

IMPACT ASSESSMENT REPORT

Infosys Limited

April 2025

Price Waterhouse Chartered Accountants LLP

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Abbreviations

Abbreviation	Full Form
Al	Artificial Intelligence
ASHA	Accredited Social Health Activist
BKF	Bangalore Kidney Foundation
BMC	Bhubaneswar Municipal Corporation
BPL	Below Poverty Line
CAPI	Computer-Assisted Personal Interviewing
C-Help	Centre for Health Education, Learning and Practice
CKD	Chronic Kidney Diseases
CMC	Christian Medical College
CSR	Corporate Social Responsibility
DBMS	Database Management System
DRS	Development and Research Services
ECG	Electrocardiogram
FEP	Faculty Enablement Programs
FGD	Focused Group Discussions
GHPS	Government Higher Primary School
GMPS	Government Model Primary School
IBPM	Infosys BPM Limited
ICU	Intensive Care Unit
IDI	In-Depth Interview
IDIs	In-Depth Interviews
IIIT	Indian Institute of Information Technology
IIPH	Indian Institute of Public Health
INR	Indian Rupee
ITES	Information Technology Enabled Services
IV	Intravenous
JAWS	Job Access With Speech
KPS	Karnataka Public School
LBSNAA	Lal Bahadur Shastri National Academy of Administration
MAS	Mahila Arogya Samitis
MCA	Master of Computer Applications
MCG	Municipal Corporation of Gurugram
MGM	Mahatma Gandhi Mission
MOU	Memorandum of Understanding
MSAPS	Mo School Abhiyan Parichalana Sangathan
NBSU	Newborn Stabilisation Unit
NITI	National Institution for Transforming India
NLSIU	National Law School of India University
OPD	Outpatient Department
PHFI	Public Health Foundation of India
PTM	Parent-Teacher Meeting
PW/PWCALLP	Price Waterhouse Chartered Accountants LLP
R&D	Research and Development
RFID	Radio Frequency Identification
RKM	Ramakrishna Mission
RO	Reverse Osmosis
SCERT	State Council of Educational Research and Training
STEM	Science, Technology, Engineering, and Mathematics
TSRTC	Telangana State Road Transport Corporation
TTT	
UHC	Teach Through Television
	Universal Health Coverage User Interface
UI	
ULB	Urban Local Body
UPS	Uninterruptible Power Supply

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1. Introduction and Background

1.1. CSR at Infosys Limited

Infosys Limited ("Infosys", Company") is a global leader in next-generation digital services and consulting, assisting clients in over 55 countries through its digital transformation with cloud and AI-driven solutions. It provides an AI-first core and agile digital capabilities at scale, fostering continuous improvement and innovation. Committed to sustainable governance, a sense of social responsibility forms an integral part of its value system.¹ Infosys has been an early adopter of a strong CSR agenda, emphasizing social stewardship alongside economic performance and eco-sustainability. It is committed to creating a positive impact in the communities through key CSR projects across the various focus areas (Figure 1).²³

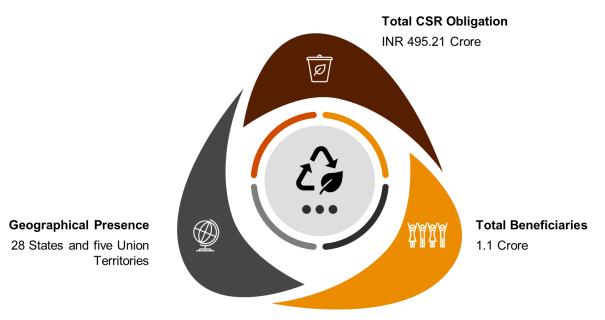


Figure 1: CSR at Infosys Limited (FY 2023-24)

The company established the Infosys Foundation in 1996 with a mission to support underprivileged sections of society, create opportunities, and strive towards a more equitable society. The foundation works in various areas such as education, healthcare, women's empowerment, and environmental sustainability, amongst others. It further supports programmes and organisations devoted to the destitute, the rural poor, the mentally challenged, and the economically disadvantaged sections of society.⁴ Impacting 1 crore+ people, the foundation's projects and grants have been instrumental in changing lives and developing future leaders of the country through access to resources and opportunities.⁵

Infosys centers its focus on several key CSR focus areas to contribute positively to society and environment (Figure 2)⁶:

¹ https://www.infosys.com/about.html

² <u>https://www.infosys.org/</u>

³ https://www.infosys.com/investors/reports-filings/annual-report/annual/documents/infosys-ar-24.pdf

⁴ https://www.infosys.org/infosys-foundation.html

⁵ https://www.infosys.org/infosys-foundation/talesofhope.html

⁶ https://www.infosys.com/investors/corporate-governance/documents/corporate-social-responsibility-policy.pdf

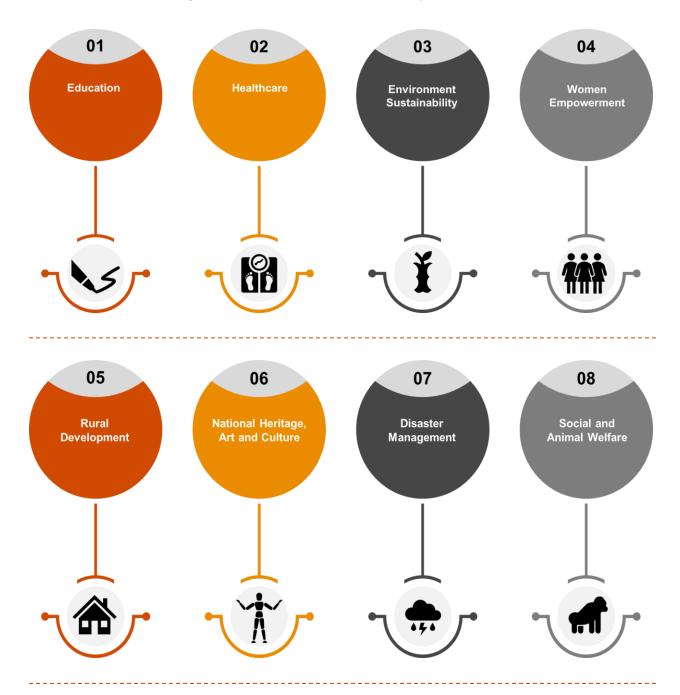


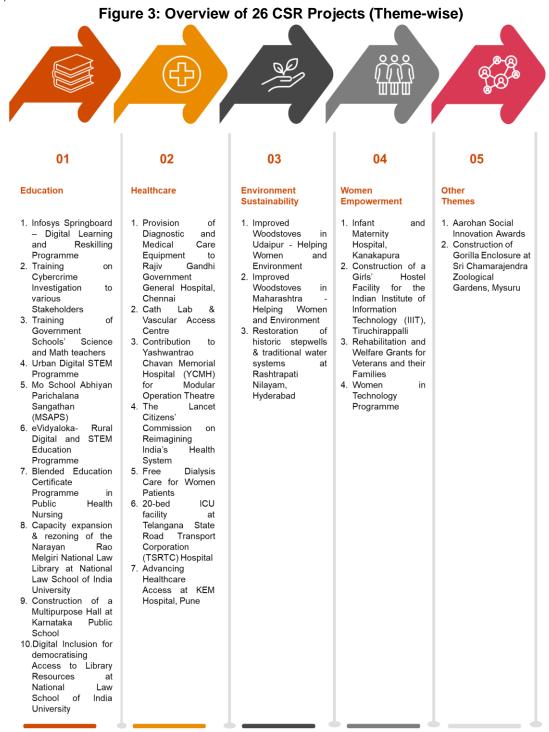
Figure 2: CSR Focus Areas of Infosys Limited



2. Executive Summary

Scope of the Study:

Infosys Limited has been implementing various Corporate Social Responsibility (CSR) Projects for holistic community development and institution building to serve the enrichment and evolution of businesses and communities. It has engaged Price Waterhouse Chartered Accountants LLP (PWCALLP) to provide support and assistance for an independent review and impact assessment of 26 CSR Projects identified by the Management as per the provisions of Companies (Corporate Social Responsibility Policy) Amendment Rules, 2021:



Methodology:

To assess the impact of the projects, a mixed-method approach was employed, utilizing either quantitative or qualitative research tools, or both, as appropriate, for primary data collection. Utilising these tools, the research team conducted interactions, both virtually and / or on-site, with project beneficiaries and other relevant stakeholders. After collecting and analysing the data, the key insights and findings were compiled into a comprehensive report for the Management's review. This assessment was guided by the Inclusiveness, Relevance, Effectiveness, Convergence, and Sustainability (IRECS) Framework, which provided overall feedback on the effectiveness of the implementation and its efficiency in achieving the desired project outcomes and impact relative to the inputs.

Summary of Key Findings:

As a part of the study, a brief overview of findings for all the 26 CSR projects (theme-wise) is provided below:

Theme 1: Education

In Education theme, various CSR projects have advanced digital literacy and educational outcomes by providing accessible learning platforms and improving educational environments. They have empowered beneficiaries, particularly in marginalized and rural communities, boosting engagement, confidence, and academic performance. Infrastructure upgrades in educational institutions and skill development initiatives have enhanced learning and employability. Overall, these projects have uplifted individuals and contributed to sustainable development and community resilience. Below provides an overview of impact created by each of the CSR projects in Education theme:

#	CSR Project under Assessment	Project Location	Implementation Partner	Total Beneficiaries	Project Period	Total Spent	Quantitative Sample
1.	Infosys Springboard – Digital Learning and Reskilling Programme	Pan India	Self- Implementation	85,00,000 learners	FY 21 to FY 24	INR 86.47 Crores	575
2.	TrainingonCybercrimeInvestigationtovariousStakeholders	Bengaluru, Karnataka	Self- Implementation through Infosys Foundation	20,749 stakeholders	FY 19 to FY 23	INR 11.78 Crores	NA ⁷
3.	Training of Government Schools' Science and Math teachers	Andhra Pradesh and Odisha	Agastya International Foundation	2,670 teachers	FY 22 to FY 23	INR 6.00 Crores	254
4.	Urban Digital Stem Programme	6 states across India	YUVA Unstoppable	73,861 students across 205 schools	FY 22 to FY 23	INR 5.00 Crores	278
5.	Mo School Abhiyan Parichalana Sangathan (MSAPS)	25 districts in Odisha	Mo School Abhiyan Parichalana Sangathan	30,000+studentsand1,000+teachers	FY 23	INR 5.00 Crores	270
6.	eVidyaloka- Rural Digital and STEM ⁸	Karnataka, Rajasthan and	eVidyaloka Trust	20,285 students	FY 23 to FY 24	INR 5.00 Crores	280

Table 1: Overview of CSR Projects in Education Theme

⁷ NA indicates not applicable as it was a qualitative study

⁸ Science, Technology, Engineering, and Mathematics

#	CSR Project under Assessment Education Programme	Project Location Madhya Pradesh	Implementation Partner	Total Beneficiaries	Project Period	Total Spent	Quantitative Sample
7.	Blended Education Certificate Programme in Public Health Nursing	Gurugram, Haryana & Bhubaneshwar, Odisha	Self- Implementation through Infosys Foundation	53 General Nursing and Midwifery (GNMs), 22 Bhubaneswar Municipal Corporation (BMC) officials and around 250 Mahila Arogya Samiti (MAS) members	FY 22 to FY 24	INR 5.00 Crores	NA
8.	Capacity expansion & rezoning of the Narayan Rao Melgiri National Law Library at National Law School of India University	Bengaluru, Karnataka	Self- Implementation through Infosys Foundation	400 students	FY 21 to FY 23	INR 4.90 Crores	NA
9.	Construction of a Multipurpose Hall at Karnataka Public School	Chitradurga, Karnataka	Self- Implementation through Infosys Foundation	754 students and 50 teachers	FY 20 to FY 23	INR 3.20 Crores	201
10	Digital Inclusion for Democratising Access to Library Resources at National Law School of India University	Bengaluru, Karnataka	Self- Implementation through Infosys Foundation	117 candidates	FY 21 to FY 24	INR 1.00 Crores	55

In the above table, NA indicates that 'quantitative survey was not applicable' as this assessment was conducted utilising qualitative research tools given the nature of this CSR project. Hence, to assess the impact of such CSR projects, qualitative interactions were conducted with various stakeholders such as students, trainees, healthcare workers, administrative staff, librarian and implementing partner, as applicable.

1. Infosys Springboard – Digital Learning and Reskilling Programme

- Infosys Springboard enhances digital literacy in India by offering free access to courses in coding, data analytics, and soft skills, contributing to the Digital Skilling Goals. The initiative currently supports 8.5 million registered users. This platform has notably impacted marginalized communities, engaging over 52,000 users from 101 aspirational districts (out of 112) identified by NITI Aayog
- The platform collaborated with 825 higher education institutions and 64 schools, integrating skill-building courses into curricula. Partnerships with government bodies like State Council of Educational Research & Training (SCERT), Maharashtra and Tamil Nadu Skill Development Corporation (TNSDC), Tamil Nadu expanded its reach, while initiatives such as Lab on Wheels bring digital learning to underserved areas.
- 93% of school students reported improvements in their annual test scores after using the Infosys Springboard platform, with subjects like Science, English, and Math showing average improvements of 11-18%.
- Among engineering students, 97% recognized an enhancement in their practical skillsets through consistent platform use, and 99% reported increased confidence in applying these skills. The Faculty Enablement Programme (FEP) has led to 80% of engineering professors receiving promotions or salary increases.

• Further, **96% of engineering students expressed a boost in their confidence** when attending interviews for placements and internships, attributed to the platform's concise, industry-relevant content that prepares students for real-world challenges.

2. Training on Cybercrime Investigation to various Stakeholders

- The Centre for Cybercrime Investigation Training & Research (CCITR)'s comprehensive training programs have **improved the handling of digital evidence in court, leading to more efficient investigations and prosecutions.** The use of structured support materials like manuals and Standard Operating Procedure (SOPs) has contributed to reducing investigation time and increasing the capacity of Karnataka's police force.
- On a national level, the CCITR has extended its training to police forces and government departments in states such as Haryana, Madhya Pradesh, and Telangana. This has helped standardize cybercrime investigation protocols and foster cross-departmental collaboration for more effective responses to cyber threats.
- The center also focuses on research and development to address current cyberspace challenges, publishing papers on topics like the dark web and drone forensics. It serves as a knowledge hub, offering ongoing learning opportunities and contributing to policy development for effective cybercrime responses.

3. Training of Government Schools' Science and Math teachers

- The project introduced the 5E model, leading to 98% of teachers reporting increased confidence in delivering interactive lessons and 97% improving their ability to cater to diverse learning styles. Workshops covered scientific methods, lesson planning, and project-based learning, fostering a supportive community among teachers.
- This project has **positively impacted students**, with 98% of teachers observing heightened enthusiasm for learning and 83% noting improved comprehension of complex topics. The interactive approach facilitated personal growth, enhancing students' confidence and life skills such as collaboration and communication.
- The project has further transformed classrooms into vibrant learning environments using practical, low-cost teaching aids. Further, 90% are likely to recommend the training program.

4. Urban Digital STEM Programme

- The project improved the learning environment, with **73% of participants feeling more included** and actively participating in classroom activities. Digital classrooms made subjects like Mathematics and Science more engaging, with **77% of students finding digital lessons well**aligned with their curriculum, enhancing comprehension and exam performance.
- Students reported increased confidence in using digital tools, with **58% using them 2-4 times** weekly, leading to improved academic performance. Notably, **94% of students experienced a** boost in academic success, and **86% expressed confidence in using digital tools for future** studies, highlighting the long-term educational benefits.

5. Mo School Abhiyan Parichalana Sangathan (MSAPS)

• The project has **impacted over 30,000 students across 50 heritage schools**, with each school receiving a grant of INR 10,00,000 for modernization efforts. It has **led to significant infrastructure improvements**, with **98% of respondents rating the upgraded facilities positively.**

- Student engagement has increased notably, with **96% of students reporting a more interactive learning experience** due to the introduction of smartboards. Additionally, **87% of students noted an improved classroom atmosphere**, which has enhanced their motivation to attend school.
- Teaching methods have seen a marked improvement, with **97% of respondents acknowledging better teaching techniques.** The use of digital tools has also been positively received, with **82% of students appreciating the integration of technology** in their learning process.
- The project has facilitated increased classroom participation, with 82% of students engaging more actively in lessons. This has been complemented by improved teacher-student interactions, as reported by 77% of respondents, contributing to a more effective educational environment.

6. eVidyaloka- Rural Digital and STEM Education Programme

- **99.6% of respondents reported an improvement in their academic performance**, showcasing the project's effectiveness in enhancing educational outcomes.
- The project led to a significant increase in student engagement, with 98.6% of students utilizing live classes and 97.1% benefiting from workbooks and worksheets. Additionally, 95.4% of students used television for learning content, indicating widespread adoption of the digital resources provided.
- The project fostered a long-term interest in education among 98.2% of respondents, with 65.4% noting a decrease in dropout rates among their classmates. This highlights the project's role in sustaining student interest and reducing attrition in rural schools.
- The digital classroom initiative **improved students' confidence**, with 99.3% of respondents feeling more confident in the subjects they studied through the project. This confidence boost was attributed to the interactive nature of live classes and the availability of doubt sessions.

7. Blended Education Certificate Programme in Public Health Nursing

- The project has enhanced healthcare skills through 62 training sessions, allowing nurses to balance duties while advancing education. Participants reported increased confidence and competence, leading to improved patient outcomes and community health standards.
- The programme **empowered Mahila Arogya Samitis leaders** to disseminate health information effectively, fostering local leadership and community participation. Monthly health **awareness camps engaged over 250 community members**, enhancing resilience and health service utilization.
- Collaboration with government bodies like the Bhubaneswar Municipal Corporation and Urban Primary Health Centres was crucial for capacity building and enhancing public health interventions. This collaboration emphasized the importance of partnerships among government agencies, NGOs, and stakeholders to optimize resource utilization.
- 8. Capacity expansion & rezoning of the Narayan Rao Melgiri National Law Library at National Law School of India University
 - The expansion project, completed between **November 2022 and September 2023**, has significantly **increased daily student attendance from 200-250 to 350-400**, with a peak capacity **of 650.** The library now features extended hours until midnight, new seating arrangements, and designated study zones, supporting both individual and group study.
 - The library's design includes three floors with specific purposes: collaborative spaces and event areas on the lower ground floor, a semi-silent zone with assistive technology on the ground floor, and a silent study area on the first floor. This inclusive design ensures accessibility for all users, including those with special needs.

• The upgraded infrastructure supports a range of academic activities, such as seminars and workshops, and includes dedicated and inclusive spaces for all sections of the society. The library's open layout, natural light, and eco-friendly practices create a welcoming atmosphere, reinforcing its role as the intellectual hub of the university.

9. Construction of a Multipurpose Hall at Karnataka Public School

- Survey data from 201 students indicate a positive impact on school life, with 83% reporting increased motivation to attend school and 85% experiencing greater exposure to extracurricular activities.
- The hall's amenities, such as seating and audio-visual facilities, received high satisfaction ratings, with 82% appreciating the seating capacity and 75% valuing the enhanced audio-visual experience.
- The hall has hosted over 35 events by August 2024, with 86% of students noting increased engagement in school events.
- The facility supports a holistic learning environment, with **84% of students feeling encouraged to learn and 73% exploring their individual talents,** contributing to their overall development.
- Community engagement has been bolstered, with 100% of respondents acknowledging the hall's role in enhancing the school's reputation. The facility has attracted over 50 new students since the academic year FY 24 began, and 79% of respondents recognize its value in fostering community learning and social awareness.
- 10. Digital Inclusion for Democratising Access to Library Resources at National Law School of India University
 - The project has provided non-monetary scholarships to 117 deserving candidates annually, granting them access to essential digital resources. This support has enhanced students' academic exposure, enabling them to achieve milestones and secure internships.
 - Technological upgrades, including the Koha Open-Source Library System and RFID technology, have improved operational efficiency. These enhancements have streamlined resource organization and tracking, reducing the need for staff assistance and allowing students to focus more on academics.
 - The project has extended remote access to academic resources through tools like RemoteXS and Elsevier Online Access, enhancing research capabilities and teaching efficiency. This access supports flexible learning environments, enabling students to engage confidently in academic and professional activities.
 - The Infosys Digital Scholarship has played a crucial role in **ensuring academic inclusivity**, **providing equal access to digital resources and reducing financial burdens.** It has supported students from underserved communities in excelling academically and enhancing their future career prospects.

Theme 2: Healthcare

Under Healthcare theme, various CSR projects have enhanced healthcare infrastructure and access, particularly benefiting vulnerable populations, by equipping hospitals with advanced medical technology. These projects have improved diagnostic precision, surgical and procedural efficiency, and healthcare accessibility, while also bolstering academic and research capabilities. By providing free treatment to underserved communities, these initiatives have not only reduced financial and health burdens but have also strengthened institutional capacities and fostered community resilience. Below provides an overview of impact created by each of the CSR projects in Healthcare theme:

#	CSR Project under	Project	Implementation	Total	Project	Total	Quantitative
1.	AssessmentProvisionofDiagnosticandMedicalCareEquipment toRajivGandhiGovernmentGeneralHospital,Chennai (RGGGH)	Location Chennai, Tamil Nadu	Partner Self- Implementation through Infosys Foundation	Beneficiaries 20,000 patients	Period FY 23 to FY 24	Spent INR 6.19 Crores	Sample NA
2.	Cath Lab & Vascular Access Centre	Bengaluru, Karnataka	Self- Implementation through Infosys Foundation	10,800 patients	FY 23	INR 5.10 Crores	NA
3.	Contribution to Yashwantrao Chavan Memorial Hospital (YCMH) for Modular Operation Theatre	Pimpri- Chinchwad, Pune, Maharashtra	Self- Implementation through Infosys Foundation	3,500 patients	FY 22 to FY 23	INR 4.58 Crores	NA
4.	TheLancetCitizens'OnCommissiononReimaginingIndia'sHealthSystem	Vellore, Tamil Nadu	Direct Implementation	-	FY 22 to FY 23	INR 2.00 Crores	NA
5.	Free Dialysis Care for Women Patients	Bengaluru, Karnataka	Bangalore Kidney Foundation	84 women	FY 23 to FY 24	INR 1.50 Crores	NA
6.	20-bed ICU facility at Telangana State Road Transport Corporation (TSRTC) Hospital	Hyderabad, Telangana	Self- Implementation through Infosys Foundation	5,00,000 patients	FY 23	INR 1.29 Crores	NA
7.	Advancing Healthcare Access at KEM Hospital, Pune	Pune, Maharashtra	Self- Implementation through Infosys Foundation	500 patients	FY 23 to FY 24	INR 1.12 Crores	NA

In the above table, NA indicates that 'quantitative survey was not applicable' as this assessment was conducted utilising qualitative research tools given the nature of this CSR project. Hence, to assess the impact of such CSR projects, qualitative interactions were conducted with various stakeholders such as patients, doctors, nursing staff, administrative staff, research team members and implementing partner as applicable.

- 1. Provision of Diagnostic and Medical Care Equipment to Rajiv Gandhi Government General Hospital, Chennai
 - Launched in February 2023, this project **aimed to benefit approximately 20,000 patients annually**, addressing the inadequacies in neurology care exacerbated by the COVID-19 pandemic.
 - The project significantly improved surgical precision and treatment quality at RGGGH. The installation of neuro navigation systems, neuro microscopes, ICU ventilators, and C-Arm X-ray machines enhanced diagnostic accuracy and surgical efficiency, reducing operating times and improving patient outcomes.
 - Healthcare practitioners experienced increased job satisfaction and well-being due to the availability of specialized equipment. The advanced devices improved image quality,

reduced radiation exposure, and decreased physical strain on surgeons, allowing for more efficient patient monitoring and workflow management.

• The project also bolstered academic and research activities at RGGGH, enhancing teaching and learning experiences for post-graduate students. The state-of-the-art medical equipment attracted more students and facilitated research, improving the hospital's reputation and academic standing.

2. Cath Lab & Vascular Access Centre

- This project has addressed the **need for specialized healthcare infrastructure to manage comorbidities like diabetes and hypertension,** crucial for early detection and prevention of chronic kidney disease (CKD) among renal patients.
- The project has equipped the facility with advanced medical equipment, including a Hybrid Cath Lab and Intravascular Ultrasound Machines, enhancing the institute's capacity to perform interventional and diagnostic procedures. This has led to an increase in both outpatient and inpatient numbers, reducing mortality rates due to vascular complications and providing subsidized or free treatment to patients, particularly those from Below Poverty Line backgrounds.
- The initiative has bolstered academic and research contributions in Nephro Urology, with INU
 presenting numerous scientific papers and facilitating six innovations in vascular access care. The
 project supports a fellowship programme in Interventional Nephrology, offering hands-on training
 and attracting students nationwide, thus positioning INU as a leading center for healthcare
 professional training.
- 3. Contribution to Yashwantrao Chavan Memorial Hospital (YCMH) for Modular Operation Theatre
 - Infosys Foundation established two modular operation theatres (OTs) in Pimpri-Chinchwad, Pune to enhance surgical care standards. These OTs, equipped with advanced technologies, reduce infection risks and support complex procedures, improving patient outcomes and long-term cost efficiency.
 - The project, initially a COVID-19 initiative, has significantly increased OT admissions postpandemic, conducting over 1,066 surgeries from October 2023 to October 2024. This development has reduced patient waiting times and provided cost-effective procedures for underserved communities, enhancing healthcare accessibility.
 - Advanced air handling systems in the modular OTs have **improved infection control**, **ensuring quicker patient recovery times.** The **upgraded facilities have enabled complex surgeries**, **such as tumour removals**, to be performed with a zero-infection rate, boosting community confidence in the hospital's healthcare delivery.
 - The project has made healthcare more accessible to marginalized populations by offering subsidized fees for quality services. It has positioned YCMH as a leading healthcare provider in the region, motivating staff and attracting community attention.

4. The Lancet Citizens' Commission on Reimagining India's Health System

- Partnering with Christian Medical College, Vellore, this project has trained 100 early and midcareer researchers in evidence synthesis and systematic reviews, enhancing their skills and professional networks. This initiative resulted in numerous publications in prestigious journals, contributing significantly to public health knowledge in India and equipping researchers to conduct impactful studies that inform policymaking.
- A composite UHC metric was developed to measure public health services across India's 697 districts, using 24 tracer indicators. The study classified districts into performance categories,

fostering collaboration among district officials and highlighting the importance of community engagement and socio-economic determinants in achieving UHC.

• A citizens' survey involving 50,000 individuals revealed a preference for public primary healthcare, emphasizing the need for government investment. The survey data, publicly accessible, aims to drive further research and policymaking. The Commission Report, supported by Infosys, is set to influence government policies and enhance health systems.

5. Free Dialysis Care for Women Patients

- Launched in June 2022, this project has significantly increased access to life-saving dialysis treatments for women in Bangalore, Karnataka. The initiative has expanded the number of women patients from 55 to 130 within a year, with 85% reporting no sickness during the project period.
- The project prioritizes women from Below Poverty Line households and those abandoned by their families, alleviating financial burdens by covering dialysis costs. It **introduced a women-only floor managed by female staff, ensuring safety and privacy**, and has enrolled 25 women for potential kidney transplants, with 10 likely to undergo the procedure.
- By providing free dialysis sessions, the project has **improved the overall health and well-being** of women patients, enabling them to resume normal routines and contribute to their families and communities. Regular sessions have reduced contamination levels in patients' blood, fostering better health outcomes and camaraderie among patients.
- The initiative has raised awareness about chronic kidney diseases and reduced stigma associated with its treatment, involving families in care plans and increasing acceptance of dialysis. The project has engaged counsellors for positive reinforcement and seen an increase in referrals from regional nephrologists, highlighting the need for similar support for male patients.

6. 20-bed ICU facility at Telangana State Road Transport Corporation (TSRTC) Hospital

- The project has enhanced healthcare access for over 45,000 TSRTC employees and their families, as well as nearby communities. The facility, equipped with advanced medical technology, addresses critical care needs, initially focusing on COVID-19 and now offering comprehensive services for various severe health conditions.
- The new ICU has doubled the hospital's critical care capacity, reduced wait times and managing seasonal disease outbreaks effectively. This expansion has alleviated overcrowding issues and improved patient outcomes, particularly benefiting socio-economically deprived neighbourhoods by providing timely and efficient care.
- Financially, the project has saved the hospital approximately INR 3-4 Crore annually by reducing external patient referrals as the organisation used to bear the cost of transfer and subsequent treatment costs for its employees before the project. This has allowed reinvestment in healthcare services. Patients from financially deprived backgrounds benefit from subsidized treatment costs, making high-quality care more accessible and boosting community confidence in the hospital's services.

