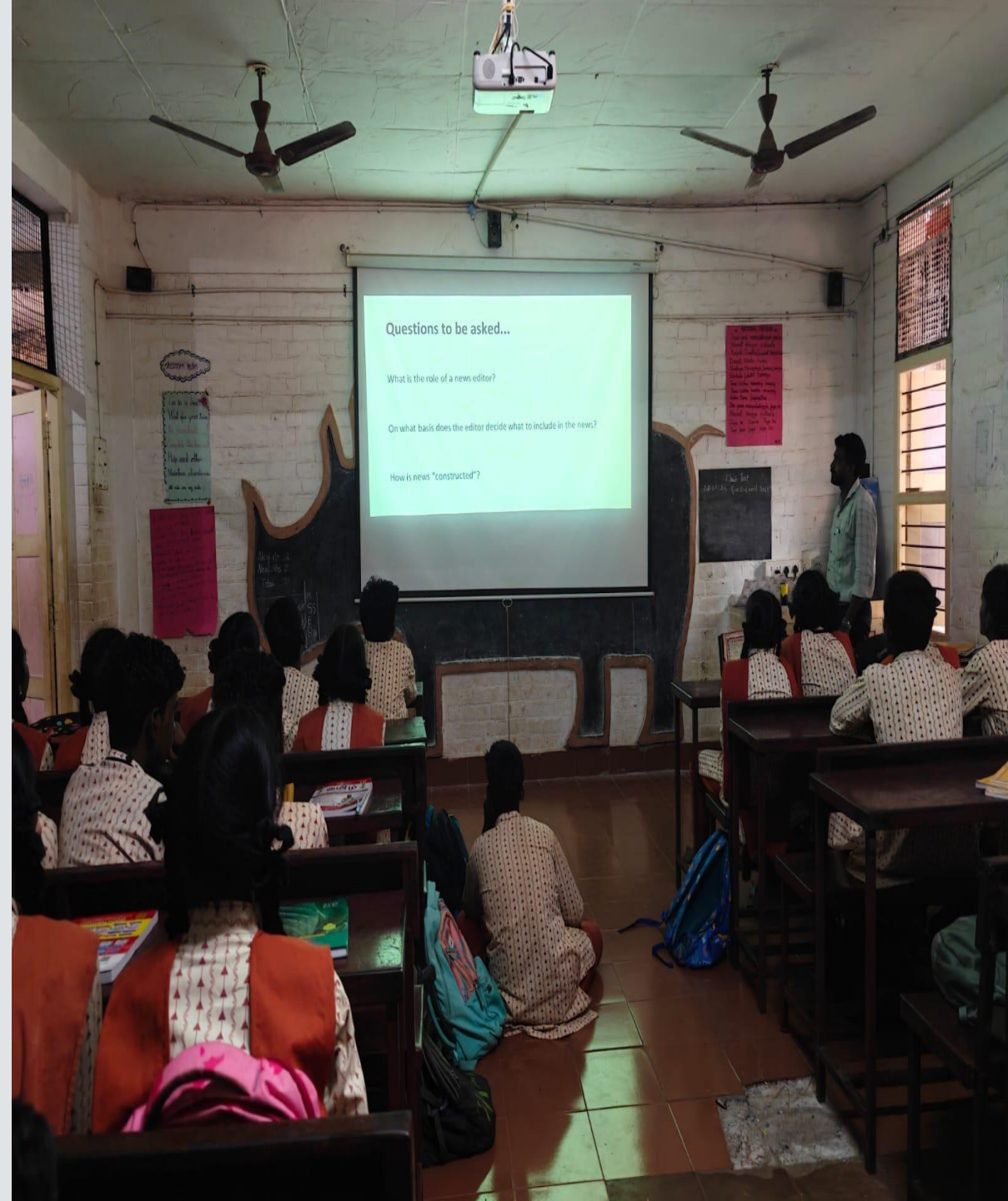
On receiving the laptop, not only has she been able to work freely and submit assignments on time but has also been able to think bigger and innovate. She enrolled in the **“internal funded programme”** at the university, which gave her the opportunity to showcase her ideas in front of the management. Her project revolves around the use of technology for creating a **cadaver-free spinal surgery Virtual Reality (VR) environment** that would benefit the medical field. The laptop has been used to **efficiently display her project in the form of a presentation** and in setting up the **VR environment with the help of the required software**. Her project is currently in progress with the hardware aspect in place, while she works on setting up the software on the laptop.

The access to a laptop became a turning point for her, transforming not just how she completed assignments but how she engaged with learning itself. It helped her explore **new ideas, analyse data, and experiment with innovative solutions**. What began as support for basic academic needs evolved into an **opportunity for creativity, research exposure, and hands-on innovation**, strengthening both her confidence and future aspirations.

* Name changed

03

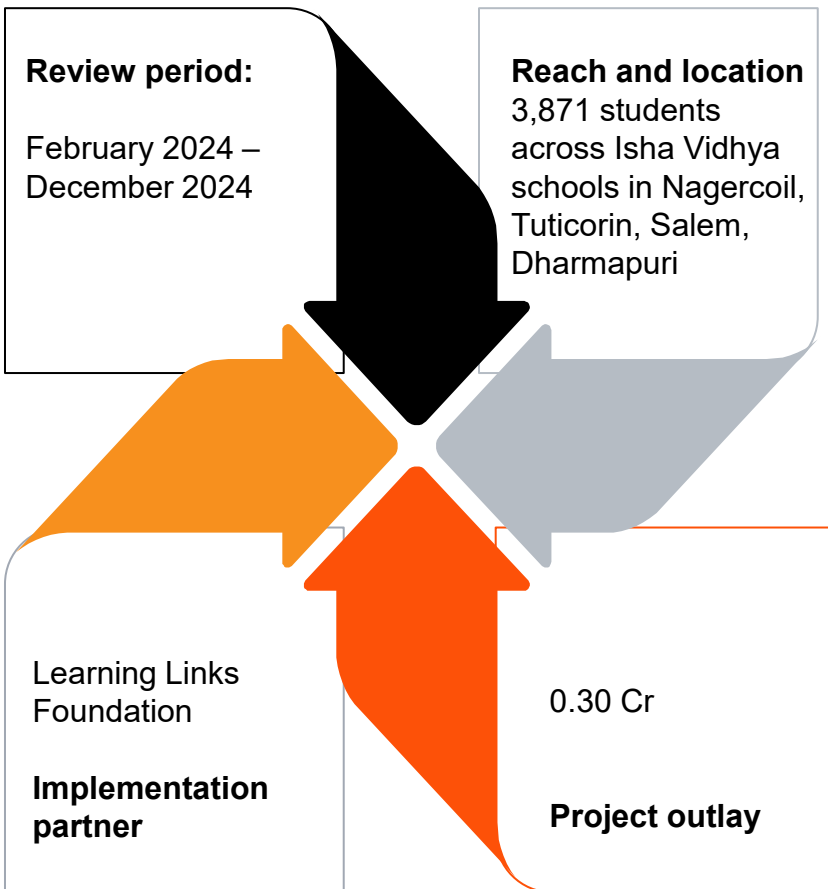
Digital Infrastructure Support to Rural Schools



Project Overview, Approach and Methodology

Thematic Area: Education

Project Overview



Project Objective

- 1.Enhance Learning Environment:** Implement digital classrooms to augment traditional teaching methods, providing students with an interactive and engaging learning experience.
- 2.Safe Drinking Water Access:** Upgrade and expand the drinking water facility to meet the growing demand, ensuring a safe and reliable water supply for all students and staff.

Project Activities

While the scope includes both library support and infrastructure interventions, this assessment focuses solely on the digital infrastructure and clean drinking water facilities provided to Isha Vidhya Schools, as confirmed by the implementing partner. The interventions covered under this assessment are as follows:

- ❑ **Provision of Digital Infrastructure Support-** Supply and installation of digital classroom equipment (CPUs, monitors, projectors, webcams, printers, scanners, and laptops) to Isha Vidhya schools in Nagercoil, Tuticorin, Salem, and Dharmapuri)
- ❑ **Infrastructure Support for Safe Drinking Water-** Installation of 3 upgraded Reverse Osmosis (RO) plants and expansion of water storage capacity in Isha Vidhya schools in Nagercoil, Tuticorin, and Dharmapuri to improve access to clean and reliable drinking water.

Methodology: IRECS – Mixed Method Approach

Qualitative Interactions

- 4 Focused Group Discussion with **School Students**
- 4 In-Depth Interview with **School Principal**
- 4 In-Depth Interview with **Teachers**
- 4 In-Depth Interview with **Parents**
- 1 In-Depth Interview with **Isha Vidhya SPOC**

(All FGDs and IDIs were conducted on a one-per-school, per-location basis across the four project locations).

Quantitative Interactions

97 students across all four schools

Analysis and Findings

Challenges Prior to the Project

Digital Infrastructure:

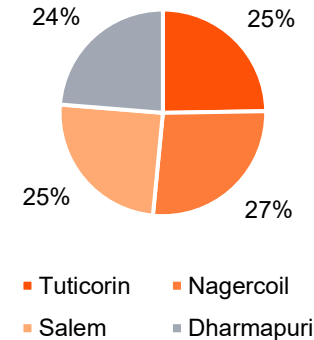
- Digital facilities existed but were not uniformly available across classrooms, forcing teachers to shift rooms to access projectors and resulting in loss of instructional time
- Several classes continued to rely primarily on textbooks and blackboards, limiting visualisation of complex concepts—especially in science and higher grades—and creating visibility challenges for students seated at the back.
- Limited availability of audio-visual tools restricted effective English language reinforcement (pronunciation, listening, spelling) and reduced the scope for integrating PPTs, supplementary visuals, and contextual content beyond textbooks

Drinking Water Infrastructure:

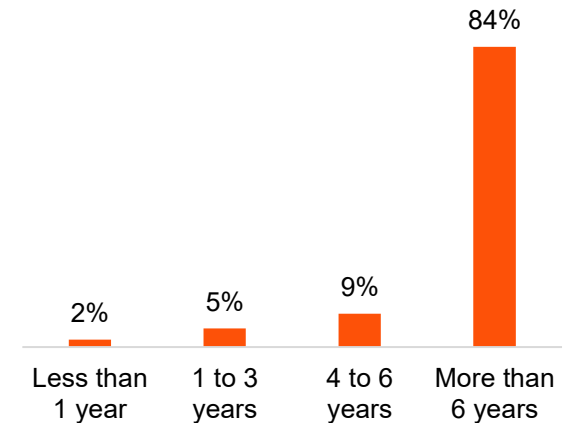
- Existing drinking water facilities were functional but required capacity enhancement, with some schools relying on externally purchased water cans, leading to recurring costs.
- High TDS levels in certain locations raised concerns about water quality and waterborne disease, indicating the need for upgraded RO systems to ensure safe and reliable drinking water access

Profile of the Beneficiaries Sampled

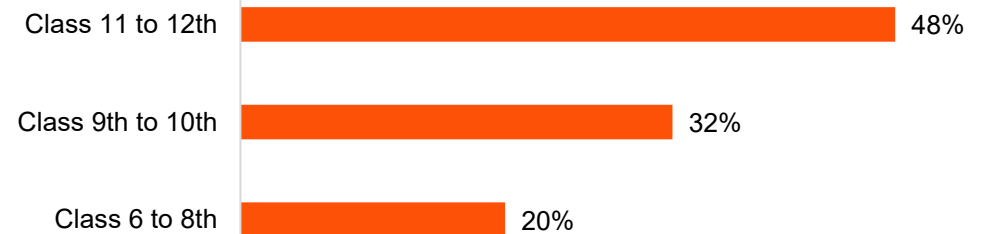
Distribution of Respondents by Location (n=97)



Duration of Students Enrollment in the School (n=97)



Class Level of Respondents (n=97)



The beneficiary sample reflects broad representation across locations, grades. 84% have studied in the same school for more than 6 years. This indicates sustained exposure to infrastructure and learning environment.

Analysis and Findings

Extent of Usage of Infrastructure Additions Within Schools (n=97)

99%	Projector and Projector Screen Actively used in classroom teaching
98%	Audio Systems - Speakers Supporting digital instruction delivery
76%	Laptops Used for digital content facilitation
84%	RO Plant Improved access to safe drinking water
84%	Drinking Water Tank Strengthened water infrastructure availability



What this indicates

1

High Functional Visibility
Infrastructure additions are clearly identifiable within school environment.

2

Active Classroom Integration
Digital components are being regularly used in teaching-learning process

3

Institutional Adoption
Facilities are embedded within school operations rather than remaining peripheral additions.

Analysis and Findings

Areas of Impact

Strengthening and standardising digital classrooms

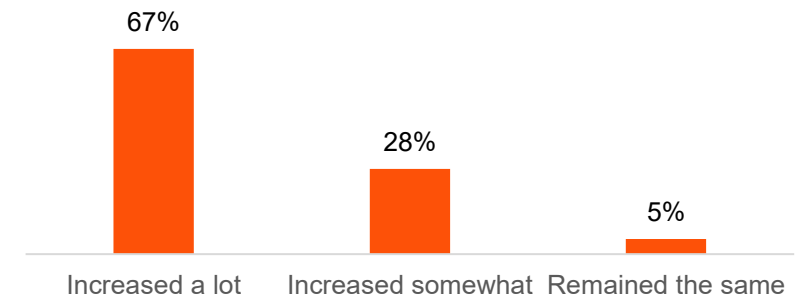
Among the 97 students interviewed across four schools, the school principal shared that prior to the intervention, schools had limited digital infrastructure (e.g., projectors, speakers, and webcams) available only in select classrooms. As a result, access was not uniform across all classes, leading to swapping of classrooms, continued reliance on textbook and blackboard-based instruction and limiting visual engagement in several classrooms.

- The project strengthened existing infrastructure by installing **smartboards and projectors, webcams, speakers, etc** across all classrooms, ensuring every section had dedicated digital access. All projectors were connected to **Continuous Power Supply (CPS) systems, preventing disruption during power cuts** and ensuring uninterrupted learning. **Webcams and speakers** further enabled online teacher training, mentorship sessions, and digital integration.
- Survey findings reflect a strong **shift on classroom experience**. With 97% of students reporting regular attendance, digital classrooms are now embedded into routine learning.
- A majority of students indicate a **substantial increase in access to digital tools**, with usage most prominent in English 67% (n=97) and Science 57% (n=97). Reinforcing conceptual clarity and interactive delivery.

Overall, digital infrastructure has transitioned from **partial availability to consistent, classroom-wide integration**, strengthening engagement, continuity, and subject-level application.

BEFORE SCENARIO	AFTER SCENARIO
Uneven digital access	Digital access in all classrooms
Classroom swapping required	No classroom shifting
Blackboard-heavy instruction	Smartboard-enabled visual learning
Power disruption affected	Continuous power supply backed uninterrupted delivery

Level of Increase in Access to Digital Tools after Intervention (n=97)



Analysis and Findings

Areas of Impact

Enhanced conceptual understanding, spoken English and digital skills

While digital tools were available prior to the intervention, their **use lacked uniform integration across classrooms**. As shared by the teachers, opportunities for audio-visual reinforcement particularly critical for **English pronunciation, listening comprehension and spoken confidence remained limited**. Computer education was present but required deeper integration into routine classroom delivery.

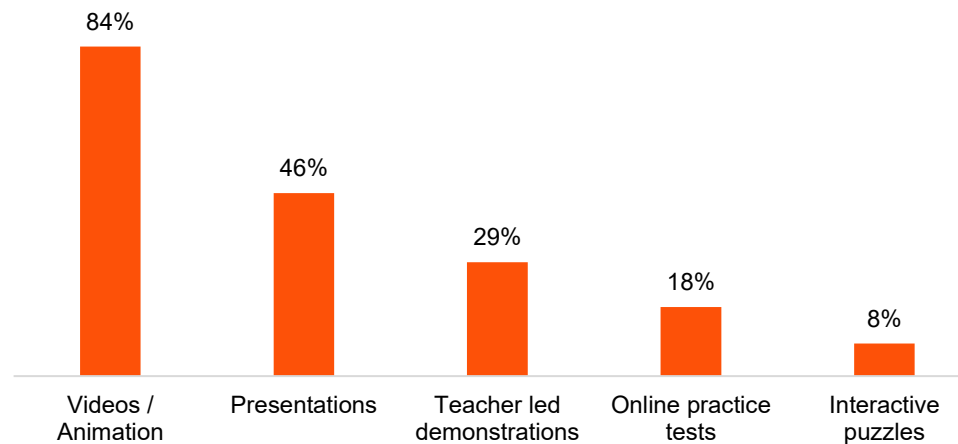
Earlier, limited digital equipment meant fewer digital classes in schools. After adding more devices, classes now happen regularly, letting students use presentations, animations, and visuals every day. This has boosted their learning, improving pronunciation, listening, speaking confidence, and overall skills.

Due to the digital infrastructural support, majority of stakeholders reported improvement in lesson understanding 74% (n=97), and memory retention 52% (n=97), while nearly half indicate strengthened technology skills 45% (n=97). The interactive formats particularly videos and animations emerge as the most engaging digital medium, suggesting that visual learning significantly enhances comprehension and interest in studies.



- **Integration of digital tools into classroom instruction**, rather than occasional use, has improved learning delivery.
- **Improved spoken English exposure and digital competency**, supporting Isha Vidhya's long-term focus on quality education and computer literacy.

Type of Digital Content Students Enjoy the Most (n=97)



Multiple responses given



Analysis and Findings

Areas of Impact

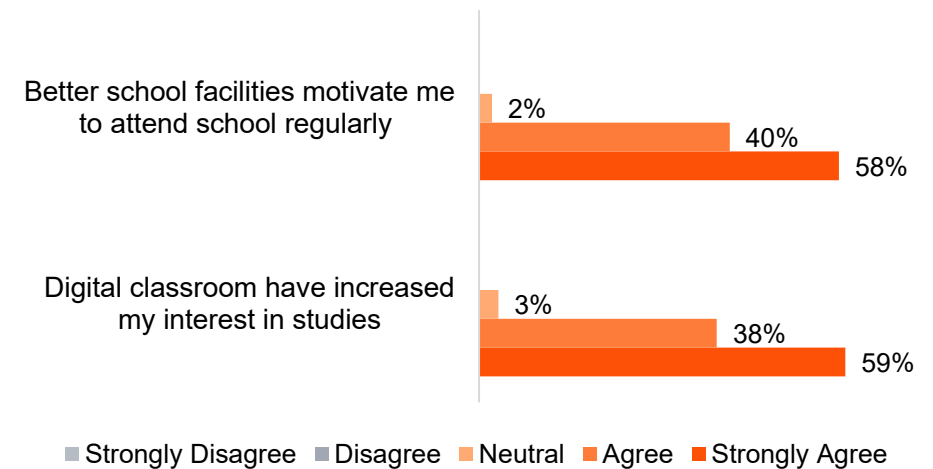
Long-term institutional impact: reliable, motivating & future-ready learning environment

- **Prior to the intervention**, a majority of students (55%) perceived their learning experience as either “difficult” or “very difficult”, with only 12% rating it as “easy”.
- **Post intervention**, the proportion of students rating learning as “easy” or “very easy” increased from 12% to 95%, representing a significant move toward a more positive learning experience.
- Among the 97 students surveyed, 51% (n=97) reported that lessons (English, Mathematics, Social Science) now feel “**very easy**,” with **no students reporting difficulty** indicating **improved conceptual clarity** and **engagement** following the integration of digital learning tools.
- Beyond academic ease, 80% (n=97) reported, the broader **school environment has improved** a lot. A large majority of students (98%, n=97) agreed or strongly agreed that improved **school facilities motivate** them to attend school regularly. Similarly, 97% (n=97) reported that digital classrooms have **increased their interest in studies**. Digital learning is no longer an added feature it is embedded within the institutional ecosystem, ensuring reliability, motivation, and long term sustainability.
- **The intervention has shifted digital learning from access-based improvements to systemic institutional integration.**

Student Perception of Learning: Before vs After Intervention (n=97)

	Very Difficult	Difficult	Average	Easy	Very Easy
Before	8%	47%	32%	12%	1%
After	0%	0%	5%	44%	51%

Impact of Digital Classrooms on Attendance and Learning Interest (n=97)



Analysis and Findings

Areas of Impact

Improved Access to Safe and Reliable Drinking Water (n=73)

Out of 97 students surveyed across the schools, 73 students from Nagercoil, Tuticorin, and Dharmapuri were from school where upgraded RO plants were installed. The following findings are specific to these 73 students.

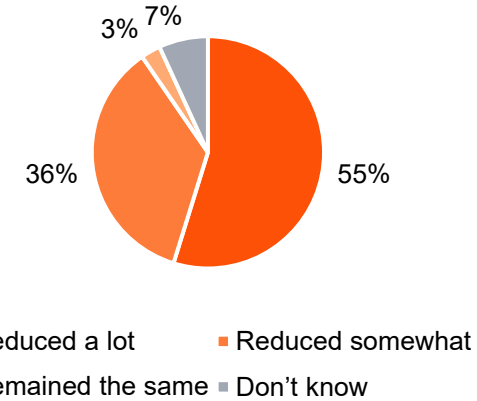
- Prior to the intervention, **44% (n=73) students reported not enough drinking water, some schools relied on purchased water cans** (Nagercoil School), creating recurring costs and tap waters (Dharmapuri) creating occasional uncertainty in supply. In areas with high TDS levels, students reported stomach-related discomfort, indicating concerns around water quality.
- The upgraded RO plants have enhanced both purification capacity and distribution reliability. Students now report consistent availability of clean drinking water 85%, (n=73), with a marked improvement in perceived water quality. The **percentage of students rating water quality as “very good” 68% (n=73) has increased substantially compared to earlier feedback, and a strong majority 73% (n=73) indicate that water points are clean and well maintained.**
- Importantly, students describe **fewer water-related health concerns**, and unrestricted access has improved comfort during school hours. In some cases, **students choosing to carry water home reflects increased trust** in water safety.

While **RO systems remain dependent on electricity**, and temporary reliance on cans persists during power disruptions, the intervention has significantly strengthened existing infrastructure by improving quality, capacity, and student well-being.

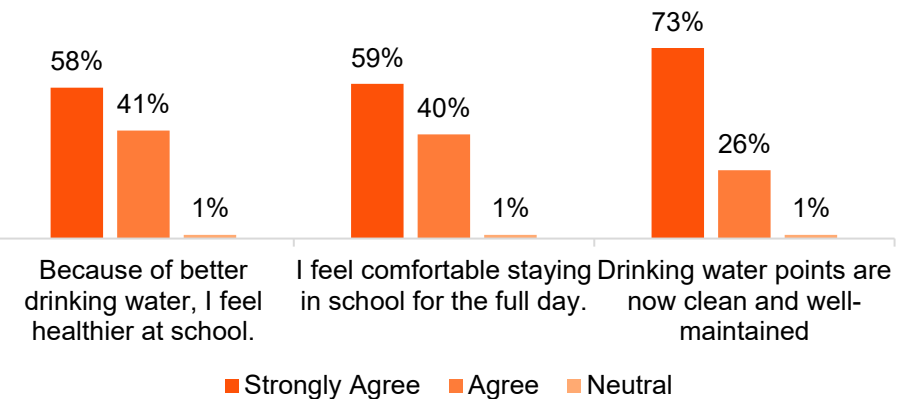
Students rating water quality on a scale of 1 to 5

Before the intervention	3/5	★ ★ ★
After the intervention	5/5	★ ★ ★ ★ ★

Reduction in Water-Related Sickness (n=73)



Students' Perception of Drinking Water Facilities (n=73)



Analysis and Findings

Snapshots from the Field



RO plant in Nagercoil



Computer lab in Salem



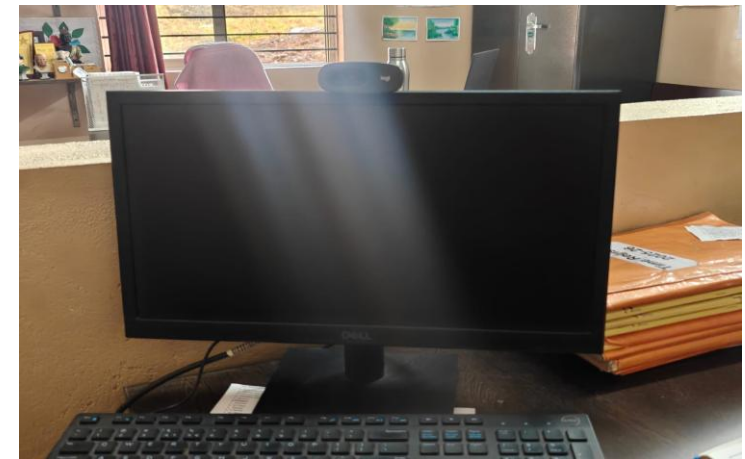
Students actively engaged in digital classrooms in Thoothukudi



Speakers and other digital equipment in Salem



Students filling bottles in the drinking water area in Nagercoil



Computer and keyboard provided in Dharmapuri

IRECS Analysis



INCLUSIVENESS

- The intervention benefitted 3,871 beneficiaries across four rural Isha Vidhya schools. By standardising uniform digital access across all classrooms and upgrading RO capacity, the project ensured equitable access to quality learning and safe drinking water, particularly for the first-generation learners from economically vulnerable backgrounds.



RELEVANCE

- Stakeholders shared that uneven digital infrastructure across classrooms required room-sharing and disrupted lesson flow, limiting consistent audio-visual learning reinforcement. RO systems were either insufficient in capacity or required replacement due to declining efficiency, raising concerns on water reliability. The intervention was relevant in addressing these infrastructure gaps to support uninterrupted classroom delivery.



EFFECTIVENESS

- The intervention led to measurable improvements; 97% (n=97) students reported regular attendance and 74% improved lesson understanding. 80% (n=97) students observed improvement in the overall school learning environment.
- Audio-visual tools supported English pronunciation and listening skills, while RO upgrades improved water availability and quality perception.



CONVERGENCE

- Redington's support augmented the existing school ecosystem, strengthening digital and water infrastructure alongside ongoing institutional efforts. There was no direct convergence with government departments.



SUSTAINABILITY

- The intervention streamlined existing infrastructure rather than creating parallel systems. Continuous Power Supply (CPS) enabled projectors ensure continuity during power disruptions, while upgraded RO plants are maintained and dependent on electricity, schools have contingency measures in place (procurement of water cans), to ensure uninterrupted access to safe drinking water.

Alignment to UN SDGs, Recommendations and Limitations

Alignment with UN Sustainable Development Goals



Digital infrastructure upgrades across Isha Vidhya schools have strengthened access to technology-enabled learning, improving classroom engagement, spoken English, and digital competency among rural students- many of whom are first generation leaders.



RO plant upgradation has improved access to safe drinking water in high-TDS locations and those facing poor water quality, enhancing water quality, increasing capacity and contributing to better student health and a safer school environment, enabling children to attend school regularly and focus on learning.

Recommendations

Digital asset utilisation and need-based deployment: Going forward, to ensure maximum utilisation of digital infrastructure, a simple tracking mechanism (e.g., a classroom usage register or monthly reporting format) may be introduced to record the frequency of use of smartboards, projectors, and speakers. In parallel, for any future support, a brief need assessment can be undertaken to gauge classroom readiness, particularly in relation to existing functional assets. This combined approach will help monitor current utilisation, identify underused resources, and guide more targeted deployment in subsequent phases.

Strengthen branding and visibility: Limited on-ground visibility of Redington support was observed. In certain locations, branding on RO plants and display boards referenced other implementing partners (LLF), and stakeholders were not fully aware of Redington's contribution. It is recommended to ensure consistent branding across digital classrooms, RO plants, and school display boards to enhance recognition and stakeholder awareness.

Limitations

There were no study limitations

Case Study

Visualising Dreams Through Digital Learning



Harini's* experience with **digital infrastructure support** at her school has extended far beyond improved classroom learning. A class 12 Biology student aspiring to become a doctor, she has been studying at the school since kindergarten. Coming from a modest background with her father working as a driver and **limited technological exposure** at home access to structured digital learning tools was made possible primarily through the school environment.

In the earlier years, understanding complex biological concepts through textbook diagrams alone was challenging. Static images and limited explanations **often made it difficult to visualise** intricate processes. Without access to technology at home, she recalls not having seen a mobile phone until Class 8- opportunities to engage with digital tools were minimal.

With the introduction of digital infrastructure resources at school, **her learning experience transformed** significantly. Animated visualisations of biological processes **enabled clearer conceptual understanding, making it easier to retain and recall** information during examinations. She estimates that nearly 75% of concepts are easier to remember when learned through digital animation compared to textbook methods alone. The impact of digital access extended beyond academics. Through the school's computer lab, she completed a web designing course using HTML and developed a website for her father's business, an initiative that earned her second prize in a competition. She also **supported her father in digitising aspects of his business operation.**

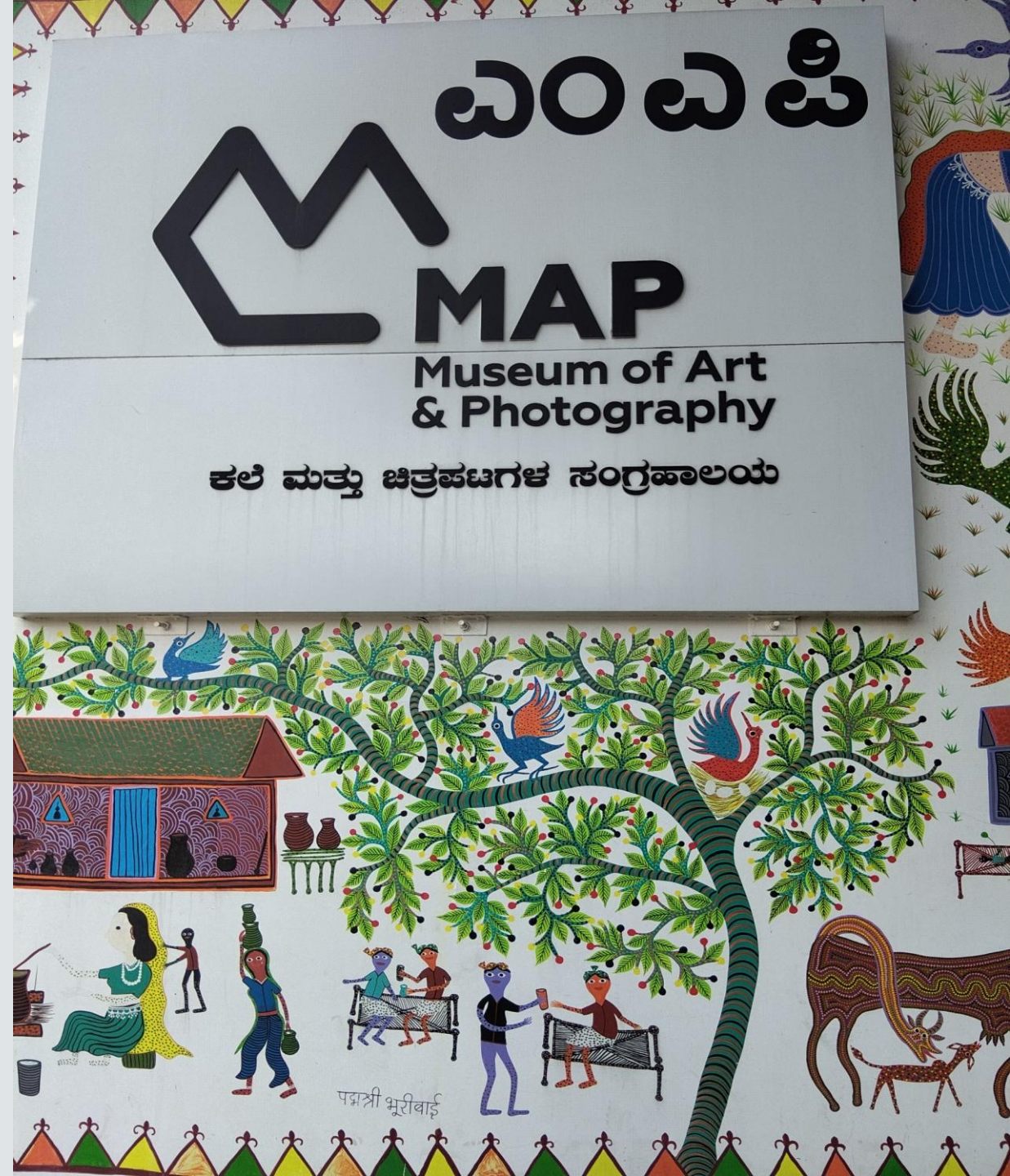
While she acknowledges that prolonged screen exposure can sometimes be tiring, she emphasises that technology, when guided by teachers, significantly enhances comprehension and confidence. For her, the school has served not only as an academic institution but as a gateway to opportunities she would not have otherwise accessed.

The digital infrastructure support has therefore acted as a **catalyst** - strengthening her academic performance, enabling skill development, and expanding her exposure to innovation and career possibilities. **What began as improved access to classroom tools** has evolved into a **platform for aspiration, confidence, and future readiness.**

(*Name changed)

04

Equipment Support to Museum of Art and Photography (MAP)



Project Overview, Approach and Methodology

Thematic Area:

Project Overview

Review period:

FY March 2024 to March 2024

Reach and location

Bengaluru, Karnataka

Art and Photography Foundation

Implementation partner

INR 0.74 Cr.

Project outlay

Project Objective

To offer financial support to the MAP towards Digital & Tech Support for the Arts. Digitisation equipment and technology for HOLO Experience, Tech for Education & Exhibition to enable immersive digital and holographic experiences for education, research and outreach at MAP's facility

Project Activities

- ❑ **Provided high-end** Apple M3 Max systems, Windows-based desktops, customised editing PCs, upgraded PCs with enhanced storage, graphics and RAM, along with projectors, scanners, storage devices, viewer glasses, visitor presentation consultant support, and AI-enabled image processing tools.
- ❑ The equipment supported large-scale digitisation of artworks, high-resolution image processing, video editing, and conversion of 3D models into holographic outputs **showcased through Holo Tours and immersive gallery experiences.**
- ❑ **Scanner and storage infrastructure supported internal research and archival needs** of Collections, Conservation, and Exhibition departments.
- ❑ Holographic installations and projections enabled presentation of cultural narratives and traditional art forms, **offering visitors immersive and engaging storytelling experiences**

Methodology: IRECS – Qualitative Approach

Qualitative Interactions






- In-Depth Interview with **director**
- In-Depth Interview with **technology and IT team**
- In-Depth Interview with **education & outreach team**
- In-Depth Interview with **collection team**
- In-Depth Interview with **development team**

Rapid Survey

20 rapid surveys with **museum visitors**

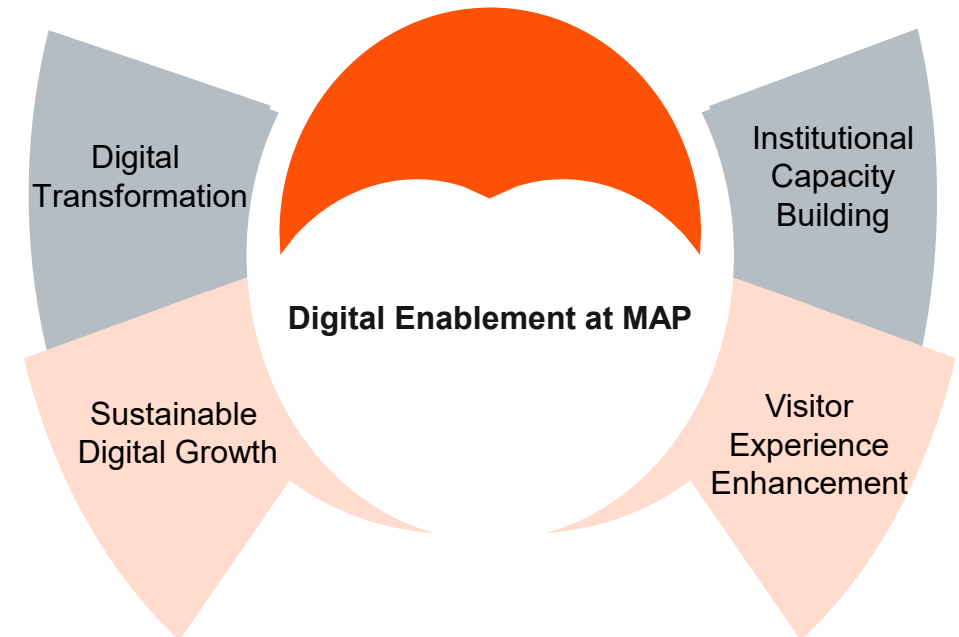
Analysis and Findings

Challenges Prior to the Project*

-  **High volume of cultural content without adequate digital infrastructure:** MAP manages over 100,000 artworks spanning multiple art forms and regional histories. Despite rich content availability, limited technological capacity restricted immersive presentation of collections
-  **Regular system configurations could not support high-resolution digitisation:** Earlier systems lacked advanced processors and graphic capabilities required to process 5,000–10,000 high-resolution images annually, resulting in slower digitisation workflows and delays in exhibition readiness.
-  **Absence of specialised infrastructure for hologram and 3D content creation:** Without photogrammetry systems and high-end processing units, MAP was unable to convert 3D artefacts into holographic experiences or deliver immersive storytelling formats.
-  **Limited capability for high-quality video rendering and projections:** Existing systems struggled with raw video processing, affecting clarity and realism of digital displays and restricting creation of cinema-like immersive galleries.
-  **Inadequate digitisation support for research and archival material:** Scanner and storage infrastructure was insufficient for systematic digitisation of books and reference material used by Collections and Exhibition teams.

Value Addition Enabled Through the Project

Building on earlier technology enablement, Redington's continued support during FY 2023–24 further strengthened MAP's digital infrastructure enabling advanced photogrammetry, holographic storytelling, and immersive visitor experiences.



Analysis and Findings

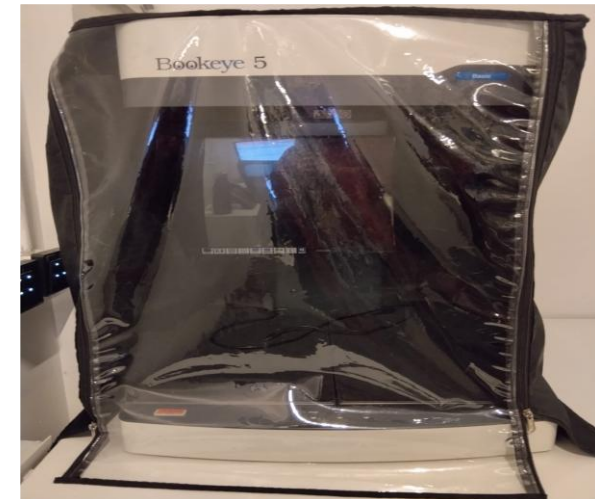
Areas of Impact

Strengthened digital infrastructure and in-house capabilities

- Through the project support, **MAP strengthened its in-house digital infrastructure** with Apple M3 Max systems, Windows-based photogrammetry desktops, customised editing PCs, upgraded storage, scanners, and AI-enabled image processing tools.
- As reported by the IT team, earlier systems with regular configurations were unable to manage large volumes of high-resolution images, videos, and 3D renders, resulting in frequent processing delays. Post-upgrade, teams were able to handle **intensive workloads more efficiently, significantly improving turnaround time for digitisation, video editing, and photogrammetry outputs.**
- As highlighted by the Director, earlier technological limitations restricted MAP's ability to translate its extensive cultural content, regional histories, traditional art forms, and three-dimensional artefacts into immersive visitor experiences. With advanced computing capacity in place, **MAP was able to convert 3D models into holographic formats and deliver high-resolution projections, enabling cinema-like presentations that were not technically feasible earlier.**
- The Redington-supported scanner enabled digitisation of books and research material for Collections and Exhibition teams. During FY 2023–24, **35 books were scanned** primarily for research and reference purposes, supporting curatorial planning and reducing physical handling of fragile materials.
- During FY 2023–24, this strengthened infrastructure supported MAP's full operational year as a physical museum, which welcomed over **1,00,000 visitors and delivered 324 curated public programmes, including exhibitions, workshops, guided tours, and learning activities.***



Apple M3 Max systems enabled efficient digitisation and processing of artworks, supporting immersive holographic content creation while improving design, archiving, and cross-team collaboration..



The **scanner** enabled digitisation of books and research material.



In a rapid survey conducted with 20 visitors, MAP's digital experiences were rated at an average of **4.8 out of 5**, reflecting strong satisfaction with immersive offerings.

*Source: MAP's [Annual Report](#)

Analysis and Findings

Areas of Impact

Creation of immersive holographic and digital experiences

- A dedicated digital engagement space on the lower ground floor enabled 360-degree holographic storytelling and immersive projections, **presenting Karnataka's traditional art forms, regional histories, and cultural narratives in a three-dimensional, cinema-like format.**
- It was reported by MAP teams that **digital installations and immersive formats became integral to the exhibition strategy, complementing physical displays and enhancing visitor engagement.**

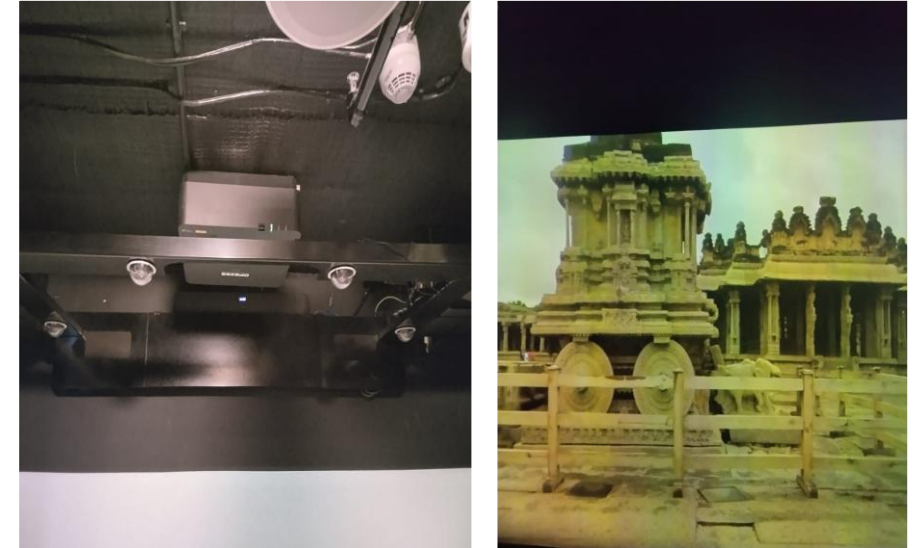
Enhanced engagement and learning outcomes for students and young audiences

- The hologram-based storytelling **allowed artworks to be experienced as moving visual narratives rather than static displays, helping visitors connect more deeply with artistic themes.**
- The Education and Outreach team shared that this space was particularly popular among school students, especially younger children, who reportedly found holographic formats more engaging and easier to understand than traditional exhibition layouts. MAP teams reported increased curiosity, longer interaction time, and improved comprehension among students when digital storytelling formats were used.



The immersive digital environment encouraged self-guided exploration, allowing students to interact with artworks at their own pace and develop personal connections with cultural narratives.”

-As narrated by IT head



High-end photogrammetry systems, projectors, and viewer glasses together enabled immersive 360-degree holographic experiences showcasing Karnataka's historic sites and traditional art forms.



Analysis and Findings

Areas of Impact

Enhanced cross-departmental use and institutional capacity

- Digitised collections and holographic content strengthened Education and Outreach planning by enabling the team to design more engaging school programmes and deepen engagement with diverse institutions. This supported stronger relationships with schools and facilitated outreach to a wider range of student groups, **contributing to engagement with over 1,200 students from more than 25 schools during FY 2023–24.***
- It was reported that access to high-quality digitised assets strengthened cross-departmental collaboration by enabling teams to draw from a shared digital repository for exhibitions, learning programmes, and outreach initiatives. This reduced duplication of effort, **improved content consistency, and strengthened MAP’s ability to deliver integrated public programmes, while shared digital infrastructure also reduced reliance on external vendors.**
- The introduction of AI-based image enhancement and holographic **workflows strengthened MAP’s institutional capacity** to independently develop advanced digital exhibition content, supporting long-term capability building across Collections, Exhibition, and Education teams.

Foundation for sustainability and long-term digital growth

- Robust digital storage and multi-layered backup systems** supported long-term preservation of digitised assets across cloud platforms, internal servers, and physical storage.
- The project strengthened MAP’s **readiness to scale future technology-enabled exhibitions, education initiatives, and public engagement programmes.**
- Supported systems were integrated into MAP’s IT asset management framework through warranties, AMCs, and layered digital backups. This **strengthened in-house maintenance capacity and ensured continuity of digitisation, holographic experiences, and visitor-facing digital services over the long term.**

Improved accessibility and audience reach

The availability of immersive digital experiences enabled MAP to effectively manage **higher visitor footfall on free-entry Tuesdays**, allowing wider and more diverse audiences to access digital exhibitions, holographic storytelling, and immersive installations without cost barriers.

Strong visitor satisfaction and perceived value (n=20)^



85% of visitors felt that the quality of the museum experience justified the ticket price



Visitors reported a strong overall museum experience, with an average rating of **4.7 out of 5**, reflecting high satisfaction with MAP’s offerings.



Engagement with digital experiences and understanding of artworks both received an average rating of **4.8** reflecting the effectiveness of immersive formats in enhancing visitor learning and engagement.



Visitors showed strong advocacy for MAP’s digital experiences, reflected in an equivalent average recommendation rating of approximately **4.5 out of 5**.

IRECS Analysis



I

INCLUSIVENESS

- The project expanded access to art and culture through immersive digital experiences that particularly benefited school students and young visitors.
- Free-entry Tuesdays enabled wider audiences to engage with holographic storytelling and digital exhibitions without cost barriers, supporting inclusive participation.



R

RELEVANCE

- The technology support directly addressed MAP's need for high-volume digitisation, photogrammetry, and immersive visitor experiences.
- High-performance systems and AI-enabled tools aligned closely with MAP's institutional goals of modernising collections access and enhancing digital engagement.



E

EFFECTIVENESS

- The supported infrastructure enhanced digitisation speed, image quality, and immersive content creation, contributing to high visitor satisfaction with digital engagement and learning rated at 4.8 out of 5 and recommendation likelihood at approximately 4.5 out of 5.
- Holographic storytelling improved visitor interaction and comprehension of artworks, while shared digital assets strengthened cross-team collaboration in delivering exhibitions and learning programmes.



C

CONVERGENCE

- The project aligned digital exhibitions with education and outreach initiatives, enabling MAP to integrate immersive content into school programmes and public engagement activities.
- This supported a unified approach to cultural learning, connecting exhibitions, digital storytelling, and student outreach.



S

SUSTAINABILITY

- MAP ensured long-term sustainability of the Redington-supported equipment by integrating it into its IT asset management systems, including warranties, AMCs, and multi-layered digital backups.
- These measures have helped embed photogrammetry systems and AI image enhancement tools into daily workflows, ensuring continued digitisation, holographic storytelling, and delivery of visitor-facing digital experiences over the long term.

Alignment to UN SDGs, Recommendations and Limitations

Alignment with UN Sustainable Development Goals

4
QUALITY
EDUCATION



The project strengthened access to arts education by enabling digital learning experiences, holographic storytelling, and digitised collections. These interventions supported improved understanding of artworks among students and young visitors, enhancing learning outcomes through interactive formats.

9
INDUSTRY, INNOVATION
AND INFRASTRUCTURE



The project strengthened MAP's digital infrastructure through high-performance systems, photogrammetry tools, and AI-based image enhancement software. This enabled large-scale digitisation, holographic content creation, and modernisation of museum operations, building long-term institutional capacity.

Recommendations

- **Expand and sustain immersive digital content across diverse cultural narratives:** Given the strong visitor response to holographic storytelling, future initiatives could prioritise expanding immersive digital content to include additional regional art forms and cultural narratives beyond Karnataka, enabling broader cultural representation and deeper engagement across diverse audiences. To support this expansion and maintain high-quality visitor experiences, Redington may also consider periodic upgrades to photogrammetry systems and AI-based image enhancement tools that enable the creation of high-fidelity holographic assets and digital exhibitions.

Limitations

There were no study limitations

05

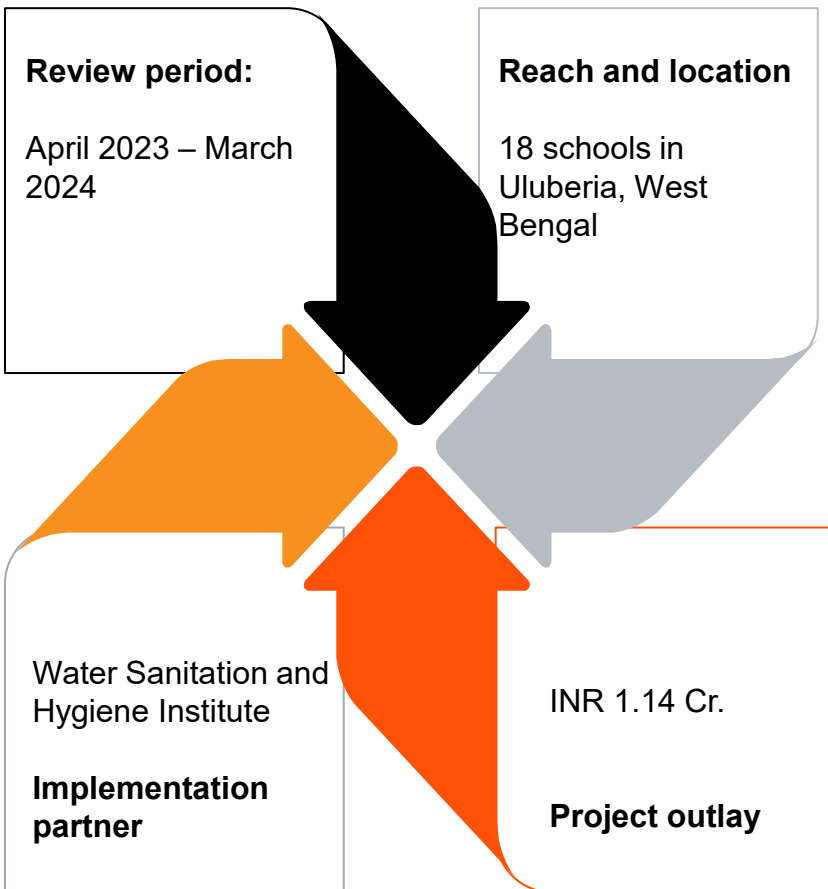
Integrated Water and Sanitation Project in Schools – I



Project Overview, Approach and Methodology

Thematic Area: WASH

Project Overview



Project Objective

To ensure access to improved WASH facilities in schools and promote the behaviour change among all the stakeholders in Uluberia Town, Howrah district of West Bengal.

Project Activities

- ❑ **Construction/ renovation of child / gender/ specially-abled friendly school toilet block equipped with sanitary pad vending machines and incinerators** to provide access to functional toilets in 7 schools.
- ❑ **Construction/ renovation of handwashing stations** for providing access to better WASH Facilities in 7 schools.
- ❑ **Construction of drinking water stations with filtration systems** to provide access to clean drinking water in 18 schools.
- ❑ **Provided dustbins for dry and wet waste segregation** to promote the waste segregation at source in 18 schools.
- ❑ **Training for school teachers and SMC members** on WASH Issues and Operation & Maintenance
- ❑ **Training on menstrual hygiene management** for adolescent girls
- ❑ **Formation and training of Child Cabinets in schools** for ensuring the proper operation & maintenance of the constructed/renovated school WASH facilities,

Methodology: IRECS & SROI – Mixed Method Approach

Qualitative Interactions

- 2 In depth Interviews with **Child Cabinet Committee members**
- 2 In depth Interviews with **teachers**
- 1 Key Informant Interview with **School Management Committee members**
- 1 In depth Interview with a **parent**
- 1 Key Informant Interview with **government official**
- 1 In-depth Interview with **WASH Institute team**

Quantitative Interactions

95 students in Uluberia, West Bengal

Analysis and Findings

Challenges Prior to the Project

- Several schools in the intervention area **lacked adequate toilet and sanitation facilities** relative to the number of students. In cases where toilets were available, many were either non-functional or poorly maintained due to the absence of proper operation and maintenance (O&M) systems.
- Schools faced challenges with **unreliable drinking water** and **designated handwashing stations** with soap, forcing students to use potentially unsafe water sources and reducing their ability to practice proper hygiene, increasing the risk of illnesses.
- Baseline observations indicated **limited awareness** among students regarding proper **hygiene practices** such as handwashing with soap, appropriate waste disposal, and maintaining cleanliness within school premises.
- Adolescent girls struggled with menstrual hygiene management due to a **lack of dedicated changing spaces, limited access to sanitary products** and inadequate disposal options. Additionally, low awareness of safe practices led to discomfort, absenteeism, and reduced participation during menstruation.



Profile of the Beneficiaries Sampled

A total of **95 respondents** were surveyed in Uluberia block of Howrah district, West Bengal.

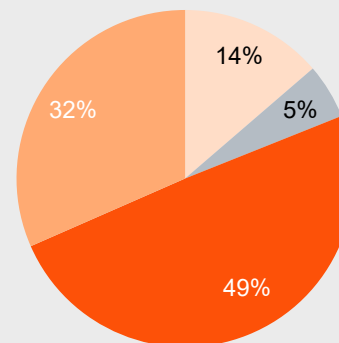


49% (n=95) of the respondents were **girls**



51% (n=95) of the respondents were **boys**

Grade of the respondents (n=95)



10th class 11th class 8th class 9th class

- **Majority** of the respondents (49%, n=95) were from **8th standard**
- The **respondent group (86%, n=95)** was majorly within the age group of **13-15 years**, **12%** were within **16-18 years** of age and the remaining **2%** were of **12 years**.

Note: The beneficiary sample reflects broad representation across grades and gender and age. The sample comprises students with direct exposure to WASH facilities in the schools, strengthening the credibility of reported findings.