7. Advancing Healthcare Access at KEM Hospital, Pune

 Under this project, Infosys partnered with KEM Hospital to enhance healthcare access by providing advanced medical technology, including an MRI-compatible ventilator for the Paediatric Intensive Care Unit and a mobile IVUS system for the Catheterization laboratory. These technologies aim to improve the hospital's capacity to manage complex cases, particularly in cardiology and paediatric.

- The introduction of new technologies has improved diagnostic precision and patient transfers, reducing complications and ensuring timely medical attention.
- The project has expanded access to specialized care for vulnerable populations, particularly during the COVID-19 pandemic, allowing KEM Hospital to serve a larger segment of the community. It has empowered medical staff to handle more critical cases efficiently, boosting morale and reinforcing community trust in the hospital's capabilities.

Theme 3: Environment Sustainability

Under this theme, CSR initiatives have improved community well-being by reducing indoor air pollution, shortening cooking time, and cutting fuel costs. This has not only improved respiratory health but also empowered women and supported environmental sustainability. Additionally, efforts on restoring historic water systems have improved water management, preserved cultural heritage, and enhanced groundwater recharge, ensuring reliable water access. These efforts collectively advance sustainable development and social empowerment. Below provides an overview of impact created by each of the CSR projects in Environment Sustainability theme:

#	CSR Project under Assessment	Project Location	Implementation Partner	Total Beneficiaries	Project Period	Total Spent	Quantitative Sample
1.	Improved Woodstoves in Udaipur - Helping Women and Environment	Udaipur, Rajasthan	Direct Implementation	18,500 households	FY 21 to FY 24	INR 12.50 Crores	286
2.	Improved Woodstoves in Maharashtra - Helping Women and Environment	Solapur, Latur, Osmanabad, Maharashtra	Direct Implementation	37,200 households	FY 20 to FY 24	INR 8.00 Crores	309
3.	Restorationofhistoric stepwells &traditionalwatersystemsatRashtrapatiNilayam,Hyderabad	Hyderabad, Telangana	SAHE Foundation	1,50,000- 2,00,000 visitors	FY 23 to FY 24	INR 3.82 Crores	NA

Table 3: Overview of CSR Projects in Environment Sustainability Theme

In the above table, NA indicates that 'quantitative survey was not applicable' as this assessment was conducted utilising qualitative research tools given the nature of this CSR project. Hence, to assess the impact of this CSR project, qualitative interactions were conducted with various stakeholders such as visitors, estate manager, architect and implementing partner.

1. Improved Woodstoves in Udaipur - Helping Women and Environment

- The project significantly improved health outcomes, with **45.1% of the surveyed beneficiaries reporting fewer respiratory issues and 43.01% reporting less eye irritation.** This is attributed to reduced indoor air pollution from traditional cooking methods.
- The project led to a reduction in daily cooking time by 15 to 30 minutes, allowing women to engage in other productive activities. This time-saving aspect enhanced their ability to participate in work and social activities outside the home.
- Financially, 99.65% of respondents experienced reduced cooking fuel expenses, of which, most of the respondents (98.24%) reported saving up to INR 999 monthly. These savings were redirected towards children's education, healthcare, and household savings, contributing to the financial empowerment of the community.

• The project **promoted environmental sustainability** by reducing inefficient fuelwood burning and encouraging practices like tree planting. Beneficiaries **reported a decrease in the need to travel long distances for firewood collection,** saving time and reducing physical strain.

2. Improved Woodstoves in Maharashtra - Helping Women and Environment

- The project has led to a reduction in cooking time for 97.41% of respondents. Of which, 98.67% respondents reported saving up to 60 minutes daily, allowing them to engage in other productive activities and social events.
- Improved indoor air quality was reported by **98.06% of respondents, resulting in fewer respiratory ailments and eye irritation,** thereby enhancing the health and well-being of women and children in the households.
- Financially, 96.76% of beneficiaries experienced reduced household fuel expenses, with savings redirected towards children's education, healthcare, and household savings, contributing to their financial empowerment.
- The project has promoted environmental sustainability, with **99.68% of respondents reporting reduced firewood usage and 61.81% adopting eco-friendly practices** like tree planting contributing to conservation efforts.
- 3. Restoration of historic stepwells & traditional water systems at Rashtrapati Nilayam, Hyderabad
 - The project revives historic stepwells and traditional water systems, addressing water management challenges and cultural preservation. By enhancing rainwater storage and groundwater recharge, the project provides clean water access and reduces strain on existing resources.
 - Key project activities such as restoring historic water networks, assessing aquifer capacity, and constructing rainwater harvesting systems and eco-channels **reduced dependency on external** water sources and improve groundwater levels.
 - The project has improved water management at Rashtrapati Nilayam, reducing reliance on external resources and enhancing groundwater levels. Interventions like recharge pits, ecochannels, and an injection borewell system have restored stepwells to near maximum capacity, ensuring self-sustenance for estate gardens and increasing underground aquifer capacity.
 - The project promotes sustainable water management and cultural heritage preservation. It fosters community engagement through cultural events, enhancing appreciation of local heritage.

Theme 4: Women Empowerment

Under Women Empowerment theme, various CSR projects have contributed to improving healthcare accessibility and easing financial burdens for underserved populations. These projects have increased female enrolment and improved facilities, while support for military families has provided essential financial and emotional aid. Women's empowerment through skill development has also addressed employment disparities, fostering growth and sustainable development. Below provides an overview of impact created by each of the CSR projects in Women Empowerment theme:

#	CSR Project under	Project	Implementation	Total	Project	Total	Quantitative
	Assessment	Location	Partner	Beneficiaries	Period	Spent	Sample
1.	Infant and Maternity Hospital, Kanakapura	Ramanagara, Karnataka	Self- Implementation	31,000 outpatients	FY 20 to FY 23	INR 45.00 Crores	NA

Table 4: Overview of CSR Projects in Women Empowerment Theme

#	CSR Project under Assessment	Project Location	Implementation Partner through Infosys Foundation	Total Beneficiaries and 2,884	Project Period	Total Spent	Quantitative Sample
			Foundation	inpatients			
2.	Construction of a Girls' Hostel Facility for the Indian Institute of Information Technology (IIIT), Tiruchirappalli	Tiruchirappalli, Tamil Nadu	Self- Implementation through Infosys Foundation	128 Girls residing in the Hostel	FY 21 to FY 23	INR 16.15 Crores	91
3.	Rehabilitation and Welfare Grants for Veterans and their Families	Pan India	Self- Implementation through Infosys Foundation	4,443 NOK of physical casualties of Indian army	FY 22 to FY 24	INR 15.00 Crores	68
4.	Women in Technology Programme	13 Cities in 10 States of India	Nirmaan Organisation	6,406 women	FY 23 to FY 24	INR 5.00 Crores	273

In the above table, NA indicates that 'quantitative survey was not applicable' as this assessment was conducted utilising qualitative research tools given the nature of this CSR project. Hence, to assess the impact of such CSR project, qualitative interactions were conducted with various stakeholders such as patients, doctors, nursing staff, administrative staff, research team members and implementing partner as applicable.

1. Infant and Maternity Hospital

- Infosys Foundation has transformed the Infant and Maternity Hospital in Kanakapura from a 30bed facility to a 100-bed hospital, enhancing healthcare access for mothers and infants. The upgraded hospital, completed in February 2023, now offers comprehensive services, including outpatient and inpatient care, family planning, and immunization.
- The hospital's expansion has increased its capacity, accommodating over 31,000 outpatients and 1,067 deliveries between September 2023 and July 2024. This development has reduced the need for referrals to distant hospitals, improving healthcare delivery and accessibility for over 100 villages in the Ramanagara District and neighbouring areas.
- By providing free, high-quality services, the hospital has alleviated financial burdens on underprivileged communities, who previously relied on costly private facilities. The facility's modern infrastructure, including advanced HVAC systems and medical gas pipelines, ensures a state-of-the-art healthcare environment, enhancing patient experiences and satisfaction.

2. Construction of a Girls' Hostel Facility for the IIIT – Tiruchirappalli

- The construction of the Girls' Hostel has led to a **notable increase in girl student enrolment** at IIIT- Tiruchirappalli. The number of female students **rose from single digits to 46 in the 2022-2026 batch and 38 in the 2023-2027 batch**, demonstrating the hostel's role in attracting more female students to the institute.
- 71% (n=91) of current residents rated the **quality of the rooms as excellent or good**, while 62% rated the washrooms similarly. The ratings indicate that rooms are well-sized (2.8/4) and well-lit (3.0/4), with toilets and washrooms also rated as well-sized (2.5/4) and well-lit (2.6/4).
- The fees charged by IIIT-Trichy is lower than the average annual fees paid by these students at other facilities, making it more affordable.
- 3. Rehabilitation and Welfare Grants for Veterans and their Families
 - Implemented in collaboration with the Directorate of Indian Army Veterans, this project supported families of Indian Army personnel who have suffered physical casualties. With a budget of

INR 15 crore, the initiative spans fiscal years 2022 to 2024, **benefiting 4,443 Next of Kin (NOK)** across India through Ex-Gratia payments and Education Grants.

- The project has effectively reduced financial burdens on families by providing immediate relief through Ex-Gratia support, which covers urgent expenses like funeral costs and household bills. The Education Grant, ranging from INR 10,000 to INR 50,000, has supported educational goals, with 90% of respondents achieving their objectives and 87% reporting improved academic performance.
- Emotional and psychological support is a key aspect of the project, with Ex-Gratia payments
 offering reassurance and stability to grieving families. The involvement of Army personnel in the
 grant process has reinforced families' confidence in the Army's commitment to their well-being,
 while the Education Grant has motivated students to pursue career aspirations, positively impacting
 91% of respondents.
- Furthermore, this project has made a significant impact by providing essential support and fostering a sense of community.

4. Women in Technology Programme

- The project has trained 6,406 women across 13 cities in India, with 4,186 securing placements, addressing gender disparity in employment by providing essential skills.
- The assessment revealed significant challenges such as financial barriers and gender inequities before the project's implementation. It successfully addressed these issues by offering free skill development training and counselling, targeting women from lower-income households, with 86% of respondents unemployed before the training.
- Training courses included Web Mobile Applications, IT Enabled Services, and Self-Learning in coding languages, with ITES attracting the highest participation. **73% of respondents believed the programme was crucial for job acquisition**, highlighting its role in enhancing employability.
- Beyond technical skills, the programme fostered personal growth, with counselling sessions and soft skills training improving communication and confidence.

Theme 5: Other Themes

Under this theme, various CSR projects have contributed to promote the societal upliftment and environmental sustainability. Social Innovation Awards have recognized technology-based solutions in areas such as women empowerment, healthcare and education to empower marginalized communities. Additionally, the development of advanced animal enclosures has supported wildlife conservation and increased public engagement. Below provides an overview of impact created by each of the CSR projects in this theme:

#	CSR Project under Assessment	Project Location	Implementation Partner	Total Beneficiaries	Project Period	Total Spent	Quantitative Sample
1.	Aarohan Social Innovation Awards	Pan India	Self- Implementation through Infosys Foundation	8 Social innovators (i.e. as individuals, teams, NGOs into social innovations)	FY 23 to FY 24	INR 6.37 Crores	NA
2.	Construction of Gorilla Enclosure at Sri Chamarajendra	Mysuru, Karnataka	Self- Implementation through Infosys Foundation	39,51,000 Visitors	FY 22 to FY 24	INR 5.03 Crores	NA

Table 5: Overview of CSR Projects in Other Themes

#	CSR Project under Assessment	Project Location	Implementation Partner	Total Beneficiaries	Project Period	Total Spent	Quantitative Sample
	Zoological						
	Gardens, Mysuru						

In the above table, NA indicates that 'quantitative survey was not applicable' as this assessment was conducted utilising qualitative research tools given the nature of this CSR project. Hence, to assess the impact of such CSR projects, qualitative interactions were conducted with various stakeholders such as visitors, administrative staff, award winners and implementing partner etc. as applicable.

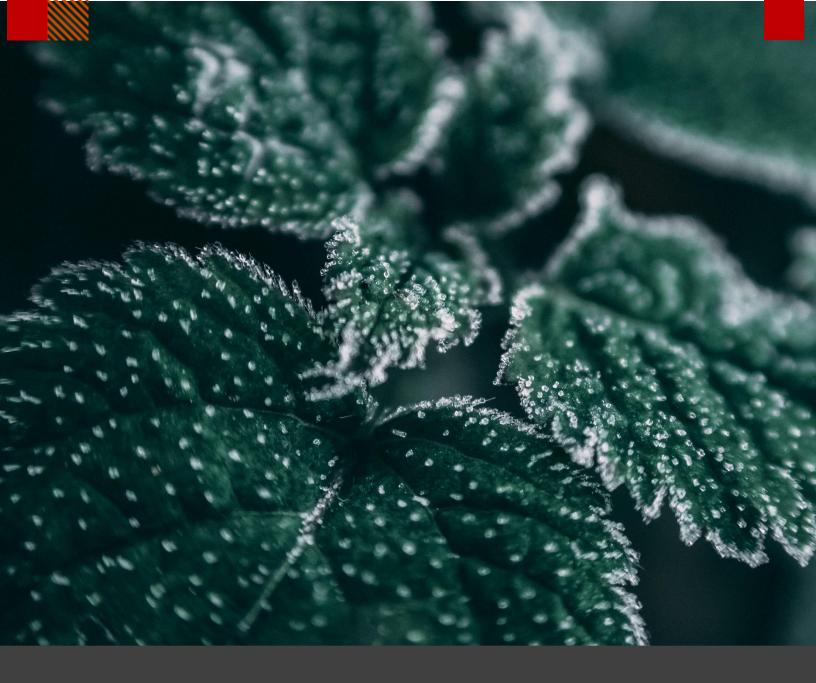
1. Aarohan Social Innovation Awards

- The Aarohan Social Innovation Awards have significantly advanced social innovation in India by recognizing impactful technology-based solutions. In the last edition, the awards attracted 2,400 entries, resulting in three main winners and five jury special winners, with a total prize pool of INR 2 crore, thereby increasing visibility and societal engagement in addressing social issues.
- The awards have effectively addressed critical social issues through projects like "One House One Toilet" by Shelter Associates, which improved hygiene in slum areas, and the nLite 360 device by Heamac Healthcare, which enhanced jaundice treatment in newborns. Smart Vision Glasses by SHG Technologies empowered visually impaired individuals, improving their mobility and independence.
- The project has facilitated community transformation by providing essential CSR funding and recognition, enabling the construction of private toilets, optimizing clinical workflows, and increasing accessibility for marginalized groups. These initiatives have empowered communities, enhanced quality of life, and fostered sustainable growth, encouraging collaborations with government entities and NGOs to maximize impact.
- The project has also **reached a diverse group of beneficiaries, with significant impacts** including the construction of private toilets benefiting approximately 500 individuals in slum areas, the nLite 360 device treating over 500 newborns across 30+ healthcare centers, and Smart Vision Glasses enhancing the lives of around 7,000 visually impaired individuals. These innovations have collectively improved sanitation, healthcare, and accessibility for marginalized communities.

2. Construction of Gorilla Enclosure at Sri Chamarajendra Zoological Gardens, Mysuru

- The project involves construction of a gorilla enclosure at Sri Chamarajendra Zoological Gardens in Mysuru with a focus on enhancing wildlife conservation and education. The enclosure, designed to international standards, provides a naturalistic habitat for Western Lowland Gorillas sourced from Frankfurt Zoo, supporting breeding programs and animal welfare.
- The project aligns with Mysuru Zoo's commitment to sustainability and conservation, contributing to its reputation as a leading tourist attraction. The assessment revealed significant improvements in gorillas' living conditions, with the enclosure promoting natural behaviours and reducing stress. The design includes climbing structures and foliage, encouraging physical activity and mental stimulation, resulting in positive health indicators like playfulness and social interactions.
- The gorilla enclosure has **increased visitor footfall and revenues, supporting further zoo enhancements.** It serves as a platform for educational programs, raising awareness about gorilla conservation and inspiring visitor engagement. The project also initiated gorilla-specific training for zoo staff, improving animal care and enrichment strategies.

For a complete understanding of findings, IRECS Analysis and recommendations, please refer to the respective <u>project-specific reports</u>.



3.Approach and Methodology

3.1. Objective of Impact Assessment

Infosys intended to carry out the impact assessment of 26 CSR projects to assess the impact created on the lives of various stakeholders and provide management with key findings and recommendations. Accordingly, it has engaged Price Waterhouse Chartered Accountants LLP ("PWCALLP", "PW") to conduct the independent impact assessment of following CSR projects:

SI No.	CSR Themes	Name of the CSR Project	Project Location	Research Method
1	Education	Infosys Springboard – Digital Learning and Reskilling Programme	Pan India	Mixed
2	Education	Training on Cybercrime Investigation to various stakeholders	Bengaluru, Karnataka	Qualitative
3	Education	Training of Government Schools' Science and Math Teachers	Andhra Pradesh and Odisha	Mixed
4	Education	Urban Digital STEM Programme	6 states across India	Mixed
5	Education	Mo School Abhiyan Parichalana Sangathan (MSAPS)	25 districts in Odisha	Mixed
6	Education	eVidyaloka- Rural Digital and STEM Education Programme	Karnataka, Rajasthan and Madhya Pradesh	Mixed
7	Education	Blended Education Certificate Programme in Public Health Nursing	Gurugram, Haryana & Bhubaneshwar, Odisha	Qualitative
8	Education	Capacity expansion & rezoning of the Narayan Rao Melgiri National Law Library at National Law School of India University	Bengaluru, Karnataka	Qualitative
9	Education	Construction of a Multipurpose Hall at Karnataka Public School	Chitradurga, Karnataka	Mixed
10	Education	Digital Inclusion for democratising Access to Library Resources at National Law School of India University	Bengaluru, Karnataka	Mixed
11	Healthcare	Provision of Diagnostic and Medical Care Equipment to Rajiv Gandhi Government General Hospital, Chennai	Chennai, Tamil Nadu	Qualitative
12	Healthcare	Cath Lab & Vascular Access Centre	Bengaluru, Karnataka	Qualitative
13	Healthcare	Contribution to Yashwantrao Chavan Memorial Hospital (YCMH) for Modular Operation Theatre	Pimpri-Chinchwad, Pune, Maharashtra	Qualitative
14	Healthcare	The Lancet Citizens' Commission on Reimagining India's Health System	Vellore, Tamil Nadu	Qualitative
15	Healthcare	Free Dialysis Care for Women Patients	Bengaluru, Karnataka	Qualitative
16	Healthcare	20-bed ICU facility at Telangana State Road Transport Corporation (TSRTC) Hospital	Hyderabad, Telangana	Qualitative
17	Healthcare	Advancing Healthcare Access at KEM Hospital, Pune	Pune, Maharashtra	Qualitative
18	Environment Sustainability	Improved Woodstoves in Udaipur - Helping Women and Environment	Udaipur, Rajasthan	Mixed
19	Environment Sustainability	Improved Woodstoves in Maharashtra - Helping Women and Environment	Solapur, Latur, Osmanabad, Maharashtra	Mixed

Table 6: Overview of CSR Projects under Assessment

SI No.	CSR Themes	Name of the CSR Project	Project Location	Research Method
20	Environment Sustainability	Restoration of historic stepwells & traditional water systems at Rashtrapati Nilayam, Hyderabad	Hyderabad, Telangana	Qualitative
21	Women Empowerment	Infant and Maternity Hospital, Kanakapura	Ramanagara, Karnataka	Qualitative
22	Women Empowerment	Construction of a Girls' Hostel Facility for the Indian Institute of Information Technology (IIIT), Tiruchirappalli	Tiruchirappalli, Tamil Nadu	Mixed
23	Women Empowerment	Rehabilitation and Welfare Grants for Veterans and their Families	Pan India	Mixed
24	Women Empowerment	Women in Technology Programme	13 Cities in 10 States of India	Mixed
25	Other Themes	Aarohan Social Innovation Awards	Pan India	Qualitative
26	Other Themes	Construction of Gorilla Enclosure at Sri Chamarajendra Zoological Gardens, Mysuru	Mysuru, Karnataka	Qualitative

Above table depicts the type of research method adopted to gauge the impact created by these CSR projects. For the detailed understanding of the sampling of each CSR project, please refer to the project wise reports.

3.2. Scope of Work

The scope of work included reviewing the Key performance indicators (KPIs) as defined by the Management of the Client under the framework for implementing the Project for the outputs, outcomes and impact of the Project. Framework adopted was Inclusiveness, Relevance, Efficiency, Convergence, and Sustainability Framework (the 'IRECS') and accordingly, recommendations were provided on the Projects' performance for their further evaluation and consideration. The approach included the below activities:

- Discussed the scope and boundary of the CSR Projects and the assistance provided
- Conducted desk review of the documentation provided by the Company and in consultation with the Company's CSR arm Infosys Foundation and its implementing partners; and agree with the Management the parameters to be assessed for the Impact Assessment
- Mapping of other important stakeholders for the Company to identify key stakeholder groups to interact during the assessment
- Based on the above, develop the quantitative/ qualitative questionnaires (as relevant) to be used during the assessment for conducting in-depth interviews, interactions, meetings with the stakeholders and beneficiaries of the CSR Projects
- Data collection through virtual/ in-person interactions (as relevant) based on the questionnaires developed and consultations done
- Based on the interactions and discussions, the qualitative/ quantitative information was analyzed, and assessment of outcome/impact was done.
- Report developed based on the overall findings including the recommendations for Management's consideration

3.3. Overall Methodology

The overall methodology adopted for conducting the impact assessment study can be categorized into four stages as illustrated below:

Figure 4: Overall Methodology

Stage 1: Desk review

- Inception meeting was done with the Infosys team to get a detailed understanding of the 26 CSR projects.
- Built consensus on scope of work and understanding Infosys's expectations from Impact Assessment
- Desk review of project documents was done as received from Infosys
- Based on the desk review and preliminary interactions with key stakeholders from Infosys, mapping of project wise stakeholders was done in consultation with Infosys team for interaction purpose.

Stage 2: Planning and tool preparation

- The data collection plan (project-wise) was finalised in consultation with the Infosys team and its respective implementing partners
- Key research tools were also finalised based on the desk review of projects documents
- Digitization and translation of the developed tools in local languages was undertaken
- Infosys team was then apprised about the data collection plan for the field visit

Stage 3: Data collection & field visit

- The field team was trained on the data collection tools.
- The field data collection process was initiated.
- Quantitative survey with project beneficiaries was undertaken to record their feedback (applicable for mixed method)
- In-depth Interviews (IDIs), Focus Group Discussion (FGD) with various stakeholders of each project were undertaken to gauge their views on the respective projects

Stage 4: Data analysis and report writing

- Assimilated the key findings to better analyse the data
- Prepared the draft of the impact assessment report and shared the same with Infosys team
- Obtained and incorporated feedback from Infosys team
- Prepared and submitted final impact assessment report to Infosys for management's consideration.

3.4. Evaluation Framework

IRECS framework was used to assess the impact of 26 CSR projects as stated below. IRECS is a framework that assesses impact by focusing on evaluating performance of social development projects on inclusiveness, relevance, effectiveness, convergence and sustainability aspects. This framework helped in gaining qualitative understanding of the impact created, stakeholder perception, extent of collaboration with other stakeholders and sustenance of the change based on the following parameters.

Figure 5: Evaluation Framework- IRECS

Inclusiveness	Ability of different stakeholders, particularly poorest and most marginalised - to access the benefits of activities
Relevance	Are the services /inputs 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?
Effectiveness (& Efficiency)	Have the activities been able to effectively address community expectations? How efficiently have the resources been deployed, monitored and utilised?
Convergence	Degree of convergence with government/other partnerships; relationship between individuals, community, institutions and other stakeholders
Sustainability	Do communities 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. Has an exit strategy been drafted?

3.5. Assumptions and Limitations

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 LoE, 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 LoE is strictly prohibited. PW makes no representations or warranties regarding the information and expressly disclaims any contractual or other duty, responsibility or liability to any person or entity other than its client 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 PW 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 Letter. We were 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.

You are responsible for the controls over and the security of your website and, where applicable, for
establishing and controlling the process for electronically distributing Impact Assessment Report. We
remind you that the examination of controls over the maintenance and integrity of your 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 your website.

Assumptions pertaining to this report:

- The report prepared by the PW is based upon the (a) information/ documents provided by Infosys Limited, Infosys Foundation, and its implementing partners and (b) data collected during the field visit to the project location by the PW team. PW performed and prepared the Information at the client's direction and exclusively for the client's sole benefit and use pursuant to its client agreement. Our report is based on the completeness and accuracy of the above-stated facts and assumptions, which if not entirely complete or accurate, should be communicated to us immediately, as the inaccuracy or incompleteness could have a material impact on our conclusions.
- PW's work was limited to the samples/specific procedures described in this report and were based only
 on the information and analysis of the data obtained through interviews of beneficiaries supported under
 the programme, selected as respondents. Accordingly, changes in circumstances/samples/ procedures
 or information available could affect the findings outlined in this report.

Project 1: Infosys Springboard – Digital Learning and Reskilling Programme

4.1 About the Project

Digital technologies are vital to modern life, transforming communication, work, learning, and entertainment. Tools like smartphones, social media, and AI provide instant information access and enhance connectivity. As these technologies integrate into sectors like education and healthcare, digital literacy becomes crucial, enabling individuals to evaluate information, engage safely online, and innovate. As society increasingly relies on digital platforms, **digital literacy ensures equitable participation in the digital age**. Digital learning platforms play a crucial role in upskilling and reskilling young people and students in India, offering accessible and flexible education that meets the demands of modern job market. These platforms provide affordable opportunities for acquiring essential skills such as **Coding, Data Analytics, and Artificial Intelligence, along with domain-specific and professional skills enhancing learners grow their competitiveness.** As India's digital economy continues to expand, **these platforms enable individuals to adapt to technological and industry changes,** fostering economic growth and career development.

Recognising this critical need, Infosys Limited has supported numerous digital learning and skilling projects through its CSR efforts. One such prominent initiative is the Infosys Springboard Project designed to address the challenges of lack of access to good quality education and lack of good faculty members. It tackles the digital divide and high costs associated in development of technology aided solutions for learning. This platform, amongst other initiatives, such as Faculty Enablement Program and Infosys Springboard Internship, provides complimentary access to a comprehensive range of courses, live classes, and resources. These are focused on essential digital skills, including digital literacy, coding, and soft skills, all tailored to meet the demands of the future workforce. By democratizing education, it benefits students, educators, and lifelong learners by providing free access to good quality education for all using a next gen Al powered learning platform.

A brief overview of the project specifics is as depicted below:



Figure 6: Schematic Representation of Project Specifics⁹

The Infosys Springboard Initiative exemplifies strategic foresight in digital empowerment, **contributing to the Infosys's Digital Skilling Goals**¹⁰. The platform already has around 8.5 million registered learners. The National Education Policy 2020 of the Government of India policy advocates for integration of industry-specific curriculum into academic syllabi, allowing up to 40% inclusion. Additionally, both state and central governments are collaborating with industry and academic institutions to develop upskilling programs. Infosys Springboard partners with state governments and academia to introduce skill-building courses into the academic curriculum. This initiative also collaborates with academic institutions to implement curriculum changes and engages directly with learners to facilitate their upskilling on the platform. It

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⁹ This assessment is for the project activities carried out from September 2, 2021 to September of 2023 (period of review). Unless specified otherwise, the numbers and impact reported here, pertains to the review period only.

¹⁰ https://www.infosys.com/content/dam/infosys-web/en/about/corporate-responsibility/esg-vision-2030/index.html

ensures access to high-quality education for a diverse demographic, ranging from grade 6 students to lifelong learners, nurturing an equitable learning ecosystem.

This initiative underscores the importance of skill-based education in preparing the workforce of the future. It serves as an inclusive platform to a wide spectrum of learners, thereby contributing to the nation's goal of integrating skill courses into mainstream education. The project not only elevates digital literacy but also boosts industry readiness by equipping learners with essential 21st-century skills such as critical thinking, communication, and collaboration.¹¹

This platform has developed several key offerings that contribute to its overarching goal of digital empowerment and skill development for its target audience. Below provides an overview of such initiatives:

- Institutional Tie-ups with Higher Education Institutes and Schools: The platform has collaborated with 825 higher education institutions, primarily engineering colleges, and 64 schools, to provide a platform for access to skill building and industry readiness content through Memorandum of Understanding (MoU). Each institution receives an interface for to track and monitor their students' and faculty member's progress.
- 2. Government Partnerships: Infosys Springboard collaborates with various skill bodies and Government Departments at state level for upskilling programs. For example, the platform has collaborated with State Council of Educational Research & Training (SCERT), Maharashtra to deliver two programmes, namely:
 - Senior and Selection Grade Online Teacher Training Programme: This program targets primary, secondary, and higher secondary teachers, to enhance their skills on child-centred learning, literacy, numeracy, and 21st-century skills through self-paced courses with selfassessment modules.
 - **Headmaster/Principal Empowerment Online Training:** Tailored for school leaders, this project focuses on professional development and school management skills. It includes a pretest and three-level training courses to foster leadership abilities.