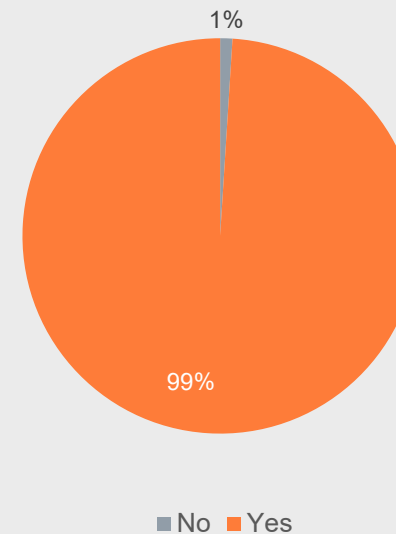
Analysis and Findings

Areas of Impact

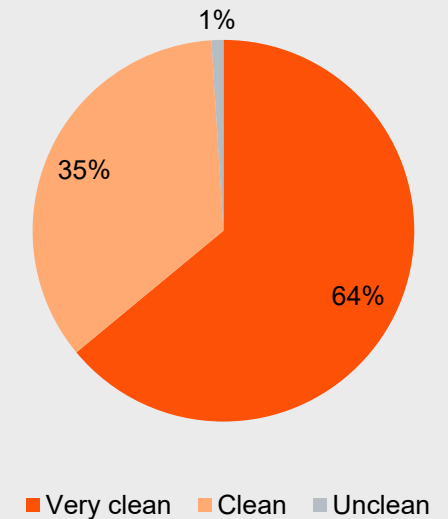
Improved availability and usability of sanitation facilities

- The intervention has significantly **improved** the **availability and accessibility** of **sanitation** and **drinking water facilities** in the intervention schools. Quantitative survey findings indicate that the project addressed several infrastructure gaps that previously limited students' ability to access safe and hygienic facilities.
- **100%** of **students** surveyed (n=95) reported **the presence of separate toilets** for boys and girls, demonstrating the establishment of gender-sensitive sanitation infrastructure across schools.
- **99%** of **students surveyed (n=95)** reported that **toilets** are **easily accessible** during school hours, indicating that the facilities are available and usable during the school timings.
- The cleanliness and maintenance of the facilities were also reported to have improved considerably. Majority of the students (**64%, n=95**) **rated** the toilets as **very clean**, and 89% of the respondents reported that the toilets are cleaned daily post-intervention.
- **Post-intervention, 89%** of surveyed students (n=95) **reported using toilets regularly** during school hours. Teachers and SMC members also noticed **increased usage of WASH facilities**, attributing the improvement to enhanced WASH Infrastructure.

Students' response on toilets being easily accessible during school hours (n=95)



Students perception of cleanliness of WASH Facilities post intervention (n=95)



Before the intervention, the school had toilet facilities but they were not in good condition. There were no handwashing facilities and water quality was poor. Now the toilets and drinking water facilities are functional and accessible to students.”

- As narrated by a teacher

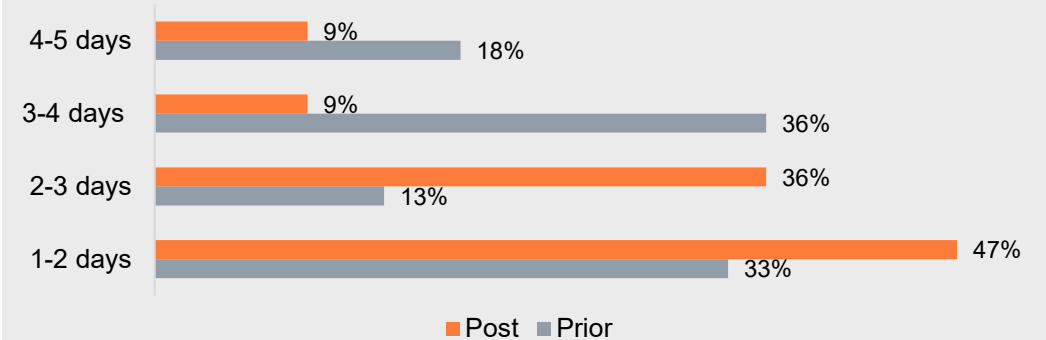
Analysis and Findings

Areas of Impact

Improved privacy and safety for adolescent girls

- The intervention has been instrumental in **enhancing the privacy, safety, and dignity of adolescent girls** in the intervention schools.
- The intervention facilitated the renovation / construction of **separate toilets and changing rooms** for girls, alongside **awareness sessions** on menstrual hygiene management (MHM). Qualitative data revealed that **93% of the surveyed girls (n=45) felt comfortable attending school during menstruation**, indicating increased confidence and comfort levels.
- Furthermore, during discussions, Child Cabinet members mentioned that following the intervention, the schools now provide **improved privacy and safety**, which is crucial for **adolescent girls**.
- Improved WASH facilities in the form of separate toilet blocks and changing rooms has led to better attendance amongst adolescent girls. There has been a **reduction in the number of days girls miss school** during menstruation. Prior to the intervention, 36% of girls (n=45) reported missing 3–4 days of school, which **declined to 9% post-intervention**.
- Qualitative insights from parents and teachers further highlight that the **availability of improved sanitation infrastructure and dedicated changing facilities** has supported girls in **attending school more regularly**.

Number of days girls miss school during menstruation prior and post intervention (n=45)



Changing room with incinerator and sanitary pad vending machine in the school

“My daughter used to miss school during her menstrual cycle because there were no proper facilities. After the intervention improved the toilets and built changing rooms, she now attends school regularly.”

- - As narrated by a parent

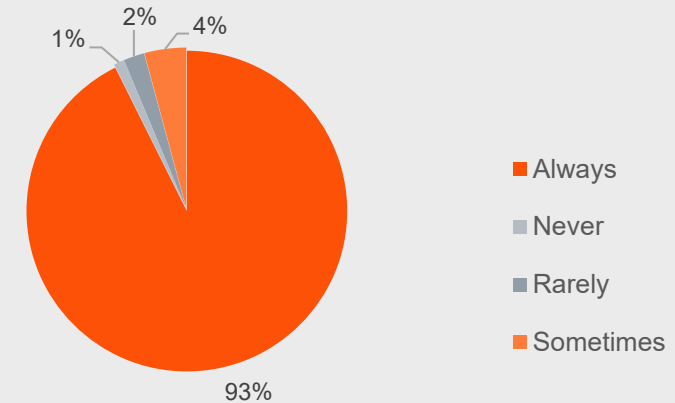
Analysis and Findings

Areas of Impact

Improved access to safe drinking water

- **Prior to the intervention**, schools lacked awareness regarding the quality of their water supply. To assess it, water quality tests were conducted, revealing **possibility of biological contamination** due to **irregular cleaning** of storage tanks. As a result, **drinking water stations** along with **UV filtration systems** were established in the 18 intervention schools.
- The intervention has significantly **improved access to safe drinking water** through set up of **drinking water stations with UV filtration systems**. Quantitative findings indicate that **93% of students (n=95)** reported that **clean drinking water is always available** in their school.
- The enhanced infrastructure has significantly impacted student behavior. **Previously**, majority of students **avoided drinking water** at school to avoid using toilet facilities. Now, all surveyed **students (100%, n=95)** report **drinking water freely during school hours**, reflecting **increased confidence** in the **accessibility** and **effectiveness** of **sanitation facilities**.
- Additionally, **51% of respondents (n=95)** reported that they **now fall sick less frequently due to waterborne illnesses**, suggesting a perceived improvement in student health following the installation of safe drinking water facilities.

Students' response on availability of clean drinking water in the school (n=95)



Drinking water station and Water Filtration system at the school

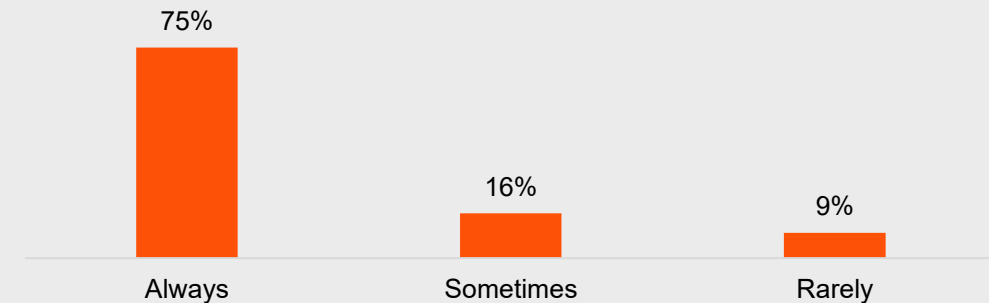
Analysis and Findings

Areas of Impact

Improved hygiene awareness and behavioural practices among students

- The intervention has contributed to positive changes in hygiene behaviours among students through improved facilities and behaviour change communication activities implemented in schools.
- **75% of the surveyed students (n=95) reported that they always wash their hands after using the toilet and before meals, indicating improved hygiene practices.**
- **97% of surveyed students (n=95) reported that soap and water are available for handwashing, enabling students to practice proper hygiene.**
- **90% of surveyed students (n=95) reported regularly using school toilets, suggesting improved acceptance and utilisation of the facilities.**
- Prior to the intervention, many students reported missing school due to illness associated with poor sanitation and water quality. The **improved availability of safe drinking water, clean toilets, and hygiene facilities** has contributed to a **healthier school environment.**
- Qualitative findings indicate that awareness activities and student leadership initiatives, such as the **Child Cabinet**, have played an important role in reinforcing hygiene behaviours.

Students response on frequency of handwashing (n=95)



Height appropriate handwashing station at the school

Analysis and Findings

Areas of Impact

Strengthened school level ownership leading to improved maintenance and sustainability of WASH Facilities

- The intervention has helped **strengthen systems** in schools by encouraging them to **take ownership**. Schools now partly contribute to Swachhata Bandhu's monthly remuneration and have Child Cabinet Members monitor the WASH facilities, ensuring better care and long-term sustainability.
- Schools have established **maintenance systems for sanitation facilities**, with **64%, (n=95) of the surveyed students** reported the toilets being “**very clean**” post-intervention.
- Teachers reported spending **less time addressing sanitation issues**, as students and Child Cabinet members now help monitor the facilities.
- **92% of surveyed students** (n=95) reported that **Child Cabinet members conduct awareness sessions** on the upkeep of WASH facilities and **promote hygiene practices**, indicating **increased student ownership** and **responsibility** towards maintaining these facilities.
- Qualitative interactions with teachers also confirmed that **Child Cabinets actively monitor toilet cleanliness, report issues, and promote hygiene awareness among students**.
- School authorities and education officials highlighted that the intervention has **helped address gaps that were previously not adequately addressed through existing systems**.



Wall paintings for awareness generation among students

“The project addressed critical gaps that existed earlier and improved the quality of sanitation facilities in schools.”

- As narrated by the Block Education Officer

Analysis and Findings

Snapshots from the Field



Soap collection box at Chengail Shree Vidyaniketan High School, Uluberia



Water Filtration system at Khaskhamar High Madrasah, Uluberia



Height appropriate handwashing stations with awareness wall paintings



Changing room with incinerator and sanitary pad vending machine Chengail Shree Vidyaniketan High School, Uluberia



Newly constructed toilet block at Khaskhamar High Madrasah, Uluberia



Toilet for child with special need

IRECS Analysis



INCLUSIVENESS

- The intervention The support provided by Redington was inclusive as it constructs child, gender, and disabled friendly WASH infrastructure in government schools.
- It provided separate facilities for boys, girls, and children with special needs, ensuring accessibility and inclusivity for all students specially in those in underserved areas.



RELEVANCE

- Prior to the intervention, schools faced several sanitation-related challenges, including water supply issues, poor cleanliness of toilets and lack of personal hygiene supplies, which limited the effective use of sanitation facilities.
- The project's focus on improving sanitation infrastructure, providing access to clean drinking water, and hygiene awareness was therefore aligned with the needs of students and schools.



EFFECTIVENESS

- The intervention has been effective in improving access to sanitation facilities, with 90% reporting regular use of school toilets and 93% reported availability of clean drinking water always
- Hygiene awareness initiatives and improved infrastructure have contributed to improved hygiene practices among students.
- Child Cabinet members actively promote hygiene practices and monitor sanitation facilities, reinforcing behaviour change within schools.



CONVERGENCE

- The project's alignment with themes like WASH showcased its convergence with government schemes (Swachh Bharat and National Policy of Education).
- Government officials supported the identification of schools for implementation of the project.
- The collaborative approach contributed to the effective implementation of the intervention.



SUSTAINABILITY

- Mechanisms for maintaining sanitation facilities have been established within schools, with 90% of students reporting that toilets are cleaned daily.
- Qualitative interactions indicate that Child Cabinet members and school authorities monitor the condition of sanitation facilities and report maintenance issues when required.
- While continued maintenance will require ongoing engagement from school authorities, the presence of school-level monitoring mechanisms supports the long-term sustainability of the intervention.

Alignment to UN SDGs, Recommendations and Limitations

Alignment with UN Sustainable Development Goals



The project contributes to improved health outcomes among students by providing access to safe drinking water, clean sanitation facilities, and promoting hygiene practices.



By improving WASH infrastructure and creating a more hygienic and comfortable school environment, the project supports better school attendance and learning conditions.



The provision of separate toilets, changing rooms, and menstrual hygiene awareness contributes to creating a safe and dignified environment for adolescent girls. These measures reduce barriers related to menstruation and support girls' education without interruption..



The project directly contributes to SDG 6 by improving access to safe drinking water, sanitation facilities, and hygiene services in schools. The installation of water filtration systems, construction of toilets, and promotion of hygiene practices.

Recommendations

- **Strengthen operation and maintenance mechanisms for long-term sustainability:** While infrastructure created under the project has improved sanitation and safe drinking water access, its long-term sustainability and functionality will depend on regular maintenance. Redington may support schools in establishing a structured repair and maintenance plan for WASH facilities through Annual Maintenance Contracts with vendors leveraging the existing connections of the Implementation Team.

Limitations

There were no study limitations

SROI Estimation

This study also includes the estimation of SROI for the project. The Social Return on Investment (SROI) Framework design helps us measure and account for value in a broad sense. The overall impact and the subsequent calculation of the return was done after preparing an impact map for the project. Thereafter, the cumulative benefit was derived after adjusting the dead-weight, displacement, attribution (by others) and drop-off factors from the year wise benefits. These factors are defined in detail as follows:

Stakeholder	Benefits	Deadweight	Displacement	Attribution	Drop-off
Students	Savings due to reduction in health expenses	20% deadweight is assumed to account for the improvements in students' health that may have occurred even without the project due to general improvements in hygiene awareness through school-level efforts and ongoing government sanitation and health initiatives like Swachh Bharat Abhiyan and Ayushman Bharat	0% displacement assumed as improved sanitation and hygiene practices among students have not negatively affected or reduced benefits for any stakeholders.	50% attribution is assumed considering that improvements in student health were also influenced by factors such as school hygiene practices, availability of government health schemes and sanitation programmes (Swachh Bharat Abhiyaan, Sarva Siksha Abhiyaan), etc.	8% drop-off applied based on the state level student dropout rate reported by MHRD for the West Bengal state, reflecting the proportion of students who may no longer experience the benefits in subsequent years.
	Cost saved in procuring clean drinking water	20% deadweight is assumed as few students used to bring drinking water from home for consumption during school hours.	0% displacement assumed since providing access to clean drinking water within schools did not reduce access to water resources for other stakeholders	25% attribution is assumed considering that access to drinking water may also be supported by the existing government water supply initiatives and household level coping mechanisms	8% drop-off applied based on the state level student dropout rate reported by MHRD for the West Bengal State, reflecting the proportion of students who may no longer experience the benefits in subsequent years.

SROI Estimation

Impact Map

Stakeholder	Project Activity	Outputs	Outcome	Impact Indicators
Students	<ul style="list-style-type: none"> • Drinking water stations with filtration systems • Construction/Renovation of child/gender/especially abled friendly school toilet block • Provide dustbins to schools for dry and wet waste segregation • Training of teachers and SMC members on WASH & Operation and Maintenance • Training on Menstrual Hygiene Management for adolescent girls • Formation and Training of Child Cabinets in schools 	<ul style="list-style-type: none"> • Number of drinking water stations with filtrations systems constructed. • Number of child/gender/especially abled friendly school toilet blocks constructed / renovated. • Number of dustbins provided to the schools. • Number of teachers and SMC Members trained . • Number of MHM training sessions conducted. • Number of Child Cabinets formed and trained. 	<ul style="list-style-type: none"> • Increased access to clean drinking water • Increased access to safe sanitation facilities • Improved waste management practices in the schools • Improved capacity to manage and maintain WASH Infrastructure • Improved menstrual hygiene awareness and practices • Increased student participation in maintaining hygiene practices 	<ul style="list-style-type: none"> • Reduction in student health complaints due to access to clean drinking water. • Better hygiene and reduced WASH related diseases • Decrease in absenteeism due to WASH related illnesses. • Improved cleanliness in schools. • Improved hygiene awareness & behaviour amongst students • Reduced absenteeism among girls during menstruation • Improved cleanliness and upkeep of WASH facilities

SROI Estimation

Establishing the Impact

The impact of the project has been arrived at based on the following calculations:

- Impact Value for the first year: Quantity of change or Number of beneficiaries or Number of benefit units x Financial Proxy (FP) value x (1- deadweight) x (1- displacement) x (1- attribution) x (1-drop off)
- Impact value for subsequent years: Quantity of change or Number of beneficiaries or Number of benefit units x Financial Proxy (FP) value x (1- deadweight) x (1- displacement) x (1- attribution) + [impact of previous year] x (1-drop off)]

Based on the above calculations, the cumulative benefit or impact generated by the project from FY 2023-24 till FY 2025-26 (present) comes out to be **INR ₹ 30,855,958**. The detailed calculations and year-wise values can be referenced below.

SROI	Net Present value of benefits / Net Present Value of Investment
NPV of benefits	₹ 27,732,654
NPV of Investment	₹ 10,809,977
SROI Value	2.57

Impact Values

Stakeholder	Benefits	Actual total value created in 2023-24	Actual total value created in 2024-25	Actual total value created in 2025-26	Actual total value created till now
Students	Savings due to reduction in health expenses	₹ 5,240,200	₹ 4,813,997	₹ 4,422,459	₹ 14,476,656
	Cost saved in procuring clean drinking water	₹ 5,928,912	₹ 5,446,694	₹ 5,003,696	₹ 16,379,302
Total		₹ 11,169,112	₹ 10,260,691	₹ 9,426,155	₹ 30,855,958
Year-wise utilisation		₹ 11,426,146	₹ 0	₹ 0	₹ 11,426,146

SROI Estimation

Logic for Financial Proxies

Stakeholder	Benefits	Financial Proxy Explanation	Source(s)
Students	Savings due to reduction in health expenses	Average annual healthcare expenditure (INR 1750) saved per student due to reduced incidence of WASH related illnesses as reported by parents.	Qualitative Findings
	Cost saved in procuring clean drinking water	Cost of drinking water calculated based on the local market price of a water tanker, with an assumption that each student consumes approximately 2 litres of drinking water per day at the rate of ₹2 per litre during school hours across 220 academic days with 75% attendance.	Secondary source

06

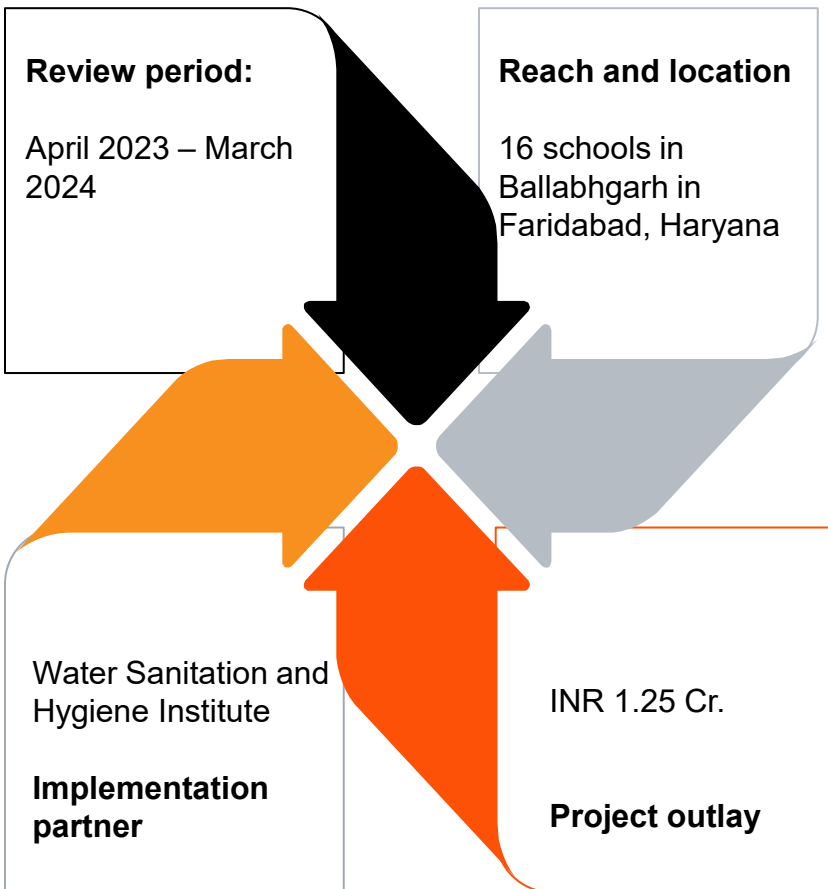
Integrated Water and Sanitation Project in Schools – II



Project Overview, Approach and Methodology

Thematic Area: WASH

Project Overview



Project Objective

To enable access to improved WASH facilities in schools and promote improved WASH practices among stakeholders in Ballabhgarh Block, Faridabad district of Haryana.

Project Activities

- ❑ **Construction/ renovation of child / gender/ specially abled friendly school toilet block** to provide access to functional toilets in 16 schools.
- ❑ **Construction/ renovation of handwashing stations** for providing access to better WASH Facilities in 16 schools.
- ❑ **Construction of drinking water stations with filtration systems** to provide access to clean drinking water in 16 schools.
- ❑ **Provided dustbins for dry and wet waste segregation** to promote the waste segregation at source
- ❑ **Training for school teachers and SMC Members** on WASH Issues and Operation & Maintenance
- ❑ **Training on menstrual hygiene management** for adolescent girls
- ❑ **Formation and training of Child Cabinets in schools** for ensuring the proper operation & maintenance of the constructed/renovated school WASH facilities

Methodology: IRECS & SROI – Mixed Method Approach

Qualitative Interactions




- 2 In depth Interviews with **Child Cabinet Committee members**
- 2 In depth Interviews with **teachers**
- 1 Key Informant Interview with **School Management Committee members**
- 1 In depth Interview with a **parent**
- 1 Key Informant Interview with **government official**
- 1 In-depth Interview with **WASH Institute team**

Quantitative Interactions

98 students across four schools in Ballabhgarh in Faridabad, Haryana

Analysis and Findings

Challenges Prior to the Project

- Prior to the implementation, stakeholders faced multiple challenges that significantly impacted the educational environment and community health. The **lack of adequate water and sanitation facilities** in schools was a pressing issue, with many institutions relying on **outdated or insufficient infrastructure**. This hindered students' ability to access clean drinking water and hygienic sanitation amenities, **leading to increased health risks and absenteeism**. 
- Many school children **lacked essential knowledge** about **personal hygiene** and its importance for health and well-being. This gap contributed to the prevalence of **hygiene-related illnesses**, which further **affected school attendance and performance**. 
- Additionally, the **disparities in menstrual health management** presented significant barriers for adolescent girls. Many **lacked access to appropriate sanitary facilities and education** concerning menstrual hygiene, **leading to discomfort** and a **decrease in school participation** during menstruation. This challenge underscored the need for targeted interventions to empower young girls through education and resources. 
- **Limited training and resources** made it challenging for schools to independently manage the **operation and maintenance** of **WASH facilities**, leading to their rapid deterioration.

Profile of the Beneficiaries Sampled

A total of **98 respondents** were surveyed from **4 schools** in Ballabhgarh block of Faridabad district, Haryana.

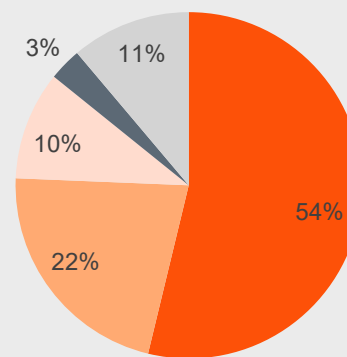


62% (n=98) of the respondents were **girls**



38% (n=98) of the respondents were **boys**

Grade of the respondent



■ 8th ■ 9th ■ 10th ■ 11th ■ 12th

- **Majority** of the respondents (54%, n=98) were from **8th Standard**
- The **respondent group (61%, n=98)** was majorly within the age group of **13-15 years**, **21%** were within **16-18 years** of age and the remaining **17%** were of **10-12 years**.

Note: The beneficiary sample reflects broad representation across grades and gender and age. The sample comprises students with direct exposure to WASH facilities in the schools, strengthening the credibility of reported findings.

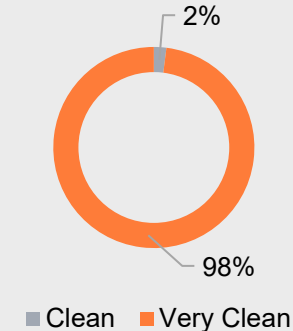
Analysis and Findings

Areas of Impact

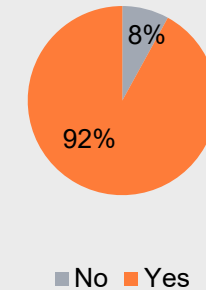
Improved availability and usability of sanitation facilities

- The intervention has contributed to improvements in the availability and usability of sanitation facilities within schools. The project supported the **construction / renovation of child-friendly, gender-segregated toilet blocks across 16 schools**, along with the **provision of handwashing stations**.
- Survey findings indicate that **100% of students (n=98)** reported **using school toilets regularly**, demonstrating high utilisation of the facilities. In addition, **100%** of respondents (n=98) indicated that **toilets are easily accessible** during school hours, reflecting **improved infrastructure availability**.
- The **cleanliness and maintenance** of the facilities also appear to have **improved considerably**. Nearly all **students (98%, n=98)** rated the toilets as **very clean**, and all respondents reported that **toilets are cleaned daily**.
- Qualitative interactions with teachers and school authorities further confirmed that the **improved sanitation facilities** have created a **cleaner and more organised school environment**. Respondents noted that the provision of well-designed toilets and handwashing stations has encouraged students to use the facilities more regularly as compared to earlier where students used to avoid using the toilets in the school premises.
- The **government official** interviewed during the assessment expressed **satisfaction** with the quality and impact of the intervention and suggested that similar initiatives should be expanded to additional schools in the region.

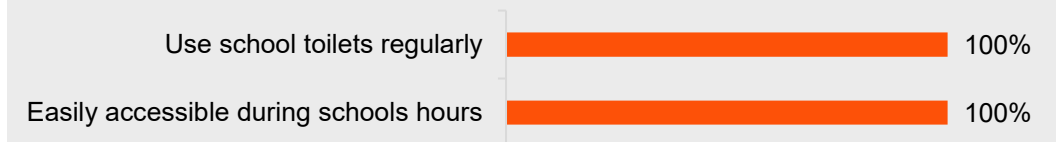
Students' perception on cleanliness maintained in toilets now (n=98)



Percentage of students who worried about sanitation problems in school (n=98)



Accessibility and usability of new toilets during school hours now (n=98)



Earlier we were concerned about the cleanliness of toilets and drinking water facilities in the school. Now the toilets are cleaner and the school has filtered drinking water, which makes us feel more confident about sending our children to school.”