Further, the platform has forged partnership with **Tamil Nadu State Development Council (TNSDC)** to provide support to the council's **state-wide skill development initiative "Naan Mudhalvan"**. The program aims to enhance skill building and industry readiness for Anna University students through credit-based courses on Springboard, complemented by project work evaluated by faculty members and additional training.

- 3. Lab on Wheels: The Lab on Wheels initiative, part of the Infosys Springboard program, aims to provide digital learning opportunities to students, particularly in underserved and remote areas. In addition to offering an online platform and resources, the Springboard team aimed to reach learners directly by bringing education to their doorsteps through the Maker Lab on Wheels initiative. This mobile lab ensures last-mile connectivity by integrating hands-on learning sessions with school curriculums, focusing on STEM¹² education.
- 4. Internship Programme: Aimed at students completing 12th grade, this offering provides complimentary online training and virtual internships via the Infosys Springboard platform. It emphasises on self-directed learning, to develop both technical and interpersonal skills, boosting students' employability. The internship allows hands on practice on problems close to real world for students which complements the academic syllabus and helps them understand the application of concepts to business problems.
- 5. Faculty Enablement Programs (FEP): Faculty members in partner institutions receive access to technical and soft skills courses and a unique teaching methodology. This program equips faculty members to effectively implement Springboard resources, enriching the educational experience. The

¹¹ Source: Springboard website - <u>https://www.infosys.com/about/springboard.html</u>

¹² STEM – Science, Technology, Engineering and Mathematics

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FEP includes in-depth technology sessions on industry topics, digital learning and teaching methods, as well as professional skills development.

Beyond these targeted initiatives, Infosys Springboard, acts as **an open learning platform for individuals from grade 6 onwards** facilitating reskilling and upskilling opportunities.

Thus, the platform aims to ensure universal access to high-quality education for everyone, fostering equal opportunities. It targets three main groups of learners: students in grades 6-12, those in higher education, and lifelong learners. This mission is promoted through direct communication with learners and partnerships with government entities and academic institutions.

4.2 Method of Impact Assessment



The impact assessment study leveraged an **integrated**, **consultative**, **and cohesive methodology to evaluate the project's social impact**. To commence the assessment process, a kick-off meeting was convened with the Infosys Springboard team, complemented by a project briefing call. This call included the designated points of contact from various institutions (schools and higher education institutes) utilising the Springboard platform and the members of the Springboard team. This strategic approach enabled the research team to gain a comprehensive understanding of the initiative's intricacies and objectives, which the platform aspires to address for the broader community.

Following the meetings PW requested both the Springboard team and the institutions for project specific documents. Following documents were received from these stakeholders:

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- **Project Concept Note** detailing the various offerings under the platform
- Platform Learning statistics with details on registered users and learning hours
- List of schools and institutions associated with the platform along with their SPOC details
- List of Government initiatives undertaken as part of the platform
- **Debrief document** detailing the activities undertaken as part of the SCERT initiatives by Springboard team
- **Beneficiary listing** with details of student learners and faculty members (for FEP) from the institutes

The PW team then initiated a desk review of the project using the information gathered during the kick-off meeting and the relevant project documents. This review assisted in developing the assessment framework and identifying the key stakeholders for interactions.

A mixed research methodology involving both qualitative and quantitative data collection tools was employed to assess the impact of this project. The initiative involved various stakeholders including student learners, teachers, Government stakeholders, etc. In this case, therefore, mixed methodology approach was instrumental in evaluating the comprehensive perceived benefits, impact and in-depth insights into the perspectives of those involved in the project.

Key stakeholders were identified and tailored research tools were prepared to capture comprehensive insights on various components of the platform. A snapshot of the research design is as follows:

Figure 7: Sampling Plan



- Quantitative survey* with a sample of **575 beneficiaries (covering 505** student learners across 12 institutions in the country – Higher education, 30 student learners – schools, 30 FEP beneficiaries, and 10 Springboard Interns)
- Following In-depth interviews (IDIs) were also conducted:
 - a. Institute SPOCs (20 IDIs 17 with SPOCs from higher education institutes and 3 with SPOCs from school)
 - b. Infosys Springboard team (3 IDIs 1 IDI on overall program details, 1 on Maker Lab initiative and 1 on Government initiatives)

*The initial sample size (271) was calculated with a confidence level of 90% and a margin of error of 5% (on a total population of 80 Lakhs+ as reported by the Springboard team). To ensure comprehensive representation of the diverse stakeholders within the project's beneficiary group, a booster sample was added, and the sample size was subsequently increased to 575 participants. This adjustment was made to enhance the robustness of the data and ensure that all relevant perspectives are adequately captured, thereby providing a more detailed and diverse reflection of the stakeholder landscape.

4.3 Analysis and Findings

The detailed findings on the project's impact were derived from the corroboration and analysis of the desk review and stakeholder responses. Below are presented the summarized insights and the rationale for the project's necessity.

4.3.1 Challenges Before the Project



The following key challenges were noted by the research team, before the implementation of the Springboard project:

- Limited Access to Free Upskilling Platforms: Individuals seeking to enhance their skills, such as lifelong learners and engineering graduates, often encounter challenges due to limited availability of free or affordable upskilling platforms. This lack of accessible educational resources can impede their ability to stay up to date with industry trends and enhance their employability in a competitive job market.
- **Curriculum and Skill Alignment:** The gap between engineering curricula and the fast-paced demands of the tech and engineering industries is another significant issue. This gap between the industry and academia can result in graduates lacking essential industry-specific competencies, which hampers their smooth transition into professional roles.
- **Resource Accessibility:** Many engineering institutions, particularly those in less urbanized areas, struggle to provide their students with access to the latest technological resources and tools necessary for practical, hands-on learning. Such resources are vital for an effective engineering education.
- **Professional Development of Educators:** Engineering professors face challenges in keeping pace with technological advancements. There is often a lack of structured professional development opportunities that could help them improve their teaching skills and integrate innovative methods, which leads to outdated instruction that falls to meet current industry needs.
- **Digital Infrastructure and Access:** Schools in rural and underserved areas frequently suffer from inadequate internet access and digital infrastructure. This deficiency contributes to a digital divide that restricts access of students and educators in digital learning and essential educational resources.

Resistance to Technological Change: There is resistance within some educational settings to adopting . new digital tools and teaching methodologies. This reluctance is often due to unfamiliarity with technology, inadequate training, and insufficient support frameworks to facilitate the transition to digital education.

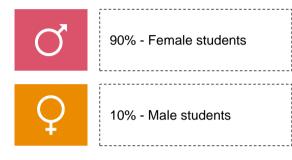
4.3.2 Summary of the Impact Created

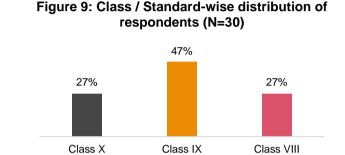
Profile of the respondents

This section provides an overview of respondents' profile:

1. School Students

Figure 8: Gender Distribution (N=30)

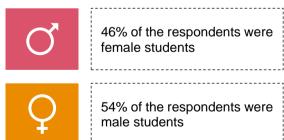




- The quantitative survey targeted school students to gather their insights as a key stakeholder group with 30 participants from three schools located in Chennai and Bangalore.
- The schools surveyed were Sarada Vidyalaya and RKM Vivekananda School in Chennai, and Kairalee Nilayama High School in Bangalore.
- Figure 3 showcases the gender distribution of respondents, illustrating the number of male and female students participated in the survey. Figure 9 details the participants according to their classes or grades.

2. Engineering Students

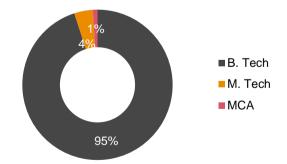
Figure 10: Gender distribution (N=505)



46% of the respondents were female students ------

54% of the respondents were male students





- A comprehensive quantitative survey was conducted, involving a total of 505 student respondents from engineering institutes nationwide. These respondents were drawn from 12 randomly selected institutes (Table 7), ensuring a representative sample that reflects the diverse geographical distribution of the intervention sites.
- The selection process was based on a comprehensive list provided by the Springboard team, • identifying institutes where the Springboard platform has been implemented as a part of their educational intervention strategy.

• Figures 10 and 11 above provide detailed breakdowns of the survey demographics, illustrating the distribution of respondents by gender and by the courses they are enrolled in. These insights are critical for understanding the reach and impact of the Springboard intervention across different demographic segments.

 Aditya College of Engineering and Technology (ACET) 	 Narasaraopeta Engineering College (NEC) 	Sri Krishna College of Engineering and Technology
 Aditya Engineering College (AEC) 	 Priyadarshini Institute of • Technology & Science (PITS) 	Vasireddy Venkatadri Institute of Technology
 Ballari Institute of Technology & Management 	 Prestige Institute of Management and Research 	Vidya Academy of Science and Technology
 Dr. D. Y. Patil Institute of Technology 	Sona College of Engineering	Vishnu Institute of Technology (VIT)

Table 7: List of shortlisted Institutes for the Assessment

Figure 12: Distribution as per the year of study of respondents (N=505)

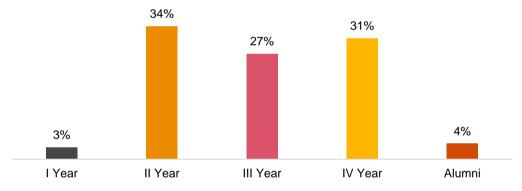
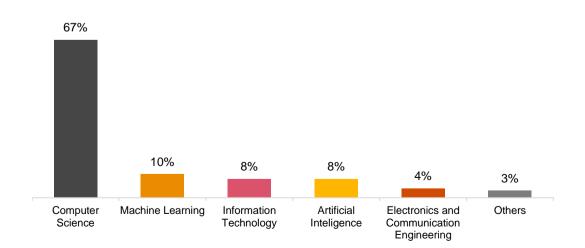


Figure 13: Distribution of respondents as per the field of study (N=505)

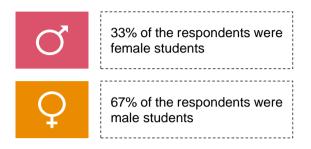


• Additionally, the survey highlighted that most respondents were in their second, third, and fourth years, primarily studying computer science.

 Figures 12 and 13 illustrate the distribution of respondents by academic year and field of study. Notably, the "Others" category in Figure 8 includes students from Civil and Mechanical Engineering programs. This data underscores the dominance of computer science courses under this project, reflecting current industry trends and educational focus, while also acknowledging the presence of diverse fields within engineering.

3. Engineering Institute Professors

Figure 14: Gender distribution (N=30)



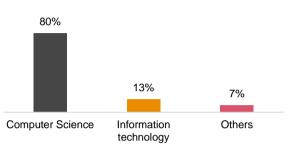
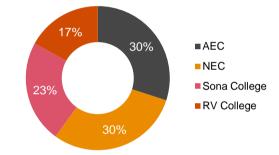


Figure 15: Course-wise distribution (N=30)





• The quantitative survey involved 30 professors from four engineering institutes, providing a comprehensive demographic and educational analysis, as shown in Figures 14, 15, and 16.

- Figure 14 outlines the gender distribution, while Figure 15 classifies respondents by the courses taught, noting "Data Analytics" and "Web Development" within the "Others" category. Figure 11 displays the distribution of respondents across the different institutes.
- Collectively examining these figures offers crucial insights the diversitv into and expertise of respondent This detailed pool. segmentation aids in accurately interpreting survey results and understanding the varied perspectives of the professors. These insights

Figure 17: Faculty Enablement Program at Mangalore University



are vital for enhancing the Note: Above picture has been provided by Infosys Springboard team strategic implementation of the Infosys Springboard Platform, ensuring it addresses the diverse educational needs and maximises its impact across engineering institutes.

4. Springboard Interns

• An online survey was **administered with the Springboard Interns who participated** in the program during the evaluation period. Team received 10 responses: 7 males and 3 females. Six respondents

were alumni of their institutions, while four were in their final year of studies. These interns came from 7 different educational institutions, detailed in Table 8.

•	Visvesvaraya National institute of Technology	•	MIT Academy of Engineering	•	MGM College of Engineering and Technology
•	Anna University	•	Walchand Institute of Technology	•	MVJ College of Engineering
٠	Sree Vidhyaniketan Engineering College				

Table 8: List of Institutes covered as a part of Intern survey

• The data indicates that 6 respondents were enrolled in Computer Science Engineering, 3 in Electronics and Communication Engineering, and 1 in a Master of Computer Applications (MCA) program.

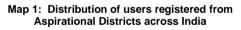
This analysis highlights the demographic and statistical characteristics of respondents, derived from the quantitative survey. Complementing this, **qualitative and in-depth interviews with various stakeholders were conducted to gather deeper insights**. The key impacts of Infosys Springboard Platform, identified through a blend of quantitative data and qualitative feedback, reflect its strategic value and influence on participants' educational and professional paths

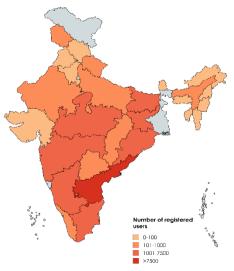
Equitable Access to Quality Course Content

- The Infosys Springboard Platform offers free access to 8,800+ quality premium course content nationwide, empowering a diverse audience to gain comprehensive knowledge and develop skills in their selected fields of technology, process, domain and professional skills. This initiative supports lifelong learning and professional growth, catering to individuals in enhancing their expertise and advance their careers across various domains ranging from next-gen technology, management, engineering, etc. trough curated learning pathways and certifications.
- As of September 2023, the platform has successfully established partnerships with 825 higher education institutions and 64 schools, significantly enhancing its outreach and collaboration. Alongside programs for independent learners, this platform has attracted 8,577,748

registered users across India. This extensive network underscores its commitment to providing accessible, high-quality educational resources, facilitating lifelong learning and professional development in a wide range of fields.

This platform has notablv impacted marginalized communities, engaging over 52,000 users from 101 aspirational districts (out of 112) identified by NITI Aayog¹³. These regions are among the most underserved regions in the country, and the platform's ability to penetrate these areas underscores its commitment to inclusivity and equitable access to education. By empowering individuals in these regions with opportunities for lifelong learning and professional development, the platform is playing a pivotal role in fostering social and economic progress across India.





The introduction of 'Lab on Wheels represented a pivotal advancement in educational outreach. These mobile units, launched in November 2023, are equipped with internet access, modern technological devices such as Industry 4.0 kits, 3D printer, internet and display, along with skilled trainers, reaching 50,000 unique learners across five states. The bus also has devices allowing learners to access the platform seamlesslv. Bv providina hands-on experience with practical, real-world applications, these mobile labs have significantly enhanced the industry readiness of their participants. Such initiatives not only bridge digital divide in rural areas but also foster a deeper understanding of applied sciences, thereby preparing learners to meet the demands of contemporary industries.14

Figure 18: Lab on wheels launch at Chamaraja Nagar



The Maker Labs initiative is a testament to our commitment to hands-on learning, particularly in underserved regions. By delivering cutting-edge technology and practical training directly to students, we are not only bridging the digital divide but also inspiring a new generation of innovators. The feedback from participants has been overwhelmingly positive, highlighting the labs' role in enhancing industry readiness and fostering a deeper understanding of applied sciences.

As narrated by an Infosys Springboard Team member

Transforming Education through Strategic Government Initiatives

Springboard works with central and state govt to partner in upskilling programs, help define curriculum, conduct faculty enablement and leadership program. The team works with Govt. departments to enable their employees as well on digital technologies (ex. Lal Bahadur Shastri National Academy of Administration (LBSNAA). Following is the specific impact of the platform's initiatives with selected stakeholder groups.

- Springboard has collaborated with SCERT in Maharashtra to roll out digital learning initiatives tailored for teachers and school administrators (including principals), aiming to enhance the education quality in Maharashtra's schools. The content for the training was hosted within the Springboard platform and was in Marathi language. This partnership has allowed Springboard and SCERT to equip educators with cutting-edge tools and resources such as audio-visual tools, fostering more effective teaching methods and improving student educational outcomes. It is understood that SCERT had not facilitated such training initiatives for its teachers and school administrators earlier due to a lack of quality digital infrastructure.
- Springboard team mentioned that the program has achieved significant outreach, engaging a large number of educators. As of September 2023,
 - **166,424 educators participated** in the Senior and Selection Grade Teacher training while **7,302 attended** the Headmaster / Principal training.
 - Completion rates are notably high, with 95.7% of participants completing the Senior and Selection Grade Teacher training, reflecting strong engagement and effective content delivery.
- The platform has also been instrumental in promoting gender inclusivity, with **40% of female learners** completing the Senior and Selection Grade training. This demonstrates the platform's commitment to empowering women in education. Furthermore, educators have benefitted considerably from courses on topics such as the Internet of Things and Web Hosting, advancing their professional

¹⁴ Lab on Wheels / Maker Labs were started in November 2023, which is beyond the review period cut-off (i.e. September 2023). Price Waterhouse Chartered Accountants LLP Impact Assessment Report

development. The platform's flexibility and accessibility have enabled educators to stay updated with educational trends and technologies.

Additionally, the Infosys Springboard team has provided consistent support, ensured smooth content hosting and promptly addressed queries. The resolution time depended on the query's complexity, with minor issues often resolved within a day or during a phone call. The platform's user-friendly interface, including features such as mobile OTP-based access and screen proctoring, has been appreciated by educators during our interactions, enhancing ease of navigation and course completion.

Springboard's impact on our teachers' Continuing Professional Development has been very significant. The app provided them with accessible, high-quality digital learning resources, fostering flexibility in learning.

- As narrated by a stakeholder (quoted As-Is from Infosys Springboard Impact Assessment report shared by the Springboard team)

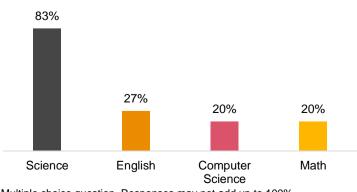
- The platform has forged a partnership with the TNSDC as part of their state-wide Naan Mudhalvan upskilling initiative. This collaboration features both in-person faculty enablement sessions and virtual student enablement sessions. Team noted that:
 - The courses are to be opted in by the students. However, the students must complete mandatory courses (industry-based skill building courses) on Springboard and projects to earn credits.
 - Over the past three years, the partnership has successfully **upskilled 200,000 students**, enhancing their **industry-readiness and job prospects**.
 - Additionally, approximately 5,000 faculty members have received training. This widespread reach underscores the program's commitment to improving educational quality and employability.
- This initiative offers a diverse range of courses in high-demand areas such as cybersecurity, Python coding, DevOps, full-stack development, big data, advanced data science, and Java. By providing both in-person and virtual training sessions, the program ensures that students and faculty members are equipped with the latest digital and technical skills, necessary for the modern job market. Further, the course content is offered in both English and Tamil, increasing accessibility to multitude of stakeholders.

Improved academic performance amongst the students

The platform has been instrumental in gradually improving student performance across various subjects offered through its courses. This positive trend has been consistently observed among both engineering and school students who participated in survey, underscoring the platform's effectiveness in enhancing educational outcomes for learners at different academic (School students) (N=30)

for learners at different academic levels.

 Survey with the school students revealed that 83% (N=30) of the respondents, engaged with the platform specifically for learning and taking courses related to science (Figure 19). The platform uses illustrative examples and brief videos to clarify complex topics like the water cycle and



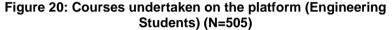
Multiple choice question. Responses may not add up to 100% Impact Assessment Report photosynthesis, enhancing student comprehension. This indicates a strong inclination towards utilizing the platform for scientific education among the surveyed cofhort.

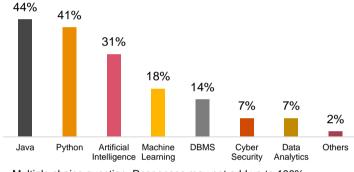
- 93% (N=30) of respondents, reported noticeable improvements in their annual test scores after adopting the Springboard platform. This highlights a strong correlation between the platform's use and enhanced academic performance, underscoring its effectiveness in facilitating educational advancement and its potential as a valuable tool for promoting student success in academic endeavours.
- The average annual increase in % marks for each subject, as reported by the respondents, is as follows:

Subjects	Improvement in %
Science (N=25)	15%
English (N=8)	18%
Math (N=6)	14%
Computer Science (N=6)	11%

with In the survey conducted engineering students, a significant portion reported enrollina in courses on the platform about Java (44%, N=505) and Python (41%, N=505). These were closely followed by courses on Artificial Intelligence, with 31% of respondents indicating participation (Figure 20).

"Others" category includes students engaged in courses on technical subjects such as Angular, HTML, C programming, and Full Stack





Multiple choice question. Responses may not add up to 100%

Development, as well as courses on **behavioural topics around workplace and personal development skills such as email writing and time management**.

 Among the engineering students surveyed, 48% (N=505) have been engaging for more than one academic year. These students were subsequently probed about any improvement in their academic scores in subjects studied through the platform.

The responses (Figure 21), vary in sample size across different subjects as follows: DBMS (N=47), Python (N=89), Java (N=123), Data Analytics (N=20), Machine Learning (N=43), Artificial Intelligence (N=90), and Cyber Security (N=17). The variation in

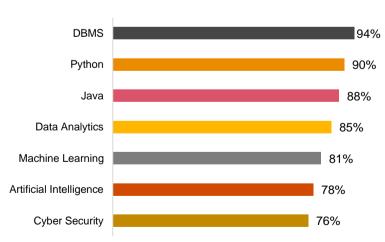


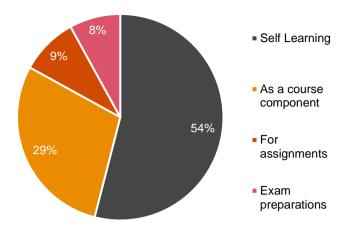
Figure 21: Percentage of respondents observing improvement in their scores (Subject-wise)

sample size is attributed to the differing number of students enrolled in these courses who have completed at least one academic year.

Multiple choice question. Responses may not add up to 100%

Additionally. 46% the of respondents (N=505) reported using the platform for purposes as exam preparation, such assignment completion, or as an integral component of their courses (e.g., lab exercises). These activities directly contribute their overall academic to performance by enhancing their internal scores. This information was further corroborated through discussions with the designated SPOCs at various institutions (Figure 22). 54% of the

Figure 22: Usage of Springboard Platform (N=505)



respondents (N=505) utilise the platform primarily for self-learning. These students indicated that the platform's short interactive courses help them remain engaged and **complement the classroom learning, especially during the examination preparation**.

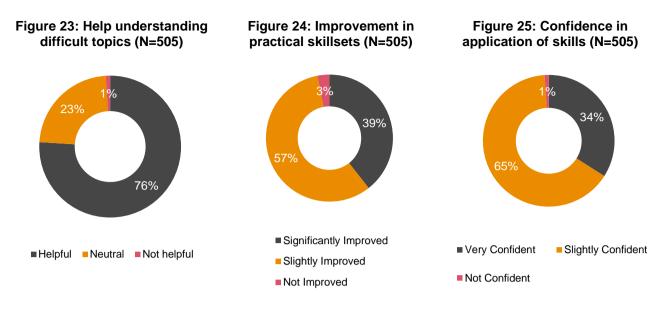


The integration of Springboard into our teaching has been a game-changer for student engagement. The platform's interactive content aligns perfectly with our curriculum, making subjects like science and math more accessible and enjoyable for students. I've observed a significant increase in class participation and a marked improvement in test scores, which speaks volumes about the platform's effectiveness.

- As narrated by a School Teacher at Kairalee Nilayama High School (Bangalore)
- The internship program has made a significant impact on participants' technical skill development. The program offers exposure to a variety of technology areas, with a strong emphasis on Artificial Intelligence. The majority of respondents (8 out of 10) reported learning 1-2 new programming languages or tools (such as Java Tech Stack and Python) during their internship. This indicates the platform's effectiveness in supporting skill acquisition. This exposure equips participants with foundational skills necessary for tackling real-world technical challenges, thus enhancing their employability in the competitive tech industry.

Improved Understanding of the Complex Subjects

- The platform has played a crucial role in **enhancing users' understanding of subject matter**, thereby **advancing their skillsets in topics they pursue**. This is supported by surveys and qualitative interactions conducted with various stakeholders within the platform's ecosystem.
- Among school students surveyed, 77% (N=30) agreed that the platform's content is relevant to their course curricula, indicating strong alignment with classroom teachings. Furthermore, 97% (N=30) of respondents agreed that the audio-visual content on the platform enhanced their understanding of real-world applications of concepts more effectively than traditional teaching methods. Additionally, 100% (N=30) of respondents acknowledged that this content has improved their grasp of subject matter concepts, with 60% reporting a significant improvement and 40% noting a slight improvement.
- Among the engineering students surveyed, 76% (N=505) reported that using the platform has been crucial in enhancing their comprehension of particularly challenging coursework topics (Figure 23). Additionally, about 96% (N=505) of respondents recognized an enhancement in their practical skillsets through consistent platform use (Figure 24), with 99% (N=505) reporting increased confidence in applying these skills (Figure 25).



Career Advancement and Professional Recognition

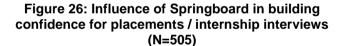
• The structured courses and certified recognition provided by the Infosys Springboard Platform have substantially advanced the professional development of students and educators, as evidenced by surveys and qualitative feedback.

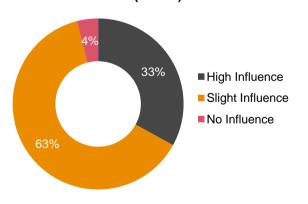


The Faculty Enablement Program has been a pivotal part of my career growth. The technical courses on emerging technologies like IoT and data science have enriched my knowledge base, enabling me to deliver more relevant and up-to-date content to my students, which has been reflected in their improved academic outcomes.

- As narrated by an Engineering Professor, JNTU, Kakinada
- Data analysis reveals that 80% (N=30) of • surveyed engineering professors experienced receiving either salary increases or promotions after participating in the Faculty Enablement Programme (FEP), part of the Springboard initiative. 100% respondents (N=30) concurred that the FEP enhance advancement career opportunities, with 70% indicated а "significant increase" in such prospects.

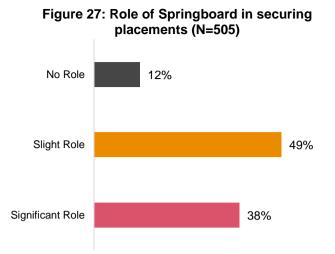
Further, qualitative discussions with institutional SPOCs reveal that faculty appraisals in their institutions are linked to the quantity of certifications obtained a





given academic year. This connection motivates faculty members to complete courses on the platform, highlighting the importance of continuous professional development for skill enhancement.

- An overwhelming majority, 96% (N=505) of the engineering students, reported a substantial increase in confidence for interviews due to enhanced concept understanding from the platform's bytesized, industry-focused video content. Additionally, 88% credit Springboard for aiding in securing placement offers.
- Furthermore, 33% of students participated in coding competitions like hackathons after using the platform, with 96% attributing their improved performance to skills gained from this platform. These competitions also



offered valuable networking opportunities, further supporting career growth.

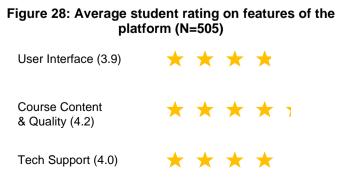
Faculty Enablement Programme's focus on professional development has significantly impacted my career trajectory. The certifications I've earned through the Springboard platform have not only enhanced my teaching skills but also led to promotions and salary increases, validating the program's effectiveness in advancing my professional standing.

- As narrated by an Engineering Professor, Sona College, Salem
- Respondents from the Infosys Springboard intern cohort reported engaging in projects pertaining to Artificial Intelligence and Data Visualisation that closely mimic real-world scenarios, offering vital practical experience. Although five out of ten respondents rated these projects as challenging, they are essential for developing problem-solving and critical thinking skills. This rigorous experience is instrumental in bridging the gap between academic study and industry expectations.
- The internship program demonstrates strong alignment with participants' career aspirations, with all respondents (N=10) indicating a likelihood of pursuing careers in their selected technology fields. This alignment enhances confidence and motivation, facilitating a smoother transition from academic to professional settings.