— As narrated by a parent

Analysis and Findings

Areas of Impact

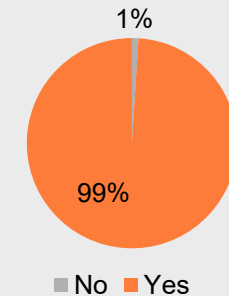
Improved privacy and safety for adolescent girls

- The intervention has played an important role in **improving privacy, safety, and dignity** for adolescent girls in schools.
- The project supported the **construction of separate toilets and changing rooms for girls**, along with menstrual hygiene management (MHM) awareness sessions. Quantitative findings indicate that **99% of girls surveyed (n=57)** reported feeling **comfortable attending school during menstruation**, reflecting **improved confidence and comfort levels**.
- In addition, **93% of girls (n=57)** reported that school toilets now provide **adequate privacy and safety**, which is particularly important for adolescent girls.
- Improved WASH facilities in the form of separate toilet block with the provision of **changing room and incinerator** in addition to the **menstrual hygiene awareness** sessions contributed **better school attendance** amongst adolescent girls. The proportion of girls (n=57) reporting no absence in school during menstruation increased from 47% to 51%, while longer absenteeism (2-3 days) declined from 19% to 12% , suggesting enhanced confidence in attending school during menstruation.
- Teachers** also noted that the availability of changing rooms and improved facilities has contributed to **reduced absenteeism among girls during menstruation**, enabling them to participate more consistently in school activities. It was also mentioned by the teachers that access to affordable menstrual hygiene products will further support adolescent girls in managing menstrual hygiene comfortably.

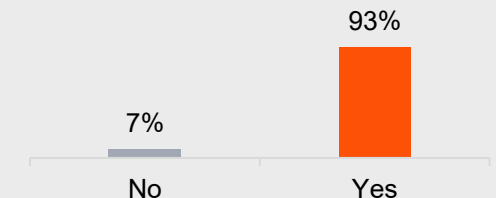


Changing room for girls with incinerator

Whether girls feel comfortable in attending school during menstruation (n=57)



Whether girls feel that school toilets provide privacy and safety (n=57)



“Earlier it was difficult to manage during periods because there was no proper facility in the school. Now there is a separate changing room with incinerator and cleaner toilets, which makes it easier and more comfortable for us to attend school during menstruation.”

— As narrated by an adolescent girl student

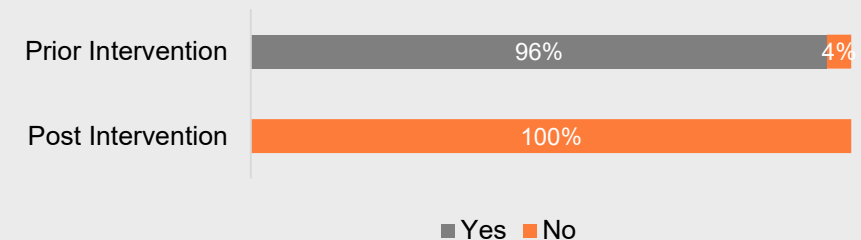
Analysis and Findings

Areas of Impact

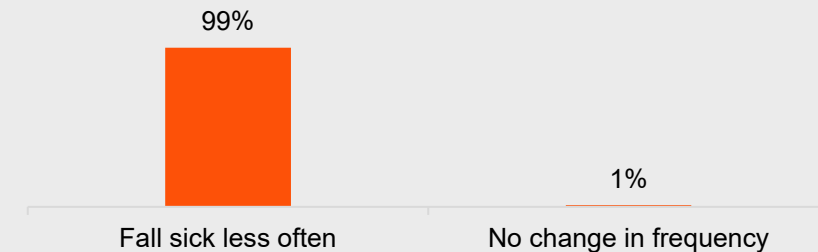
Improved access to safe drinking water

- **Prior to the intervention**, several schools faced challenges related to drinking water quality. As highlighted in the project reports water quality tests revealed high **Total Dissolved Solids (TDS) levels exceeding recommended limits**, making water unsuitable for direct consumption without filtration. In response, the project **constructed drinking water stations with filtration systems, including RO plants** in multiple schools.
- The intervention has significantly **improved access to safe drinking water** in the surveyed schools through the **construction and installation of drinking water stations with filtration systems**. Quantitative findings indicate that **99% of students (n=98)** reported that **clean drinking water is always available** in their school, demonstrating high availability and functionality of the installed drinking water systems.
- The **improved infrastructure** has positively influenced student behaviour. A large **majority of students (96%, n=98)** reported that they **previously avoided drinking water in school** to avoid using inadequate toilet facilities. However, all surveyed **students (100%, n=98) now reported drinking water freely during school hours**, indicating **improved confidence** in the **availability and usability of sanitation facilities**.
- Additionally, **99% of respondents (n=98)** reported that they **now fall sick less frequently due to waterborne illnesses**, suggesting a perceived improvement in student health following the installation of safe drinking water facilities.

Students' response on avoiding drinking water to skip toilet use pre and post intervention (n=98)



Students' response on change in frequency of illness over the past year (n=98)



“The sanitation facilities in the school have improved significantly. The toilets are cleaner due to the Swachhata Bandhu and behavioural changes in students and the water filtration system has made safe drinking water available for students, especially during summers when the cooler provides cold water.”

— As narrated by a teacher

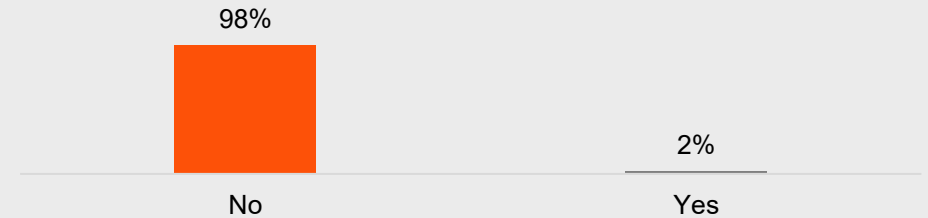
Analysis and Findings

Areas of Impact

Improved hygiene awareness and behavioural practices among students

- The intervention has also contributed to **improved hygiene practices** among students. Survey findings indicate that **99% of students (n=98)** reported the **availability of soap and water for handwashing**, enabling the adoption of proper hygiene practices. Correspondingly, **all students (n=98)** reported **washing their hands regularly with soap after using the toilet and before meals**.
- Improved WASH facilities appear to have contributed to **positive health outcomes** among students. Survey responses indicate that **99% of students (n=98)** reported a **reduction in school absenteeism** due to illness following **improvements in WASH facilities**.
- Furthermore, **98% of respondents (n=98)** reported that **toilet or water-related issues no longer cause students to leave school early**, suggesting that the intervention has reduced discomfort and disruptions during school hours
- Prior to the intervention, many students reported missing school due to illness associated with poor sanitation and water quality. The **improved availability of safe drinking water, clean toilets, and hygiene facilities** has contributed to a **healthier school environment**.
- The formation and training of **Child Cabinet committees** across the project schools has contributed to **strengthening student ownership** of WASH facilities. Qualitative interactions revealed that Child Cabinet members play an active role in **promoting hygiene practices** among students and **monitoring the cleanliness of WASH facilities**.

Whether toilet and water problems made students leave school early post-intervention (n=98)



Height appropriate drinking water stations with water cooler and filtration system



As a Child Cabinet Member, I remind other students to wash their hands and keep the toilets clean. We also make sure that there is always soap available, and students also contribute soap on their birthdays in the soap box to maintain a continuous supply for usage.”

- As narrated by a Child Cabinet Member

Analysis and Findings

Areas of Impact

Strengthened school level ownership leading to improved maintenance and sustainability of WASH Facilities

- The intervention has also contributed to increased awareness and **strengthened institutional mechanisms** for maintaining **WASH infrastructure within schools**.
- The project initially deployed **Swachhata Bandhu** personnel to support the **cleaning and maintenance of toilets**. Over time, schools have begun contributing financially to sustain this arrangement. According to stakeholders, schools currently cover more than half of the Swachhata Bandhu's remuneration.
- School authorities requested to continue supporting the Swachhata Bandhu even after the project support gradually exits, as the **presence of dedicated cleaning staff** has significantly **improved the usability** and **cleanliness of sanitation facilities**.
- In addition, training sessions conducted for teachers and School Management Committee (SMC) members have helped build local capacity for managing and maintaining WASH infrastructure.
- The project also implemented a range of hygiene promotion activities including awareness sessions, video shows, competitions, and IEC materials. These activities have contributed to improved awareness and behavioural adoption among students.



Wall painting at school to raise awareness



The WASH facilities created under the project have significantly improved the cleanliness and usability of toilets in our school. With the support of the Child Cabinet and the Swachhta Bandhu, we are now able to maintain these facilities better and ensure that students follow proper hygiene practices.”

- As narrated by a Head of School

Analysis and Findings

Snapshots from the Field



Soap box and fund box at the school, Government School, Mirtzapur



Toilet for children with special need at one of the intervention schools in Faridabad



Branding at Government High School, Junhera, Faridabad



Newly constructed toilet block at Government School, Mirtzapur



Drinking water stations at Government School, Kurali



Incinerator in the changing room at Government School, Chhainsa

IRECS Analysis



INCLUSIVENESS

- The intervention The support provided by Redington was inclusive as it constructs child, gender, and disabled friendly WASH infrastructure in government schools.
- It provided separate facilities for boys, girls, and children with special needs, ensuring accessibility and inclusivity for all students specially in those in underserved areas.



RELEVANCE

- Prior to the intervention there were significant gaps in WASH infrastructure, including schools having unusable or poorly maintained toilets, limited access to safe drinking water, and inadequate hygiene awareness among students.
- Stakeholder interactions confirmed that the intervention addressed a critical need for improved WASH infrastructure and hygiene practices in the selected schools, therefore aligned with the needs of students and schools.



EFFECTIVENESS

- Quantitative findings indicate that 99% of students reported that clean drinking water is always available in their schools, while 100% of respondents reported that they now drink water freely during school hours.
- In terms of sanitation usage, 100% of students reported that school toilets are accessible during school hours, and 97.96% rated the toilets as very clean.
- Additionally, 99% of respondents reported a reduction in absenteeism due to illness



CONVERGENCE

- The project's alignment with themes like WASH showcased its convergence with government schemes (Swachh Bharat and National Policy of Education).
- Government officials supported the identification of schools for implementation of the project.
- The collaborative approach contributed to the effective implementation of the intervention.



SUSTAINABILITY

- The project incorporated several mechanisms aimed at ensuring the sustainability of WASH infrastructure and behavioural outcomes.
- Schools have begun contributing financially towards maintaining sanitation facilities, indicating growing institutional ownership.
- Student-led initiatives through the Child Cabinets have also emerged to support the maintenance of hygiene resources.

Alignment to UN SDGs, Recommendations and Limitations

Alignment with UN Sustainable Development Goals



The project contributes to improved health outcomes among students by providing access to safe drinking water, clean sanitation facilities, and promoting hygiene practices.



By improving WASH infrastructure and creating a more hygienic and comfortable school environment, the project supports better school attendance and learning conditions.



The provision of separate toilets, changing rooms, and menstrual hygiene awareness contributes to creating a safe and dignified environment for adolescent girls. These measures reduce barriers related to menstruation and support girls' education without interruption..



The project directly contributes to SDG 6 by improving access to safe drinking water, sanitation facilities, and hygiene services in schools. The installation of water filtration systems, construction of toilets, and promotion of hygiene practices.

Recommendations

- **Strengthen operation and maintenance mechanisms for long-term sustainability:** While infrastructure created under the project has improved sanitation and safe drinking water access, its long-term sustainability and functionality will depend on regular maintenance. Redington may support schools in establishing a structured repair and maintenance plan for WASH facilities through Annual Maintenance Contracts with vendors leveraging the existing connections of the Implementation Team.
- **Facilitate access to affordable menstrual hygiene products for adolescent girls:** While the project strengthened menstrual hygiene awareness and provided sanitation facilities, ensuring consistent access to menstrual hygiene products remains important for sustaining these outcomes. Partnership with local vendors / self-help groups / Jan Aushadhi Kendras / can be explored to enable the availability of sanitary pads at subsidised rates within schools premises through Sanitary Napkin Vending Machine. This could further support adolescent girls in managing menstruation safely and comfortably.

Limitations

There were no study limitations

SROI Estimation

This study also includes the estimation of SROI for the project. The Social Return on Investment (SROI) Framework design helps us measure and account for value in a broad sense. The overall impact and the subsequent calculation of the return was done after preparing an impact map for the project. Thereafter, the cumulative benefit was derived after adjusting the dead-weight, displacement, attribution (by others) and drop-off factors from the year wise benefits. These factors are defined in detail as follows:

Stakeholder	Benefits	Deadweight	Displacement	Attribution	Drop-off
Students	Savings due to reduction in health expenses	20% deadweight is assumed to account for the improvements in students' health that may have occurred even without the project due to general improvements in hygiene awareness through school-level efforts and ongoing government sanitation and health initiatives like Swachh Bharat Abhiyan and Ayushman Bharat	0% displacement assumed as improved sanitation and hygiene practices among students have not negatively affected or reduced benefits for any stakeholders.	50% attribution is assumed considering that improvements in student health were also influenced by factors such as already in place school hygiene practices, availability of govt. health schemes, and existing government health and sanitation programmes.	4% drop-off applied based on the state level student dropout rate reported by MHRD, reflecting the proportion of students who may no longer experience the benefits in subsequent years.
	Cost saved in procuring clean drinking water	20% deadweight is assumed as some students used to bring clean drinking water from home for consumption during school hours.	0% displacement assumed since providing access to clean drinking water within schools did not reduce access to water resources for other stakeholders	25% attribution is assumed considering that access to drinking water may also be supported by the existing government water supply initiatives and household level coping mechanisms	4% drop-off applied based on the state level student dropout rate reported by MHRD, reflecting the proportion of students who may no longer experience the benefits in subsequent years.

SROI Estimation

Impact Map

Stakeholder	Project Activity	Outputs	Outcome	Impact Indicators
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SROI Estimation

Establishing the Impact

The impact of the project has been arrived at based on the following calculations:

- Impact Value for the first year: Quantity of change or Number of beneficiaries or Number of benefit units x Financial Proxy (FP) value x (1- deadweight) x (1- displacement) x (1- attribution) x (1-drop off)
- Impact value for subsequent years: Quantity of change or Number of beneficiaries or Number of benefit units x Financial Proxy (FP) value x (1- deadweight) x (1- displacement) x (1- attribution) + [impact of previous year] x (1-drop off)]

Based on the above calculations, the cumulative benefit or impact generated by the project from FY 2023-24 till FY 2025-26 (present) comes out to be **INR ₹29,714,870**. The detailed calculations and year-wise values can be referenced below.

SROI	Net Present value of benefits / Net Present Value of Investment
NPV of benefits	₹ 26,665,390
NPV of Investment	₹ 11,890,066
SROI Value	2.24

Impact Values

Stakeholder	Benefits	Actual total value created in 2023-24	Actual total value created in 2024-25	Actual total value created in 2025-26	Actual total value created till now
Students	Savings due to reduction in health expenses	₹ 4,845,400	₹ 4,644,316	₹ 4,451,577	₹ 13,941,293
	Cost saved in procuring clean drinking water	₹ 5,482,224	₹ 5,254,712	₹ 5,036,641	₹ 15,773,577
Total		₹ 10,327,624	₹ 9,899,028	₹ 9,488,218	₹ 29,714,870
Year-wise utilisation		₹ 12,567,800	₹ 0	₹ 0	12,567,800

SROI Estimation

Logic for Financial Proxies

Stakeholder	Benefits	Financial Proxy Explanation	Source(s)
Students	Savings due to reduction in health expenses	Average annual healthcare expenditure (INR 1750) saved per student due to reduced incidence of WASH related illnesses as reported by parents.	Qualitative Findings
	Cost saved in procuring clean drinking water	Cost of drinking water calculated based on the local market price of a water tanker, with an assumption that each student consumes approximately 2 litres of drinking water per day at the rate of ₹2 per litre during school hours across 220 academic days with 75% attendance.	Secondary source

Case Study

Enabling Continued Schooling Through Improved Sanitation Facilities



My daughter Sana (name changed) is a 15-year-old student studying at Government Senior Secondary School (GSSS), Riwali. Last year, we were seriously considering withdrawing her from the school because the existing toilet facilities were in very poor condition and not well maintained. As parents, we were worried about her comfort and dignity, especially during her menstrual cycle.

Sana often felt hesitant to attend school during her menstrual periods because there was no proper changing space and the sanitation facilities were poorly maintained. We felt that shifting her to a private school with better facilities might be the only option.

We raised our concerns with the school authorities and shared our intention to transfer her. At that time, the teachers informed us that discussions were already underway with the WASH Institute (WASHI) and Redington for the construction of an improved toilet block, which would include a dedicated changing room and an incinerator for safe disposal of sanitary waste. The teachers requested us to allow some time and assured us that the situation would soon improve.

Soon after, a separate and improved toilet block with proper facilities for girls was constructed in the school. With access to clean and well-maintained sanitation facilities, Sana now feels much more comfortable attending school, even during her menstrual cycle.

As parents, we are relieved that our daughter can continue her education in a safe and dignified environment. Today, Sana is still studying at the same school, and we no longer feel the need to move her elsewhere.”

As narrated by Sana’s father

07

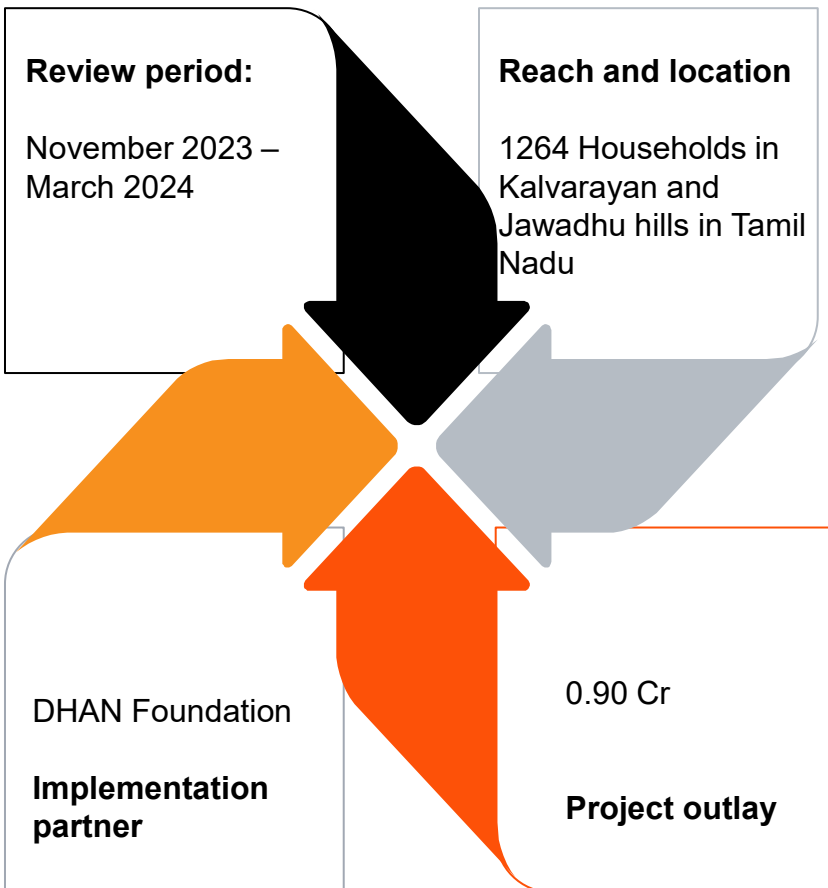
Augmenting Water at Kurinji Ecosystem for Improved Wellbeing of Tribals



Project Overview, Approach and Methodology

Thematic Area: Environment

Project Overview



Project Objective

To implement augmenting water at Kurinji ecosystem for improved well-being of Tribals at Kalvarayan Hills & Jawadhu Hills, Tamil Nadu

Project Activities

Activity 1: Rebuilding of 10 community wells in Kalvarayan Hills

Activity 2: Construction of 14 storage tanks in Kalvarayan Hills

Activity 3: Distribution of 75kg of organic manure to 120 farmers in Jawadhu Hills who had received sapling in the earlier phase of the project.

Activity 4: Distribution of solar home lights to 750 HHs (500HHs in Kalvarayan and 250HHs in Jawadhu Hills) and Solar street lights 4 in Jawadhu and 10 in Kalvarayan Hills

Activity 5: Establishment of Roof Rainwater Harvesting Structure undertaken at two schools in Jawadhu Hills benefitting a total of 346 students.

Methodology: IRECS + SROI – Mixed Method Approach

Qualitative Interactions

- 4 Focused Group Discussions with **community members**
- 1 Key Informant Interview with **Panchayat member**
- 1 In-Depth Interview with **head of school**
- 1 Focused Group Discussion with **school students**
- 1 In-Depth Interview with **DHAN Foundation project head**

Quantitative Interactions

108 community members

- **56 beneficiaries** from Kalvarayan Hills
- **52 beneficiaries** from Jawadhu Hills

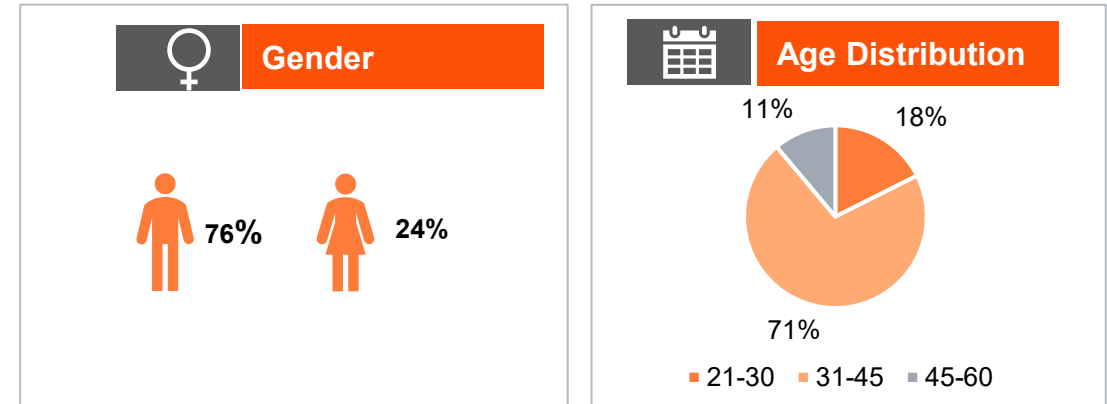
Source: Service Level Agreement signed between Redington and DHAN Foundation on 08th November, 2023 and other project details (Project closure report and Project completion report) shared by DHAN.

Analysis and Findings

Challenges Prior to the Project

- Communities faced **limited access to safe drinking water**, relying on rivers and open sources that were often discoloured, contaminated, and unsafe for consumption. Poorly maintained community wells and storage tanks, along with the absence of safety measures and nearby storage, further aggravated water scarcity.
- The **time and physical burden of water collection**, especially on women, was significant. Long walking distances, multiple daily trips, and carrying heavy water containers and wet clothes led to physical strain and reduced time for other livelihood and household activities.
- **Unreliable electricity supply**, with frequent power cuts lasting 6–12 hours—particularly during the monsoon—restricted household activities after dark, mobility inside villages, affected children’s education, and forced continued dependence on kerosene and other lighting sources.
- **Unsustainable horticulture practices** persisted due to limited access to organic manure and low awareness of sustainable inputs, leading to continued dependence on chemical fertilisers.
- In schools, the **absence of rainwater harvesting infrastructure** resulted in frequent water shortages, affecting drinking water, sanitation, and hygiene. Inadequate facilities disproportionately impacted adolescent girls, influencing their comfort, confidence, and regular school attendance.

Profile of the Beneficiaries Sampled (n=108)



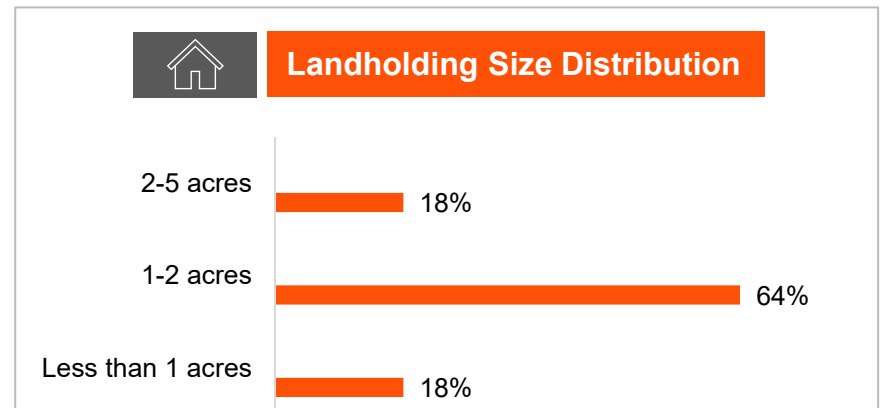
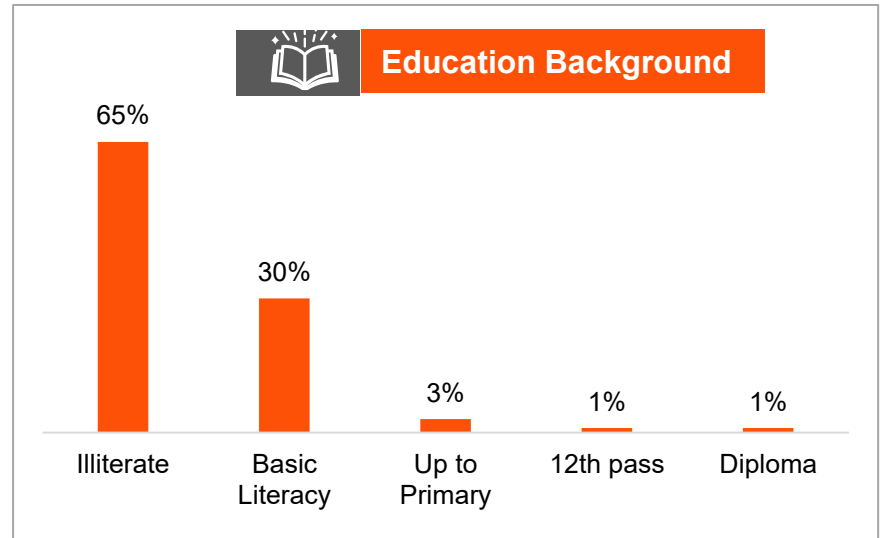
- Most of the respondents were men (76%), while women made up 24% of the total beneficiaries sampled.
- All respondents (**100%**) belonged to the Scheduled Tribe community, reflecting the tribal focus of the intervention in Jawadhu Hill and Kalvarayan Hill.
- Most respondents were aged 31–45 years (**71%**), followed by 21–30 years (**18%**), and 45–60 years (**11%**).
- All respondents (**100%**) were married, indicating a predominantly family-oriented demographic.