Overall Feedback

In addition to evaluating the primary areas of above impact, the team also collected **comprehensive feedback** regarding the overall influence of the platform on several other dimensions. This broader approach aimed to capture a more holistic view of user experience and satisfaction, providing insights on platform's ability to affect various aspects of the users' academic and professional development. Team noted that:

- Engineering students participated in a survey where they rated various features of the platform on a scale of 1 to 5, with 1 being the lowest level of satisfaction and 5 being the highest. The assessed features included the user interface, course quality and content, and technical support. The average ratings for each feature are illustrated in Figure 28.
- A significant proportion of school students, comprising 90% (N=30) of the participants,



acknowledged that the platform effectively fostered increased class participation. This sentiment was also echoed in qualitative discussions with teachers, who reported enhanced student engagement attributed to the platform's influence. Similarly, professors in engineering institutions provided an average rating of 4.2 out of 5 (N=30) when evaluating the platform's effectiveness in enhancing student engagement and participation during classes. This data underscores the platform's positive impact on promoting active learning environments and encouraging greater involvement among students.

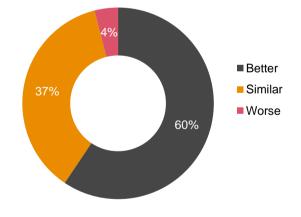
 The faculty members were invited to share their insights on the efficacy of the Faculty Enablement Program (FEP), a key component of the platform. Their feedback was captured using a Likert scale ranging from 1 to 5, where 1 signifies the least favourable rating and 5 denotes the most favourable. The feedback received suggests a generally positive reception across various dimensions of the project, with the majority of respondents (N=30) assigning ratings of 4 or 5. The comprehensive feedback is documented in detail below (Table 9).

#	Parameter	Frequency					
#	Parameter	Scale 1	Scale 2	Scale 3	Scale 4	Scale 5	
1	Training Delivery and quality of technical courses	0%	0%	0%	40%	60%	
2	Training Delivery and quality of Soft Skills courses	13%	0%	7%	23%	57%	
3	Effectiveness of training in improving teaching practices	3%	0%	0%	47%	50%	
4	Contribution of Springboard and its experience in professional development	0%	0%	7%	53%	40%	
5	Overall quality of the content available on the platform	0%	0%	10%	27%	63%	

Table 9: Faculty members' response to various aspects of FEP (N=30)

In the survey conducted engineering students, participants were asked to evaluate their experiences using Springboard in comparison to other self-learning platforms they have utilized. Among the respondents, 49% (N=505) reported having used alternative platforms such as Coursera, LinkedIn, and YouTube to enhance their understanding of topics of interest. Notably, a significant majority, 60% of these respondents (N=246), expressed a preference for the learning experience offered by Springboard. The preference for Springboard was largely attributed to the platform's ability to deliver content with exceptional clarity and to offer courses that are highly specific in scope. Refer figure 29 for details.

Figure 29: Comparing Springboard to other self-learning platforms (N=246)



The school students who participated in the survey expressed a similar favourable opinion regarding the platform. An impressive 93% of the respondents (N=30) indicated satisfaction with the course content provided by the platform. Furthermore, approximately 94% (N=30) acknowledged that the platform has significantly contributed to the development of their critical thinking skills. This elevated level of satisfaction is largely attributed to the platform's strategic alignment with educational objectives and its commitment to delivering high-quality, pertinent content. The elements on the platform are thoughtfully designed to accommodate a variety of learning styles, thereby enhancing the overall educational experience for students.

- A comprehensive comparative analysis was conducted with the aim of offering an overview of the features of the Springboard platform in relation to other similar platforms. The findings from the analysis showcase that: -
 - Springboard sets itself apart by catering to a wide-ranging audience, encompassing lifelong learners starting from Class 6, and by delivering its educational content entirely free of charge.
 - In contrast to its competitors, which typically employ a hybrid model of free and paid offerings, Springboard delivers a thorough, self-paced learning experience without the limitations of live session schedules.
 - While many platforms concentrate on professional skill enhancement and competitive examination preparation, Springboard expands its offerings to include internships and courses focused on soft skills and personality development.
 - These findings demonstrate that the Springboard platform is competitive with other elearning platforms in the market. Nonetheless, there are specific areas for improvement regarding the certification turnaround time and the availability of course content in multiple languages. Addressing these issues could significantly enhance service delivery and amplify the platform's effectiveness.

4.4 IRECS Analysis

Basis the interactions with the key stakeholders and desk review, the impact of the project was also assessed on the IRECS framework parameters. The IRECS analysis summary has been presented in below table:

Parameter	Assessment from Study
Inclusiveness	• The platform has registered over 8.5 million users across India, including significant penetration in 101 of the 112 aspirational districts. These districts are among the most underserved regions, indicating the platform's success in reaching marginalized communities and providing them with access to quality education.
	• This initiative has reached 50,000 learners in five states, offering mobile laboratory facilities that provide hands-on learning experiences, particularly in STEM education. By bringing educational resources directly to remote areas , the platform is effectively bridging the digital divide and ensuring that students in these regions have access to the same opportunities as those in urban areas.
	• The platform has made significant strides in empowering female educators, with 40% of female learners completing the Senior and Selection Grade training. This focus on gender inclusivity not only enhances the professional development of women in the education sector but also contributes to broader societal goals of gender equality.
Relevance	 The platform's content is specifically curated to align with classroom teachings, as evidenced by 77% of school students finding it relevant to their course curricula. This ensures that the platform complements traditional education methods and enhances the overall learning experience. Among school students, 97% agreed that the audio-visual content on the platform enhanced their understanding of real-world applications of concepts more effectively than traditional teaching methods. This relevance

Table 10: IRECS Analysis

Parameter	Assessment from Study
	to practical applications helps students connect theoretical knowledge with real-world scenarios.
	• The platform offers a diverse range of courses in high-demand areas such as cybersecurity, Python coding, DevOps, and data science . This ensures that learners acquire skills that are directly applicable to the modern job market, making them more competitive and industry ready.
	• The Faculty Enablement Program (FEP) has been well-received, with 100% of participating professors acknowledging that the platform enhances career advancement opportunities. This feedback underscores the platform's relevance in professional development for educators.
Effectiveness	• A significant 93% of school students reported noticeable improvements in their annual test scores after using the platform. Specific subjects like Science, English, and Math saw average improvements of 11-18%, highlighting the platform's effectiveness in enhancing academic outcomes.
	• Among engineering students, 97% recognized an enhancement in their practical skillsets through consistent platform use, with 99% reporting increased confidence in applying these skills . This demonstrates the platform's effectiveness in equipping students with practical, applicable skills.
	• The Faculty Enablement Program (FEP) has led to 80% of engineering professors receiving promotions or salary increases , indicating the program's effectiveness in facilitating professional growth and career advancement.
	• An overwhelming 96% of engineering students expressed a significant boost in their confidence when attending interviews for placements and internships. This increase in self-assurance is attributed to the platform's concise, industry-relevant content, which prepares students for real-world challenges.
	• 33% of respondents reported participating in coding competitions, such as hackathons, after beginning their use of the platform. Of these, 96% recognized the skills acquired through the platform as instrumental in their performance, showcasing its effectiveness in fostering competitive skills.
Convergence	• The Infosys Springboard platform's alignment with the National Education Policy (NEP) 2020 enhances its convergence with national educational goals. By integrating skill-based education into mainstream curricula , the platform supports NEP's focus on holistic and multidisciplinary learning, thereby fostering a more unified and effective educational ecosystem.
	• The platform's collaboration with SCERT in Maharashtra and TNSDC in Tamil Nadu exemplifies its integration with state educational initiatives. By aligning with these initiatives, the platform enhances teacher training and student skill development, contributing to a more cohesive and effective educational ecosystem.
	• Partnerships with 825 higher education institutions and 64 schools facilitate a unified approach to digital learning . These collaborations ensure that the platform's resources are widely accessible and utilized across various educational levels, promoting a more integrated and comprehensive learning experience.

Parameter	Assessment from Study
Sustainability	 The platform contributes to the Digital Skill Goal of Infosys. This long-term vision reflects the platform's commitment to educational empowerment and sustainability, ensuring that its impact continues to grow over time. Offering free access to high-quality educational resources, the platform supports lifelong learning and professional development. This commitment to ongoing education contributes to the sustainable advancement of education in India, empowering individuals to
	 continuously improve their skills and knowledge. The platform's initiatives, such as the Lab on Wheels, are designed to provide ongoing educational support and resources. These initiatives ensure that learners continue to benefit from the platform's offerings in the long term, fostering a culture of continuous learning and development. Further, these programs offer kits and experiments designed to spark curiosity and demonstrate the potential applications of technology in solving real-world problems.

4.5 Alignment to the Infosys Limited's CSR policy and the UN SDGs



The project is aligned with Infosys Limited's CSR policy which includes **"Education" and "Gender Equality and Empowerment of Women" as key CSR focus areas for Infosys Limited.** The project is also aligned with following Sustainable Development Goal (SDG)¹⁵:



SDG-4 emphasises on inclusive and **equitable quality education** for all. Springboard **provides equitable access to high-quality educational resources, reaching over 8.5 million users**, including **those in underserved regions**. It **supports lifelong learning and professional development**, enhancing educational outcomes for students and educators.

SDG-5 focuses on achieving gender equality and empowering all women and girls. The platform empowers female educators, with 40% of female learners completing the Senior and Selection Grade training. This focus on gender inclusivity contributes to broader societal goals of gender equality.

SDG-8 promotes **sustained**, **inclusive economic growth and decent work**. By **offering courses in high-demand fields** such as cybersecurity, Python coding, and data science, the platform equips learners with skills that **enhance their employability and industry readiness**, contributing to economic growth.

SDG-9 is about **building resilient infrastructure and fostering innovation**. Initiatives like the Maker Labs provide hands-on learning experiences and **access to modern technological resources**, **fostering innovation** and **bridging the digital divide** in underserved areas.

SDG-10 focuses on **reducing inequality** within and among countries. The program's **reach into aspirational districts and underserved regions** highlights its commitment to **reducing educational inequalities and providing opportunities** for marginalized communities.

¹⁵ Source: <u>https://sdgs.un.org/goals</u>

Price Waterhouse Chartered Accountants LLP

4.6 Study Limitations

- No direct interaction with Independent Learners: The research team faced challenges in engaging with independent learners due to the Springboard team's adherence to confidentiality policies, which precluded the sharing of learners' contact details. This limitation impeded direct interaction with this stakeholder group, thereby restricting the breadth of insights we could gather.
- Limited responses from Springboard Interns: The objective was to secure responses from 20 Springboard interns to enrich the assessment with diverse perspectives. However, the constraints of a limited timeframe, coupled with the sole availability of email as a communication channel, resulted in obtaining only 10 responses from this group.

4.7 Case Stories

Following case stories have been gathered through discussions held with the project stakeholders during data collection process.

Case Story 1: Confidence Boost for the Job Market

Arjun*'s journey through the Springboard platform highlights a significant transformation in his career preparation during his final year of mechanical engineering. As graduation approached, Arjun felt anxious about entering a rapidly evolving job market where technological advancements demanded interdisciplinary skills. Despite a strong academic background, he recognized the need for practical experience to meet the expectations of technical interviews. To bridge this gap, Arjun turned to Springboard, which offered courses in emerging fields like data analytics and cybersecurity. These courses were not only relevant in the tech industry but also in traditional engineering sectors where data-driven decision-making and information security were becoming essential.

Springboard's curriculum focused on practical applications and real-world scenarios, providing Arjun with hands-on projects and case studies that allowed him to apply theoretical knowledge in simulated environments. This approach enhanced his technical skills and boosted his confidence for interviews. The platform also offered resources to prepare for interviews, including mock interviews and coding challenges. These exercises helped Arjun refine his problem-solving techniques and communication skills, crucial for articulating his thought processes during technical interviews.

As Arjun progressed, his initial anxiety gave way to confidence, leading to successful interviews and multiple job offers from top companies. His story underscores the importance of continuous learning and adaptability in today's job market. It highlights how platforms like Springboard can equip students with practical, industry-relevant education, inspiring others to pursue similar paths for career success.

Case Story 2: Transformative Internship Experience

Neha*'s journey through the Springboard program as an intern marked a pivotal phase in her transition from student to professional. With a background in electronics and communication engineering, she recognized the importance of blending practical experience with theoretical knowledge to excel in a competitive job market. Springboard offered her the ideal platform to achieve this blend. Upon joining, Neha accessed a wealth of resources aimed at enhancing both her technical and soft skills. The platform's virtual training sessions and self-directed modules allowed her to tailor her learning, with a particular focus on the Artificial Intelligence, aligning perfectly with her interest in smart technologies.

During her internship, Neha worked on designing a smart automation system, applying her Springboardacquired knowledge to real-world challenges, from sensor integration to user interface design. This project not only enriched her resume but also provided her with crucial insights into project management and teamwork, skills essential in any professional setting. A key moment was presenting her project to senior executives, where her technical prowess and innovative approach were highly praised. This experience significantly boosted her employability, leading to multiple job offers upon graduation.

Neha's story underscores the value of combining academic learning with hands-on experience and illustrates how programs like Springboard can effectively prepare students for successful careers. Her journey serves as an inspiration, demonstrating that with the right resources and mindset, transitioning from academia to the professional world can be a rewarding and empowering experience.

*Name Changed

Case Story 3: Transforming Education at SS Girls School

At SS Girls school located in Chennai, the introduction of the Infosys Springboard platform marked a significant shift in the educational landscape. Their teachers were initially sceptical about integrating digital tools into their teaching methods. However, the platform's comprehensive resources and alignment with the school curriculum soon won them over.

The Springboard platform provided teachers with access to a wide array of interactive content, covering subjects like science, mathematics, and English. The school administration noticed that the platform's engaging audio-visual materials made complex scientific concepts more accessible to students, sparking their curiosity and enthusiasm for learning. The ability to incorporate real-world applications into lessons helped students connect theoretical knowledge with practical scenarios, enhancing their overall understanding.

As students began using the platform, the teachers observed a marked improvement in their academic performance across various subjects. Test scores increased significantly, with many students achieving higher grades than ever before. The platform also fostered a more inclusive learning environment, allowing students of varying abilities to learn at their own pace and revisit challenging topics as needed.

Beyond academic achievements, the platform's impact extended to student engagement and participation. Class discussions became more dynamic, with students eager to share insights and ask questions. The platform's resources also encouraged collaborative learning, as students worked together on projects and assignments, developing critical thinking and teamwork skills.

The success of the Springboard platform at SS Girls School was not limited to students. Teachers too, benefited from professional development opportunities offered by the platform. Training sessions on integrating technology into teaching practices equipped educators with new skills and methodologies, enhancing their effectiveness in the classroom.

Case Story 4: Journey to Innovative Teaching

Dr. Kumar*, a seasoned professor of computer science at a prominent engineering college, was always on the lookout for ways to enhance his teaching methods and keep up with the rapidly evolving technological landscape. When his institution partnered with the Infosys Springboard platform, Dr. Kumar saw an opportunity to revitalize his approach to education. The Springboard platform offered a comprehensive suite of courses and resources on cutting-edge topics like artificial intelligence, data science, and cybersecurity.

Eager to integrate these resources into his curriculum, Dr. Kumar enrolled in the Faculty Enablement Program (FEP) provided by Springboard. The program equipped him with new teaching methodologies and insights into emerging technologies, enhancing his ability to deliver engaging and impactful lectures. The training also included sessions on soft skills development, which Dr. Kumar found invaluable for fostering a holistic learning environment. As Dr. Kumar began incorporating Springboard's resources into his classes, he noticed a significant shift in student engagement. The interactive content and real-world case studies captured students' attention, encouraging them to participate more actively in discussions and projects. The platform's flexibility allowed students to explore topics at their own pace, leading to a deeper understanding of complex concepts.

The impact of the Springboard platform extended beyond the classroom. Dr. Kumar's enhanced teaching methods and the certifications he earned through the FEP contributed to his professional growth. He received recognition from his institution in the form of a promotion and a salary increase, validating the effectiveness of the program in advancing his career.

*Name Changed

Case Story 5: The Infosys Springboard Maker Lab on Wheels Initiative at GNIOT

In a collaborative effort, GNIOT Institute of Professional Studies and Infosys launched the "Infosys Springboard Maker Lab on Wheels Program" for first-year BCA students. The program, held from September 23 to September 26, 2024, aims to enhance the learning experience by providing hands-on exposure to technologies.

The mobile lab, driven by Infosys, offers students direct access to tools such as Artificial Intelligence, Machine Learning, and the Internet of Things (IoT). This experience is designed to align academic learning with industry requirements, preparing students for the IT sector's challenges.

Through interactive sessions and live projects, participants learn the practical application of technology across various fields. The program supports creativity and innovation, equipping future technologists with the skills and knowledge needed to succeed in the market.

This initiative marks a step forward in educational collaboration, paving the way for future partnerships focused on improving students' professional readiness and advancing technology education.

Case Story 6: Transforming Education in Maharashtra – The Infosys Springboard and SCERT Partnership

Infosys Springboard, in partnership with the State Council of Educational Research and Training (SCERT) Maharashtra, aims to improve educational quality in Maharashtra's state schools. This collaboration, formalized on April 27, 2022, leverages Infosys Springboard's digital platform as part of Infosys's CSR efforts, focusing on curriculum development, teacher training, and overall school education enhancement. The initiative provides comprehensive training for teachers and students, fostering a modern educational environment.

Key programs include the Senior and Selection Grade Online Training, launched on June 1, 2022, targeting teachers and educators across various levels. This program emphasizes child-centered learning, literacy, numeracy, and 21st-century skills, aligning with NEP 2020. By September 30, 2023, it had 166,424 participants with a 95.7% completion rate. Another program, the Headmaster/Principal Empowerment Online Training, started on February 13, 2023, focuses on enhancing school leaders' professional skills. Part of the STARS Project, it had 7,302 participants by September 30, 2023, with notable completion rates.

The initiative's impact extends beyond participation, with educators praising the platform's accessibility and quality resources. It empowers teachers with updated knowledge and skills, enhancing teaching methods and exploring new areas like IoT and robotics. Overall, the partnership has significantly impacted Maharashtra's educational landscape, with high completion rates and positive feedback indicating its effectiveness in driving educational improvements.

Project 2: Training on CybercrimeInvestigationtoVariousStakeholders

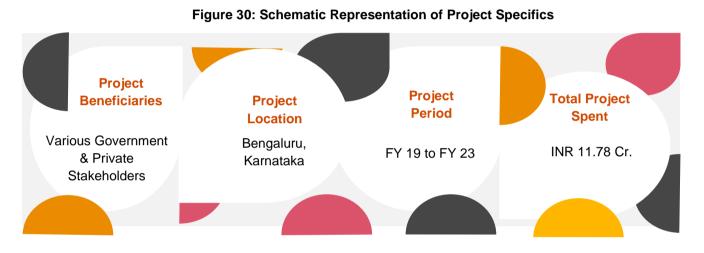
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5.1 About the Project

In the current digital era, rapid technological advancements and widespread use of digital devices have not only increased the incidence of cybercrimes but also enhanced their complexity. It makes specialised investigation training imperative to empower law enforcement agencies with the skills necessary to address these challenges.

Over the years, Infosys Foundation has implemented numerous skill development projects through its CSR efforts. One such project is **"Training on cybercrime investigation to various stakeholders"**. As a part of this, **"Centre for Cybercrime Investigation Training & Research (CCITR)"** was setup at the Criminal Investigation Department (CID) Headquarters, Bengaluru. The objective was to provide **specialised training and developing essential reference documents** such as cybercrime investigation SOPs, manuals etc. to support stakeholders. Presented below is a schematic representation of the project details:



The CCITR was setup through a **Public Private Partnership (PPP)** involving **Infosys Foundation**, the **Criminal Investigation Department (CID) of Karnataka Police and Data Security Council of India (DSCI) in 2019.** Its objectives¹⁶ include:

- Enhancing the capacity of police, prosecutors, and judiciary in handling technology-driven investigations
- Developing standard operating procedures (SOPs) for effective cybercrime investigations
- Conducting research on legal, technical, and procedural aspects of cybercrime investigation
- Improving the investigation and prosecution of cybercrime cases in Karnataka

The centre includes a dedicated floor devoted to Advanced Training Facilities, Digital Forensic Resource Centre, Digital Forensic R&D Department, Cyber Forensics Unit, Investigators Office, High End Forensic Workstations and other basic amenities. **The operation and maintenance of the centre is also funded by the Infosys Foundation.**



Figure 31: CCITR Facility, Bengaluru

¹⁶ Source: Annual Report (2019-2020) - CCITR Price Waterhouse Chartered Accountants LLP This CCITR promotes training, research, and collaboration among law enforcement agencies, industry, and academia in the field of cyberspace, with a focus on cybercrime investigations and cyber forensics. CCITR has adopted a holistic approach to deliver the training programmes (Figure 32):



Figure 32: Schematic representation of training programme specifics¹⁷

*SSB-Sashastra Seema Bal, CISF-Central Industrial Security Force, NCB-Narcotics Control Bureau

The project has benefitted multiple stakeholders since its inception (Table 11):

Table 11: Split-up of CCITR Training Beneficiaries¹⁸

#	Training Activity	FY 20	FY 21	FY 22	FY 23	Grand Total
1.	Long Course	1,137	308	490	958	2,893
2.	Short Course	316	2,496	1,346	736	4,894
3.	Outreach and Virtual Training	1,089	2,713	6,345	2,815	12,962
	Grand Total	2,542	5,517	8,181	4,509	20,749

- In addition to its training initiatives, research is a core focus area for the CCITR. This emphasis on research has led to numerous publications and reports developed by the CCITR research team across various domains¹⁹.
- Additionally, CCITR develops cybercrime investigation manuals and SOPs and also publishes a monthly newsletter. This provides key updates and insights into developments in cybercrimes, cyber laws, and digital forensics, both nationally and globally.

Method of Impact Assessment 5.2



The impact assessment study leveraged an integrated and cohesive approach to assess the social impact transpired since project's implementation. A kick-off meeting was held with Infosys foundation and the CCITR team to understand the nature of support for this project and align on the requirements for starting the assessment exercise.

Following the meeting, PW received following project documents:



- Memorandum of Understanding (MoU) and its addendum containing project details agreed with DSCI, CID of Karnataka Police
- Annual Reports of CCITR from FY 19 to FY 23 describing the project progress

PW team then began the project's **desk review** based on the information collected during the kick-off meeting and from the project documents. This helped our team in designing the assessment framework and finalising the key stakeholders for the interactions. Furthermore, the PW team concentrated on formulating a qualitative research methodology to evaluate the project's impact.

¹⁷ Source: As per project documents shared by CCITR team

¹⁸ Source: As per project documents shared by CCITR team

¹⁹ These include Dark and Deep Web, advisory materials for law enforcement agencies, Disk Forensics, Cybercrime Investigation Handbooks, Cybercrime Investigation Manuals, Concise Handbook on Cybercrime Investigation, Anti-Forensics, and Drone Forensics. Price Waterhouse Chartered Accountants LLF Impact Assessment Report 57

A **qualitative research methodology** was leveraged to assess the impact owing to the nature of this project. Qualitative research was useful in assessing subjective experiences and exploring in-depth information of individual perspectives pertaining to the project.

Leveraging convenience sampling method, stakeholders from different domains were identified and proposed for interactions by PW team. Tailored research tools were developed for each stakeholder to facilitate these interactions. Based on the availability, we could engage with 33 stakeholders (Figure 33):

Figure 33: Sampling Plan

Following In-depth Interviews (IDIs) were conducted:

- DSCI Project Head at CCITR (1)
- Superintendent of Police Cyber Crime Division- CID (1)
- TAC* members from Academia and Industry representatives (2)
- CCITR Research Team Representative (1)
- Police Officers (7)
- Prosecutors (5)
- Judicial Officers (6)
- Armed Forces (2)
- Academic Institutes (3)
- Interns (2)
- Deputy Range Forest Officers (2)
- Assistant Commissioner from Commercial Tax Department (1)

* Technical Advisory Committee (TAC) was constituted for technical advisory support to CCITR consisting of one member of CID, two members from industry, one member from Academia and two members from DSCI including the head of the CCITR.

The responses collected from the stakeholders' interactions were analysed to arrive at detailed findings as depicted in next section.

5.3 Analysis and Findings

This section summarises the findings from the desk review and interactions:

5.3.1 Challenges Before the Project



Limited Expertise in Cybercrime Investigation and Prosecution: The lack of specialised knowledge and reliance on traditional investigative techniques among police officers led to inefficiencies in cybercrime investigations and prosecutions. This often resulted in delays, compromised outcomes, and challenges in gathering and presenting digital evidence in court.

Inconsistent and Inadequate Training: The absence of a structured and consistent training programme for law enforcement and judiciary officials posed a significant challenge. Existing training initiatives were scattered, limited and varied in quality, leading to uneven knowledge and skills across departments and gaps in the overall cybercrime response in Karnataka.

Limited Availability of Reference Documents for Cybercrime Investigations: Given the complexity of cybercrime cases, evidence must be collected in strict accordance with legal requirements to ensure admissibility in court. The lack of proper reference materials (e.g. manuals) has led to confusion and incorrect evidence collection, often resulting in the failure to hold perpetrators accountable.

5.3.2 Summary of the Impact Created

The CCITR initiative enhances modern cyber threat response by building law enforcement capacity, fostering cross-sector partnerships, and advancing cyberspace research. This comprehensive strategy cultivates skilled personnel and establishes a robust framework for sustained improvements in cybercrime investigation and cybersecurity resilience at state and national levels. Below summarises the impact created by this project:

1. Strengthening the Capacity for Effective Cybercrime Investigation and Legal Processes

By developing technical expertise, providing critical resources, and offering continuous training, **CCITR** has played a pivotal role in making cybercrime investigations more effective and ensuring smoother prosecution processes.

1.1 Capacity building of law enforcement, prosecutors and judiciary:

- Police officers mentioned that CCITR has enhanced their cybercrime investigation skills through comprehensive and targeted training programmes. These sessions have equipped them with in-depth knowledge of cybercrime offenses and essential investigative techniques required in the field. During the project period, a total of 9,914 police officers attended the various training programmes.²⁰ The practical training included hands-on experience with advanced forensic tools and technologies. Officers particularly highlighted:
 - Effective training delivery, with a curriculum covering all relevant cybercrime investigations topics
 - **The importance of mock scenarios and real-life case simulations** in developing practical skills for navigating the complex cybercrime landscape.
 - o Inclusion of legal considerations to ensure investigations are court- admissible.



I attended the training programmes twice over three years, and observed its evolution to address changing needs, covering relevant topics each time. Both experiences equipped me with techniques that invaluable in investigations, enhancing my capacity, understanding, and skills in tackling cybercrime.

As narrated by a Police Officer, CEN, Karnataka

The training programme at CCITR is **conducted by highly qualified DSCI staff members with expertise in cybercrime and cybersecurity** as mentioned by DSCI team. To further enrich the curriculum, subject matter experts from renowned universities, government bodies, and corporations contribute specialised lectures. The programme covers digital forensic tools such as **Encase**, **AccessData's FTK, Magnet Forensics' Axiom, and Cellebrite's UFED, which are widely utilised by Indian law enforcement.**

In a national first, CCITR, supported by the Infosys Foundation, introduced advanced forensic technologies, including Teel Tech's Chip-off solution, enabling data extraction from detached smartphone memory chips. Additionally, **CCITR holds a PC-3000 flash data recovery licence** and has arranged academic licences for Mobile Forensic solutions like Oxygen Forensics and C5 CDR for practical training of police officers through agreements with OEMs.

Interactions with prosecutors revealed that CCITR has bolstered their capabilities to present critical evidence during court proceedings. The specialised training programmes provided essential insights into cybercrime laws and procedures, equipping them with the necessary skills (such as gaining insights into the dark web, and open-source intelligence frameworks etc.) in digital forensics to build strong cases. Throughout the project period, a total of 268 prosecutors participated in various training programs. Key highlights include:

²⁰ Source: As per project documents shared by CCITR team Price Waterhouse Chartered Accountants LLP Impact Assessment Report

- Prosecutors appreciated the **comprehensive curriculum**, which addressed various aspects of cybercrime, ensuring preparedness for diverse cases.
- Case presentations helped refine their advocacy skills and build confidence in handling cybercrime cases in court.
- It provided vital **technical knowledge** on evidence collection, ensuring it meets legal standards while **reinforcing their legal expertise**.
- Judges have also benefited from CCITR's initiatives, gaining a deeper understanding of cybercrime intricacies and the technicalities of digital evidence. Before CCITR's intervention, there was a noticeable gap in judicial awareness regarding how cybercrimes were perpetrated and how evidence was gathered. A total of 589 judges took part in different training programs during the project period. Specialised training sessions have enabled judges to develop:
 - A greater comprehension of **digital forensics**, enhancing their ability to assess the validity and reliability of digital evidence presented in court.
 - An **enhanced ability to oversee complex cybercrime cases**, leading to more accurate legal judgments and sentencing.
 - **Improved collaboration with law enforcement**, as judges can now ask the pertinent questions and provide clearer legal direction during case proceedings.



I have attended trainings from both CCITR and other institutes which focused on cybercrime investigation. However, I find the CCITR training to be more holistic and driven by practical aspects. Although my role does not involve dealing directly with cybercrime cases, the knowledge gained has proven invaluable, particularly in murder cases where mobile digital forensics, dark web investigations, and CCTV footage are presented. This training has equipped me to make more informed decisions in the courtroom.

As narrated by a District Court Judge, Karnataka

Overall, the training positively impacted the major stakeholders of the criminal justice system. However, during discussions, several stakeholders emphasised the importance of incorporating more refresher courses to revisit foundational knowledge and stay abreast of the latest updates.

1.2. Improved Cybercrime Investigation and Response:

The introduction of structured training and support materials²¹ by CCITR, have enhanced the efficiency of investigation and prosecution processes. These structured and well-defined resources facilitate effective investigation and evidence collection. During interactions with Superintendent of Police (SP) cybercrime division, CID and DSCI project head, CCITR's notable contributions include:

- Enhanced **technical skills** for law enforcement through training on advanced forensic tools (such as UFED Cloud, Mobiledit Forensics, Compact Training Forensic Workstation etc.) enabling effective extraction and analysis of digital evidence.
- Developed **manuals and SOPs** to establish consistent protocols for data collection, analysis, and forensics, ensuring a uniform approach to cybercrime cases.
- Reduced **investigation time**²², as officers are better equipped to handle complex cases, minimising delays due to limited expertise or access to forensic technology.
- **Increased capacity** for Karnataka's police to **swiftly and accurately investigate** cybercrimes, while prosecutors can now secure convictions supported by robust, **forensic-backed evidence**.

1.3. Bolster Cross-Agency Collaboration for Cybercrime Mitigation

²¹ This included manuals, guidelines, and Standard Operating Procedures (SOPs) for cybercrime investigations and data forensics.

²² SP mentioned that it is difficult to quantify the change in investigation time as it changes case to case basis. Price Waterhouse Chartered Accountants LLP

Interactions with various law enforcement and government departments in Karnataka underscored CCITR's role in fostering collaboration for effective cybercrime investigation. The training programmes, tailored for police officers from diverse units such as City Police, Crime Investigation, Cybercrime-Economic Offences-Narcotics (CEN) Police, CID, Forensic Science labs officers etc, extended to include departments like the Excise and Commercial Tax, and Forest Department. This cross-agency engagement enabled a coordinated approach to tackling cybercrime and overall crime reduction, receiving positive feedback. Key takeaways include:

- Officers commended the comprehensive training for facilitating knowledge-sharing and equipped them
 with requisite technical skills. Team noted that some sessions include participation from officers across
 various police departments who attend the training to share their experiences and challenges related to
 cybercrime investigations. The trainers address these issues, facilitating productive discussions. This crossagency interaction enables officers to gain insights into the challenges faced by different departments, thus
 enhancing collective knowledge.
- The training promoted a **holistic understanding of cybercrime investigation techniques**, enabling effective cross-sector collaboration on complex cases.
- Engaging various agencies ensured a collective readiness, enhancing the overall capacity to address cybercrime and contribute to **broader crime mitigation efforts** across Karnataka.

"

This training was immensely useful to me in my work, provided critical insights into digital forensics that had greatly enhanced my ability to seize and analyse digital evidence in tax fraud cases. The practical knowledge gained, along with hands-on experience with advanced forensic tools had helped me detect sophisticated cyber-enabled tax evasion schemes more effectively, ensuring investigations are both thorough and legally sound.

As narrated by Deputy Commissioner, Commercial Tax Department, Karnataka

2. Elevating National Cybercrime Resilience

CCITR is enhancing cybercrime resilience nationwide by delivering targeted training and developing robust investigative protocols. This initiative strengthens the capabilities of law enforcement and government agencies across multiple states, ensuring a cohesive and effective response to cybercrime. By fostering skill development among various departments and agencies, CCITR lays the strong foundation for an environment conducive to effective cybercrime mitigation.

2.1. Empower Multi-State and Cross-Sector Departments Through Training

CCITR is strengthening the capabilities of police forces and various government departments across multiple states through its targeted training programmes. Police Agencies from Haryana (Gurugram), Madhya Pradesh, and Telangana Police and Specialised Forces like Sashastra Seema Bal and Border Security Force, have benefited from comprehensive sessions. It equips them with advanced knowledge and skills for effective

cybercrime investigation. Collaboration with prominent police academies, including the **Sardar Vallabhbhai Patel National Police Academy and the North-eastern Police Academy**, has further enriched the training landscape, enabling officers to engage with cutting-edge techniques and technologies. **A total of 3,278 beneficiaries** attended such sessions during the project period. Key outcomes from these training programmes include:

- Substantial increase in technical skills, empowering law enforcement to tackle cybercrime incidents with more efficiency.
- Fostering a collaborative spirit in addressing cyber threats through the involvement of various government Price Waterhouse Chartered Accountants LLP

Figure 34: Training Lab for the attendees



departments, including the **Department of Telecommunications** (DoT) and the **National Academy of Customs**

2.2. Fortify Cybercrime Investigation by Developing Standard Investigation Protocols

These protocols have been instrumental in standardising the approach to cybercrime investigations across multiple jurisdictions. Such protocols are recognised and supported by national investigative and judicial systems, ensuring that law enforcement agencies follow best practices in their operations. Key benefits include:

- Establishing consistent methods for evidence collection and analysis, enhancing the integrity and reliability of cybercrime investigations.
- Facilitating **collaboration** between law enforcement agencies and departments, resulting in more streamlined and effective responses to cyber threats.
- Providing valuable resource to ensure personnel are **up to date with the latest investigative techniques and legal standards** in cybercrime enforcement.



CCITR's training programme, manuals and SOPs, have been invaluable, enhancing our investigative capabilities and providing a consistent standard for cybercrime investigations. This training has empowered us to tackle complex cyber incidents more effectively and brought essential professionalism to our work in the digital landscape.

As narrated by Police Officers, Madhya Pradesh

3. Leveraging Public-Private Synergies for Comprehensive Cybercrime Response

CCITR fosters multi-stakeholder collaboration, uniting government departments, industries, academia, and notfor-profit institute to create comprehensive cybercrime solutions. Through knowledge-sharing, financial backing, and real-world insights, these partnerships have built a diverse ecosystem for tackling cyber challenges. This collective approach ensures that cybercrime prevention benefits from multiple perspectives, innovative thinking, and cross-sector expertise.

3.1. Effective Public Private Partnership for Cybercrime Solutions

Under this unique PPP model, CID Karnataka provides government support and real-world cyber exposure, DSCI offers specialized knowledge, and Infosys provides financial support to expand reach and impact. This holistic approach addressed the evolving challenges of cybercrime and digital forensics. Further, collaboration with industry leaders, academia, and law enforcement has enabled CCITR to develop comprehensive training programmes and supportive materials addressing cybercrime complexities. Key outcomes include:

- Guest lectures and insights deliver **essential industry perspectives**, equipping participants with knowledge of emerging cyber threats.
- Case studies from experienced law enforcement officials offer invaluable real-world knowledge of cybercrime investigations.

3.2. Support Academic Institutions in Developing Cybercrime Capacity

CCITR empowers academic institutions to become key contributors in the fight against cybercrime by developing specialised programmes and infrastructure. By establishing advanced labs, designing tailored curricula, and providing industry-relevant course content, CCITR empowered universities like PES University (Bangalore) and NLIU (Bhopal) etc. to deliver cutting-edge education and training to future cybercrime professionals. The project saw the participation of **1,926 beneficiaries** across various institutes during the project period. Key outcomes include:

• Creation of state-of-the-art cyber labs, providing students with critical hands-on experience.

- **Curriculum** on both technical and legal dimensions of cybercrime, fostering a comprehensive understanding of the field.
- Enhanced capacity to **produce skilled graduates**, ready to tackle cybercrime prevention and investigation.



CCITR's support was crucial in the development of our diploma courses on Cyber Crimes and Laws. Their expertise in crafting the curriculum and providing relevant course content ensured that our students gained a comprehensive understanding of both the technical and legal aspects of cybercrime. The collaboration not only enriched the course material but also brought real-world relevance, equipping our students with the skills and knowledge needed to navigate this complex field.

As narrated by a Professor, NLIU, Bhopal

3.3. Create enabling environment to encourage youth participation and innovation in cybercrime fields

CCITR actively engages youth in cybercrime prevention through hackathons, internships, and national competitions. These initiatives identified and nurtured top talent, providing hands-on experience and fostering innovative solutions to cyber threats. Key highlights include:

- National hackathon as a platform for discovering and nurturing future cybercrime professionals
- Internships for students and wining participants to translate their ideas into practical solutions
- Youth involvement sparks innovative approaches to cybercrime mitigation, ensuring a pipeline of fresh ideas for future challenges



During the internship, I received invaluable support and mentorship from both CCITR and the Cybercrimes Division. The hands-on approach allowed for regular interactions with mentors, who provided guidance throughout my projects. My work was consistently cross-checked, and they verified my procedures and approaches, ensuring I was on the right track. This level of support not only boosted my confidence but also skill set which played a key role in securing a good job in a reputed MNC.

As narrated by an Intern, CCITR

4. Promoting Research, Development, and Best Practices in Cybersecurity

CCITR Research head and TAC members highlighted that CCITR promotes cybersecurity through cutting-edge research, standardised investigative protocols, and a centralised knowledge resource for cybercrime investigators. Focused on addressing the most pressing challenges in cyberspace, CCITR continually refines its resources to meet the evolving needs of law enforcement. By producing research on relevant cybercrime topics and developing investigation manuals and SOPs, CCITR provides invaluable tools for agencies nationwide, fostering effective and cohesive responses to cybercrime.

4.1. Advance Research and Innovation in Contemporary Cyberspace Challenges

CCITR is a key driver of research on advanced and emerging cyberthreats. By publishing papers on critical topics like the dark web, deep web, and drone forensics etc., CCITR provides law enforcement with the insights needed to stay ahead of evolving cybercrime trends. Recognised by state and national cybersecurity communities, CCITR's research offers several key benefits:

- **Provides techniques** to analyse data from drone-based devices used in criminal activities
- Offers critical insights into hidden internet areas where illicit activities occur
- Shapes policies and improves operational procedures for cybercrime investigation

Figure 35: Third Edition of Cybercrime Investigation Manual released in FY 22-23



4.2. Evolve as a Knowledge Hub for Cybercrime Investigation and Knowledge Refreshment

CCITR's commitment to providing ongoing learning opportunities for law enforcement has positioned it as a premier knowledge hub in cybercrime investigation. Through the **Infosys' Springboard platform**, officers can access lectures or virtual sessions designed to refresh and expand their knowledge on relevant issues. Key benefits:

- **Topic-specific sessions offer holistic coverage of emerging cybercrime issues**, keeping officers updated with the latest investigative techniques.
- Lectures are available on-demand, providing flexible learning options for officers at all levels.
- Weekly virtual sessions hosted by experts offer in-depth exploration of key cybercrime topics, fostering continuous learning and professional development.

5.4 IRECS Analysis

Basis the interactions with the key stakeholders and desk review, the impact of the project is also assessed on the IRECS framework parameters. The IRECS analysis summary has been presented in below table:

Table 12: IRECS Analysis

Parameter	Assessment from Study
Inclusiveness	 CCITR's inclusive approach in capacity building targets diverse stakeholders across sectors like law enforcement, finance, and national security, ensuring broad representation in preventing and addressing cybercrimes. While focused on Karnataka, the training extends nationwide. Training programmes cater to all levels within law enforcement, equipping personnel from entry-level officers to senior leadership with the necessary skills to handle digital crime complexities.
Relevance	 The evolving threats of cybercrimes pressure law enforcement to develop effective strategies and skills. CCITR addresses this by providing necessary training and essential resources to empower agencies. The training programme covered all essential cybercrime investigation topics, balancing theory with practical application through case studies and demonstrations. The curriculum was tailored to the specific roles and tasks of each stakeholder, ensuring practical relevance and enhancing engagement.

Parameter	Assessment from Study
Effectiveness	 Since its inception, CCITR has trained 20,749 personnel in cybercrime investigation by FY 2023, highlighting its scale and reach. CCITR's comprehensive curriculum is tailored to stakeholders' unique needs, covering all phases of cybercrime investigation from search and seizure to courtroom presentation. Through mock scenarios and real-life case simulations, trainees gain practical, hands-on experience, learning best practices for responding to cybercrime situations. Feedback from law enforcement officers indicates reduced investigation times, showing the real-world applicability and effectiveness of CCITR's training. CCITR's manuals have shaped SOPs in multiple state agencies and are recognized nationally, improving cybercrime investigations across the country.
Convergence	 Through specialized training and resources, CCITR strengthens law enforcement agencies' capacity to prevent and investigate cybercrimes, aligning with national cybersecurity priorities like the Indian Cybercrime Coordination Centre. Established under a PPP model, CCITR exemplifies collaboration between the government, corporate sector, and non-profits, benefiting from diverse expertise and resources.
Sustainability	• Under CCITR's robust public-private partnership, CID Karnataka provides government support and real-world cyber exposure , DSCI offers specialized knowledge on cyber threats, and Infosys's CSR funding enhances reach and impact. This synergy has driven CCITR's efforts since its inception in 2019. For continued growth, the three pillars must remain strong; if any falter, an equally strong substitute will be needed to maintain sustainability.

5.5 Alignment to the Infosys Limited's CSR policy and the UN SDGs



The project is aligned with Infosys Limited's CSR policy which includes Education as one of the key CSR focus areas for Infosys Limited. The project is also aligned with the following Sustainable Development Goal (SDGs)²³:



SDG-4 aims to ensure inclusive and equitable quality education, whilst promoting lifelong learning opportunities for all. The CCITR project, with its inclusive and advanced educational facility for police, judiciary, and all other stakeholders, enhanced educational capacity and fostering knowledge creation to combat rising cybercrimes and lifelong learning opportunities in cybercrime management.

SDG-9 pertains to **building resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation.** The project, with its state-of-the-art infrastructure and collaboration with various stakeholders involves fostering innovation, building resilient infrastructure, and promoting inclusive and sustainable growth in the field of cybercrime management.

SDG-16 emphasises on **promoting peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels.** The project, by enhancing the capabilities of police, judiciary, prosecution and other stakeholders, promotes peace, justice, and strong institutions through improved handling of cybercrime and strengthened rule of law.

²³ Source: <u>https://sdgs.un.org/goals</u>

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5.6 Study Limitation

• Challenges in stakeholder engagement: The study's stakeholders included officer-level personnel from sectors such as the police, judiciary, prosecutors, paramilitary forces, banks, government departments, and educational institutions. Out of identified stakeholders' sample of 53, we successfully engaged with 33, covering all sampled sectors except banking professionals. The inability to connect with all stakeholders, due to their busy schedules and limited field interaction time, represents a limitation, potentially impacting the comprehensiveness of the findings. Furthermore, PW team ensured that no confidential data was collected during interactions with respondents. At the outset, all respondents were informed about the purpose and outcome of these interactions.

5.7 Case Stories

Following case stories have been gathered through discussions held with the project stakeholders:

Case Story 1: Adapting to the Digital Age: A Police Officer's Journey

Throughout his long tenure in the police service, Officer Ravi Kumar's* experience was primarily in conventional crime. However, the rise of cybercrime highlighted the need for him to adapt to this evolving landscape. To address this gap, he attended training at CCITR, CID Karnataka, which was essential for developing skills specific to cybercrime investigations.

The training provided valuable insights into digital evidence and contemporary cyber threats, equipping him to tackle the unique challenges posed by cybercrime. A notable case he encountered involved a fraud of 40 lakhs, where a woman was deceived by individuals impersonating IOCL officers through virtual number calls and phishing. The training had provided him with the expertise to identify and trace the virtual numbers used in the scam, which proved to be invaluable in resolving the case and bringing the fraudsters to justice.

This experience underscored the importance of continuous learning and adaptation in law enforcement, as the digital landscape continues to evolve and present new challenges.

Case Story 2: Strengthening Forest Crime Investigations: A Forest Officer's Experience

Officer Arjun Desai* works within the Karnataka Forest Crime Control Cell, where his primary responsibilities include monitoring and investigating forest crimes such as poaching and illegal trade. The department's motivation to participate in training provided by CCITR stemmed from the need to enhance skills in combating increasingly sophisticated forest crimes. Prior to the training, Officer Desai faced significant challenges, including a lack of formal processes for call detail analysis and insufficient software tools for effective investigation.

A notable instance involved poaching cases discussed on social media platforms. By utilising the Call Detail Record (CDR) analysis techniques learned during the training, Officer Desai and his team successfully identified two suspects involved in the illegal activities. This analysis not only led to the identification of the individuals but also provided critical evidence that supported their case in court, highlighting the training's significant impact on their investigative efforts.

*Name Changed

Project 3: Training of Government Schools' Science and Math teachers

1

6.1 About the Project

In India, specialized teacher training is essential for enhancing educational standards and addressing local challenges pertaining to content delivery. It equips teachers with advanced pedagogical skills necessary for delivering high-quality instruction and adapting to diverse cultural and socio-economic contexts, thereby promoting inclusivity. Such training helps bridge the urban-rural education divide, prepares teachers for evolving curricula, and improves digital literacy for effective technology integration in classrooms. By addressing the challenge of shortage of qualified and trained teachers, these trainings support economic growth and fosters educational equity.

Recognizing the importance of specialized teacher training, Infosys Foundation has launched several initiatives to support the development initiatives within the education sector. One such project is the **"Training of Science and Math teachers in Government Schools"** in **Andhra Pradesh and Odisha**. This initiative provided comprehensive and flexible training to 2,670 teachers who were nominated by the education department of the state, combining **online and in-person sessions** focused on **constructivism and hands-on lab creation.** By enhancing teachers' pedagogical skills, this project aimed to improve educational quality and effectively address local educational challenges. **Supported by Infosys Limited and EdgeVerve Systems Limited** as part of their CSR, this project further seeks to create an enriched learning environment for students and broaden their academic horizons. The Foundation has **partnered with Agastya International Foundation ("Agastya")** for effective implementation of the project's activities.



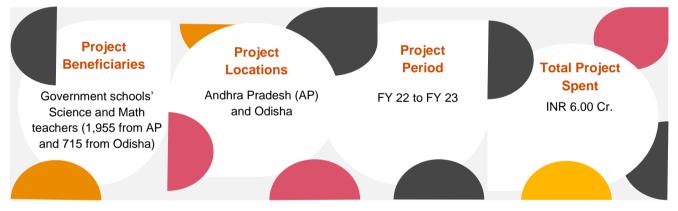


Figure 37: Agastya Center, Kuppam



Agastya is an **independent not-for-profit Education Trust** established to transform education for economically disadvantaged children and teachers in India. With its immersive-educational programmes, Agastya addresses the need for innovative learning methods and capacity building within the educational sector.

Collaborating extensively with Indian and international academia, government entities, NGOs, and community organizations, Agastya adopts an integrative approach to education. It aims to spark curiosity, nurture creativity, and instil confidence and caring in its beneficiaries through hands-on science outreach and experiential learning tailored to cater to the unique educational needs and challenges in India.²⁴

²⁴ Source: Agastya Internation Website <u>https://www.agastya.org/aboutus</u>

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Below is a brief description of the project's activities²⁵:

- 6. Learning Constructivist Approach: This activity aims to enhance teachers' skills and knowledge by introducing them to the constructivist approach in hands-on science and math education. The approach empowers teachers conducted through a blend of online and offline training sessions conducted for four days to facilitate learning through experiential activities, allowing students to build their understanding of scientific and mathematical concepts. By emphasizing experiential learning and critical thinking, this approach enables teachers to create more dynamic and interactive classroom environments. A central element of this approach is the 5E model²⁶, which guides teachers in fostering student-driven learning experiences. Students are also encouraged to actively engage, explore concepts, articulate their understanding, expand on their learning, and self-assess to ensure comprehension through this approach.
- 7. Make Your Own Lab (MYOL): This activity provides an opportunity to these Government school teachers to attend workshops that focus on developing and utilizing their own laboratory setups. In these sessions, teachers are provided with kits containing materials to create cost-effective models and teaching aids. This setup empowers teachers to conduct hands-on science classes aligned with the school curriculum, thereby creating a practical learning environment for students. These workshops enable teachers to design various models and instructional resources that can be directly applied in their everyday classroom activities. Additionally, teachers participate in a four-day workshop where they observe demonstration classes, create lesson plans, and practice teaching in addition to the peer learning. This experiential method aims to transform traditional teaching techniques into more interactive, student-centred practices.
- 8. In-field Follow-up: After attending the workshops, teachers receive ongoing support through in-field follow-up activities, which are crucial for integrating the newly acquired concepts into their teaching methods. This follow-up process focuses on observing how teachers apply the constructivist approach and make use of the laboratory setups created during the MYOL workshops, aiming to promote the ongoing evolution of innovative teaching strategies in their classrooms. Additionally, the programme fosters post-training engagement and support through initiatives such as the Saturday Forum, where teachers can voluntarily participate in online sessions which are conducted once each month for each state from the time, they finished the training till date for continuous learning and the exchange of best practices.

6.2 Method of Impact Assessment

The impact assessment study employed a **consultative and cohesive approach** to evaluate the project's social impact. To begin the assessment process, **a kick-off meeting was held with Infosys Foundation**, followed by a **project briefing call with point of contact from Agastya**. These meetings offered the research team with **relevant insights into the support provided in this project**.

PW received the following project documents:



- Memorandum of Understanding (MoU) signed with Agastya containing project's operational details at Andhra Pradesh and Odisha
- **Project Report** from Agastaya detailing the activities carried out under this project
- Constructivism teaching module received from Agastya

Accordingly, PW team commenced a **desk review** of the project documents which **facilitated the design of the assessment framework and the identification of key stakeholders** for interactions.

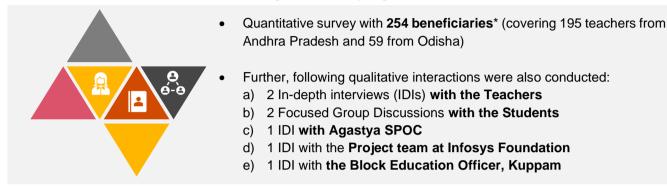
²⁵ Source: MoU shared by the Infosys

²⁶ As per the Handbook for teachers shared by the implementing partner "The 5E instructional model, developed by Roger Bybee, is a constructivist approach consisting of five phases: Engage, Explore, Explain, Elaborate, and Evaluate, aimed at enhancing student learning. Price Waterhouse Chartered Accountants LLP Impact Assessment Report 70

A mixed research methodology involving both qualitative and quantitative data collection tools was employed to assess the impact of this project. The initiative involved various stakeholders including Teachers, Trainers, Students, Implementing partner, etc. In this case, therefore, mixed methodology approach was instrumental in evaluating the comprehensive perceived benefits, impact and in-depth insights into the perspectives of those involved in the project.

Key stakeholders were identified and tailored research tools were developed to capture comprehensive insights of the project. A snapshot of the research design is as follows:

Figure 38: Sampling Plan



* As per the project report shared by Agastya, team noted that the actual number of total beneficiaries are 3,568 (universe) against the total target of 2,670. The sample size of 254 teachers was calculated with a confidence level of 90% and a margin of error of 5% on this universe. To ensure proportionate representation of the beneficiaries from both the geographies, the sample size was proportionately divided in Andhra Pradesh and Odisha as per the total number of beneficiaries in both the states.

6.3 Analysis and Findings

This section summarises the findings from the desk review and interactions:

6.3.1 Challenges Before the Project

Team noted following key challenges prior to the implementation of the project:

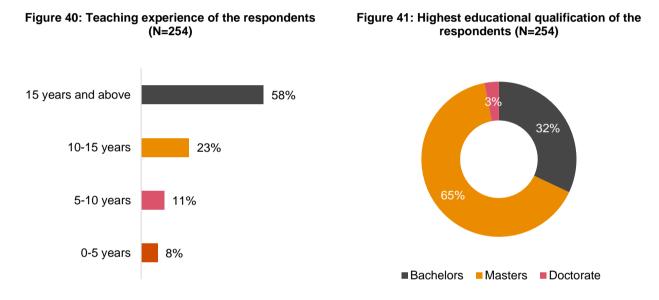
- Lack of Effective Pedagogical Training: Many teachers mentioned that they have strong subject knowledge but still struggle with modern teaching methods that make learning engaging. This highlights the need for specialized training to equip teachers with contemporary strategies like the constructivist approach to enhance learning experiences.
- Lack of Student-Teacher Connectivity: Teachers often find it challenging to connect with students due to traditional methods focused on rote memorization²⁷. Embracing interactive and student-centred practices can improve engagement and accommodate diverse learning styles, fostering a more inclusive classroom environment.
- **Practical Application of Theoretical Knowledge:** Teachers face difficulties in implementing educational theories in practice, creating a gap between understanding and application. Ongoing support and training can help teachers use models (like 5E model) effectively, transforming theory into dynamic learning opportunities to boost student engagement and critical thinking.

²⁷ The process of memorizing information based on repetition

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1. Profile of the respondents

- The survey encompassed a total of 254 teachers, including 195 from Andhra Pradesh and 59 from Odisha. The **average age** of the teachers was **45 years.**
- Figure 4, shown adjacent, illustrates the gender distribution of the teachers, highlighting the number of male and female teachers who participated in the survey.
- Most of the respondents were highly experienced teachers, with 58% (N=254) possessing more than 15 years of teaching experience, as depicted in Figure 5. Additionally, 68% (N=254) of the teachers held either a master's degree or a Doctorate.



Furthermore, most of the teachers (54%, N=254) were teaching standards 9 and 10, with an additional 40% teaching mixed grades from standards 5 to 10. Remaining 5% and 1% were dedicated teaching staff for standards 5-6 and standards 7-8, respectively.

2. Reformed Teaching Methods and Techniques

- The teacher training programme introduced innovative methods that enhanced teaching and learning, specifically **empowering teachers to adopt the 5E model**. This model also facilitated a shift away from traditional teaching methods.
- By implementing the 5E model, teachers fostered classroom environments that **encouraged active student participation and hands-on learning experiences**. This approach facilitated a better understanding of complex topics and improved students' ability to retain information.
- An overview of improvement in various teaching aspects of the teachers is as depicted in the following diagram (Figure 42):

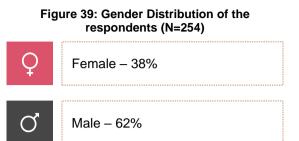
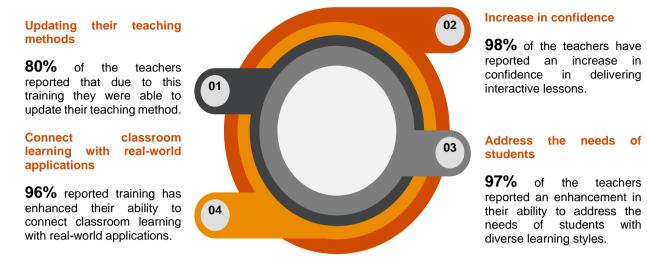


Figure 42: Improvement in Teaching Methods (N=254)



- Furthermore, since the project brought together teachers from across Andhra Pradesh and Odisha, it cultivated a supportive community among teachers, allowing them to exchange experiences and learn from each other, thereby enhancing their teaching skills and boosting their confidence. Workshops provided various innovative lesson planning strategies, which participants utilised to adapt their classroom methods, as mentioned by teachers during qualitative interactions. Some of the topics covered during the workshops included Scientific Methods and Construction of Knowledge, National Curriculum Framework, Planning, experiments and Project Based Learning, Lesson planning using 5E templates, etc.
- Experienced trainers were available at Agastya to offer assistance and refine teaching methods for the participating teachers. This support system enabled teachers to effectively implement new strategies, resulting in improved learning outcomes for students.
- The teachers also reported enhancements in their behavioural and practical skills, as these were among the topics covered in the training curriculum. An analysis of the various topics addressed in the training, as reported by teachers, is presented in Figure 43.

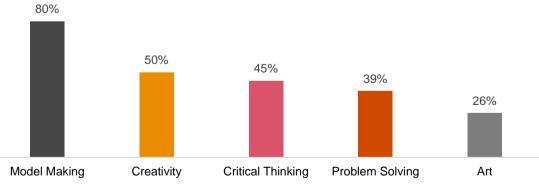


Figure 43: Topics covered as part of the training (N=254)

Multiple choice question and total may not add up to 100%.

3. Elevating Student Engagement and Growth

The project has also positively influenced students as cascading impact of the teachers' training which has been summarised below:

 The project has enhanced student engagement, with 98% of teachers (N=254) observing an increase in students' enthusiasm for learning. This heightened enthusiasm is attributed to the programme's interactive and student-centred approach, which renders learning more relatable and enjoyable. Interactions with student groups reveal that they feel more motivated to participate in class discussions and activities, resulting in a vibrant and dynamic classroom environment.