Analysis and Findings

Profile of the Beneficiaries Sampled (n=108)

- The beneficiary base has **very low formal education levels**, with 65% of respondents being illiterate and only 2% having completed higher secondary education and above.
- This reflects **limited access to continued education** and highlights structural educational gaps in the region.



- Land ownership is predominantly distributed among small and marginal farmers** with 82% holding less than 2 acres and no large landholders (>5 acres), indicating limited asset strength and income stability.



Primary Source of Income

Cultivator

39%

Agricultural Labour

57%

- Livelihoods are predominantly **agriculture dependent**, with 57% engaged as agricultural labourers and 39% as cultivators.
- Very limited** representation in salaried or **self-employed** occupations indicates low livelihood diversification.

Salaried Employment

2%

Self Employed

2%

- Only 19 % of the respondents were having **alternative source** of income suggesting the need to promote diverse livelihood opportunities.
- All those were having alternative source of income, were all through animal husbandry, trade or any other small business



Alternative Source of Income

19%

81%

Analysis and Findings

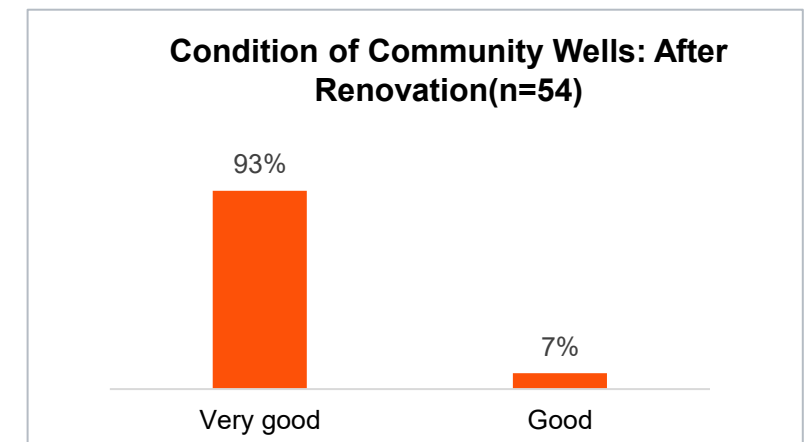
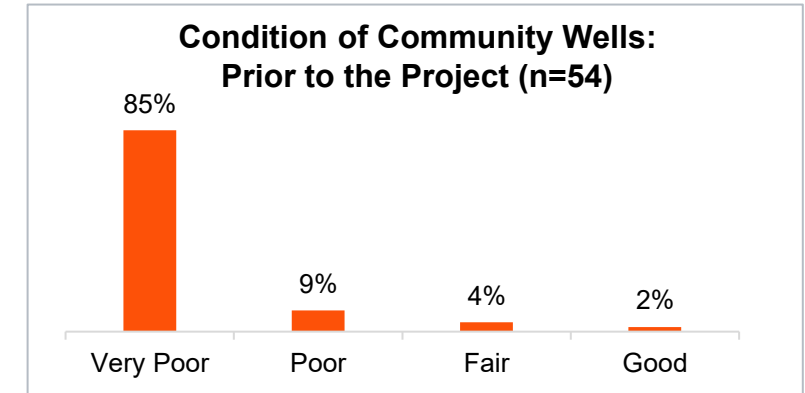
Areas of Impact

Improved access to safe and reliable drinking water – community wells & storage tanks – Kalvarayan Hills

The community well renovation and construction of storage tank support was given to Kalvarayan Hills. Out of the 108 households surveyed across Kalvarayan and Jawadhu Hills, 54 households from Kalvarayan Hills received support. The following findings are specific to these 54 households.

- Prior to the intervention, 85%(n=54) rated condition of the wells **as very poor, citing issues such as contamination**, discolouration, and irregular availability. The project has led to a **substantial improvement in access to safe and dependable** drinking water source through the renovation of community wells including concreting around the well area, installation of protective grills etc. and strengthening of storage infrastructure. A total of 10 wells renovated and 14 storage tanks were constructed under the project intervention.
- Post-renovation, the situation has improved significantly. **93%(n=54) of community members now rate the condition of the wells as very good**, indicating a near-universal improvement in functionality and reliability.
- The average **time of fetching water from the wells reduced from 15 minutes to 5 minutes per household**, significantly easing daily burden on community members.
- Community members noted that while the renovation of wells improved water access, part of the reduction in water collection time is also linked to external developments such as government initiatives like **Har Ghar Jal** and ongoing water conservation efforts in neighbouring villages.
- During the interaction, one of the panchayat member said that the panchayat and community members both contribute to maintenance of wells and storage tanks, including engaging workers for upkeep, with an average payment of approximately **1,000 per month**.
- **96%(n=54) of the respondents confirmed that the storage tanks ensured access to water even during supply disruptions.**

Post renovation, easier access to water has **reduced physical strain** and enabled better management of household responsibilities. Some women also noted **improved dignity and safety due to closer** water sources. Improvements were observed across, **access time and storage reliability** indicating multidimensional impact of the intervention.



“Earlier the water had discoloration and bad taste, and we were not confident to drink it. Now the water from the well is clean and safe, and we use it for drinking, cooking, and all household needs.”

- As shared by the woman in the community

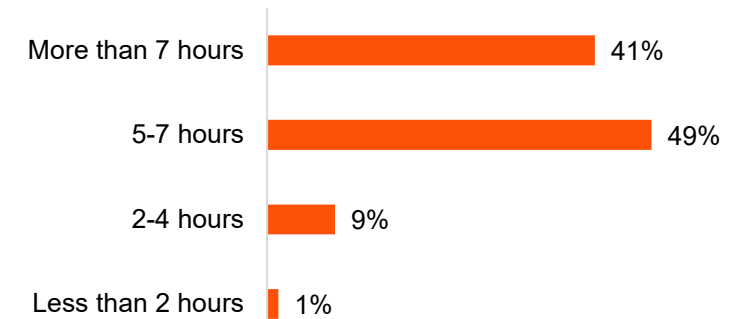
Analysis and Findings

Areas of Impact

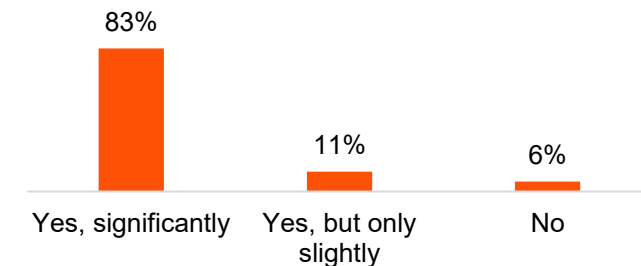
Impact of solar lighting

- Solar home lighting systems were provided across 750 Households in both Kalvarayan and Jawadhu Hills. Out of the total respondents surveyed, 70 households (n=108) reported receiving and **currently using solar home lights**.
- Prior to the intervention, villages faced **frequent and prolonged power cuts**, especially during **monsoon months**, leaving households without reliable night time lighting. Families largely depended on **kerosene lamps, candles and few households had electricity for lighting**. **These alternatives** were unsafe, polluting and added recurring household expenses. Before the intervention, average monthly electricity expenses were approximately **INR 250/- (n=70)**. Limited lighting also restricted community mobility and children's study time after dark.
- Community interactions highlighted that solar lights emerged as a widely used solution for the unreliable electricity.
 - All 70 beneficiary households **reported daily usage of solar lights**, indicating high adoption and relevance.
 - 49%(n=70) of households reported utilising **solar lights for a period of 5-7 hours per day**, while 41(n=70)% shared of utilising it for more **than 7 hours** - ensuring reliable lighting.
 - Beneficiaries reported reduction in kerosene dependence, resulting in both economic savings and environmental benefits. Currently, average monthly electricity expenses have reduced by **INR 130/- (n=70)**.
- **Community members reported contributing to minor repair and maintenance of solar lights**, indicating local ownership. Improvement in energy access is also supported by **government initiatives such as PM Surya Ghar scheme**, as shared by the one of the panchayat members.
- Solar lights has enabled **uninterrupted study time** and improved household productivity in the evening hours. Several respondents also highlighted **improved safety and reduced fear while stepping out at night** due to solar street lights installed within the community.

Hours of Illumination Provided by Solar Home Lights per Day (n=70)



Reduction in Dependence on Kerosene/ Electricity as Power Source (n=70)



“Earlier, when there was rain or wind, we would sit in darkness for many hours. Now with solar lights, our children can study and we can move safely at night without any fear.”

- As shared by a woman in Jawadhu Hills during the visit.

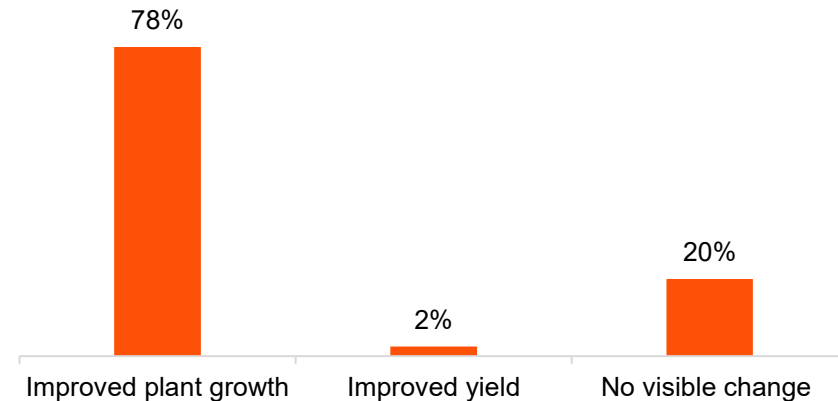
Analysis and Findings

Areas of Impact

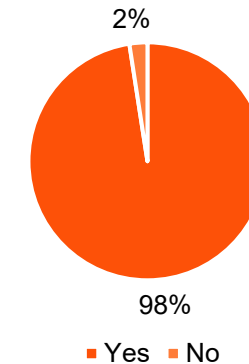
Organic manure support to farmers

- Organic manure (cow dung) support was provided to **farmers in Jawadhu Hills (75kg per farmer)** who had earlier received mango saplings under the project. Of the respondents surveyed in Jawadhu Hills, 41(n=52) farmers reported receiving and applying the organic manure support.
- Prior to the support, farmers largely relied on chemical fertilisers to maintain fruit-bearing trees, and tree growth and productivity varied across households.
- With the organic manure support, **78% (n=41) of farmers observed improved plant growth** after application. While the 75 kg provided was sufficient for only a single application, farmers reported that this one-time use strengthened their understanding of the benefits of organic inputs. As a result, **many consciously reduced the excessive use of chemical fertilisers on their mango saplings and relied more on organic alternatives**. This shift contributed to healthier plants and improved fruit-bearing capacity. Households reported saving **an average of 1,325/- per year** due to the reduced use of chemical fertilisers and pesticides.
- Organic manure is already commonly used in the region, and its distribution and management are often supported by Panchayat and large farmers in the community, which helps strengthen existing sustainable farming practices.
- Reduced dependence on chemical inputs suggests **potential long-term improvements in soil health, along with cost savings for small and marginal farmers**. The interventions reinforces sustainable agriculture practices introduced in the earlier phases of the project.

Perceived Change in Fruit Tree Health After Use of Organic Manure (n=41)



Reduction in Dependence on Chemical Fertilisers (n=41)



After receiving organic manure support, the saplings are healthier and showing better growth. Earlier we depended on chemical fertilisers, but now our usage has reduced significantly. This has helped us improve the condition of our trees while also lowering cultivation costs”

- As narrated by a farmer

Analysis and Findings

Areas of Impact

Strengthening water security in schools through roof rainwater harvesting

Prior to the intervention, schools faced **frequent water shortages and unreliable supply during school hours**. Drinking water was often **insufficient, and sanitation needs were difficult to manage** - especially during summer months.

- The absence of a dependable water source affected daily school functioning, hygiene practices, and student comfort, with girl students particularly impacted due to lack of water for sanitation needs.
- To address these challenges, roof rainwater harvesting (RWH) systems were installed in **two government schools** benefiting **almost 346 enrolled students**, ensuring regular collection and storage of rainwater for daily use.
- Teachers and students reported **continuous availability of water** throughout the day.
- During the interaction, teacher mentioned that, students are able to consume **around 2 litres of drinking water per day**.
- The intervention has contributed to **improved hygiene practices, reduced dependence on external water sources**, and increased confidence among students - especially girls - to attend school regularly.
- **Visual wall paintings** and teacher-led awareness sessions further strengthened water conservation behaviour among students.



Panchayat Union Middle School, Thoppur, Jawadhu Hills

“Earlier, there was always uncertainty about water in the school. Sometimes there was no water for drinking or sanitation, and this affected students, especially girls. After the rainwater harvesting system was installed, we have water throughout the day. The quality is better, and attendance has also improved. Moreover, students on an average consume more than 2 litres of water during the school time.

- As narrated by the head of a school

Analysis and Findings

Snapshots from the Field



Storage tank



Hoardings in school



Community well with solar street light



Solar home light



Solar panels installed in houses



Rain Water Harvesting installed in schools

IRECS Analysis



INCLUSIVENESS

- The project prioritised tribal communities in remote villages of Kalvarayan and Jawadhu Hills, focusing on underserved households with limited access to basic services.
- Benefits were extended to households severely affected by water scarcity and unreliable electricity, irrespective of socio-economic characteristics
- Interventions addressed core inequalities in access to drinking water, lighting, and horticultural inputs.



RELEVANCE

- Prior to the intervention, communities faced several challenges, including damaged or poorly maintained community wells, lack of storage tanks leading to longer distances for water collection, reliance on chemical fertilisers for their plants, unreliable electricity affecting lighting in villages, and irregular water availability in schools.
- The interventions directly addressed key local challenges, making the project design relevant to the community's needs.



EFFECTIVENESS

- Water collection time reduced from 15 minutes to 5 minutes.
- 96% confirmed storage tanks ensured water availability during supply disruptions.
- 100% of households reported improved safety due to solar lights, while 83% reduced reliance on kerosene.
- Community members noted that solar lights reduced dependence on irregular power supply.
- 78% of farmers observed improvement in plant growth.



CONVERGENCE

- The interventions demonstrated alignment with government priorities, complementing initiatives such as Har Ghar Jal, PM Surya Ghar, and ongoing water and organic-farming efforts in the region, ensuring coherence with public systems.
- The results seen on the ground—better water access, steady lighting, and healthier plants—reinforced actions already happening through government and community efforts, creating a combined impact rather than isolated outcomes.



SUSTAINABILITY

- Community members, village group, and Panchayat play an active role in maintaining wells, tanks and solar lights, ensuring long-term functionality. Use of renewable energy and organic manure promotes environmentally sustainable practices, while improved water infrastructure supports long term household and school resilience.

Alignment to UN SDGs, Recommendations and Limitations

Alignment with UN Sustainable Development Goals



6 CLEAN WATER AND SANITATION

The project strengthens access to safe and reliable water through the renovation of community water sources and construction of storage tanks, reducing time spent on water collection and improving availability for domestic use.



7 AFFORDABLE AND CLEAN ENERGY

The project enhances access to clean and reliable energy through the provision of solar home lights, reducing dependence on grid electricity, kerosene, and other polluting lighting sources.



13 CLIMATE ACTION

The project strengthens climate resilience by promoting solar energy use and environmentally sustainable farming practices through organic manure support, reducing reliance on fossil fuels and chemical inputs.



15 LIFE ON LAND

By supporting existing fruit-bearing trees with organic manure, the project improves soil health, strengthens sustainable agriculture, and supports long-term ecosystem sustainability.

Recommendations

While the project interventions have made notable progress, the following recommendations focus on sustaining and strengthening their impact.

- **Forming community groups for maintaining water structures:** Redington may consider facilitating village-level water user groups or community societies to manage and maintain shared assets such as renovated wells, storage tanks, and school rainwater harvesting systems. Defined roles and basic oversight can support regular maintenance and long-term functionality.
- **Promoting advanced water conservation practices:** Advanced water harvesting and groundwater recharge techniques may be introduced to help preserve water levels and strengthen seasonal water security. Short technical orientation sessions can build community capacity for sustainable water management.
- **Training communities on use and maintenance of project assets:** Redington should consider capacity-building sessions for households and community groups on maintenance of solar home lights, efficient use of organic manure for fruit-bearing trees, and basic preventive care of water infrastructure to maximise environmental and livelihood benefits.
- **Strengthening convergence with government schemes:** Redington may further align project activities with initiatives such as MGNREGA, Jal Jeevan Mission, and school sanitation programmes to enable resource convergence, improve implementation efficiency, and expand outreach.

Limitations

- The qualitative assessment coincided with the **seasonal migration period**, resulting in fewer beneficiaries being present in the village. As Focus Group Discussions require a larger group for meaningful discussion, **participation remained limited**.
- In one instance, the Panchayat representative **interviewed had limited exposure to project activities** in the village, which constrained the depth and detail of insights gathered during that interaction.

SROI Estimation

This study also includes the estimation of SROI for the project. As mentioned earlier, the Social Return on Investment (SROI) Framework design helps us measure and account for value in a broad sense. The overall impact and the subsequent calculation of the return was done after preparing an impact map for the project. Thereafter, the cumulative benefit was derived after adjusting the dead-weight, displacement, attribution (by others) and drop-off factors from the year wise benefits. These factors are defined in detail as follows:

Stakeholder	Benefits	Deadweight	Displacement	Attribution	Drop-off
Farmers	9,000 kilos of organic manure distributed to 120 farmers (75 kilos per farmer)	<ul style="list-style-type: none"> Some savings may have occurred due to government programmes and natural adoption trends; 25% deadweight applied 	<ul style="list-style-type: none"> No negative effect on other sectors; displacement not applicable 	<ul style="list-style-type: none"> Use of organic manure is common and supported by panchayat and larger farmers; 20% attributed externally 	<ul style="list-style-type: none"> Migration prevalent in the region; 5% drop-off applied
Community Members	Renovation of community well and construction of water tanks	<ul style="list-style-type: none"> Time savings also influenced by Har Ghar Jal and routine panchayat maintenance; 50% deadweight applied 	<ul style="list-style-type: none"> No negative effect on other geographies or sectors 	<ul style="list-style-type: none"> Panchayat and community contributed to construction/repairs; 20% attributed externally 	<ul style="list-style-type: none"> Migration common in the region; 5% drop-off applied
Community Members	Reduced household energy expenses due to solar lamps	<ul style="list-style-type: none"> Some savings may be due to PM Surya Ghar or natural progression; 25% deadweight applied 	<ul style="list-style-type: none"> Solar lamp usage does not reduce benefits elsewhere 	<ul style="list-style-type: none"> Households contributed to repair and maintenance; 20% attributed externally 	<ul style="list-style-type: none"> Migration common in the region; 5% drop-off applied
Student	Reduced cost of procuring drinking water	<ul style="list-style-type: none"> Many students carry water from home or access tap water at school; 25% deadweight applied 	<ul style="list-style-type: none"> No displacement effect observed 	<ul style="list-style-type: none"> Panchayat contributed to water structure repairs; 20% attributed externally 	<ul style="list-style-type: none"> Migration prevalent; 5% drop-off applied

SROI Estimation

Impact Map

Stakeholder	Activities	Outputs	Outcome	Impact
Farmers (Jawadhu)	<ul style="list-style-type: none"> Distribution of organic manure to Farmers 	<ul style="list-style-type: none"> 120 farmers received organic manure 	<ul style="list-style-type: none"> Increase in survival rate of mango saplings and increase in productivity 	<ul style="list-style-type: none"> Saved income in procurement of the organic manure and chemical fertilisers
Villagers (Kalvarayan)	<ul style="list-style-type: none"> Renovation of community village wells and construction of water tanks which are used for domestic purpose by the villagers 	<ul style="list-style-type: none"> 9 renovated community village wells and 14 water tanks constructed 	<ul style="list-style-type: none"> Increase in water availability for domestic purpose Increase in availability of safe drinking water for villagers 	<ul style="list-style-type: none"> Reduction in time in water procurement for households
Villagers (Kalvarayan and Jawadhu)	<ul style="list-style-type: none"> Distribution of solar home lights (500 in Kalvarayan and 250 in Jawadhu) 	<ul style="list-style-type: none"> 750 households benefiting from solar home lights 	<ul style="list-style-type: none"> % reduction in electricity expenses for 750 households 	<ul style="list-style-type: none"> % improvement in household savings from reduced energy expenses
School Students (Jawadhu)	<ul style="list-style-type: none"> Construction of the roof rainwater harvesting structure in government schools for supporting students in drinking water 	<ul style="list-style-type: none"> Two roof rainwater harvesting structures installed in government schools 346 students benefiting from rainwater harvesting for drinking water 	<ul style="list-style-type: none"> Increase in water availability in schools % increase in school attendance due to improved drinking water access 	<ul style="list-style-type: none"> Reduction in cost for procuring water Improvement in student health due to access to clean drinking water.

SROI Estimation

Establishing the Impact

The impact of the project has been arrived at based on the following calculations:

- Impact Value for the first year: Quantity of change or Number of beneficiaries or Number of benefit units x Financial Proxy (FP) value x (1- deadweight) x (1- displacement) x (1- attribution) x (1-drop off)
- Impact value for subsequent years: Quantity of change or Number of beneficiaries or Number of benefit units x Financial Proxy (FP) value x (1- deadweight) x (1- displacement) x (1- attribution) + [impact of previous year] x (1-drop off)]

Based on the above calculations, the cumulative benefit or impact generated by the project from FY 2023-24 till FY 2025-26 (present) comes out to be **INR ₹ 23,405,415**. The detailed calculations and year-wise values can be referenced below.

SROI	Net Present value of benefits / Net Present Value of Investment
NPV of benefits	₹ 21,010,337
NPV of Investment	₹ 8,523,217
SROI Value	2.47

Impact Values

Stakeholders	Benefits	Actual total value created in 2023-24	Actual total value created in 2024-25	Actual total value created in 2025-26 (till now)	Actual total value created till now
Farmers (HHs)	Saved income in procurement of the organic manure	₹ 95,400	₹ 90,630	₹ 86,099	₹ 272,129
Community Members	Reduction in time in water procurement for households	₹ 7,293,649	₹ 6,928,996	₹ 6,582,518	₹ 20,805,133
Community Members	Improvement in household savings from reduced energy expenses	₹ 702,000	₹ 666,900	₹ 633,555	₹ 2,002,455
Students	Reduction in cost for procuring water	₹ 114,180	₹ 108,471	₹ 103,047	₹ 325,698
Total		₹ 8,205,229	₹ 7,794,967	₹ 7,405,219	₹ 23,405,415
Year-wise utilisation		₹ 9,009,040	₹ 0	₹ 0	₹ 9,009,040

SROI Estimation

Logic for Financial Proxies

Stakeholder	Benefits	Financial Proxy Explanation	Source(s)
Farmers (HHs)	9000 Kilos of organic manure distributed among 120 farmers (75 Kilos per person)	Average amount of money (INR 1,325) saved in a year due to reduced use of chemical fertilisers or pesticides	Quantitative survey findings
		Average amount (INR 1,000) paid to workers on monthly basis to maintain community wells and water tanks	Qualitative interactions
Community Members	Renovation of Community well & construction of water tanks	Average time saved per day for water collection. Labour rate per day is INR 319 (MGNREGA)	Quantitative survey findings
		Average amount of money (INR 130/-) saved on reduced usage of electricity due to solar lights in a month	Quantitative survey findings
Community Members	Improvement in household savings from reduced energy expenses	Average amount of money (INR 130/-) saved on reduced usage of electricity due to solar lights in a month	Quantitative survey findings
Students	Roof rainwater structure installed in 2 schools	On an average a student is able to consume 2 Litres of drinking water in a day (10 Rs cost / litre)	Qualitative interactions

Case Study

Ensuring Safe Water and Better Living Through Community Infrastructure



Selvi (name changed), a **tribal women** from the remote village, recalls how daily access to **water was once time-consuming** and physically demanding for families in her community. Earlier, households **had to walk long distances to collect water** from sources like river. Women often washed clothes at these sources and carried heavy **bundles of wet cloths back home**, which caused strain and pain in their hands and added to the effort involved in managing daily chores.

The water collected earlier was not always reliable in quality-it often appeared **discoloured and has an unusual taste**, making families unsure about using it for drinking and cooking. During summer months, **water availability was inconsistent**, and households had to manage carefully with whatever they could collect.

With the renovation of community wells and storage tank, **access to water has improved** significantly. Clean and clear water is now available close to households, reducing the distance and time required for water collection. Families can now wash clothes and meet other domestic needs **without long walks or physical strain**.

Selvi shared that water quality has visibly improved, with no discoloration or odd taste. As Selvi said *“Now we get clean water every day. We don’t have to think twice before drinking it”*. This intervention has not only **improved water access** but has also **reduced physical effort, saved time**, and enhanced the **overall quality of life** in the village.

08

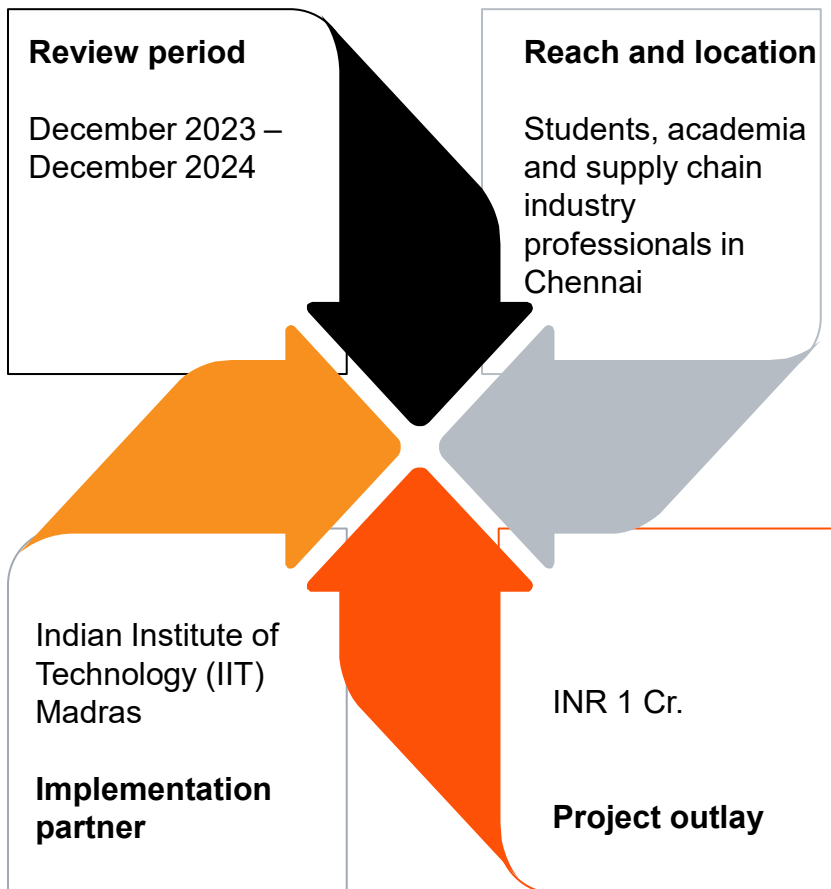
R. Srinivasan
International Visiting
Chair at IIT Madras



Project Overview, Approach and Methodology

Thematic Area: Education

Project Overview



Project Objective

As stated in the MoU:

1.1 To recognize the outstanding Institute faculty in research, collaborating with Industry in R&D, innovation, and implementation of state-of-the-art solutions through academic, training, and research activities.