- Additionally, the students have expressed that the programme's innovative methods have made complex subjects more accessible and engaging, fostering a proactive attitude towards their education.
- 83% (N=254) of teachers have frequently observed students attaining a better understanding of complex topics. The programme's focus on critical thinking and problem-solving skills allows students to deconstruct complicated concepts into manageable parts as mentioned by teachers during the qualitative discussions. Upon further probing, teachers highlighted that students are developing the ability to connect theoretical knowledge with practical applications, leading to deeper comprehension. During interactions, teachers have shared anecdotes of students who previously struggled with certain subjects now demonstrating newfound confidence and the ability to tackle challenging material independently.
- While 97% of teachers (N=254) reported that their students have benefited from the programme, qualitative insights emphasise that the improvement extends beyond academic advancement to personal growth. Students have reported feeling more confident in their abilities and more open to exploring new ideas.
- This increased self-assurance has been noted by teachers as a key factor in students taking more initiative in their learning journeys. Teachers have observed that students are not only achieving higher academic performance but also developing essential life skills such as collaboration, communication, and adaptability, which are crucial for their future endeavours.

The following figure (Figure 44) illustrates the survey findings related to enhanced student engagement:

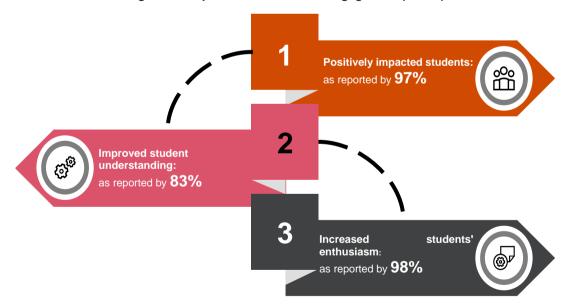


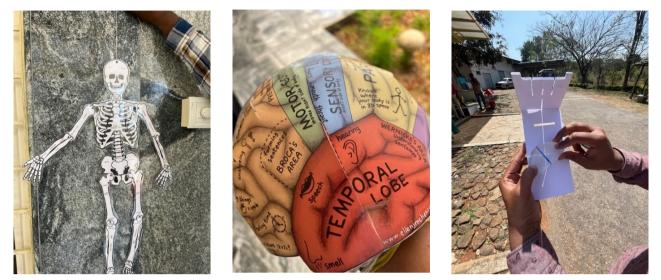
Figure 44: Improvement in student engagement (N=254)

4. Applicability and Relevance to Curriculum

- 81% (N=254) of teachers mentioned that the training techniques seamlessly integrate into their existing curriculum. Teachers have also shared that the project's constructivist approach has transformed their traditional classrooms into vibrant learning environment. These methods not only adhere to curriculum standards but also complement the current teaching styles within the schools.
- The project also encourages use of practical and budget-friendly teaching aids, with 77% (N=254) of survey teachers noting their relevance to the subjects they teach. Teachers appreciated the use of low-cost models and materials that are easily accessible, which the training employs to promote

hands-on learning in science and math. These resources, as highlighted by the teachers, help them focus on the practical application of theoretical concepts, making the learning experience more tangible and effective for students.

Figure 45: Low-cost models used during the training programme



• The MYOL activity, which is integral to the training, is also aligned with the National Education Policy (NEP 2020) of the Government of India. This policy recommends moving away from rote learning²⁸ and instead focus on holistic development and 21st-century skills such as critical thinking, creativity, scientific temper, communication, and problem-solving.



The teacher training programmes have been instrumental in building a strong, motivated workforce dedicated to students' success. These efforts contribute significantly to students' flourishing careers and the overall betterment of the education system.

- As narrated by a block education officer Kuppam during the discussion
- The project's adaptable design allows it to be effectively implemented in various educational environments, serving diverse groups of students. During the field interactions, teachers reported that the training has equipped them with innovative tools and helped to cultivate a collaborative learning community.
- This adaptability not only supports curriculum objectives but also contributes to the development of well-rounded, knowledgeable, and curious learners. Insights from the teachers emphasize the training programme's role in enhancing learning outcomes by catering to the unique needs of different student populations.



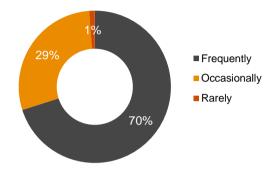
The new training materials and equipment have transformed our school environment, enabling a hands-on teaching approach that enhances student understanding and engagement. Interactive tools and technology make complex concepts tangible and relatable. Updated equipment facilitates experiments and activities that were previously impossible, creating a dynamic learning experience.

As narrated by a Teacher, ZPH School, Andhra Pradesh during the discussion

5. Overall Impact and Feedback on the Trainings

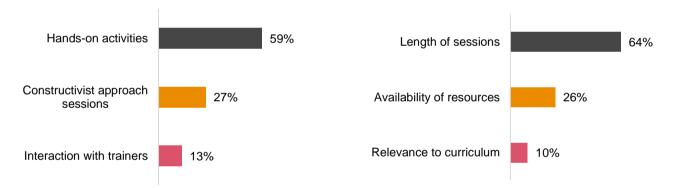
- Teachers were also probed on the use of technology within their classrooms post the training. To this, 93% (N=254) of the teachers agreed that the training has had a positive impact, and they have made a concerted effort to enhance the use of technology (including audio-visual aids) to effectively deliver lessons on complex concepts to their students.
- Teachers further noted that they have been employing the methods and techniques learned during the training to disseminate new ideas and lesson strategies among colleagues at their schools.
 70% (N=254) of teachers confirmed regular engagement in these activities, enabling them to serve as catalysts for change within their respective institutions.
- Teachers were also probed to identify the most and least beneficial aspects of the training. 59% percent (N=254) reported that hands-on activities, such as model making, were the most beneficial. Conversely, 64% (N=254) found the duration of

Figure 46: Frequency of collaboration with other teachers on session plans (N=254)



the training to be challenging; the sessions spanned four days, which many teachers felt was insufficient given the breadth of the training content.





- The teachers were also asked if they had attended any other similar trainings on enhancing teaching techniques in the past. Of the teachers who had attended such sessions previously, 92% (N=91) rated the trainings at Agastya better and more insightful as compared to the previously attended trainings. Further, 90% of the teachers (N=254) reported being "very likely" to recommend the trainings to other fellow teachers indicating the impact and the benefits realised by the teachers through the sessions.
- The teachers were also asked to rate the different parameters pertaining to the trainings on a 5point scale (1 being the lowest and 5 being the highest). The responses recorded indicate that the training components are rated highly by all the teachers with majority of them giving the ratings of 4 or 5 on all the parameters. The detailed breakdown of the responses are as follows:

PARAMETERS	SCALE 1	SCALE 2	SCALE 3	SCALE 4	SCALE 5
Quality of trainers	0%	1%	4%	26%	69%
Teaching Material	0%	0%	4%	29%	67%

Figure 48: Respondent rating on different parameters of the training (N=254)

PARAMETERS	SCALE 1	SCALE 2	SCALE 3	SCALE 4	SCALE 5
Training Duration	1%	4%	23%	42%	30%
Relevance of topics covered	0%	0%	12%	36%	51%
Quality of hand-outs / notes	1%	2%	11%	34%	52%

6.4 IRECS Analysis

Basis the interactions with the key stakeholders and desk review, the impact of the project was also assessed on the IRECS framework parameters. The IRECS analysis summary has been presented in below table:

Table 13: IRECS Analysis

Parameter	Assessment from Study
Inclusiveness	• The project engaged 3,568 teachers from various Government Schools in Andhra Pradesh and Odisha, ensuring diverse educational contexts. Further, both male and female teachers formed part of the trainings. This geographic and gender inclusiveness helps tailor solutions that are adaptable to various local needs and perspectives.
	 58% of teachers (N=254) had extensive teaching experience of over 15 years, allowing for varied perspectives that address both new and veteran teachers' needs, promoting inclusiveness in professional development.
	• By involving teachers teaching grades across grades 5 to 10, the project impacted a broad spectrum of students , enhancing educational improvement across different age groups.
Relevance	• 85% (N=254) of the teachers in the survey indicated that the training techniques integrated well into their existing curriculum, demonstrating relevance to current educational standards.
	• The project aligns with Government of India's National Education Policy 2020, which focuses on holistic development and essential 21st-century skills.
	• 77% (N=254) of the teachers reported that the teaching aids used and provided during the training to be user-friendly and relevant to the subject matter they teach. These teaching aids are easily accessible providing practical solutions for teachers to deliver complex subject matter to their students.
Effectiveness	• 96% (N=254) teachers reported an enhanced ability to connect classroom learning with the real-world application. This underlines the training programme's ability to build the practical know-how around the theoretical concepts.
	• The shift to the 5E model led to more engaging classrooms, with 98% of teachers (N=254) observing increased student enthusiasm, underscoring the project's effectiveness.
	• Positive ratings on training parameters such as quality of trainers and materials reflect the programme's success in meeting teachers' needs.
	• 83% (N=254) of the teachers noted an improvement in their students' ability to understand complex topics within their curriculum. This indicates the project's impact on enabling learning environments.
	• 97% (N=254) teachers reported an improvement in the students' academic and personal growth. The teachers also noted an improvement in the life skills such as

Parameter	Assessment from Study
	collaboration and teamwork within their students through the updated teaching methods and techniques.
Convergence	• The teacher training programme aligns with the Government of India's NEP by promoting a constructivist approach to learning. This method emphasizes active learning, where students engage, explore, and discover concepts on their own rather than passively receiving information.
	• Further, Agastya has partnered with the state education departments in Odisha and Andhra Pradesh. The programme caters to the Government School teachers in both the states and hence works towards improving the state's educational system and goals.
Sustainability	• Focused on critical thinking and problem-solving, the project ensures sustainable benefits, with the teachers reporting continued use of these skills. Further, 70% (N=254) teachers also reported propagating the changes within their schools amongst fellow teachers on a frequent basis.
	• The project also has an impact on building life skills amongst the students who these teachers are teaching. During the qualitative interactions, these teachers mentioned that the new teaching methods have helped the students build on these critical life skills.

6.5 Alignment to the Infosys CSR policy and the UN SDGs



The project is aligned with respective CSR Policy of Infosys Limited and EdgeVerve Systems Limited which includes **Education as one of the key CSR focus areas.** The project is also aligned with following Sustainable Development Goal (SDG)²⁹:



SDG-4 emphasises on equipping teachers with the skills and knowledge to address global challenges and promote sustainable development through education. The project involved training of science and math teachers in Government Schools in Andhra Pradesh and Odisha. This initiative aimed at providing comprehensive and flexible training to 2,670 teachers, combining online and in-person sessions focused on constructivism and hands-on lab creation

6.6 Study Limitation

The team did not note any study limitation during this assessment.

6.7 Case Stories

Following case stories have been gathered through discussions held with the project stakeholders during field visit to Kuppam center. Names have been changed to maintain anonymity:

Case Story 1: Transforming Education: Igniting Curiosity and Passion Through Innovative Teaching

As a Physics teacher at ZHP School in Kuppam, Sita Devi*, had the opportunity to participate in the Agastya Foundation's teacher training programme. This experience equipped her with new skills and resources that inspired a transformation in her teaching methods, making classes more engaging for the students.

One of remarkable achievements was the establishment of a small science lab at our school. With the lab's innovative tools and techniques, she was able to guide her students through hands-on experiments. This approach not only enhanced their understanding of scientific concepts but also fuelled their curiosity and enthusiasm for learning.

The success of the science lab had a ripple effect across other subjects. Inspired by this achievement, her fellow educators also began to incorporate similar hands-on learning approaches. They introduced creative tools like slideshows and illustrated workbooks to simplify complex ideas, fostering a supportive and collaborative environment focused on improving student learning.

The changes at their school underscore the profound impact of innovative teaching methods. By embracing creativity and experiential learning, they have not only improved their students' academic performance but also ignited a lasting passion for learning, encouraging curiosity and helping them reach their full potential.

Case Story 2: From Struggle to Spark: A student's Science Journey

Rajesh Kumar*, a ninth grader at SSG High School in Kuppam, once found science daunting and hard to grasp. His perspective changed when his Physics teacher, Mrs. Anjali Rao, attended the Agastya Foundation's teacher training program.

Mrs. Rao revamped her teaching methods, introducing hands-on experiments through a new science lab inspired by the program. Mrs. Rao encouraged her students to learn through hands-on experiments, allowing them to explore scientific concepts in a tangible way. This practical approach made complex concepts like electricity and magnetism understandable and engaging for Rajesh.

The science lab became a place of excitement for Rajesh, sparking his curiosity and transforming his attitude towards learning. Rajesh's transformation was not just academic. The hands-on learning approach boosted his confidence, enabling him to ask more questions and engage actively with the subject matter. His grades improved significantly, but more importantly, Rajesh developed a genuine passion for science.

Motivated by these experiences, Rajesh now dreams of pursuing higher studies in Physics. His story illustrates the powerful impact of innovative teaching methods and how they can inspire students to pursue their potential.

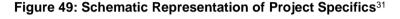
*Name Changed



7.1 About the Project

Many Government schools grapple with a myriad of challenges, encompassing inadequate infrastructure, insufficient funding, and a lack of qualified teachers. These impediments are further compounded by high dropout rates and outdated curricula, which collectively undermine the quality of education. Marginalized groups, in particular, face significant obstacles in accessing quality education, often exacerbated by systemic discrimination and a paucity of inclusive practices. Addressing these multifaceted issues necessitates concerted and comprehensive efforts from all stakeholders.

Infosys Foundation, in collaboration with YUVA Unstoppable, launched the **Urban Digital STEM Education Programme to transform traditional classrooms into smart classrooms** in Karnataka, Maharashtra, Madhya Pradesh, Tamil Nadu, Punjab and Rajasthan. This project was part of Infosys Foundation's larger initiative to promote STEM³⁰ education and future-ready skills among students from underserved communities across India. Below outlines the project specifics:



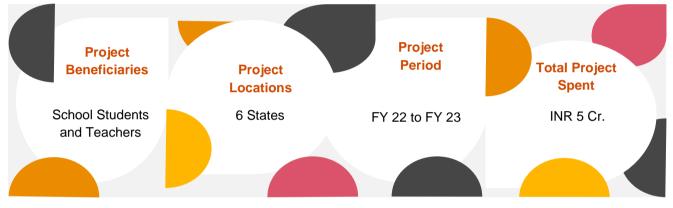
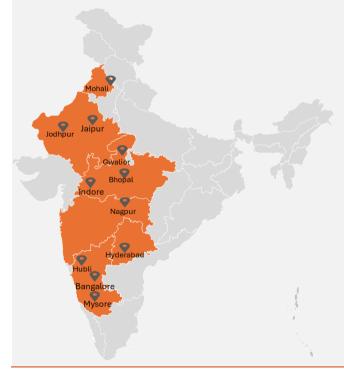


Figure 50: Geographical Spread of the Project



This project is implemented by YUVA Unstoppable, an NGO working on **educational intervention and initiatives**³². The intervention aims **to elevate learning outcomes by embedding digital tools and technology within government schools**, empowering both students from 5th to 10th grade and teachers.

Key activities include: (a) establishing smart classrooms, (b) enhancing digital infrastructure in urban government schools, (c) developing teacher- independent content, and (d) fostering a culture of innovation. ³³

This initiative has covered 205 schools across various states and positively affected the education of 73,861 students.

³³ Source: Data received from YUVA unstoppable Price Waterhouse Chartered Accountants LLP

³⁰ STEM - Science, Technology, Engineering, and Mathematics

³¹ Source: As per the details received in the MoU

³² Source: <u>https://yuvaunstoppable.org/</u>

7.2 Method of Impact Assessment



The impact assessment study employed a comprehensive methodology to evaluate the social impact resulting from the implementation of smart classroom initiative. **A kick-off meeting** was conducted with Infosys Foundation and YUVA Unstoppable to gain insights into the project's objectives, implementation strategies, and any additional requirements for the assessment process.

Following the meeting, PW reviewed following key project documents:

- Memorandum of Understanding (MoU) signed with YUVA Unstoppable highlighting project specific details
- Fund Utilization Letter for FY 2022-2023
- Project Completion Report describing the achievements and impact
- Progress Report highlighting the progress areas in the interim prior to project closure
- Digital Classroom Implementation Report mentioning status, team structure and M&E activities

PW team commenced the desk review of these information which enabled our team to design the assessment framework and finalise the key stakeholders for the interactions.

Given the nature of the project, a **mixed method research** approach was adopted to assess both quantitative and qualitative impact. While **quantitative** data was gathered through surveys, **qualitative** insights were crucial for understanding the nuanced experiences of **students**, **teachers**, **and other stakeholders** in the newly implemented smart classroom environments.

The sampling plan involving following stakeholders, is shared in Figure 3:

Figure 51: Sampling Plan



- Quantitative survey with a sample of 278 students from 15 schools*
- Four Focus Group Discussions (FGDs) with students from 4 schools
 - Fourteen In-depth Interviews (IDIs) were conducted covering:
 - \circ Two Teachers from four schools in two locations (8)
 - One Principal from four schools in two locations (4)
 - YUVA Unstoppable (1)
 - Infosys Foundation (1)

*The sample size of 272 for the quantitative survey was determined at a 90% confidence level and a 5% margin of error, given the total number of beneficiaries was 73,861³⁴. A booster sample of 6 was added in 272 to interview additional respondents and ensure sufficient data from all the schools. The sample was then proportionately divided among students from different academic years and states, considering geographical distribution. The top four states with the highest number of beneficiaries were selected as sample for interactions (Table 14):

State	District	School Name	Sample Size
Madhya	Indore	Government High School, Sangam Nagar	30
Pradesh		Government High School, Nanded	30
		Government High School, Bhicholi Hapsi	30
Punjab	Mohali	Government Senior Secondary Girls School, Lalru	16
-		Government Senior Secondary School, Nada	16
		Government Senior Secondary School, Sakrulapur	17
Karnataka	Bangalore	Karnataka Public School (GHPS), Krishnanda Nagara (Krishnananda Nagar)	16

Table 14: School-wise distribution of sample size

³⁴ Source: Provided by YUVA in the district wise list of schools and beneficiaries

Price Waterhouse Chartered Accountants LLP Impact Assessment Report

State	District	School Name	Sample Size
		Government High School, Chikkabidarakallu	16
		GMPS, Mallasandra	17
Rajasthan	Jodhpur	Government Senior Secondary School, Siwanchi Gate	15
		Government Senior Secondary School, Doli	15
		Yashoda Devi Government Girls Senior Secondary School, Mathania	16
	Jaipur	Seth Laxmichand Gyanwati Devi Swaika Government Girls Senior Secondary School Mohlla Saray, Kotputli	14
		Government Senior Secondary School, Niwaru	15
		Government Senior Secondary School, Booj Jamwaramgarh	15
Total			278

7.3 Analysis and Findings

Based on interactions and a review of the project documents, the findings have been summarised as follows:

7.3.1 Challenges Before the Project

Prior to the implementation of this project, these government schools faced significant infrastructure and facility shortcomings. Additionally, overcrowded classrooms and an imbalanced teacher-to-student ratio further hindered teaching efficiency.

Teaching subjects such as Maths and Science was challenging due to a **lack of engaging and real-life examples which made lessons monotonous**. Providing individual attention to students struggling academically was also difficult.

Teachers turning their backs to students while writing on chalkboards **hindered their ability to observe and assess student engagement and comprehension in real-time.** This lack of immediate feedback potentially affected the effectiveness of their teaching.

7.3.2 Summary of the Impact Created

1. Beneficiary Profile

- Majority of the respondents, 27% (n=278) were from 8th class, followed by 26% from 9th class (Figure 52).
- The study's composition of 53% female and 47% male students ensured that both genders were adequately represented.
- **28% were aged between 13-14 years**, indicating a higher participation from the older age group.
- **58% come from families of 3-5 members,** while 10% come from families with more than 10 members, highlighting a predominance of smaller family units among the participants.

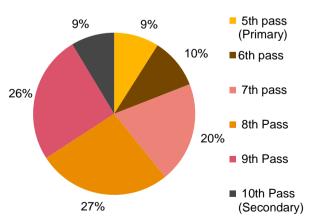


Figure 52: Class-wise split-up of students

2. Enhanced Inclusiveness and Accessibility to Digital Classroom Activities

- The project aimed to create an environment where all students, irrespective of their backgrounds, could engage equally in digital learning. This initiative effectively promoted inclusiveness, with approximately 73% (n=278) reporting a sense of inclusion and active participation in classroom activities. Teachers noted that digital access allowed all students to engage in interactive classes.
- A major achievement of this project was making digital learning accessible to everyone through the K-YAN (e-learning platform). About 92% reported that the digital infrastructure and tools were easily accessible and regularly used in classrooms, with minimal usage barriers.

Consistent access to these resources facilitated uninterrupted learning, enabling students to delve into lessons beyond the conventional **chalk-andboard** setup, as reported by school principals across various schools.

3. Seamless Curriculum Integration and Enhanced Exam Preparation:

 The digital content employed in smart classrooms was meticulously aligned with the school curriculum, crucial to the project's success. Both teachers and students reported that digital classrooms seamlessly integrated with the existing curriculum.

Approximately **77% mentioned that the digital lessons were pertinent and well-integrated with their textbooks, NCERT³⁵ curriculum, and school subjects**. This ensured that technology was not merely an addition but a powerful enhancement to traditional learning methods.

• The project enhanced students' exam preparation efficacy. Approximately, 76% indicated that the interactive and visual nature of digital lessons enhanced their comprehension and ability, positively impacting their exam performance.

Furthermore, qualitative interactions with students and teachers revealed that **step-by-step guidance and interactive sessions simplified complex topics, thereby contributing to improved preparedness for exams and tests.**

4. Transforming Student Engagement and Learning Fi Outcomes

Figure 53: Digital Classroom in a Karnataka Public School, Krishnanda Nagara, Bangalore



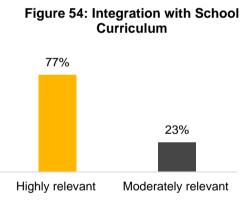
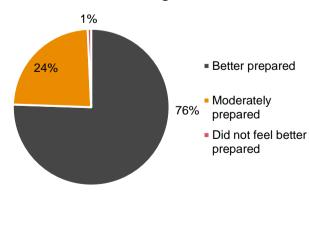
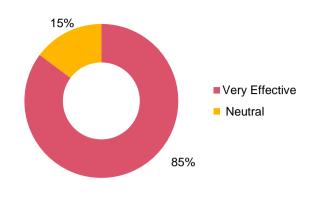


Figure 55: Exam Preparedness through Digital Learning



³⁵ NCERT - National Council of Educational Research and Training Price Waterhouse Chartered Accountants LLP Impact Assessment Report

- The project significantly enhanced students' engagement, with 85% reporting that digital classes were highly effective compared to traditional teaching methods.
- This project yielded significant achievements in student learning levels. Approximately, 81% reported a noticeable improvement in understanding difficult concepts, particularly in Mathematics, English and Science. Additionally, students and teachers noted that visual aids provided under this project helped in more effective and rapid understanding of new and complex topics.



- This project also facilitated better peer-to-peer collaboration, with students believing that technology made classroom discussions more dynamic, interactive, and cohesive. This indicates that the collaborative learning environment promoted teamwork and enabled students to benefit from each other's insights, thereby strengthening both individual and collective understanding.
- Teachers and principals believed that children could better grasp STEM subjects when taught through digital mediums.
- Approximately, 91% reported that this project facilitated active engagement in lessons. The personalised nature of digital tools enabled individualised learning experiences, allowing students to learn at their own pace. Interactions with students revealed that they could participate more actively, as digital platforms catered to their individual learning.

5. Increased Confidence and Adoption of Digitals Tools

- The frequency of digital tool usage was a pivotal to the project's success of this initiative. Majority of the respondents (58%) reported using digital tools for 2-4 times per week (Figure 58). This suggests smooth and regular integration of technology into their routines. Consistent exposure to digital classrooms further solidified their learning experience.
- When comparing digital classrooms to traditional teaching methods, approximately 84% expressed higher satisfaction with the smart classroom experience. The engaging, interactive content made learning more enjoyable. This is resulting into an overall positive response toward this innovative endowed the state of the s

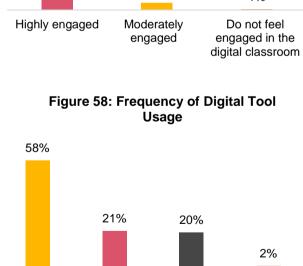
 Learning

 91%

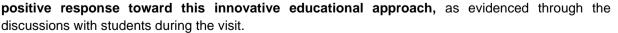
 9%
 1%

 Highly engaged
 Moderately engaged
 Do not feel engaged in the digital classroom

Figure 57: Active Participation and Personalized



Daily

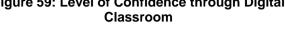


week

2-4 days in a Once a week

Never

- Interactions with students and teachers revealed a perceived need to align with the digital age by adopting relevant teaching and learning methods. Teachers also mentioned that after completing 10th grade, students would be better equipped to compete with peers from private schools who have already been exposed to advanced digital learning techniques.
 Figure 59: Level of Confidence through Digital Classroom
- Approximately 86% expressed confidence in using digital tools for their studies in future. They also indicated a strong desire to continue having digital classrooms year after year, recognizing the long-term benefits of technology in their education. This optimism reflects the project's success in fostering a forward-thinking approach to learning.



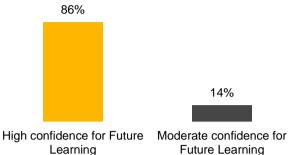


Figure 60: Digital Classroom in a Government High School, Bicholi, Indore



6. Empowering Academic Success Through Digital Classrooms

 Performance improvement was evident among 94% of students, who reported a noticeable boost in their academic performance after using digital classrooms. The interactive content helped in enhancing their understanding of complex topics, contributing to better retention and application of knowledge. Students noted that the use of technology made learning more efficient and enjoyable, positively impacting their overall academic success.

- An overwhelming 98% believed that the skills they acquired through digital classrooms will benefit them in future. They highlighted that this project has improved their technical proficiency, problem-solving abilities, and adaptability to new learning methods.
- While teachers and school administrators acknowledged that improved class performance can be attributed to various factors, they highlighted the positive impact of the **digital classroom and the contemporary, tech-friendly environment on overall academic improvement.**
- Despite the positive reception, a few challenges and improvement areas emerged:
 - Around 71% faced difficulties due to technical malfunctions, such as software crashes, hardware failures, and connectivity issues which affected the continuity of seamless dissemination of classes and curriculum. As the maintenance was the

Figure 61: Digital Classroom in GHS Chikkabidarakallu, Bangalore



responsibility of school administration, team noted that YUVA team was available within 2-3 days in case of a hardware or technical malfunction of the equipment. YUVA team provided solutions on technical issues within one week (turnaround time).

- 11% of the students reported difficulties in learning due to inadequate or unskilled teachers who were unable to perform adequately when teaching various chapters in the class.
- Students found the classes in Science, Maths, and English moderately relevant. However, they
 expressed a desire to learn additional subjects such as History and Geography, which they
 believe would enhance their overall holistic learning outcomes.
- Further, teachers mentioned that they are trained only in the usage of K-YAN and added that training of teachers through sessions on digital classroom delivery would help them upskill and impart lectures better and more efficiently.

7.4 IRECS Analysis

Basis the interactions with the key stakeholders and desk review, **the impact of the project was also assessed on the IRECS framework parameters**. The IRECS analysis summary has been presented in below table:

Parameter	Assessment from Study			Assessment from Study	
Inclusiveness	 The project demonstrates inclusiveness as it is implemented in urban and semi-urban government schools, uplifting underserved children and communities irrespective of their age, gender, and social category. STEM classes are conducted using local language teaching methods, ensuring an interactive and inclusive learning environment tailored to the students' geographical backgrounds. 				

Table 15: IRECS Analysis

Parameter	Assessment from Study
Relevance	• The project effectively addresses issues such as teacher shortages , skewed teacher-student ratios , and inadequate teaching infrastructure . The digital infrastructure provides a streamlined environment tailored to the needs to school, thereby bridging these gaps.
	• Higher education often involves complex topics that are challenging to explain in densely populated classes. This project has enhanced the efficiency of teachers, enabling them to teach with greater ease.
	• Teachers are able to make classes more interactive by maintaining eye contact with students and gauging their understanding levels during explanations, thereby fostering a more engaging learning environment.
Effectiveness	• There were no dropouts during the course. Teachers found digital classrooms more efficient for delivering lectures, allowing them to focus more on lesson planning.
	• Students' retention significantly improved due to the audio-visual teaching method, enabling longer retention and better performance in exams.
	• The audio-visual classes are highly engaging and facilitate better understanding of complex topics. It aids in comprehending subjects such as Trigonometry and Geometry in mathematics.
Convergence	• The digital classroom project not only enhances the educational experience for students but also aligns with various government priorities aimed at fostering a digitally literate, skilled, and educated population. By addressing key areas such as digital empowerment, inclusivity, quality education, and skill development, the project supports the overarching goals of educational policies and initiatives at national level.
	• This intervention aligns with the National Education Policy, 2020 by promoting the integration of technology in Education. The NEP emphasises the importance of leveraging digital tools to enhance learning experiences, improve access to quality education, and foster innovative teaching methods. ³⁶ Implementing such project supports these goals. Further, the project has partnered with 205 government schools to provide benefits under this project.
Sustainability	• Upon project completion, YUVA foundation transferred the management of infrastructure to the school administration. The digital learning tool, K-YAN, remains accessible to the schools, allowing them to independently maintain the infrastructure and continue utilizing the learning services. This arrangement ensures the project's sustainability after the exit of YUVA and Infosys teams from this project.
	• There is no fee associated with accessing the educational content on the K-YAN e-platform, making the content sustainably accessible for students. School Administration now looks after the maintenance of the digital infrastructure under this project.

³⁶ Source: https://www.education.gov.in/sites/upload_files/mhrd/files/NEP_Final_English_0.pdf Price Waterhouse Chartered Accountants LLP Impact Assessment Report

Alignment to the Infosys Limited's CSR policy and the UN SDGs 7.5



The project aligns with Infosys Limited's CSR Policy, which emphasizes education as one of its core focus areas. The project directly supports education and digital literacy for underprivileged students, contributing to larger objective of enabling access to quality learning resources. In addition to supporting Infosys Limited's CSR



goals, the project is also aligned with following Sustainable Development Goals (SDGs): ³⁷

- SDG 4: Quality Education aims to ensure inclusive and equitable guality education and promote lifelong learning opportunities for all. The smart classroom initiative supports this goal by equipping students with digital tools that foster interactive and engaging learning environments, helping them develop crucial 21st century skills.
- SDG 17: Partnerships for the Goals emphasizes the importance of partnerships in achieving sustainable development. The collaboration between Infosys Foundation, YUVA and local government schools exemplifies a strong partnership, ensuring the efficient implementation of this digital education initiative.

By bridging the digital divide and enhancing the guality of education through smart classrooms, this project makes meaningful contributions toward both SDG 4 and SDG 17.

Study Limitation 7.6

Limited Availability of Key Stakeholders: Conducting qualitative interviews with students, teachers, and school principal was challenging due to their busy schedules, exams, and other public holidays. This sometimes restricted the depth of insights gathered, as not all key stakeholders were available for detailed discussions.

7.7 Case Stories

Following case stories are based on our interactions with the key stakeholders during field:

Case Story 1: Empowering Learning: Journey with the K-YAN Digital Classroom

Sujay*, a diligent Class 10 student at Sangam Nagar School, shared his experience with the K-YAN digital learning platform. Although these classes are not formally included in the timetable, Sujay utilises K-YAN at least twice a week, particularly for Science and Mathematics, finding it highly beneficial.

He noted that the digital classroom sessions have been ongoing for over a year, having participated in them since Class 8. The use of a projector has significantly aided his comprehension of complex problems. Sujay appreciates the interactivity of these sessions, which have made learning a collective and enjoyable experience for him and his classmates.

As Sujay prepares for his board examinations, he finds the ability to revisit and revise lessons using the digital classroom tools invaluable. Previously struggling with Mathematics, especially trigonometry, he has observed a marked improvement in his understanding and performance since his teacher began incorporating digital teaching methods. The additional time for clarifying doubts at the end of each class has further contributed to his academic progress.

Sujay's grades in unit tests have improved considerably, bolstering his confidence ahead of the board exams. Expressing his gratitude, Sujay said, "I am grateful for the opportunity provided, and I hope I can perform well in my board exams with the help of K-YAN."

Case Story 2: Transforming Education through K-YAN Digital Classrooms

Vishal*, an ambitious Class 8 student, has been actively participating in K-YAN digital classes and has shared his positive experiences with the programme. One of the aspects he appreciates most is the significant time savings it offers. He aspires to operate such classes himself in the future and aims to excel academically, a goal well-supported by the digital classroom programme.

Vishal has expressed a desire to rate the K-YAN project 5 out of 5 stars. He particularly values the increased engagement from teachers, who no longer need to turn their backs to the students while writing on the board. This setup makes teachers more approachable and available to address students' doubts and questions.

He recounted an English class experience where a lengthy story was presented through the K-YAN system. The digital approach made the story easier to comprehend and more engaging compared to the traditional method, which took two classes to complete and felt monotonous to him and his classmates.

In Vishal's own words, "I like K-YAN digital classes a lot since it helps me understand computers and subjects together, and I feel more motivated to attend the English class." Vishal's enthusiasm for digital learning underscores its effectiveness in enhancing his educational experience and motivation.

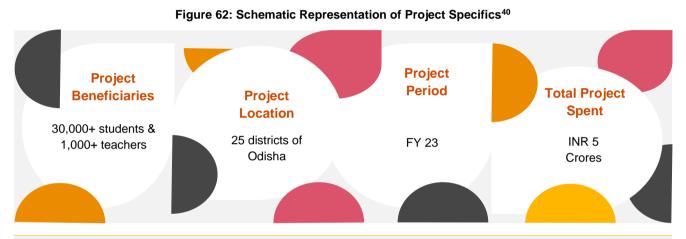
*Name Changed

Project 5: Mo School Abhiyan Parichalana Sangathan (MSAPS)

8.1 About the Project

India's heritage schools³⁸ have been instrumental in conserving the nation's rich educational and cultural legacy. However, these institutions, which have shaped generations of students, are now facing challenges such as ageing infrastructure and outdated facilities. These shortcomings not only impede effective learning but also create a risk to erase the schools' historical significance. Revitalising these schools would restore their structural integrity, introduce modern amenities, and honour their cultural importance, thereby bridging the past and future for students.

Over the years, Infosys BPM Limited (IBPM) has undertaken various education related interventions as a part of their CSR efforts. The **"Mo School Abhiyan Parichalana Sangathan " project**, funded by IBPM, advances the educational objectives of the Odisha Government by **revamping heritage schools throughout several districts in the state.**³⁹ This project was implemented by Infosys Foundation which directed the funding to these schools through the **Mo School Abhiyan Parichalana Sangathan (MSAPS)**, an initiative of the Odisha Government. By modernising these schools, this project aimed to **preserve their legacy** while **enhancing educational opportunities for students**. Below Figure provides an overview of project specifics:



As part of this project, each of the **50 heritage schools, boasting histories of over than 100 years**, received a grant of **INR 10,00,000**. These government schools from Odisha were selected by the **MSAPS** based on their applications submitted to them. This financial support is part of a **total funding package of INR 30,00,000** per school, with the **remaining funds provided by the Government of Odisha**.⁴¹



Origin: The cumulative grant was administered through MSAPS, an **initiative launched by the Government of Odisha** under the School and Mass Education Department. This initiative serves as a **platform for individuals and entities** to **facilitate the development of state's school ecosystem.**⁴²



Utilisation: Schools are empowered to utilise these funds to carry out **necessary remodelling and upgrades according to their specific needs.** Eligible expenditures include items such as classroom and storage furniture, smartboards, RO water purifiers, wall painting, invertors, and CCTV cameras, etc.⁴³



Timeline: Schools have been given a three-year period to utilise the funding package according to their requirements. As of FY 24, 30% of the schools have fully utilised their funds based on their plans submitted to the MSAPS team, while the remaining schools still have a part of their funds available.⁴⁴

⁴⁰ As per information shared by Infosys Foundation and MSAPS

³⁸ Government Schools which are 100 years old or more as identified by Government of Odisha. Source: <u>https://finance.odisha.gov.in/sites/default/files/2024-07/Annual%20Budget%202024-25%20Highlights%20English.pdf</u>

^{39 &#}x27;Mo' translates to 'My' in English from Odia language, hence project name is My School.

⁴¹ Ibid

⁴² <u>https://moschool.in/about-mo-school/</u>

⁴³ As per information shared by Infosys Foundation and MSAPS

⁴⁴ Ibid Price Waterhouse Chartered Accountants LLP

8.2 Method of Impact Assessment



The impact study utilised a **comprehensive and systematic approach** to assess the social impact of the project. An initial meeting was conducted with the Infosys Foundation and the MSAPS team to gain insights into the support provided through this project. During this meeting, any additional requirements necessary to commence the assessment process were also identified.

Following the meeting, PW received following project documents from Infosys Foundation and MSAPS:



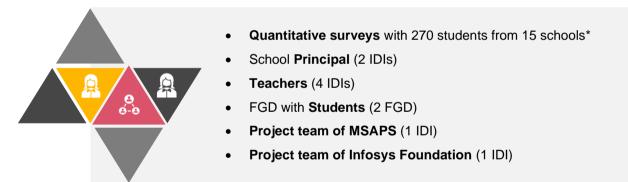
- **Memorandum of Understanding (MoU)** specifying project details and other requirements related to the execution of the project
- Documentation from **50 heritage schools** detailing their **fund utilisation plan**
- List of the schools along with information on students enrolled, current teaching staff, and status of fund utilisation

Team subsequently initiated a **desk review of the project documents**, drawing on information gathered during the **kick-off meeting** and from various project documents. This review was instrumental in developing the **assessment framework** and in **identifying and finalising the key stakeholders for engagement**. By analysing the available data, the team ensured a clear understanding of the project's scope and objectives, which laid the groundwork for the following phases of the assessment.

A **mixed research methodology** was leveraged, incorporating both qualitative and quantitative methods to assess the impact owing to the nature of this project. The **quantitative survey** was conducted with students from classes VIII to X. Additionally, **qualitative research** with stakeholders was useful in assessing subjective experiences and exploring in-depth information with various stakeholders mentioned in Figure.

The sampling plan involved quantitative survey, In-depth Interviews (IDIs) and Focus Group Discussions (FGDs) with the following stakeholders:

Figure 63: Stakeholder Interactions



* Based on data provided by MSAPS, the team identified a **total beneficiary population** of **30,050 students across all 50 schools**. However, the sample was drawn exclusively from the **15 schools where the grant had been fully utilised**. A **sample size of 270 students** was determined from the total beneficiary population, employing a **90% confidence level and a 5% margin of error**. This sample was equally distributed among the 15 schools.

8.3 Analysis and Findings

Based on interactions and a review of the project documents, the findings have been summarised as follows:

8.3.1 Challenges Before the Project

• **Deteriorating Infrastructure:** Many of India's heritage schools are plagued by infrastructure issues that are not aligned with modern safety and functionality standards. This deterioration compromises the safety of students and staff and detracts from the overall learning environment, thereby hindering the effective delivery of education.

- Insufficient Financial Resources: The lack of updated educational resources in these schools can greatly
 impact the quality of instruction and student engagement. Without modern teaching aids, technology, and
 up-to-date curriculum materials, these schools face challenges in providing a comprehensive education that
 aligns with contemporary academic standards.
- Preservation of Cultural Legacy: Inadequate maintenance and modernisation efforts threaten the historical and cultural legacy of heritage schools. As custodians of rich educational traditions, their decline risks the loss of significant cultural heritage. Prompt intervention is crucial to preserving their historical value while adapting them to meet current educational and cultural needs.

8.3.2 Summary of the Impact Created

A. Beneficiary Profile

This section presents the socio-demographic profile of student beneficiaries from schools which received the financial grant from Infosys Foundation under this project (n=270):

The project **benefitted students of both genders**, with survey respondants consisting of 54% male and 46% female students.



These respondents were **aged between 12 to 17 years**, with 35.6% of them being 14 years old, and 30.7% being 15 years old.



All 270 respondents were enrolled in classes VIII to X, distributed equally with 18 students from each of the 15 surveyed schools.

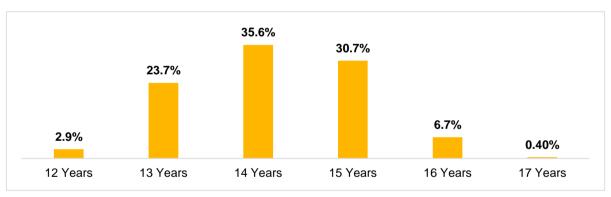
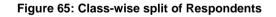


Figure 64: Age of the Respondents

- An equal number of students were randomly selected from classes VIII to X for the quantitative survey to understand the impact of the project at each academic level. These classes were picked to ensure accurate recall of project activities among beneficiaries (Figure 65).
- The families of the respondents **primarily earned their income through private businesses** owned by the parent or guardian (34%) followed by private jobs (24%) and government jobs (14%) (Figure 66).



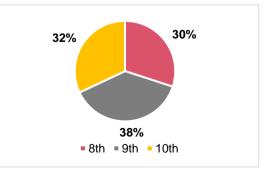


Figure 66: Primary Source of Income of the Respondents' Families



B. Improved Educational Infrastructure

- Respondents indicated that the infrastructure has improved since the renovation, funded by the Infosys Foundation. Prior to these renovations, facilities such as classroom desks, boards, and paintwork were rated as average (57%) or below average (3%) by respondents. This feedback underscored the need for upgrades to meet the modern educational standards. All respondents (100%) expressed the necessity for new infrastructure, including CCTV cameras, smart boards, wall paintings, and furniture
- Upon completion of the renovations, 98% of respondents reported improvements in the infrastructure, with an average rating of 4.35 out of 5 for the current state of facilities. This reflects significant enhancements in the schools' physical environment.
- The introduction of smart boards in the school was particularly well-received, earning an average rating of 4.76 out of 5 from the survey respondents. This positive feedback signifies the effectiveness of digital tools in enhancing education and aligning with contemporary practices. Additionally, 100% of respondents mentioned an improved overall school experience, indicating satisfaction with the changes.
- Despite the lack of physical signage to indicate the Infosys Foundation's involvement, 51% of students were aware of the contribution, primarily informed by their teachers and through word of mouth among peers.

Figure 67: CCTV Cameras Installed in School



Figure 68: Smartboard in School Classroom





Since receiving the Infosys grant via the MSAPS initiative, our heritage school has experienced significant enhancements. Previously, outdated facilities, such as faded wall paints and broken desks, hindered effective teaching. Now, with new furniture and learning resources, including an audio system for announcements, CCTV cameras for discipline, and smart boards for learning, the environment is greatly improved. This has boosted student morale, encouraging increased participation and collaboration. We have noted a positive shift in classroom dynamics, with students appearing happier and more focused.

As narrated by a Teacher in Puri Zilla School, Puri

The introduction of modern facilities and digital tools has significantly **enhanced the learning environment**, as reported by 96.30% of respondents (Figure 69)⁴⁵. These upgrades have not only improved the physical aspects of the school but have also positively impacted students' motivation and engagement. **CCTV** cameras have contributed to increased safety and discipline, and the new furniture has made classrooms more inviting, encouraging regular attendance. The fresh wall paint has made the school look tidier, and more welcoming, fostering a more positive attitude towards the institution.

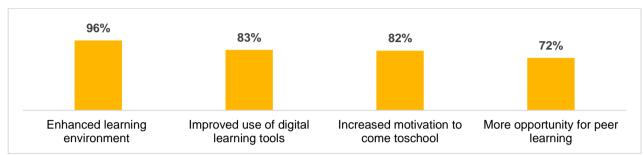
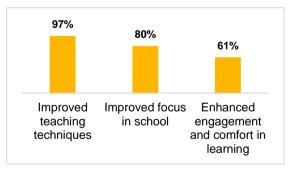


Figure 69: Impact of Infrastructural Changes

- Digital tools, particularly smart boards, are now part of daily classroom activities for 86% of the students, marking a shift towards a more interactive and engaging learning experience. Consequently, 96% of students reported being highly engaged during digital sessions. All respondents (100%) indicated that lessons have improved because of the renovations and the introduction of new facilities, given the upgrades in classroom furniture and learning tools.
- These improvements have also influenced teaching methods, with 89% of respondents observing substantial enhancements. Additionally, 97% respondents identify improved teaching techniques as the most beneficial aspect of the upgrades (Figure 71)⁴⁶. This represents a broader evolution in educational delivery, supported by modern infrastructure.
- Efforts to maintain the new infrastructure have been made by the school, with 99% of respondents affirming that the **renovated facilities are being properly maintained**. However, teachers have expressed concerns about the lack of a clear funding path for ongoing maintenance, which could become a challenge in the future.



Figure 71: Impact on Student Engagement





My teaching techniques at the school have been transformed significantly. Each day now begins with a prayer played over the audio system in each classroom, and lessons are delivered using smart boards. Previously, using chalk on blackboards not only caused dust allergies but also consumed considerable time. Now, learning is more engaging for students, giving me additional time to clarify doubts and help academically weaker students catch up.

As narrated by a Teacher at Ravenshaw Collegiate School, Cuttack

⁴⁵ Multiple choice question. Hence total will add up to more than 100%.

⁴⁶ Multiple choice question. Hence total will add up to more than 100%.

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D. Enhanced Student Engagement

- The enhancements made through the project have had both internal and external impacts, improving the schools' reputation and student engagement. Students have noted that their **peers in other schools do not experience similar levels of engagement**, highlighting the unique benefits of these improvements.
- Both students and teachers have reflected on the changes since the renovation, citing academic improvement linked to the use of visual and audio aids from the smart boards. These tools have also facilitated career counselling and awareness sessions, expanding students' understanding of future opportunities. Additionally, students are now actively creating and presenting PowerPoint presentations as part of their classwork, increasing participation and interaction.
- The improved classroom atmosphere has been noted by 87% of students (Figure 72)⁴⁷, suggesting that the physical and educational changes have created a more conducive learning environment.



I have noticed an increase in the number of students attending school since the renovation. The enrolment, attendance and participation have all been high recently. My peers and I are now more enthusiastic to attend school, especially on the days we have any sessions on the smartboard. My parents too show more interest in knowing what we did in school. Recently, I attended the no-tobacco use session and have also watched multiple YouTube videos on science experiments, history and geography lessons, or on use of grammar. I find it as entertaining and stimulating as watching television at home.

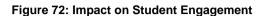
As narrated by a student at Puri Zilla School, Puri

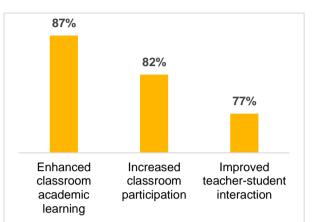
8.4 IRECS Analysis

Basis the interactions with the key stakeholders and desk review, **the impact of the project was also assessed on the IRECS framework parameters**. The IRECS analysis summary has been presented in below table:

Parameter	Assessment from Study
Inclusiveness	• The project aims to bridge the gap in infrastructure and educational resources in schools, some over century old, that are facing neglect or lack of sufficient funding, and in turn preserving their cultural legacy.
	• The project did not restrict to specific age, gender, etc. The project resources were utilised by both boys and girls in the school, across classes I to X.
Relevance	 The deteriorating infrastructure of these schools over a century old, along with insufficient financial resources, led to the need for renovation and upgrades in the facilities to preserve their cultural legacy. The infrastructure prior to the renovation was rated as average (57%) and below average (3%) by respondents. All the respondents believed there was

Table 16: IRECS Analysis





⁴⁷ Multiple choice question. Hence total will add up to more than 100%.

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Parameter	Assessment from Study
	a need for new infrastructure, including CCTV cameras, smart boards, wall paintings, and furniture, among others.
Effectiveness	• A significant number of respondents (98%) stated that the infrastructure is better now than before.
	• All the respondents acknowledged that the project has improved their overall school experience, indicating widespread satisfaction with the changes and indicated that lessons have improved because of the renovations and the introduction of new facilities. It was rated 4.35 on average out of 5.
	• The learning atmosphere (96%), use of digital tools (82%), motivation to come to school, and opportunity for peer learning (72%) witnessed a change with the renovation in the school.
	• Additionally, respondents felt an improvement in teaching techniques (97%), focus (80%) and learning engagement (61%). They also felt a shift in their academics (87%), along with classroom participation (82%) and teacher-student interactions (77%).
	• The grant not only affected the internal environment of the schools but also reflected on the schools' reputation and student engagement .
Convergence	• The project supported government schools through MSAPS, an initiative launched by the Government of Odisha under the School and Mass Education Department. It also supports Odisha government's 5T (Teamwork, Technology, Transparency, Transformation, and Time limit) High School Transformation Programme .
	• The project directly aligned with the government priorities to enhance the educational ecosystem in the country.
Sustainability	• This is a one-time grant to heritage schools over a century old . While respondents reported that the school renovations and upgraded facilities are currently being maintained, it was also noted as a possible challenge for the grant recipients in the future.

8.5 Alignment to IBPM Limited's CSR policy and the UN SDGs



The project is aligned with **IBPM's** CSR policy which includes education as one of the key CSR focus areas for IBPM. The project is also aligned with Sustainable Development Goal⁴⁸:



SDG 4 "Quality Education" focuses on ensuring equitable quality education and promoting lifelong opportunities for all. The project supports this goal by preserving the cultural and historical significance while ensuring students have access to quality education by meeting contemporary educational standards.

SDG 9 "Industry, Innovation and Infrastructure" emphasises building resilient infrastructure, promoting inclusive and sustainable technologies, and fostering innovation. This project enhances the enhances the durability and functionality of these schools, preserving their culture and ensuring they meet the needs of current and future generations

SDG 10 "Reduced Inequalities" aims at providing equal opportunities to all. The project supports this goal by improving access to quality education for all, upgrading facilities and ensuring inclusive infrastructure thereby bridging educational disparities.

8.6 Study Limitation

- 1. Limited Schools with Completely Spent Grant: Data availability was limited because only 30% of schools fully utilised their grant amount. Consequently, only these schools were included in the quantitative data collection.
- 2. Assessing Impact from Multiple Contributing Factors: Since the grants for the schools in the project come from IBPM Limited and the Odisha Government, the impact and key findings detailed in the report pertain to the collective impact of the project.

8.7 Case Stories

Following case stories have been gathered from schools during field visits.

Case Story 1: Saving the Day with CCTV Cameras

As part of the grant amount CCTV cameras were installed in classrooms to enhance security and monitor activities in the school. One afternoon, a student named Aarti* discovered that her lunch money was missing from her bag. Distressed and uncertain about how it had disappeared, she reported the incident to her teacher. Given the recent installation of CCTV cameras, the teacher decided to review the footage to determine what had happened.

Upon reviewing the CCTV footage from Aarti's classroom, the teacher observed another student, Priya*, discreetly taking the money from Aarti's bag when the classroom was momentarily empty. The clarity of the footage provided undeniable evidence of the incident. With this information, the teacher and school administrator privately confronted Priya about the incident. Faced with the evidence, Priya admitted to taking the money and expressed remorse for her actions. She returned the money to Aarti and apologised for her behaviour.

The situation was resolved amicably, with Priya understanding the consequences of her actions and Aarti recovering her lost money. The incident served as a learning experience for both students and highlighted the effectiveness of the CCTV system in maintaining a secure and accountable school environment.

Case Story 2: From Chalkboards to Smart Boards

Anita*, a 9th class student long struggled with traditional teaching methods until the installation of smart boards revolutionised her learning experience. As a visual learner, Anita benefited greatly from the vivid images, interactive diagrams, and engaging videos that these boards provided. In biology, complex topics became clear 3D models, while mathematics became approachable with color-coded annotations that clarified equations step-by-step.

The smart boards also rejuvenated her teachers' approach, incorporating diverse educational resources like interactive maps in history, which made lessons more engaging and relatable. This technological shift not only improved Anita's comprehension and retention but also boosted her confidence and academic performance.

As exams approached, Anita found revising easier, vividly recalling lessons from the smart boards. This transformation reignited her passion for learning, empowering her to pursue her academic goals with renewed enthusiasm. Smart boards thus turned Anita's academic challenges into successes.

*Name changed

Project 6: eVidyaloka- Rural Digital and STEM Education Programme

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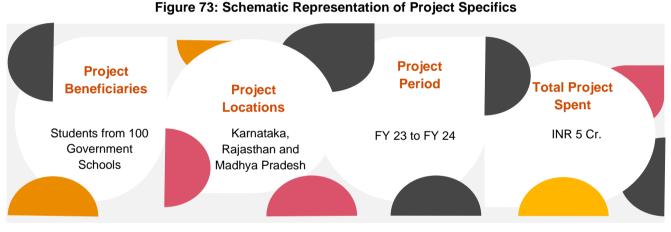
9.1. About the Project



In rural India, access to quality education remains a persistent challenge due to factors such as limited **infrastructure, shortage of subject-specific teachers, and lack of engaging learning resources**. These barriers often hinder the academic progress of students studying in government schools, creating a significant gap in learning outcomes when compared to their urban counterparts. To bridge this educational divide, **innovative and scalable technology-based solutions are being introduced to ensure that every child regardless of geography has access to quality education.**

As part of its CSR initiative, Infosys Limited has undertaken several projects to promote inclusive and equitable education across India. One such project is "eVidyaloka- Rural Digital and STEM Education Programme" which is implemented by Infosys Foundation with an aim to provide quality education to children in rural government schools through a technology-enabled model.

Infosys Foundation partnered with eVidyaloka Trust (implementing partner) to offer digital classrooms services such as live classes, recorded videos, workbooks and worksheets in addition to Teach Through Television (TTT) services. A total of **100 schools in select aspirational districts of Karnataka (Raichur and Yadgir), Rajasthan (Karauli, Baran, Sirohi, Jaisalmer and Dholpur), and Madhya Pradesh (Vidisha, Singrauli, Chhatarpur and Damoh) were supported through this initiative. Below figure depicts an overview of project specifics⁴⁹:**



9.2. Method of Impact Assessment

The impact assessment study utilised an **integrated and cohesive approach to evaluate project's social impact.** The process began with a kick-off meeting with Infosys Foundation, followed by a project briefing call with eVidyaloka programme team. These interactions provided the research team with vital insights into the project's specific support elements.

Following the meeting, PW team received following project documents:



- Memorandum of Understanding (MoU) and Amendment signed with eVidyaloka Trust containing project's operational details
- Project Progress Reports describing project's progress over a period of time
- List of schools supported under this project for each state

Accordingly, PW team conducted a desk review of the above documents utilising insights gained from the kickoff meeting. This process helped in **designing the assessment framework and finalising the key stakeholders for the interactions**.

⁴⁹ Source: Project documents/information received from Infosys and eVidyaloka Trust Price Waterhouse Chartered Accountants LLP Impact Assessment Report

A mixed method approach, comprising both quantitative and qualitative research methodologies, was leveraged for the impact assessment study. The quantitative survey was conducted with the beneficiaries for generating insights regarding the project's impact, while qualitative interactions were also held with the project stakeholders. This approach facilitated the exploration of individual experiences and provided a deeper understanding of the perspectives of project stakeholders.

Key stakeholders were identified (Figure 74) and tailored tools were prepared for each stakeholder to ensure comprehensive and insightful data collection.

Figure 74: Research design for the study

- Quantitative surveys with a sample of 280 respondents (students) of the project*
- Following In-depth Interviews (IDIs), focus group discussions (FGD) and small group discussion (SGD) were conducted:
 - a. Students (1 FGD)
 - b. Parents (1 FGD)
 - c. Class Assistants (1 IDI)
 - d. Field Coordinator (1 IDI)
 - e. School Headmaster (1 IDI)
 - f. Volunteer Teacher (1 IDI)
 - g. Subject Matter Experts (1 SGD)
 - h. eVidyaloka representative (1 IDI)

* Based on the data shared by the Infosys team, team noted that a total of **20,285 students received benefit under this project.** Hence, a sample size of 269 was estimated at 90% confidence level and 5% margin of error. However, to ensure the appropriate representation of the findings from all the locations in our sample, the **survey covered 280 beneficiaries**, exceeding the original sample size. Four schools from each district with the highest number of schools in the two states (Rajasthan and Madhya Pradesh) were selected. The sampling distribution for the quantitative survey was as follows:

Table 17: Distribution of quantitative sample across 2 states

State	District	School	Sample
		GSSS Batda	31
	Karauli	GSSS Chandelipura	33
Rajasthan	Karauli	GSSS Kacchipura	33
		GSSS Shyamour	31
		MS Madhavganj No.1	30
		GHS Bhatni	31
Madhya Pradesh	Vidisha	GHS Manora	30
		GHS Gobarhela	31
		GHS Chhirkheda	30
Total			280

9.3. Analysis and Findings

This section summarises the findings from the desk review and interactions:

9.3.1. Challenges Before the Project



The team noted following challenges that emerged prior to project interventions:

- Lack of Subject-Specific Teachers: Many government schools in these regions struggled with a shortage of trained teachers, especially for key subjects like English, Science, and Maths. This indicated that students often missed out on core concepts, leading to learning gaps over time.
- **Poor Infrastructure for Digital Learning**: Most rural schools didn't have the basic infrastructure needed for digital education, such as projectors, internet connectivity, or even stable electricity, making it difficult to introduce any kind of technology-based learning.