1.2 This International Visiting Chair occupant will strive to excel in the broad fields of activity relevant to IIT Madras including topics like – “Supply Chain Management, Logistics, Digitization of supply chain and logistics, Usage of AI and ML in supply chains, delivery logistics and overall management.”

Project Activities

Between December 2023 to December 2024, the following activities were carried out:

- ❑ Onboarding of the visiting chair upon completion of approval processes at IIT Madras and conceptualisation of project activities
- ❑ Initiation of a joint guidance report by a research scholar from the Department of Management Studies, IITM, on “Adaptation-based Supply Chain Resilience and Intertwined Supply Networks Amid Global Disruptions”

Methodology: Qualitative Approach

Qualitative Interactions

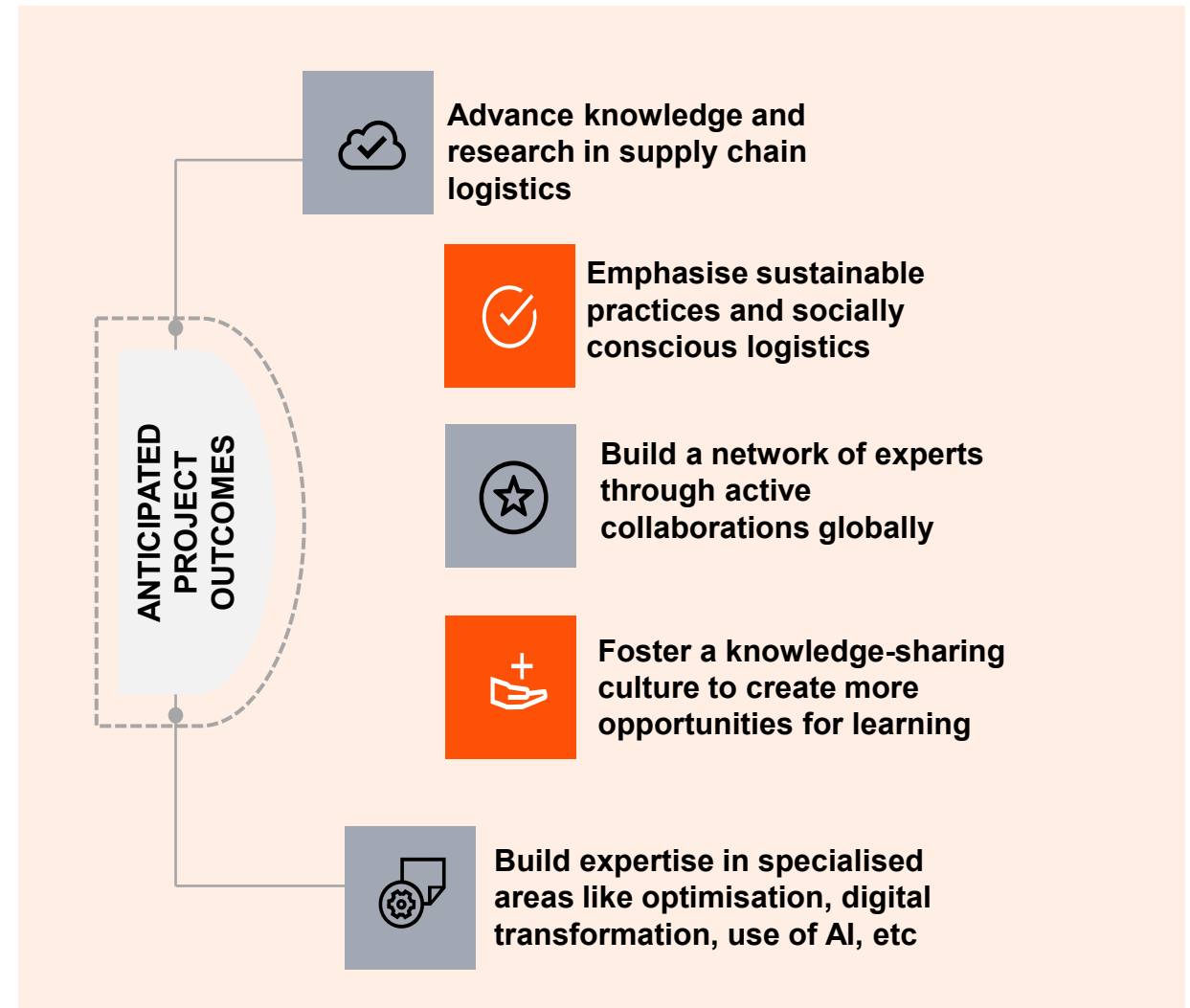
- In-depth Interview with the **International Visiting Chair Professor**, IIT Madras
- In-depth Interview with a **Professor, Department of Management Studies**, IIT Madras
- In-depth Interview with a **research scholar, Department of Management Studies**, IIT Madras

Analysis and Findings

Challenges Prior to the Project

- As shared by all stakeholders, **supply chain management and logistics are nascent areas of research**. In India, the impetus for research on logistics has just begun at a national level; neither are there many institutions offering these as study/ research areas nor are there more than a handful of academicians and researchers working on them. Further, there has been **limited dialogue at a national level** thus far.
- Although perspectives on supply chain and logistics exist globally, there is a **need to utilise best practices and expertise from other countries in the Indian context**, as well as use findings and innovations from the Indian context **to inform global frameworks** in logistics and supply chain management.
- In India, most companies react to supply chain disruptions in a reactive manner. Post pandemic, there is an **urgent need to examine supply chain viability from a proactive approach using multi-dimensional perspectives**.
- Academic institutions have not effectively influenced, nor been influenced by, the real-world challenges present in various industry sectors – leading to **limited relevance of findings** that emerge from research studies.

According to the Visiting Chair Professor, the following were identified as the outcomes of the project*:



Analysis and Findings

Bringing together those with expertise and research inclinations in supply chain and logistics

- There was a **rigorous process of identification and nomination** and multiple levels of approvals within IIT Madras and with Redington to finalise the visiting chair position, which has a 25 year tenure. It was offered to an academican from the United States who has **worked extensively in supply chain and logistics**. Delays in identification and appointment meant that **activities commenced only from 2025 onward**.
- As a result of this position, a research scholar from the Department of Management Studies, who is working on supply chain resilience, has been able to **draw upon the expertise of the visiting chair**, who has 25+ years of experience in this field. Having experienced academics **offer such guidance** is expected to **encourage more young scholars** to explore this field of research.

Conceptualising platforms to develop analyses that can optimise and improve the supply chain industry

- The Chair emphasised that interaction among various stakeholders in the logistics sector, each addressing similar issues from distinct perspectives, **enhances discussion and broadens shared knowledge**. This collaboration allows for **developing expertise** and fostering comparative perspectives.
- The position offers **mentorship** to the logistics industry, **facilitating research** and **bridging the industry-academia gap**. By aligning academic insights with industry experiences, it aims to improve research frameworks and **deliver practical benefits** to the industry.
- Stakeholders highlighted multiple ways in which this **first-of-its-kind visiting chair position** can **contribute to the body of research** on the supply chain industry. Expertise and best practices from other countries can be used to understand how the supply chain and logistics sector in India **can adapt global frameworks to deal with disruptions better**. Alongside, the innovations in the Indian context to address issues effectively can be captured to **enrich these frameworks**.
- The research scholar shared that through his review paper, industries can understand how to survive multi-regional disruptions better; handle risk-mitigation in a proactive way; and **use strategies like adaptation and reconfiguration to reduce the impact of disruptions**. Unlike earlier research that focuses on parts of the issue, this chair position **takes on a holistic approach and covers all industry sectors**.
- The distinctiveness of this position, coupled with its relevance to the current context, offers potential for **groundbreaking advancements in logistics research** in India. Its foundation within an esteemed institution such as IIT Madras enhances its **credibility and strength**.



There is a need to develop supply chain viability as a multi-dimensional perspective. Companies should have a continuous adaptation so that there is less impact when there are disruptions. The outcomes of this position would be to strengthen risk and resilience research overall.”

- As narrated by the research scholar

Alignment to UN SDGs, Recommendations and Limitations

Alignment with UN Sustainable Development Goals

9 INDUSTRY, INNOVATION
AND INFRASTRUCTURE



UN Sustainable Development Goal 9 (**Industry, Innovation and Infrastructure**) is to build resilient infrastructure, promote inclusive and sustainable industrialisation and foster innovation. The visiting chair position can enhance supply chain research by leveraging global expertise to help India adapt frameworks for better disruption management. It also offers industries comprehensive strategies for managing multi-regional disruptions, proactive risk mitigation, and adaptation.

Recommendations

- **Clearly defined objectives for key stakeholders:** While the position has broadly defined objectives, these can be broken down into clearly defined goals to be achieved, activities to be undertaken, and KRAs for key stakeholders. This will ensure greater efficiency in outcomes achieved. Additionally, putting into place processes for periodic stakeholder interaction (in person or virtually) will help avoid delays in execution resulting from the geographic spread of key stakeholders.
- **Wider range of support to enhance dialogue on supply chain and logistics:** In addition to supporting research activities, Redington can consider supporting other platforms to bring together researchers and industry representatives working in supply chain and logistics in India and globally. This could be in the form of seminars, webinars, conferences, roundtables, collaborative projects, and so on.

Limitations

As the activities under this position commenced from 2025 onward, there was limited project-level activity to assess for this study. As a result, it was not possible to conduct IRECS-analysis for this project.

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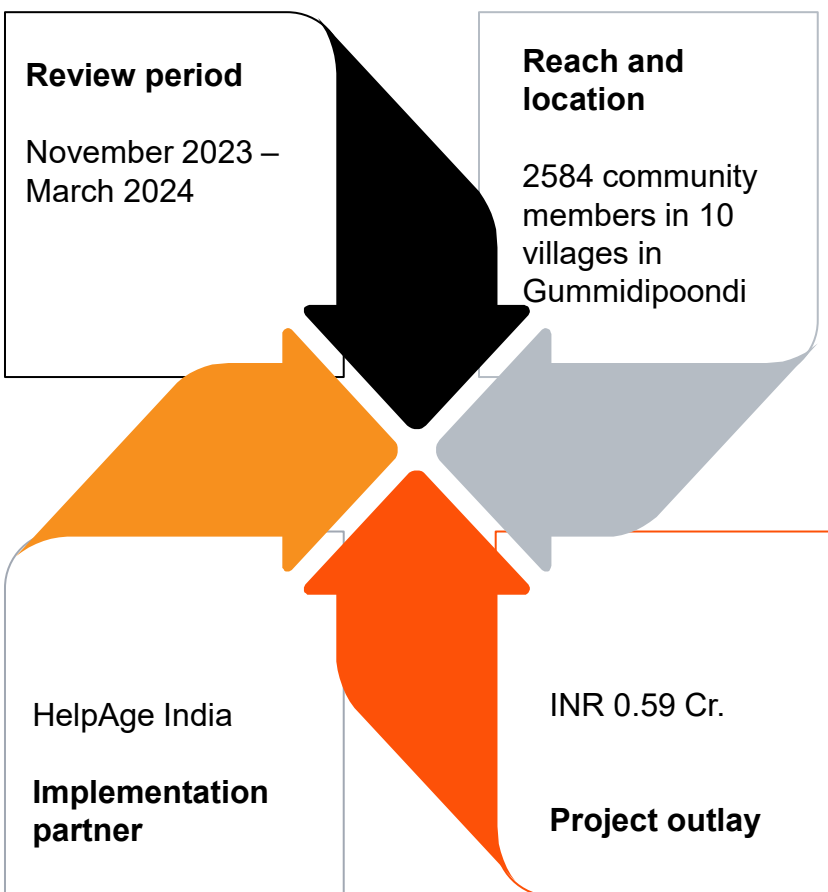
Mobile Health Unit in Rural Areas



Project Overview, Approach and Methodology

Thematic Area: Community Development

Project Overview



Project Objective

The project aims to provide healthcare to the underprivileged and poor, rural and tribal populations belonging to economically challenged families through a Mobile Health Programme.

Project Activities

- ❑ HelpAge India, with support from Redington, deployed a Mobile Health Unit (MHU) van to **10 villages**, ensuring a **minimum of two visits per village per month**
- ❑ The vehicle was equipped with **diagnostic equipment** such as stethoscope, BP apparatus, thermometer, weight machine and glucometer
- ❑ MHU **team** included: One MBBS doctor, one pharmacist, one driver/ community facilitator and one social protection officer.
- ❑ Every patient was issued a **patient card** in which their history and health data was recorded
- ❑ At the time of visit, a set protocol was followed for **registration, consultation**, diagnoses and referral (if required). **The pharmacist issued medication** free of cost and explained the dosage.
- ❑ MHU provided **regular awareness** to community members through **pamphlets and posters** and the Social protection officer provided **counselling** to patients.

Methodology: IRECS – Mixed Method Approach

Qualitative Interactions

- 2 Focused Group Discussions with **community members**
- 2 In-Depth Interviews with **panchayat/ ward representatives**
- 1 Key Informant Interview with **District Health Officer**
- 1 In-Depth Interview with **Social Protection Officer**
- 1 In-Depth Interview with **State Programme Manager, HelpAge India**

Quantitative Interactions

108 community members across 4 villages

Analysis and Findings

Challenges Prior to the Project

- **Lack of accessible and convenient health facilities**

Community members reported the absence of Primary Health Centres (PHCs) within 10km of their village, and the nearest district facility being 15–40km away. Poor bus connections forced them to hire auto rickshaws for transport. Large crowds at government facilities meant long queues and waiting times to meet doctors.

- **High expenditure involved in meeting health needs**

Many community members, mostly daily wage labourers and marginal farmers, struggle to meet basic needs. While government healthcare is free, transport costs average INR 1,000 per visit. Travel and wait times also lead to loss of one day's wages. Private healthcare required multiple follow-ups, imposing even greater financial strain.

- **Limited awareness about chronic health issues**

Community members often delayed addressing health issues due to lack of understanding, visiting facilities only for accidents or emergencies. Lifestyle diseases like hypertension and diabetes were treated with herbal remedies until they became severe.

- **Constraints in handling health issues in a pro-active manner**

Elderly community members depended on family for transport to health facilities, but work demands limited their children's availability for accompanying them. Further, many of the elderly continued to work, prioritising earning over addressing health issues. This prevented them from seeking health support in a timely manner.

Profile of the Beneficiaries Sampled

A total of **108 respondents** were surveyed from **4 villages**: Edur, Kumpali, Manellore and Kannampakkam. Out of these respondents:



79% were female and 21% were male



44% identified as **Scheduled Caste**, 20% as Scheduled Tribe and 30% as Other Backward Castes



50% held a **Below Poverty Line (BPL)** ration card



81% were aged **45 years** and above and 25% over 65 years
60% were **retired** and not engaged in employment and 33% were daily wage workers



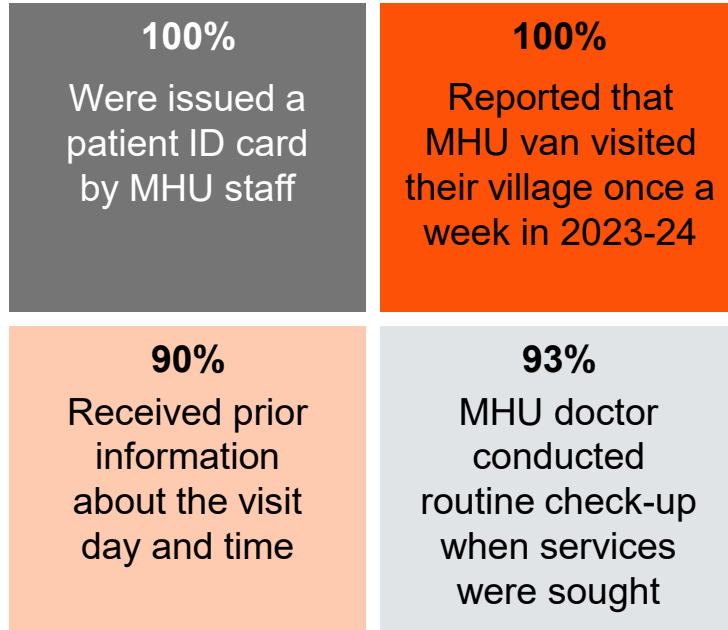
53% had the Chief Minister's Comprehensive Health Insurance Scheme (**CMCHIS**) card

14% had the Ayushman Bharat (**PM-JAY**) card

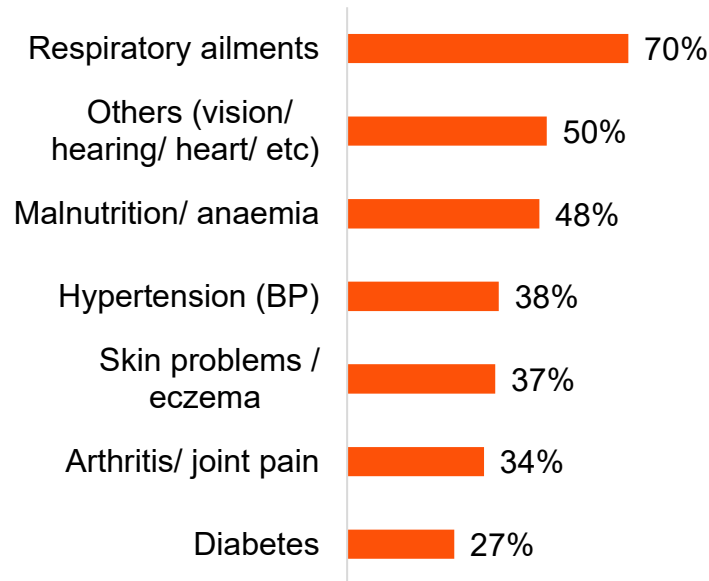
Key Findings from the Assessment

Details of Project Activities

Frequency of MHU services reported by respondents (n=108)



Types of health issues for which treatment was sought at MHU (n=108)



Multiple responses given

32

Average number of times the respondents availed MHU services in 2023-24



3 – 4 hours

Average number of hours the MHU van was present in a village during each visit (n=108)

- The MHU van provided **predictable service** to all community members, with 100% of the respondents stating that it **visited once a week** and 93% stating that **the doctor conducted regular check ups** each time (n=108).
- As a result, respondents availed services **multiple times in a given year**, in some cases because they had lifestyle illnesses that required ongoing medication and review.
- Common health issues included **respiratory ailments** (asthma, cold, coughs) reported by 70%, **anaemia and malnutrition** (48%) and **hypertension** (38%) (n=108).

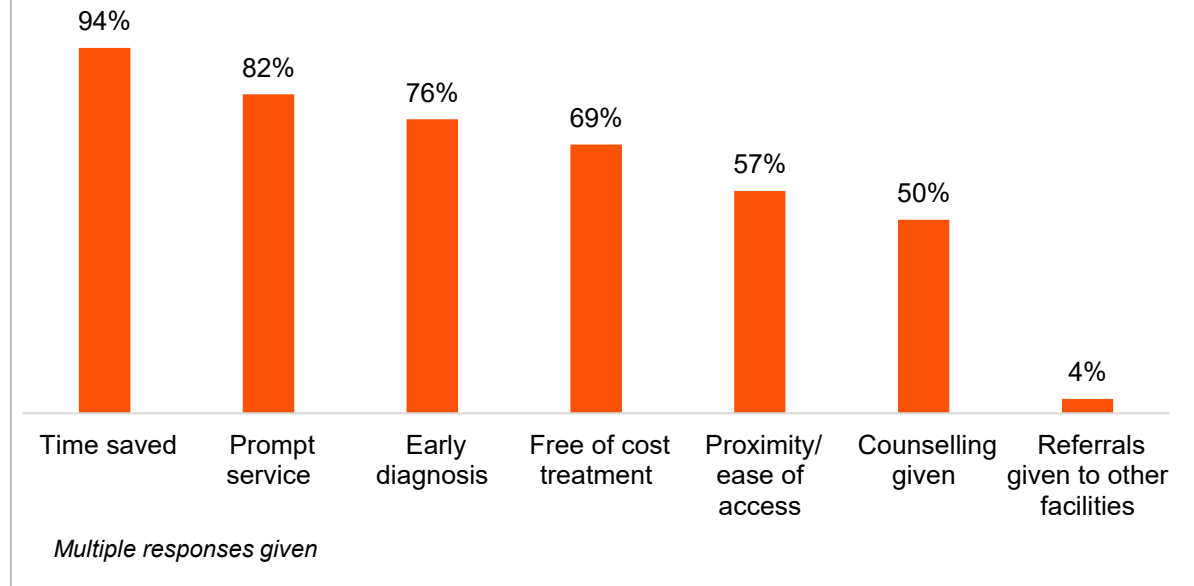
Analysis and Findings

Areas of Impact

Accessible and convenient healthcare services

- Amid widespread poverty, lack of basic facilities, and reliance on coolie labour, MHU's free of cost services have greatly impacted beneficiaries according to the State Programme Manager. HelpAge India ensured smooth operations by **securing government approvals and consulting local leaders** on scheduling and locations for the van stops.
- The district health representative stated that **underserved villages far from government health facilities were selected** for MHU services. Gummidipoondi Block, with the highest pollution levels in Tamil Nadu, showed a **pressing need for accessible health services** due to untreated respiratory and skin issues among community members.
- The MHU van has been especially **beneficial for the elderly** – who face **respiratory issues, arthritis, hypertension, and diabetes**, as well as **mobility challenges** – as it visits each week and stops at multiple points in their villages.
- When asked what were the **main benefits of the MHU**, beneficiaries highlighted the **time saved (94%), promptness of service (82%) and early diagnosis (76%)**, as seen in the Figure (n=108).
- All beneficiaries (100%) found the **duration of visits convenient and MHU van adequately equipped** and nearly all were **highly satisfied with the treatment (95%) and counselling provided (94%)**.

Benefits of MHU services in the community (n=108)



Duration of visit was convenient (n=108): 100%



MHU van was adequate equipped (n=108): 100%



Highly satisfied with the treatment (n=108): 95%



Highly satisfied with the counselling (n=101): 94%*

* Respondents were asked whether they had received counselling from the MHU team. 101 patients responded that they had, and only these patients were asked if they were satisfied with the counselling given

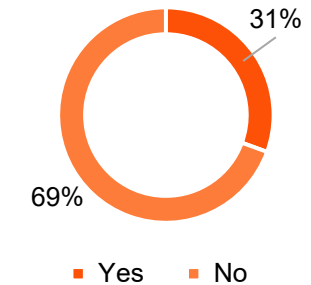
Analysis and Findings

Areas of Impact

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- **Home visits** were provided for **bedridden or accessibility-challenged individuals**, ensuring comprehensive care. As seen in the graph, **31% (n=108)** stated that they had been treated at home in 2023-24 when their health did not permit them to visit the MHU.
- Beneficiaries pointed out that as the van is stationed for a few hours each visit, even **those engaged in daily wage labour can seek consultation before or after work**. **97% (n=108)** of the respondents reported that they **did not have to miss work or lose earnings** to avail services at the MHU van. Beneficiaries further added that in case they could not be present due to work or travel, a **relative could pick up their medication using their patient ID card**.
- According to the Social Protection Officer, beneficiaries are largely from **socially marginalised communities**. Women, who constitute 75% of the beneficiaries, benefit from this doorstep service as they can **take a break from day-long house chores and seek treatment in a short span of time**, due to the proximity of the van.

Percentage of respondents who received home treatment in 2023-24 (n=108)



Instead of travelling from our village, we now get health services at our doorstep. We get weekly medication for chronic problems. This is beneficial as we have limited financial means.”

- As narrated by an MHU patient

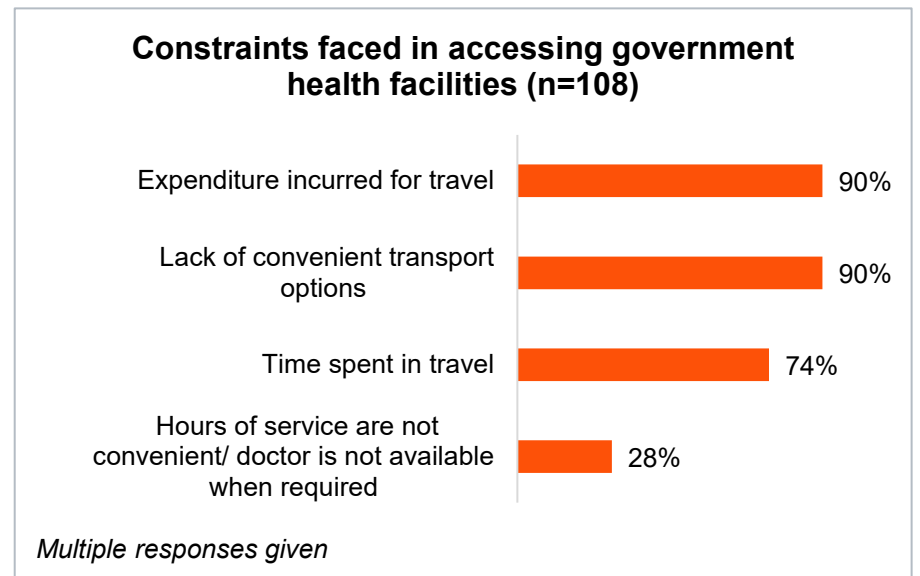
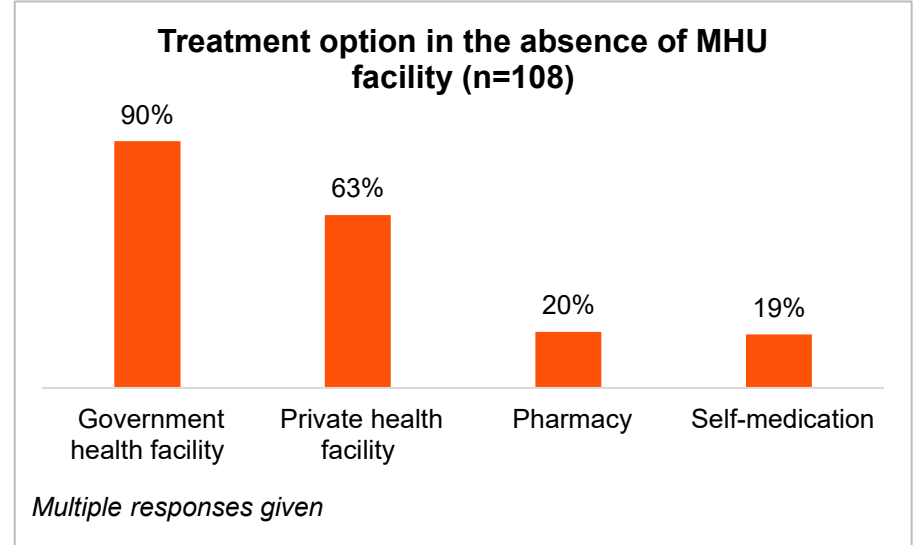
Analysis and Findings

Areas of Impact

Time and expenditure saved in seeking health services

- In the absence of the MHU, **90%** of the respondents stated that they would seek treatment at a **government health facility** and **63%** at a **private health facility**.
- Although the majority indicated government health facility as the top choice, they noted several constraints with accessing services there, notably **the expenditure incurred for travel (90%)** and **the lack of convenient transport options (90%)**.
- In comparison to accessing government health facilities, which involved on average 174 minutes of time spent and INR 803 travel expenditure, respondents shared that the **wait time at the MHU was 19 minutes** on average and **there is no expenditure involved**.
- The Social Protection Officer highlighted that at PHCs, there is greater focus on meeting the needs of pre- and ante-natal care patients and **geriatric patients get low priority**. The MHU **augments** the government health system by providing affordable care to the elderly.

	Government health facility	Mobile Health Unit
Average time spent to get consultation/ treatment	174 minutes	19 minutes
Average expenditure to access the health facility	INR 803	INR 0



Analysis and Findings

Areas of Impact

Greater health seeking behaviour and community wellbeing

- The MHU team shared that on average, they see **90-100 patients per day** (40-50 members per village). Of the total registered beneficiaries in Gummidipoondi block, the State Programme Manager highlighted that **25% were patients whose health problems (diabetes and hypertension) were first identified by the MHU during routine check-ups**. From having minimal awareness about lifestyle conditions, they have now **understood they need to treat them by taking medication** systematically.
- By **eliminating the dependence on family members** to take them to health facilities, the MHU has helped elderly patients **become more conscious of their health and seek regular treatment**. This has improved their **quality of life** and made them **healthier, more mobile and more self-sufficient**. Yet, there is need for greater awareness among community members on preventive health (rather than curative health) as well as for more health camps that cater specifically to geriatric problems.
- Through a database, the Social Protection Officer **tracks and counsels those patients** who do not keep up medication. On weeks when the van does not visit, community members **are informed ahead of time** and medication are given for the longer duration. Services are geared to the needs of the community, anticipating common health problems in a particular season.
- Community members emphasised that the **predictability of the visits** helped them keep up with check-ups and medication. Prescriptions are written in a **simple manner** and the pharmacist explained when and how the medicines should be taken. This **effective and high-quality service** has improved their health despite poor nutritional intake and the resultant low immunity.
- Referrals forms were written for patients who required additional diagnostic tests and the **MHU staff follows up on these**. Of the respondents surveyed, 49% (n=108) were given referrals to visit district health facilities – of those, 64% in fact visited the facility and **91% affirmed that the MHU staff followed up with them** (n=53). All stakeholders pointed out that it would be highly beneficial if the MHU van itself was equipped to provide complete diagnostic services to reduce the need for them to visit district health facilities.



Step 1: Community member registers with the MHU driver using their patient ID card



Step 2: Community member consults the doctor on their health issue and is given a prescription (as required).



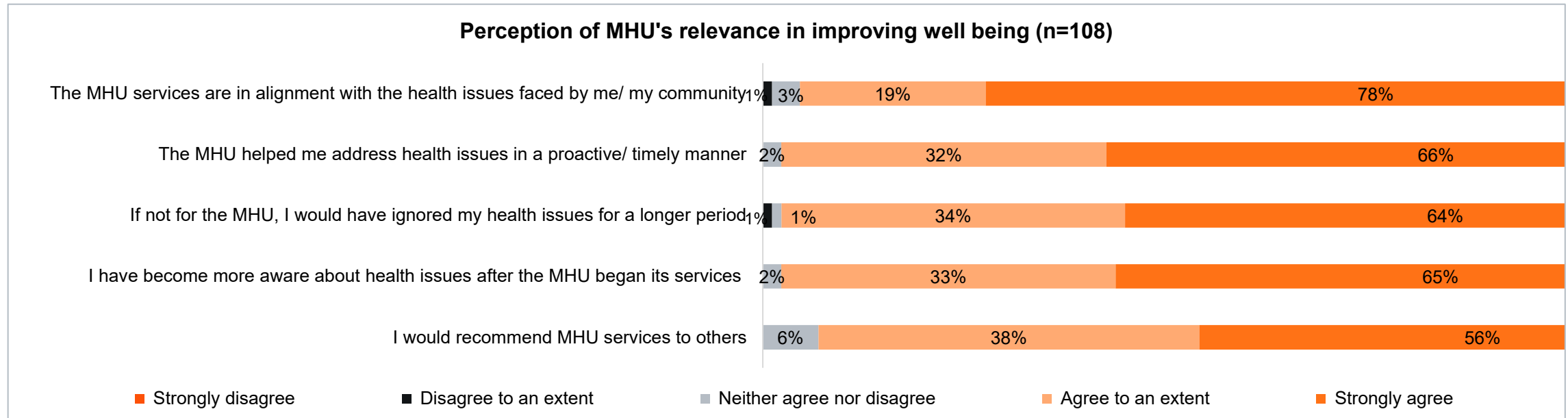
Step 4: The social protection officer counsels the patient and explains how the medication should be taken



Step 3: The prescription is handed over to the pharmacist who issues their medication after entering it into the database

Analysis and Findings

Areas of Impact



...Continued

- As seen in the graph, a majority of the stakeholders **strongly agreed** with statements that the MHU services were **aligned with the community's health needs** (78%), helped them **address health issues proactively** (66%) and **increased their awareness** of health issues (64%).
- A very small percentage (1% in some cases) disagreed with these statements. These indicate that the MHU was perceived to have made a **significant positive impact** on the community's well-being.



Earlier, people did not prioritise their health as they are busy running their homes and earning enough to support themselves, this has changed. Only now have they realised that they should take their health seriously and take regular medication. We find that quality of life has improved and even those who are 80 or 90 are now healthier and more active because they are taking regular medication.”

- As narrated by the State Programme Manager of Help Age India

IRECS Analysis



INCLUSIVENESS

- The services were available to community members and availed mainly by those from disadvantaged social groups, BPL households, women and the elderly.
- By offering home treatment for bedridden and those with accessibility issues and ensuring medication delivery to patients unable to visit the van, the MHU remained inclusive.



RELEVANCE

- The villages selected for the project by the district health representatives were located at a distance from the nearest PHC and underserved by the public health system.
- The health services provided by the MHU treated most common ailments in the served areas including hypertension, diabetes, arthritis, skin problems and gastritis.



EFFECTIVENESS

- The van visited every week, and all respondents (100%) felt the timings were convenient (n=108).
- There was a clear system to register patients, conduct check-ups, issue prescriptions and hand out medication.
- The waiting time on average was 19 minutes (n=108), which meant that women who had to manage household chores and those who worked as daily labourers could access treatment conveniently.



CONVERGENCE

- Permissions were taken from all government departments before MHU services commenced and, in each village, Panchayat or ward members were consulted to understand the profile of the community and suitable locations to park the van each week.
- The MHU augmented the public health system and worked in tandem with the district health department.



SUSTAINABILITY

- As community members are now more aware of their health issues and diligent about taking medication for lifestyle illnesses, it is expected that they will continue positive health seeking behaviour even in the absence of the MHU. However, it is unlikely that MHU services can sustain without continued CSR support.

Alignment to UN SDGs, Recommendations and Limitations

Alignment with UN Sustainable Development Goals



Goal 3 focuses on ensuring healthy lives and promoting well-being across all ages. The project advances universal health coverage by servicing villagers lacking access to a government health facility within 10km. It offers safe, effective, quality treatment at no cost, enhancing community health-seeking behaviours. Notably, the project supports vulnerable groups, such as the elderly, who are frequently left out of universal healthcare initiatives.

Recommendations

- **Diagnostic facility provision:** Given that community members still need to travel to district facilities for diagnostic tests, the MHU can be upgraded with a diagnostic facility and a lab technician to conduct detailed investigations when required.
- **Speciality camps and awareness sessions:** Camps that bring in specialists such as physiotherapists, gynaecologists, and ophthalmologist and awareness sessions on the importance of nutrition, preventative health and handling outbreaks can be included as part of MHU services.
- **Prescriptions with pictorial elements:** Prescriptions were written in a simple manner and dosage was explained by the MHU team. However, as many patients are non-literate and have difficulty identifying medication and understanding schedules at home, a picture and colour-based prescription format can be developed to ensure that medication is taken appropriately.

Limitations

There were no study limitations.

Case Studies

A predictable health service that is critical for wellbeing



I am 45 years old. I was engaged in coolie labour and agricultural work earlier, but I have not been able to work off late due to my health condition. I had a thyroid operation done at a cancer hospital in Chennai where they removed my glands. Post-surgery, I need to take ongoing medication as well as calcium and iron supplements.

The weekly check-ups provided by MHU are highly beneficial. If I were unable to access these services, I would suffer a lot. Without the medication, I would not even be able to stand! I cannot afford the medication, which costs INR 100 per strip, and no other health facility offers these medications free of cost.

If I am unable to visit the van in a particular week, they come home and give me my medicines. When I travel out of town, I take the dosage required in advance so that I don't miss the medication. The van service is very predictable and I am highly satisfied.

Simply said, I would not be alive without it!

- As narrated by Devi (name changed)

I am 80 years old. I have chronic body pain and fatigue. I have been getting regular medication and ointments from the MHU. This is a god given service – it is a very useful for me as I do not have to leave the village to get treated. If I were to get the same treatment in a private hospital, I would spend INR 2000. I am poor with no one to support me, so I continue to work even at this age. Thanks to MHU treatment, I can keep working and earn a living.

- As narrated by Logammal (name changed)

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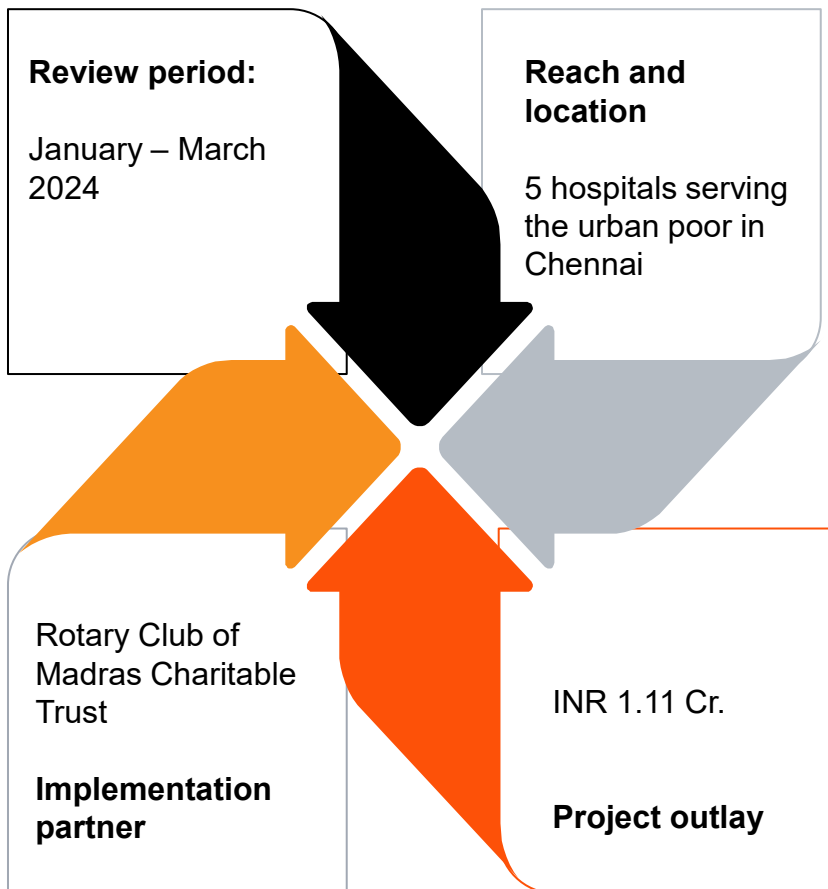
Medical Equipment Support to Hospitals



Project Overview, Approach and Methodology

Thematic Area: Health

Project Overview



Project Objective

The project aims to augment the healthcare at hospitals that serve the urban poor in Chennai by contributing critical medical equipment and devices.

Project Activities

- Redington, through Rotary Club of Madras Charitable Trust (Rotary) donated the following equipment:
- ❑ **2 electrosurgical generators and 1 video laryngoscope** to Kanchi Kamakoti Childs Trust Hospital, Chennai
 - ❑ **5 dialysis machines** to Hindu Mission Health Services, Nanganallur, Chennai
 - ❑ **1 Continuous Renal Replacement Therapy (CRRT) machine** to Hindu Mission Hospital, Tambaram, Chennai
 - ❑ **1 patient ambulance** to Government RSRM Hospital, Royapuram, Chennai
 - ❑ **17 smart vision glasses** to visually impaired individuals at Voluntary Health Services (VHS), Chennai

Methodology: IRECS - Qualitative

Qualitative Interactions

- **Childs Trust Hospital:** In Depth Interviews with **2 doctors and 2 patients**
- **Hindu Mission Health Services:** In Depth Interviews with **an administrator, a doctor, a technician and 2 patients**
- **Hindu Mission Hospital:** In Depth Interviews with **an administrator, a doctor and 2 patients**
- **RSRM Hospital:** In Depth Interviews with **the medical superintendent and the ambulance driver**
- **Voluntary Health Services:** In Depth Interviews with **2 doctors and 3 patients**

Analysis and Findings

Kanchi Kamakoti Childs Trust Hospital

2 electrosurgical generators and 1 video laryngoscope

Challenges Prior to the Project

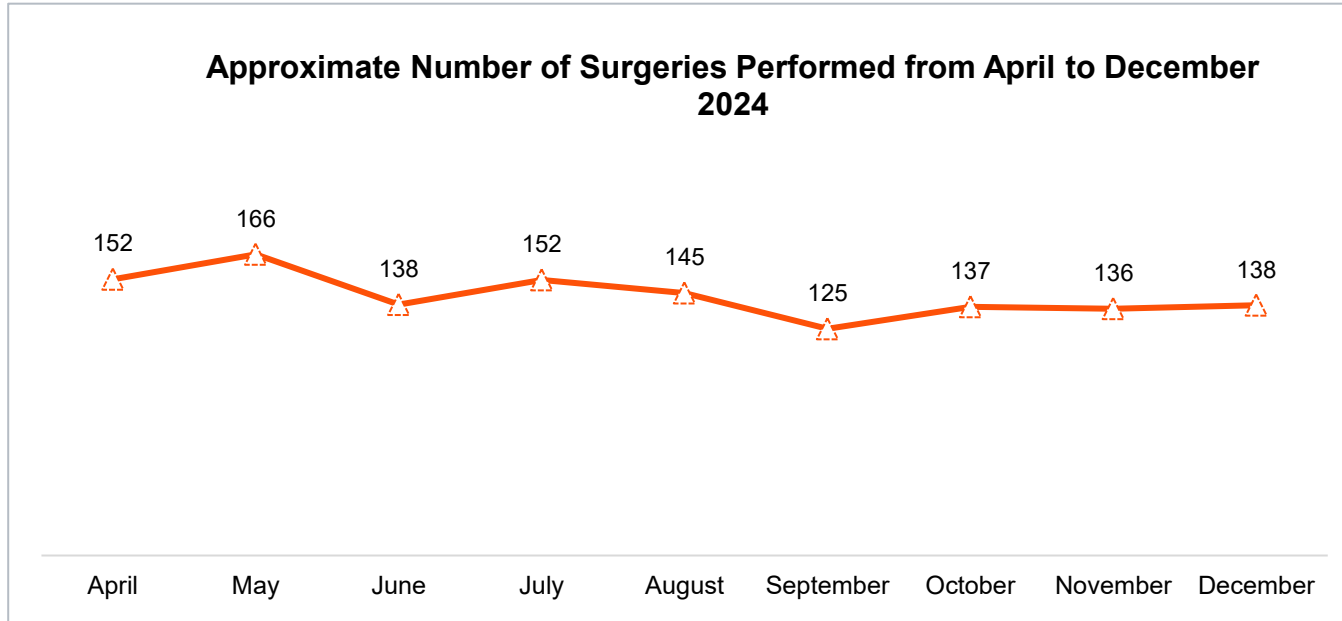
- The hospital had two electrosurgical generators earlier which were **outdated and often malfunctioned during surgery**, potentially leading to higher blood loss for the patient. The older equipment did not have fine needle tips, causing **significant scarring** and damage to the skin and tissue, which **delayed the healing process post-surgery**.
- The hospital possessed a regular laryngoscope, without the video camera option which was used when a patient had to be put on a ventilator. While it was adequate in most intubation cases, in the case of **difficult intubations** or where there was damage or inflammation. Doctors **could not observe the condition** and had to prod around when inserting the breathing tube, **risking serious damage**.

Areas of Impact

- According to the head of ICU, Childs Trust Hospital caters primarily to **low-income patients from Tamil Nadu and neighbouring states**. The request for equipment along with the specific model number was shared by the hospital with Rotary, who placed the order. Upon delivery, the vendor sent technicians to **train staff and clarify issues**. Beyond the one-year warranty, the hospital's in-house biomedical team maintains the equipment.
- Doctors shared that the **electrosurgical generators** are standard equipment **utilised in 90-95% of all surgeries** to cut and coagulate tissues. The following impact areas were highlighted:
 - **High quality outcomes:** As the equipment minimised blood loss, surgeons had better visibility when during surgery, improving the quality of surgery. This was particularly beneficial in complex spinal and brain surgeries. For neurosurgery specifically, the advanced features with customised settings allows surgeons to navigate the brain in a precise manner, giving them greater confidence.
 - **Steady performance during surgery:** The new equipment eliminated the need to transfer devices between theatres due to mid-surgery equipment failures. This increased the number of surgeries performed to some extent.
 - **Faster recovery:** Scarring, burns and pain associated with greater bleeding from the earlier equipment was reduced with the new electrosurgical generators. The fine tipped needles provided greater accuracy and reduced damage to nearby tissues during cutting and cauterisation. Skin sensing technology monitored impedance and reduced damage, which was particularly beneficial to children.
 - **International standards:** Having world class equipment like this gave the hospital greater confidence to bring in experts from abroad, as they are used to performing surgeries on the latest equipment.
- The **video laryngoscope** was used **2-3 times a month on average**, only in cases where intubation is difficult. As it reduces damage, there is **less trauma to the patient**. The video feature allowed the doctor to **capture and record images** of inflammation or damage and **review it** few days later.

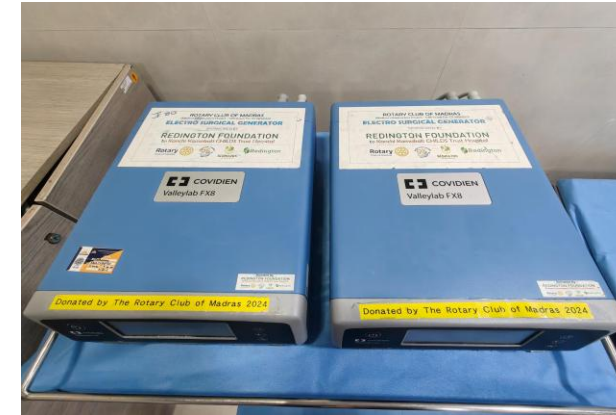
Analysis and Findings

Equipment Usage April – December 2024



Data was shared by the hospital for all surgeries using electro-surgical generators. As 2 out of 5 generators were donated by Redington, proportionate values were calculated. As seen in the graph above, approximately **150 surgeries were performed each month using these devices.**

Snapshots from the field



2 Electro-surgical Generators



Video Laryngoscope



The main benefit is patient safety. It has also improved surgeon's accuracy and their confidence in handling complex surgeries."

- As narrated by a doctor

Analysis and Findings

Hindu Mission Health Services (HMHS)

Five Dialysis machines

Challenges Prior to the Project

- The administrators at Hindu Mission Health Services (HMHS) shared that the hospital already had 7 dialysis machines, but these were **insufficient to handle the huge demand**. As the hospital offers free of cost treatment to patients, who come from low-income backgrounds, they were not willing to seek treatment elsewhere. It was **complicated to arrange patients' schedules** and ensure they got timely treatment.
- Technicians highlighted that the high demand was managed by **increasing the number of shifts per day**, requiring them to **work overtime** until late at night.
- Patients would have to **wait 1-2 hours** for dialysis to start and those who were given the last shift of the day (5-11pm) would **struggle to find transport** post-treatment, having to pay **double charges** for the late hours.

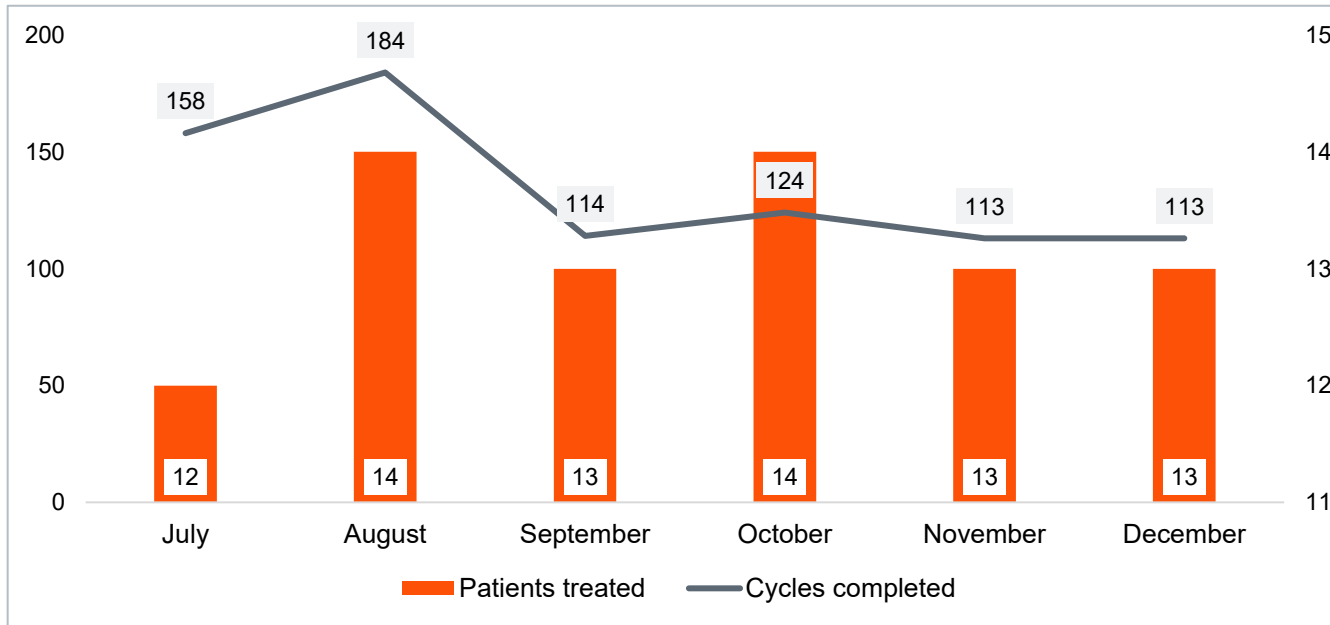
Areas of Impact

During interactions at the hospital, stakeholders shared that:

- There has been an **increasing trend of kidney problems** in India, directly linked to the rise in **diabetes and hypertension**. Chronic kidney problems require dialysis treatment, the duration varying based on the patient's condition.
- As there are **no government hospitals within a 10km radius** of HMHS, dialysis treatment is in high demand. Private hospitals charge INR 3000-5000 per session, and patients typically do 2-3 sessions per week, creating an **enormous financial burden**. HMHS hospital provides **free-of-cost treatment** to patients who need ongoing treatment and is **empanelled with government health insurance schemes**, thus serving the **economically disadvantaged**. The following impact areas were highlighted:
 - **Higher footfall**: The donation of **5 dialysis machines** by Redington has allowed the hospital to move from running 300 cycles per month (with 7 machines) to **450-480 cycles a month** with 12 machines. The additional machines have **reduced wait time** and allowed the hospital to serve more patients.
 - **Elimination of overtime**: By running two shifts instead of three, technicians now work **reasonable hours**, increasing their job satisfaction.
 - **Convenience of treatment**: Patients highlighted that they **complete treatment at a reasonable hour** and can return home at a convenient time, thus **avoiding high transport expenses** which are a burden to those who are poor.
 - **Reliable support**: HMHS purchased the same brand as the existing dialysis machines, which the **technicians were familiar with operating** and so, they were able to **use them at full capacity** upon installation. The reasonable maintenance costs, **minimal wear and tear**, and reliable technical support were reasons cited by the administrators for choosing the same brand and the expected life is 15 years. Beyond the regular warranty, the hospital manages the service of the machines.

Analysis and Findings

Equipment Usage Data – July to December 2024



Data shared by HMHS shows that **79 patients** were treated and **806 sessions** of dialysis were completed from July to December 2024 with the 5 machines provided by Redington



Everything is convenient here and treatment is available around the clock. My health is better now and I am satisfied with the services provided.”

- As narrated by a patient

Snapshots from the field



Dialysis machines donated by Redington

Analysis and Findings

Hindu Mission Hospital (HMH), Tambaram

One Continuous Renal Replacement Therapy (CRRT) Machine

Challenges Prior to the Project

- According to a doctor at HMH, Continuous Renal Replacement Therapy is given to **critical patients** who have **abnormal renal conditions** and where conventional dialysis treatment cannot be given as their **parameters are unstable**. It allows them to undergo dialysis in a safe manner. As the patients are in a critical state, **reliable equipment is needed** during the 24-hour therapy. Prior to the project, there was **only one CRRT machine** and in case of malfunctioning, there was **no back up available**. Further, they faced a challenge when there were two patients simultaneously requiring CRRT.
- The hospital received full accreditation from NABH* in 2014 and one of the conditions laid out was that **all critical equipment had to have a backup** to ensure there is no compromise to continuity of treatment. With CRRT, this is vital as the patient is in ICU and may lose their life otherwise.
- These challenges **necessitated a second CRRT machine** at the hospital.

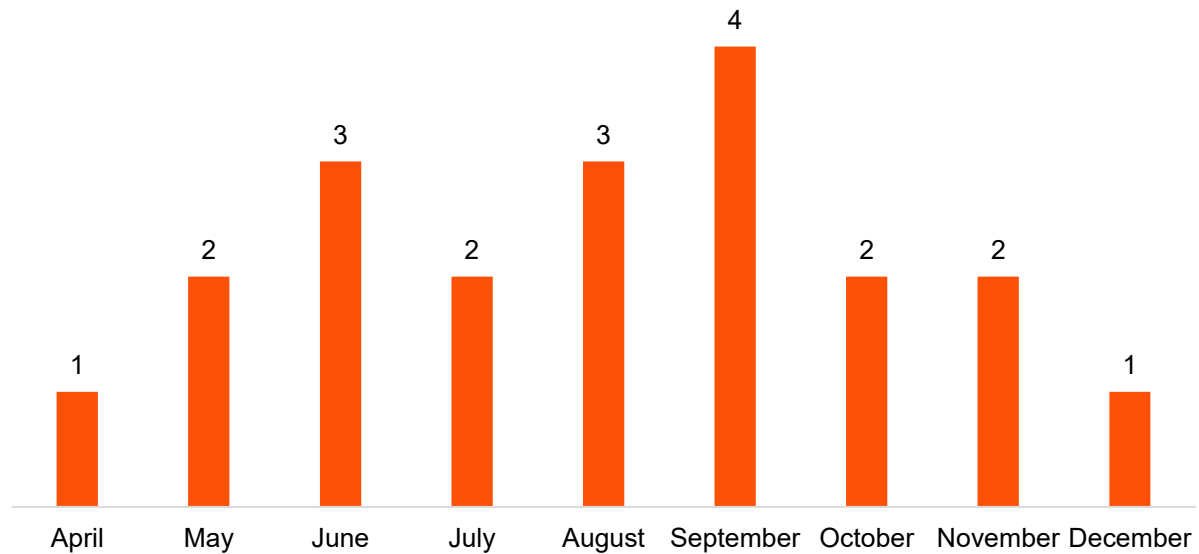
Areas of Impact

The administrator and doctor at the hospital shared the following observations during interactions:

- **Kidney disease is on the rise** and recurring treatment is required as it is a **chronic condition**. When the patient becomes unstable, CRRT therapy is unavoidable. The provision of **one CRRT machine by Redington** has had the following benefits:
 - **Enhanced affordable care:** Hindu Mission Hospital, being in **an urban poor area**, serves patients from **economically disadvantaged backgrounds** who cannot afford treatment. HMH offers services at a reasonable rate and subsidises treatment for those who cannot pay. While CRRT treatment costs INR 90,000 in private hospitals, it is priced at INR 40,000 at HMH and is further **subsidised to INR 20,000** for those who cannot afford the full cost. The doctor highlighted that consumables are a high percentage of the cost (around INR 25,000-30,000). As these are not supported by CSR grants, CRRT cannot be provided free of charge to patients, and at best, can be subsidised.
 - **Increased patient support:** Earlier, 2-3 CRRT therapies were done each month, and after the donation of the second machine, **5-6 therapies were done in total each month**. The administrator observed that as CRRT is used only when a patient is in a critical state, the beneficiary count would not be high in number. However, this life saving equipment **offered better outcomes than regular dialysis** treatment by maintaining a patient's vitals. With 2 CRRT machines, the hospital can **treat two patients simultaneously** if the need arises.
 - **Reliable support:** The machine installed is **standard and world-class**, known for its reliability, long life and good after-sales service. It was the same brand as the earlier CRRT and so, the hospital team was familiar with its use. As the discussions around equipment support happened over a short span of time, the hospital **was unable to request extended warranty or Comprehensive Maintenance Contract (AMC) support** which would have been beneficial to them.

Analysis and Findings

Equipment Usage April – December 2024



Data shared by the hospital reveals that the CRRT machine has been used 1-4 times per month from April to December 2024.

Snapshots from the field



CRRT Machine in the ICU of Hindu Mission Hospital, Tambaram



I was treated under an emergency, and they attended to me well. There is no waiting time here. I am healthier and more active after being treated here.”

- As narrated by a patient

Analysis and Findings

Government RSRM Hospital

One Patient Ambulance

Challenges Prior to the Project



- The medical superintendent of RSRM Hospital shared that OBGYN patients who seek treatment at RSRM Hospital often need to go to nearby Stanley Government Hospital for specialist consultations and tests. When patients cannot be moved, doctors and specialists from Stanley are brought to RSRM for consultation.
- Earlier they did not have an appropriate vehicle for essential support and a **small, passenger van** was used to transport patients/ staff. **Multiple trips** were required as it could take small batches at a time. When many patients had to be transported, it would get **congested** as attenders often had to accompany them. The trip would **take longer** as it was a passenger vehicle and not an ambulance which is entitled to faster movement on busy roads.
- The driver added that the vehicle itself was not in good condition and would have **frequent faults**, disrupting the transport of patients. As was also used to facilitate blood donation camps, it **could not be driven to far locations** due to its poor condition, limiting the reach of their camps.

Areas of Impact

- According to the Medical Superintendent, RSRM Hospital provides all OBGYN services, **handling 700-800 deliveries per month** as well as other gynaecological support services. It caters to **Below Poverty Line, low socio-economic status women** from North Chennai and surrounding areas, as well as migrants who work in the city, who cannot afford to pay for healthcare. Additionally, it takes on **high-risk and complicated cases** which other hospitals refuse to handle. The **ambulance** provided by Redington had the following impact:
 - **Efficient transportation of patients:** Data shared by the hospital reveals that **4,828 patients were transported** in the ambulance from April 2024 to January 2025. The driver highlighted that multiple trips to transport patients, attenders, doctors and equipment were not required as the ambulance **had the capacity to accommodate a larger number (9-10)** at a time. The reduced trips also meant that **turnaround time was decreased from 4 hours to 1 hour**. By utilising the siren when required, **a 20-minute journey could be done in 10 minutes**. Patients appreciate the greater **safety and comfort** in this vehicle, which **operates free-of-charge** and observed that **waiting time** for the vehicle to depart from either location reduced.
 - **Greater reach for blood collection:** The vehicle is used to collect blood through regular outreach camps at colleges. A larger vehicle that is in good condition means that **it can access colleges located at longer distances** for donation camps. Additionally, as the hospital periodically requires **emergency blood** during complicated deliveries surgeries, the ambulance is used each night to visit multiple blood banks in the city to locate and source blood.
 - **Sustained operations:** As the ambulance is new, it has been working in **optimal condition and is being fully utilised**. The hospital ensures the vehicle is maintained and serviced periodically at government workshop sheds. While acknowledging that this vehicle has been critical, the superintendent shared that it would be helpful if it was **equipped with an oxygen cylinder and ventilator support** to transport critical cases seamlessly.

Analysis and Findings

Ambulance Related Data for April 2024 – December 2024

	Number of patients transported daily 15-18 on average	Number of patients transported in total 4,828	Reduced turnaround time for the van 4 hours to 1 hour
	Number of blood donation camps held 14	Number of voluntary donors 721	Units of blood collected voluntarily 899 units

The van carried 15-18 patients per day on average. From April 2024 to December 2024, was used to run 14 blood donation camps collecting 899 units of blood.

“

Patient safety is higher. They are comfortable. They say the vehicle is in good condition and I drive it smoothly and carefully. At night, the ambulance flies across the city to all blood banks and locates blood wherever available.”

- As narrated by the ambulance driver

Snapshots from the field



Patient ambulance at Government RSRM Hospital

Analysis and Findings

Voluntary Health Services (VHS)

17 Smart Vision Glasses

Challenges Prior to the Project

- A doctor commented that VHS supports individuals when **vision restoration in both eyes isn't possible**. Despite available rehabilitation options, families are hesitant to invest on rehabilitation or treatment as the individual is **not a productive** or earning member of the family.
- An administrator highlighted that **current technologies for reading are limited** and those who are vision impaired must **rely on scribes** for reading and writing. The **reduces their independence** as they can only read or write when a scribe is available. While there are phone-based applications that aid in reading, she observed that these cannot be used during examination times, as smart devices are not allowed in exam halls. Further, **navigation within and outside the home is limited** and vision impaired individuals are dependent on others for support. All of these constrain their self-sufficiency.

Areas of Impact

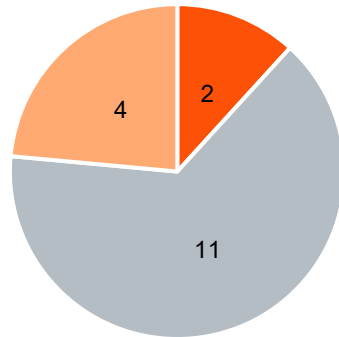
Interactions with the doctor, administrator and beneficiaries highlighted the following aspects:

- VHS has been supporting patients who have vision impairment through counselling and rehabilitation. Patients come from **marginalised backgrounds** and have Priority Household (PHH) ration cards, indicating their **high economic vulnerability**. After understanding a patient's needs, VHS assists in helping them secure specialised support, including the provision of Smart Vision Glasses. These glasses cost INR 45,000-50,000 which would not be affordable to them, and assist in **reading, mobility, space detection, currency detection and face recognition**. During 2023-24, VHS distributed **17 Smart Vision Glasses free-of-charge** through Redington's support. The impact of these glasses was:
 - **Greater independence in learning:** Smart Vision Glasses were provided to college students and job seekers to assist in **exam and interview preparation**. The reading mode offers **flexible study options**, identified as the main benefit by recipients. However, one user found phone applications more accurate, noting the glasses' reading feature **performed better in English than Tamil**.
 - **Higher self-reliance in mobility:** A doctor noted that the Smart Vision Glasses **improved recipients' navigation** both at home and outside. However, one user pointed out that the **device struggles in low-network areas**, suggesting an offline mode would enhance accuracy. Another found the **headset hindered environmental awareness**, and despite the navigation feature's potential, it was considered **less intuitive for outdoor use** compared to a mobility cane.
 - **Ongoing service and support:** Individuals were given training and their smart phones were activated prior to handing out the device. One patient noted that it **took time to figure out the functionality** and use the glasses comfortably. The software is **regularly updated**, and the vendor has offered to upgrade the device (which is a first-of-its-kind), to a newer version that is wireless, lighter and more versatile. One recipient felt that the device is most useful **in combination with a smart phone and mobility cane**, raising the point that it would be better if companies work on **making mainstream software more accessible and customisable** to suit the needs of the visually challenged.

Analysis and Findings

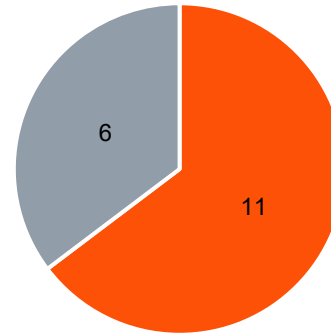
Profile of the 17 Beneficiaries who Received Smart Vision Glasses

Educational qualification of recipients



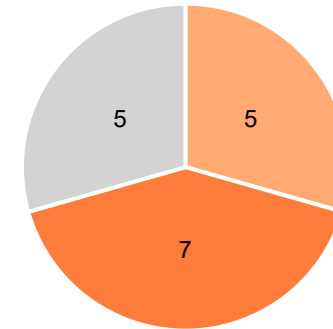
■ High school or less ■ Undergraduate ■ Post graduate

Gender of recipients



■ Male ■ Female

Age category of recipients



■ 25 and less ■ 26 to 35 ■ 36 and above



Priority Household Ration Card: 17
Disability Certificate: 17

Data shared by VHS on the background of the patients reveals that **majority were male** (11 out of 17 recipients) **and had undergraduate degrees** (11 out of 17). **All recipients** had Priority Household Ration Cards and Disability Certificates.



I can read freely, without depending on sighted people. I can identify colours. I can store faces. Because of these glasses, I can travel outside independently. Earlier I would use apps on my phone or depend on sighted people to check currency. This has multiple features which I appreciate. This has given us the independence to function like sighted people.”

- As narrated by a recipient

IRECS Analysis



INCLUSIVENESS

Child's Trust Hospital: The equipment was donated to a hospital that caters to children from low-income backgrounds in Tamil Nadu

Hindu Mission Health Services: Dialysis treatment is provided to all patients free of cost, making it accessible and affordable.

Hindu Mission Hospital: Redington's support was given to a hospital located in an urban poor area, providing subsidised treatment to patients who require CRRT.

RSRM Government Hospital: Redington's support goes to a hospital that caters to BPL patients who cannot afford healthcare. The ambulance operates free-of-charge and is used by all patients and medical staff.

Voluntary Health Services: The project targeted individuals whose vision could not be restored and the devices were made available free-of-cost.



RELEVANCE

Child's Trust Hospital: The electrosurgical generators were used in nearly all surgeries, replacing outdated equipment. The laryngoscope was key in difficult intubation cases.

Hindu Mission Health Services: High demand from patients for dialysis treatment existed and there was no government facility within 10 km of HMHS, making the additional dialysis machines relevant.

Hindu Mission Hospital: The hospital required an additional CRRT machine as per NABH requirements. Having two CRRT machines ensured there was a backup.

RSRM Government Hospital: The ambulance transported patients to Stanley Hospital for consultations and tests and also sourced blood required through camps and banks.

Voluntary Health Services: The features of the device improve independence and self-reliance through reading, recognition and navigation support, which are the main challenges visually-impaired individuals face.



EFFECTIVENESS

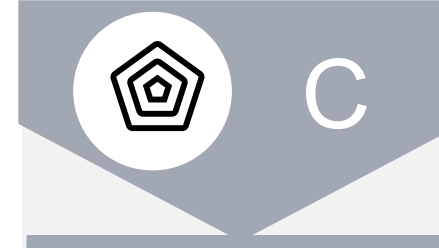
Child's Trust Hospital: The electrosurgical generators have increased precision and accuracy of surgeons and improved the quality of healing for patients.

Hindu Mission Health Services: Additional machines provided by Redington reduced wait time and ensured that treatment was done at a convenient hour. Machines were used to full capacity.

Hindu Mission Hospital: The machine increased the capacity from 2-3 to 5-6 treatments a month on average, increasing the bandwidth of the hospital

RSRM Government Hospital: Higher number of patients could be transported at a time, reducing the number of trips and wait time. The van could access colleges located at a distance for blood donation camps.

Voluntary Health Services: Being a first-of-its-kind device, recipients faced a learning curve for comfortable use. Its effectiveness in low-network areas was uncertain, and the reading mode lacked accuracy in local languages.



CONVERGENCE

In the case of **RSRM Government Hospital**, the support was given to a government facility and the maintenance of the ambulance was carried out through government workshop sheds.

The other hospitals cater to socio-economically disadvantaged groups and are **empanelled under government insurance schemes** like PM-JAY, Chief Minister's Comprehensive Health Insurance Scheme, etc. The project has supported the government's mission to **advance public health services** in India.



SUSTAINABILITY

Child's Trust Hospital: Although the warranty provided was for one year only, the hospital's in house team ensured that the equipment is well maintained to last a long time.

Hindu Mission Health Services: The machines purchased are known for their long life and minimal wear and tear and the vendor provides timely service support, suggesting that they could be used for 15 years.

Hindu Mission Hospital: The machine is world class and is known for its reliability and long life. As the project was executed in a short span, HMH could not request CMC or extended warranty support from Redington.

RSRM Government Hospital: The van is in optimal condition and the hospital was confident about maintaining it for long-term usage.

Voluntary Health Services: The software is regularly upgraded and the vendor offered a hardware upgrade to ensure that the device was up-to-date in meeting the needs of those with vision impairment.

Alignment to UN SDGs, Recommendations and Limitations

Alignment with UN Sustainable Development Goals



Goal 3 focuses on ensuring healthy lives and promoting well-being across all ages. By providing critical equipment to hospitals and individuals based on an expressed need, Redington has been able to improve health and wellbeing, particularly for those from disadvantaged economic backgrounds.

Recommendations

- **Provision of extended support:** In all cases, the extended warranty and comprehensive maintenance care (CMC) costs were borne by the hospital. As this is a **significant expenditure** for institutions that work with marginalised communities, it is recommended that Redington **provide extended warranty and CMC along with its support of medical equipment** to ensure that the equipment is utilised for a long duration of time through formal support from the vendor.
- **Systematic data collection to inform decision making:** Redington can request hospitals where support has been given to **maintain monthly records on the usage** of the equipment, and where possible, **collect background data on the beneficiaries**. While this is being done in some hospitals, it is not done in all. Data on beneficiary profile and equipment usage will allow Redington to understand whether their support is **going to marginalised populations** and **being used optimally** by the hospital, helping inform decisions around future support.

Limitations

At RSRM hospital, patient interactions were not possible due to the hospital's privacy policies.

11

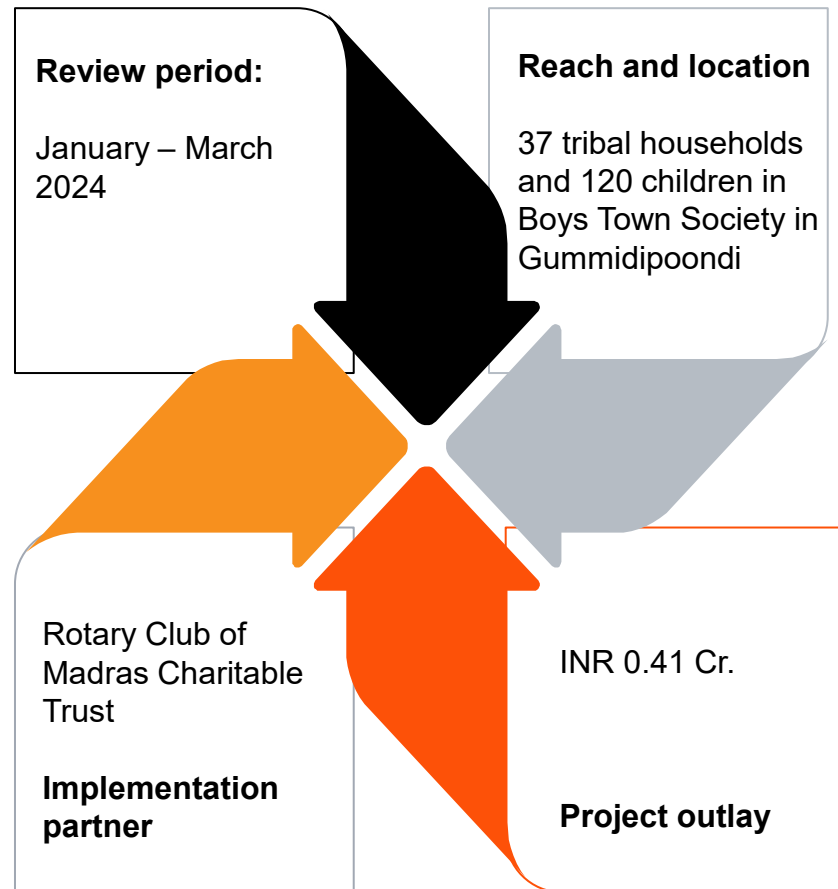
Creation of Smart and Sustainable Villages



Project Overview, Approach and Methodology

Thematic Area: Environment

Project Overview



Project Objective

The project aimed to improve the lives of tribal households by providing reliable power through solar panels to homes and an Anganwadi building. The project also provided saplings to improve the overall environment and quality of life of tribal households and a home for orphaned boys.

Project Activities

- ❑ Under Rotary's Home for Homeless project, Redington supported the purchase of **38 off grid solar power plants with inbuilt battery and mounting structure** for 37 homes and 1 Anganwadi building
- ❑ Alongside installation, **training was provided to the beneficiaries** on correct usage.
- ❑ Redington also supported an **Annual Maintenance Contract (AMC)** for 3 years beyond the 2-year warranty period.
- ❑ The tree planting activity included the **supply, transport, and planting** of trees of minimum 10 feet height, filling the pit with **soil improvement nutrients** and carrying out **maintenance for 3 months in:**
 - ❑ **37 tribal homes:** 2 fruit trees and 2 shade trees in each home
 - ❑ **Anganwadi:** 14 fruit bearing trees and 14 shade giving trees around the building
 - ❑ **Boys Town Society:** 180 fruit bearing trees and 90 shade giving trees

Methodology: IRECS - Qualitative

Qualitative Interactions

- 3 In-Depth Interviews with **beneficiaries of solar lights and saplings**
- 1 Key Informant Interview with a **Panchayat representative**
- 1 Focused Group Discussion with **residents of Boys Town Society**
- 1 Key Informant Interview with the **manager at Boys Town Society**
- 1 In-Depth Interview with **Rotary Club of Madras Charitable Trust representative**

Analysis and Findings

Challenges Prior to the Project

- According to the Panchayat representative, the **Irulars**, belonging to the Scheduled Tribes community, are among the **most disadvantaged**. Although the government gave them land along with patta documents, they did not have the resources to build a home as they **live in abject poverty** and struggle for daily survival.
- Prior to this project, beneficiaries shared that their homes were **unstable, thatched structures**, and water entered and stagnated during the rainy season. Further, they were **at risk to insect and snake bites, particularly at nighttime when visibility was poor**. The community **did not have an electricity connection** and **worried about their safety** during the monsoon.
- Residents of the Boys Town Society, who are orphans or come from single-parent homes from different parts of Tamil Nadu, attend nearby government schools. The residential facility is equipped to provide a secure and comfortable environment to the 100-odd boys who live there. However, **there were hardly any trees in the outdoor area**, making the surrounding environment **devoid of greenery and shade**.

Areas of Impact

Safe and reliable power at all times for tribal households

- Rotary **secured approvals** from the government departments, district collectorate and Panchayat, and sought support from multiple CSR donors to construct homes and Anganwadi. The representative from Rotary shared that **Redington added significant value to this project** by providing solar panels and helped **bring the project to reality**.
- Residents of the tribal community reported that the solar panels, installed in 2024, **provide consistent power**, ensuring **reliable lighting** and a **secure home**. A fully charged panel provided sufficient power to run a fan and light for the entire night. This has protected them from snake and insect bites, crucial due to the lack of nearby health facilities. Families with children appreciated the increased **safety at night**.
- The area is **prone to intense thunderstorms** during the monsoon and the electricity department usually shuts off power for safety purposes. Beneficiaries highlighted that even if they had formal electricity connections, they would have had to **survive without power for up to a week**. Now, with solar panels, they were secure in the knowledge that they could run a fan and light **in any season**. The **Anganwadi centre could also run without any hindrances** due to the availability of solar-powered lighting.

Analysis and Findings

Areas of Impact

...Continued

- During installation, residents received **training on usage and maintenance** of the solar panels and **reported no challenges in the usage**. The Rotary representative mentioned that an AMC with the vendor **extends for three years** beyond the two-year warranty (5 years of support in total). As a result, any issues are **promptly resolved** by the vendor's maintenance team.
- Aside from fans and lights, residents found the solar panels useful to **charge their mobile devices** which were needed for **work and study purposes**. Some residents complained of **tripping and malfunctioning** of units, usually when they used it to power devices like televisions and mixers. The Rotary representative mentioned that the **panels were not designed to handle such heavy loads** and usage for such purposes resulted in overloading and tripping the system, **necessitating repair or replacement**.

Green and healthy living environment

- Residents of the Irular community shared that they were given 4 saplings each of 10 feet height – the two shade giving ones were planted in front of their home and the fruit bearing ones (mango and guava) were planted behind.
- While the fruit bearing trees at the back **have grown well and started fruiting**, residents noted that the saplings in the front were **not so robust** and most **have been destroyed** by cattle. As there was **no fencing around the saplings**, they could not be protected.
- 28 trees were planted around the Anganwadi in anticipation of **providing a green and shaded environment** to children and **providing fruit to enhance their nutritional intake** in the future. However, **many of these saplings were destroyed** due to the grazing of cows and goats, as explained by a resident.
- Residents of Boys Town shared that the planting of native shade trees and fruit trees **made it feel like a home** and gave the environment a green and peaceful nature. The manager of the facility highlighted that in the initial period, there was a maintenance team to look after the saplings, and beyond that, **the boys participate in the maintenance** through regular watering and applying of manure. The availability of a pond in the facility ensures sufficient water throughout the year.



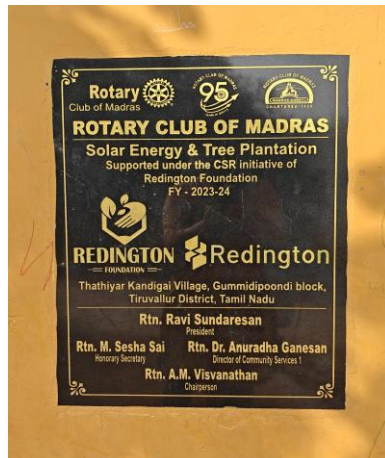
The community faced a lot of uncertainty around the availability of power. During the rainy season, we worried about our safety without a secure home or stable lighting. Solar is reliable and we don't have to suffer anymore or be plunged into darkness when there is no power. This has really changed our lives."

- As narrated by a beneficiary

Analysis and Findings

Snapshots from the Field

Solar panel and saplings donated in Thathaiyur Kandigai village



Saplings donated in Boys Town Society



The planting of trees brings more shade in our facility, and the environment is healthier. We can breathe clean air, which is good for our future. Just as the trees planted earlier are benefitting us in the present, what we nurture and maintain now will benefit others in the future.”

- A resident of Boys Town Society

IRECS Analysis



INCLUSIVENESS

- The solar panels and saplings benefitted the Irular community who are a marginalised group in Tamil Nadu and did not have the resources to build their own homes.
- The saplings in the Boys Town Society benefit children who come from disadvantaged home situations.



RELEVANCE

- As the tribal community did not have a formal electricity connection, the solar panels provided reliable power at all times, making their environment safe and secure at night and during the monsoon.
- The trees planted in the 37 homes, Anganwadi and Boys Town Society provide shade and greenery and the fruits offer future nutritional benefits.



EFFECTIVENESS

- Solar panels functioned effectively and the AMC for 3 additional years ensured that any repairs were carried out promptly.
- Saplings planted were maintained and monitored for a 3-month period by Redington, following which the beneficiaries took over their upkeep and growth.



CONVERGENCE

- Although there are no direct convergences with the government, intervention supplements the vision and efforts of the government to uplift the community and complements other development initiatives in the region.
- Redington supported Rotary, which built homes for Irulars after securing permission from various government departments. Along with other CSR donors, they helped bring this project to life.



SUSTAINABILITY

- The AMC provided extended support for the solar panels, ensuring they run for a longer period of time.
- Many saplings given to the community and planted around the Anganwadi did not survive due to lack of protection in the growing stages.
- The saplings in Boys Town Society were maintained well by the residents and adequate water from the pond ensured their sustained growth.

Alignment to UN SDGs, Recommendations and Limitations

Alignment with UN Sustainable Development Goals



Goal 7 aims to ensure access to affordable, reliable, sustainable and modern energy for all. By providing solar panels to Irular communities who do not have formal electricity connections, the project has given them a secure, free-of-cost source of power. The use of solar panels not only increases access to electricity but ensures that this electricity comes from a renewable source of energy.



Goal 15 aims to protect, restore and promote sustainable use of terrestrial ecosystems through combating desertification and restoring degraded land and soil. By planting native shade giving and fruit bearing trees in households in the tribal community and the Boys Town Society campus, the project brings about greater environmental sustainability.

Recommendations

- **Periodic training support:** Along with training the beneficiaries on the usage of solar panels during the installation process, **periodic training workshops** are needed to ensure that the community uses the solar panels optimally. This will reduce the need for repairs and improve the life of the panels. The community also needs adequate training on appropriate usage of the panels to reduce repairs and replacements caused by overloading the system.
- **Additional provisions for project sustainability:** As the saplings were not sturdy enough to withstand attacks by cattle, **fencing to protect saplings can be provided** until they reach a reasonable size. Support measures to **strengthen community ownership** are also required so that the residents take greater care to maintain the trees.
- **Wider range of support for community wellbeing:** The 180 fruit bearing trees and 90 shade giving trees contribute to the long-term greenery of the Boys Town Society. Additional support can be provided to initiatives that **improve the immediate wellbeing of the residents**, such as the provision of sports facilities and supplementary teaching facilities for higher educational attainment.

Limitations

There were no study limitations

Thank you

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