9.3.2. Summary of the Impact Created

1. Profile of the respondents

- Majority of the respondents (36.4%, n=280) were from **7**th class, followed by 28.6% respondents from 6th class (Figure 75).
- 50% (n=280) of the of the respondents were female with the rest being male. Team ensured that the gender distribution remains balanced, ensuring that insights drawn from the data are equally representative of male and female perspectives.

2. Incresed Access to quality education through online medium

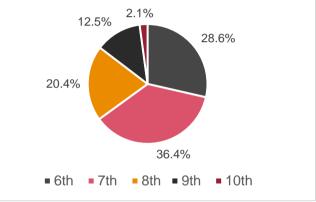


Figure 75: Distribution of respondents according to

standard (n=280)

- **line medium** Team noted that the physical infrastructure was set up at the schools under the project for delivery of services such as Laptop, routers for network connection, monitor, web camera, speakers in a **dedicated digital classroom** to extend access to online guality education to the respondents. Additionally, solar
- In the Digital Classroom setup, volunteer teachers are connected to respondents for conducting live classes in rural government schools located in remote areas. These classes on the subject of Mathematics, Science and English are conducted in regional language which help respondents to understand the lessons better in the class. These classes were held during the regular school hours and within the school premises where services such as recorded videos, workbooks and worksheets, etc. were continued to be made available for the respondents.

panels and inverters were installed to ensure regular supply of electricity at the schools.

- Further, almost all the respondents (95.4%, n=280) reported that they utilised television for consuming the ready-to-consume learning content through the teach through television component of the project in addition to the Digital Classroom setup at the school.
- Respondents further reported the **utilisation of live classes (98.6%)** as one of the major benefits followed by workbook and worksheets (97.1%) (Figure 76).

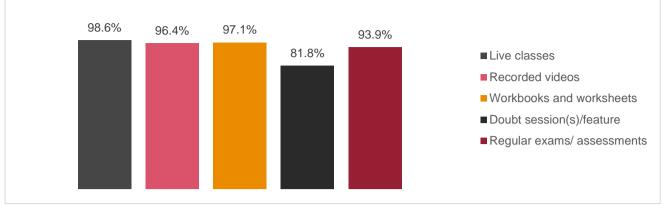


Figure 76: Benefits utilised by the respondents (n=280)

*Multiple Coding Question, Responses may not add up to 100%.

• It was noted that each subject was taught for 45 minutes each for two to four days in a week during the live classes which strengthened the access to quality education. If the respondents missed the class due to any reason, they had the access to recorded sessions and could go through the sessions whenever required.

Basis the responses received from respondents on different benefits availed under the project (Figure 4), the subsequent sub-sections depict the analysis of such benefits using corresponding sample size (n) as mentioned below:

- Live classes (n=276 i.e. 98.6% of 280)
- Recorded videos (n=270 i.e. 96.4% of 280)
- Regular exams/ assessments (n=272 i.e. of 97.1% of 280)
- Workbooks and worksheets (n=229 i.e. of 81.8% of 280)
- Doubt sessions (s)/ feature (n=263 i.e. of 93.9% of 280)

3. Enhanced learning experience for the respondents

Relevance of the content

• Live classes, recorded videos, workbooks and worksheets, doubt sessions and assessments were all developed and **conducted in the vernacular language for the respondents.** This has helped the respondents to be comfortable with learning as they could easily learn in their local language.

Based on the interactions with students, team noted that they are now able to understand the complex subjects when taught in a language they are fluent in it. It indicates that the project has been able to reduce cognitive load, allowing students to focus on learning the subjects rather translating it. Students also added that lessons delivered in their native language has boosted their interest and motivation. They feel more included and participate actively in class discussions and academic activities.

Some of the parents during FGD highlighted that they have noted the **better retention of information** and concepts over time in their children as delivering content in a regional language has allowed the schoolteachers to incorporate local examples and contexts that make learning more relatable and meaningful.

• Further, the learning content was in alignment to the state boards and NCERT curriculum as the project focussed on augmenting the regular school studies of the respondents. This alignment was helpful for respondents to consume the content within the structure defined by their board of education and remain focussed.

Following table depicts the responses received from respondents on relevance of different benefits availed by them under this project:

Table 18: Relevance of project benefits

Parameter	Live classes (n=276)	Recorded video (n=270)	Workbooks and worksheets (n=272)	Doubt sessions (n=229)	Assessments (n=263)
Vernacular/ preferred language	99.6%	100%	99.3%	99.1%	98.9%
Alignment with their textbook curriculum	97.5%	96.3%	98.2%	NA	NA
Accommodating regular schedule	97.1%	NA	NA	NA	NA
Complementing their textbook learning	98.6%	98.5%	NA	NA	NA

NA indicates that parameter under the assessment is not relevant/ applicable to the corresponding benefit.

Streamlined process of learning

- Team noted that the **respondents were provided with lesson plan** in alignment with the respondents' learning objectives. The lesson plan was followed by the teachers and adhered by the respondents so that regular timetable is followed for respondents to be aware of the topics and plan their studies accordingly.
- In this regard, **majority (98.6%) of the respondents (n=280)** reported that lesson plan was provided to them.
- Almost all (97.8%) of the respondents (n=276) reported that the lesson plan align with their textbook curriculum. 99.6% of these respondents (n=276) further responded that the **lesson plan was followed** by the teachers and adhered by them.
- As per the interaction with respondents, the workbooks and worksheets provided under the project have been helpful for practicing their learnings. The same insight was obtained during the survey, as majority (97.8%) of the respondents (n=270) reported that the workbooks and worksheets complement the live classes and video lessons.

Resolution of challenges at ground level

- In some schools, there were issues related to supply of regular electricity as these schools are situated in remote rural areas of aspirational district. To overcome this, solar panels and inverter were installed to maintain continuous electricity supply for uninterrupted utilisation of digital classrooms.
- As per the interactions with respondents and class assistant, there were **issues with the network connections** resulting in pausing of the live classes. To resolve this, the Class Assistants **changed the service provider for better network connectivity. Any loss of time is either compensated in the next class or recorded videos are played to help the children cover the topics.**

4. Improvement in learning level among respondents

Facilitating the improvement in learning through lesson plan, doubt sessions and regular assessments

- 99.6% (n=275) found the lesson plan helpful in keeping their study schedule on track.
- 96.9% (n=229) respondents reported that the **doubt clarification sessions were effective** and helpful in enhancing their understanding.
- Majority (99.2%) of the respondents (n=263) mentioned that assessments were regularly carried out to monitor their progress.
- As per the interaction with volunteer teacher, the live classes along with the worksheets were impactful in the learning of the respondents.

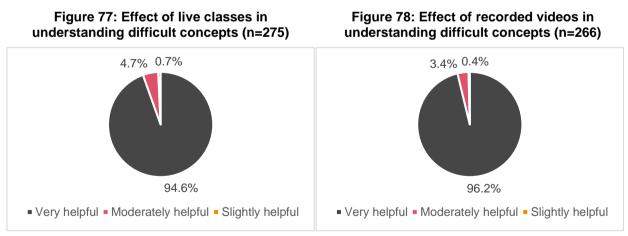
• This project has further helped to develop the confidence of the respondents through live classes and interactive sessions. Almost all the respondents (99.3%, n=280) reported feeling more confident in the subjects for which they utilised the project service(s).

Bringing positive change among respondents

- Basis the survey responses (n=280), it was analysed that respondents' attendance increased by 4.44% on an average during the academic year when the project was implemented as compared to the previous year.
- As per the interactions with volunteer teacher, the project is **bringing change in the lives of the children** by connecting them with these digital learning platforms. **These respondents enjoy learning online through the live classes delivered by the volunteer teachers**. On probing further, following changes were observed by Class Assistant and School Headmaster among the respondents:
 - o Improved fluency in English
 - o Improved ability in solving mathematical problems
 - Improves ability to grasp difficult science concepts
 - Reduced hesitation among respondents to ask questions

Improvement in academic performance

- The respondents also added that their grades have improved for the subjects they studied in the Digital Classroom as it helps in covering the complete syllabus and revising the classroom learnings. They informed that the live classroom sessions have been the most impactful in their educational journey as they feel connected while learning and it helps them understand better.
- 99.3% (n=280) respondents reported that they found learning experience through digital classroom more effective than the regular classroom teaching.
- 99.6% (n=276) respondents reported that the live classes helped them better understand difficult concepts of the subjects being taught in the digital classroom with 94.6% (n=275) respondents stating that the live classes were very helpful in better understanding difficult concepts (Figure 77).
- 98.5% (n=270) reported that the recorded videos helped them better understand difficult concepts of the subjects being taught in the digital classroom with 96.2% (n=266) respondents stating that the recorded videos were very helpful in better understanding difficult concepts (Figure 78).



- Almost all (99.6%) of the respondents (n=280) responded that there was improvement in their academic performance after utilising the project benefits showcasing the positive impact of the project and displays the project's effectiveness.
- The project enabled them to strengthen understanding of the topics (99.6%), increased learning engagement and focus (99.3%) and better preparation for the exams (99.3%) as depicted in the Figure 79.

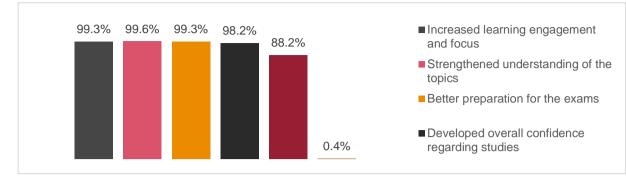


Figure 79: Impact on Overall Academic Performance (n=280)

*Multiple Coding Question, Responses may add up to more than 100%

Improvement in daily study habits and increased interest

• The respondents (n=280) also highlighted that the **project impacted their daily study habits** as it made them **more disciplined (99.3%), more focussed (98.6%)** and **excited towards studies (95.7%)**.



Figure 80: Project's Impact on Daily Study Habit (n=280)

*Multiple Coding Question, Responses may add up to more than 100%

- As per the interaction with parents, the respondents have developed interest towards learning since the setup of the Digital Classroom at the school. Similarly, as per the interaction with the Class Assistant, the live classes have developed interest in respondents towards studies. The school headmaster also mentioned that they have witnessed an improvement in children's learning levels. It has boosted their self-confidence and technological knowledge as well, resulting in generating impact of long-term interest among the respondents regarding education.
- Majority (98.2%) of the respondents (n=280) responded that the project has instilled a long-term interest among them towards education and learning. This development of long-term interest among the respondents regarding education and learning, shows the effectiveness of the project implementation.
- 65.4% (n=280) of the respondents reported that they noticed a decrease in the number of dropouts among their classmates after the introduction of the digital classroom.

5. Positive student perception regarding different project aspects

Basis the survey responses, it was evident that the respondents have a positive perception towards the project activities. Following results⁵⁰ depict the **effectiveness of the project**:

⁵⁰ On a scale of 1 to 5, with 1 being poor and 5 being excellent

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Table 19: Experience Rating by Respondents

Duciest Commencet	Experience Rating		
Project Component	5	4	3 or less than 3
Live classes (n=276)	64.1%	22.5%	13.4%
Recorded videos (n=270)	46.3%	43.3%	10.4%
Workbooks and worksheets (n=272)	58.1%	27.9%	14.0%
Doubt session(s)/feature (n=229)	54.6%	33.6%	11.8%
Regular assessments (n=263)	65.8%	25.9%	8.4%
Learning content on television (n=267)	68.9%	23.6%	7.5%
Class Assistant support (n=280)	77.5%	17.5%	5.0%

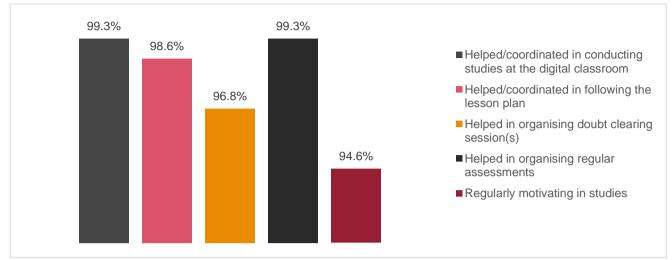
6. Synergising stakeholder engagement and capacity building

The project garnered support from varied stakeholders before and during its implementation. eVidyaloka synergised with these different stakeholders to implement the project and also helped in capacity building of some of the stakeholders before engaging them for the content delivery. Following table depicts the impact created by this project on the lives of such as stakeholders:

Parameters	Type of stakeholders			
Farameters	Volunteer teachers	Field Coordinators	Class Assistants	Parents
Role in	Responsible for the	Responsible for	Responsible for	Continue
project	content delivery	overseeing clusters of schools including liaising	enabling volunteer- led sessions, with	motivating and supporting their
		with schools, the Block	practice sessions to	children
		Education Officers, the	operate and	criticien
		community and support	maintain the digital	
		for infrastructure	infrastructure and to	
		maintenance and re-	report data using	
		training of Class	eVidyaloka's portal	
		Assistants.		
Engagement	Capacity building	Selected from the local	Selected from the	Engagement
model	training from	community in and	local community in	through parents-
	eVidyaloka Trust	around school helping	and around school	teacher's meetings
		them improve their	(usually alumnus of	
		liaison skills and	school) helping	
		increase experience in	them increase	
		the education field	experience in the	
			education field	
Overall	98.6% of the	Regular monitoring and	99.3% respondents	Almost all (97.4%)
impact	respondents	reporting of the project at	(280) reported that	of the respondents
created	(n=275) reported	cluster level	the class assistant	(n=269) highlighted
	volunteers to be		helped in organising	the response of
	interactive and		regular	their parents on the
	inclusive during the live classes		assessments and	introduction of this
			conducting studies at the digital	project intervention in school was
			at the digital classroom	in school was positive
			003310011	positive

Table 20: Engagement and Impact on Project Stakeholders





*Multiple Coding Question, Responses may add up to more than 100%

The project has given me an opportunity to connect with the respondents and gain experience in the school education field. This is a very valuable experience for me as I always wanted to be a teacher, and it will help me to get prepared for the same.

- As narrated by Class Assistant

9.4. IRECS Analysis

Basis the interactions with the key stakeholders and desk review, **the impact of the project was also assessed on the IRECS framework parameters**. The IRECS analysis summary has been presented in below table:

Parameter	Assessment from Study
Inclusiveness	 The project displayed inclusiveness as it is being implemented in rural areas and catering to the state government schools. All the project aspects are available in vernacular make it easily accessible to the respondents from regional background.
Relevance	 The project also displays its relevance to address the issue of schools with teacher shortage, as in such cases the project helps to continue the education for the subject. The project provided exposure to the medium of online education to the respondents from the remote rural areas who did not have any other avenues to gain such experience.
Effectiveness	 Respondents' attendance increased by 4.44% on an average during the academic year when the project was implemented as compared to the previous year. The lesson plan was helpful in keeping the study schedule of the respondents (99.6%, n=275) on track.

Table 21: IRECS Analysis

Parameter	Assessment from Study
	 The project's live classes and interactive sessions contributed to respondents' increased confidence as 98.2% respondents (n=280) reported feeling more confident in the subjects for which they utilised the project service(s). 99.6% (n=280) respondents reported improvement in their in their academic performance after utilising the project service(s). The respondents (n=280) reported that the project impacted their daily study habits positively by making them more disciplined (99.3%) and focused (98.6%). Majority (98.2%) of the respondents (n=280) respondents in education and learning. 65.4% (n=280) of the respondents reported that they noticed a decrease in the number of dropouts among their classmates after the introduction of the digital classroom.
Convergence	• The project aimed to address the challenge of teacher shortage in 100 government schools . Further, the project is also aligned with the Niti Aayog's 'Aspirational district programme' due to its focussed approach in select Aspirational districts of Karnataka, Rajasthan and Madhya Pradesh.
Sustainability	• At the time of exit, eVidyaloka Trusts will hand over the infrastructure in the custody of the school administration so that the schools can look after the maintenance of the infrastructure and train schoolteachers to coordinate the live classes taken by volunteer teachers, ensuring the sustainability of the project offerings.

9.5. Alignment to the Infosys Limited's CSR policy and the UN SDGs



The project is aligned with Infosys Limited's CSR policy which includes **education as one of the key CSR focus areas for Infosys Limited**. The project is also aligned with following Sustainable Development Goal (SDG)⁵¹:



SDG 4: focuses on ensuring inclusive and equitable quality education and promoting lifelong learning opportunities for all. The project directly contributes to this goal by bridging educational gaps in rural areas through its multi-modal digital school model. By delivering subject-specific teaching, curriculum-aligned content in regional languages, and consistent learning support across 100 rural government schools, the project promotes equitable access to quality education for respondents who otherwise have limited academic opportunities.

9.6. Study Limitation

• Due to mobilisation challenges on the part of eVidyaloka Trust (implementation partner) in the state of Karnataka, the samples for the state were adjusted in the remaining two states i.e. Rajasthan and Madhya Pradesh where mobilisation was possible.

⁵¹ Source: <u>https://sdgs.un.org/goals</u> Price Waterhouse Chartered Accountants LLP

9.7. Case Stories

Following case stories have been gathered through discussions held with the Class Assistants during field visit:

Case Study 1: Bridging Distance Through Digital Classrooms

In a remote village of Rajasthan, Mohan*, a young student of GSSS Shyamour, walks several kilometres every day just to attend school. His family depends entirely on agriculture for livelihood, and daily life is often dictated by the challenges of rural living.

Earlier, Mohan was quiet and hesitant in class. He rarely engaged, never asked questions, and often remained disinterested. But his learning journey took a new turn when the Digital Classroom was introduced in his school.

Through this initiative, Mohan was connected to dedicated online volunteer teacher Manish (name changed), who delivered engaging live classes in subjects like science. The visual content, interactive format, and encouragement from his digital teacher sparked his curiosity. Over time, he began attending classes regularly and started asking questions, something he never did before.

Today, Mohan's confidence has grown. His interest in science has become evident, and he participates actively in classroom discussions. The digital classroom, supported by Infosys Foundation, made quality education accessible to him in his village which is bridging the gap that distance and limited local resources had created.

Mohan's story reflects the transformative potential of digital education. The eVidyaloka Digital Classroom is not just a tool for learning; it is a bridge to opportunity, opening doors for students like Mohan to dream bigger and learn better.

Case Study 2: From Hesitation to Confidence: Rakesh's Learning Journey

At MS Madhavganj School situated in a remote village of Madhya Pradesh' Vidisha district, Rakesh*, a shy student, once hesitated to even count numbers in Hindi. He would often remain silent in class, unsure and lacking confidence.

However, with the introduction of the Digital Classroom initiative by eVidyaloka, supported by Infosys Foundation, a new chapter began. Through engaging online sessions and dedicated volunteer teachers, Rakesh slowly started gaining interest in his studies.

Today, Rakesh not only counts fluently in Hindi but also confidently spells and recites numbers in English. His journey from hesitation to fluency is a powerful example of the positive impact of digital education.

This transformation is a result of consistent support from his teachers, the digital content aligned with the school curriculum, and the nurturing learning environment created through the initiative.

Rakesh's story is a testament to how access to quality education can ignite a child's self-belief and unlock their true potential even in remote areas.

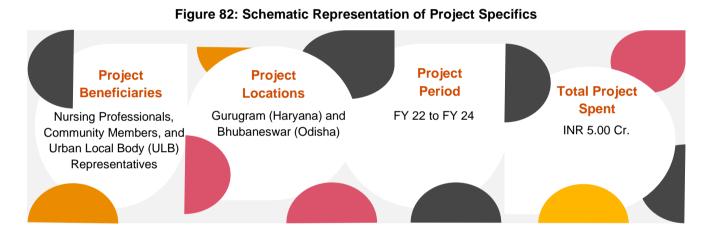
*Name Changed

Project 7: Blended Education Certificate Program in Public Health Nursing

10.1. About the Project

In the realm of public health, specialized training for healthcare professionals is crucial for improving health outcomes and ensuring effective disease prevention and management. Equally important is raising community awareness and enhancing the knowledge of the representatives from local government institutions. These initiatives help bridge healthcare delivery gaps, promote equity, and boost community well-being.

Recognizing the importance of education in public health, Infosys Foundation has undertaken various initiatives to support the development of healthcare professionals. One notable project is the **"Blended Education Certificate Program in Public Health Nursing"**. This project offers **comprehensive training and orientation sessions for 53 General Nurses**, **22 BMC officials and training and around 250 MAS members**⁵², combing **online and in-person coursework** to **enhance their skills and knowledge**. **Supported by Infosys BPM Limited**, this project aims to contribute to improved health outcomes and stronger health systems in partnership with **Public Health Foundation of India (PHFI)**. Below Figure provides the project specifics:





PHFI was established under public-private partnership in March 2006 to address the limited capacity for public health training, research, and policy development in India. PHFI collaborates with Indian and international academia, government bodies, bilateral and multilateral agencies, and civil society groups. As an independent foundation, it takes an integrative approach to public health, focusing on promotive, preventive, and therapeutic services tailored to Indian conditions.⁵³

Under this project, PHFI collaborated with Infosys Foundation to launch "Blended Education Certificate Program in Public Health Nursing" through Indian Institute of Public Health (IIPH) centers in Delhi-NCR and Bhubaneswar.

Below is description of the project's various activities:

1. Development and Delivery of Blended Education Certificate Programme in Public Health Nursing: This initiative focused on creating and delivering a programme to enhance the public health nursing skills of 53 nurses from Bhubaneswar and Gurugram, aiming to improve primary care quality.

⁵² BMC- Bhubaneswar Municipal Corporation, MAS- Mahila Arogya Samitis

⁵³ Source: PHFI Website - https://phfi.org/

Price Waterhouse Chartered Accountants LLP

- 2. Engagement with ULB for Priority Setting in Public Health Programmes and Capacity Building for Monitoring and Evaluation: The project collaborated with ULB to prioritise public health issues and build capacity for monitoring and evaluation. An orientation session was conducted with National Health Mission representatives and 22 Medical Officers in Bhubaneswar, but operational (such as Government approvals) delays hindered similar efforts in Gurugram. Hence, similar orientation session which was earlier planned with the health officials with Municipal Corporation of Gurugram (MCG) could not form part of the project activities in Gurugram.⁵⁴
- 3. Enhancement of Community Capacity for Participatory Leadership in Public Health: The project aimed to empower community organizations, like Mahila Arogya Samitis (MAS) and local NGOs, for leadership in public health. Training needs were assessed, and a curriculum was developed covering urban health challenges, beneficiary entitlements, community mobilisation, health communication, and leadership. Sessions were conducted with 17 MAS groups in Gurugram and 11 in Bhubaneswar, with each such MAS group consisting of 8-10 community members (covering approximately 250 community members).

10.2. Method of Impact Assessment

The impact assessment study employed a **consultative and cohesive approach** to evaluate the project's social impact. To begin the assessment process, a **kick-off meeting was held with Infosys Foundation**, followed by a **project briefing call with respective SPOCs from PHFI and IIPH in Bhubaneswar and Delhi.** These meetings offered the research team **essential insights into the specific support** provided in this project.

PW received the following project documents:



- **Memorandum of Understanding (MoU) and an Addendum to the MoU** signed with PHFI containing project's operational details.
- **Project Reports** from IIPH in Delhi and Bhubaneswar detailing the activities carried out at both the centres respectively.
- Nursing training material detailing the course content delivered to the trainees.

Accordingly, PW team commenced a **desk review** of the project documents which **facilitated the design of the assessment framework and the identification of key stakeholders** for interactions.

A qualitative research methodology was employed to assess the impact of this project. This methodology was more beneficial to gauge the impact because it provides in-depth insights into participants' experiences, perspectives, and the contextual factors influencing program outcomes, allowing for a comprehensive understanding of the program's effectiveness and areas for improvement.

Key stakeholders were identified and tailored research tools were prepared to ensure comprehensive and insightful data collection. Team conducted In-depth interview (IDI) and focused group discussion (FGD) with the stakeholders:

Figure 84: Sampling Plan

- Trainees (Nurses) from the Bhuwaneshwar Center (7 IDIs)
- Trainees (Nurses) at the Delhi-NCR Center (1 FGD)
- Medical Officer at Bhubaneswar Center (1 IDI)
- IIPH team at both Delhi-NCR and Bhuwaneshwar centers (2 IDIs)
- Trainers of IIPH at both the location (2 IDIs)
- **Project team** of Infosys Foundation (1 IDI)

10.3. Analysis and Findings

This section summarises the findings from the desk review and interactions:

10.3.1. Challenges Before the Project

During the assessment, team noted following key challenges prior to the implementation of the project, which made a compelling case for the intervention:

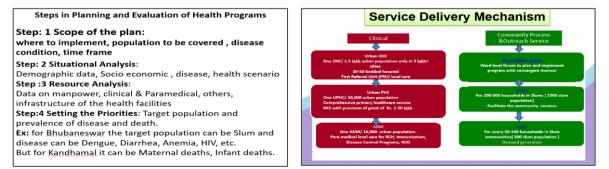
- Workload due to Staffing Shortages: High patient-to-nurse ratios was leading to increased stress and burnout among nurses, compromising the quality of patient care. This shortage of staff means that nurses are often overworked, leading to decreased job satisfaction and potential errors in patient care.
- Emotional and Physical Strain due to workload: The emotional burden of caring for critically ill patients, coupled with the physical demands of the job, can result in significant fatigue and mental health issues for nurses. This strain was affecting their overall well-being and ability to perform their duties effectively.
- **Inadequate Nursing Resources:** Limited access to necessary supplies, technology, and support impeded healthcare professionals from delivering optimal care. This lack of resources led to inefficiencies and reduced quality of care, impacting patient outcomes negatively.
- Safety Concerns for the Nursing professionals: Nurses often faced hazards such as infectious diseases and workplace violence, which pose significant safety risks. These concerns heightened anxiety and stress, further impacting their job performance and overall health.

10.3.2. Summary of the Impact Created

1. Enhanced Public Health Expertise Through Blended Training Programs

- The training program consisting of 62 sessions (30 in Bhubaneswar and 32 in Delhi-NCR with one session being 8 hours long) enhanced the skills and knowledge of nurses, enabling them to tackle urban health challenges more effectively. Its comprehensive nature improved their ability to manage chronic diseases, provide effective maternal and child healthcare, and prevent communicable diseases. This led to improved patient outcomes in urban health settings. The blended education model facilitated through this project, integrating online and in-person learning, accommodated the busy schedules of working professionals. This flexibility enabled nurses to participate without disrupting their duties, ensuring them to continue providing essential services while advancing their education.
- Participants consistently praised the training, highlighting its **relevance and effectiveness in enhancing their job performance**. They reported increased confidence and competence, which empowered them to meet the evolving healthcare demands of their communities.

Figure 85: Snapshots of the training topics covered under the project



- Additionally, the training increased nurses' awareness towards public health issues and effective intervention strategies. This empowered them to implement preventive measures more efficiently and promote health education within their communities. These trained nurses were now able to maintain sterile environment, education patients and other staff on hand hygiene, implement isolation protocols (as necessary), promoting healthy lifestyle (such as balanced diets) etc. Learning from the training further contributed to the overall improvement of community health standards and resilience.
- Further, the nurses reported that although they had attended certain government-mandated training programs earlier, most of these were conducted offline only and did not focus specifically on public health issues within designated UPHC areas.

The Certificate Programme in Public Health has equipped us with essential skills and knowledge to tackle public health issues. We are now successfully training fellow nurses, improving infection control, mental health care, and chronic disease management. It has greatly enhanced health outcomes in our communities.

As narrated by a Clinical instructor from College of Nursing, Beharampur, Odisha

2. Enhancing Service Delivery in Public Health Crisis Management

- During the COVID-19 pandemic, nurses encountered major public health challenges, such as stringent
 infection control measures and a rise in mental health issues among patients. This training was
 instrumental in providing them with up-to-date knowledge and practical skills to handle these issues more
 effectively. With advanced techniques in infection prevention and control, nurses enhanced
 infection prevention by adhering to protocols like hand hygiene and PPE use, educating patients and
 families, and participating in surveillance to monitor infection trends, thereby contributing to
 reduction of virus spread.
- Additionally, the training addressed the psychological toll of the pandemic, offering strategies to support both patients and healthcare workers dealing with increased stress and anxiety. This aspect empowered **nurses to provide better mental health support to their patients** while managing their own well-being, ensuring resilience and effectiveness in their roles.
- The comprehensive training curriculum covered topics integral to nurses' daily responsibilities, including
 chronic disease management, maternal and child health, and health counselling. By strengthening their
 expertise in these critical areas, the program enabled nurses to deliver more holistic care. They were
 better equipped to educate patients on managing chronic conditions, provide essential maternal and child
 health services, and offer meaningful health counselling.

Figure 86: Snapshots of the training topics covered under the project

An audience-centered perspective also reflects the realities of people's everyday lives and their current practices, attitudes and beliefs, and lifestyles.
Some specific audience characteristics that are relevant include

gender, age, education and income levels, ethnicity, sexual orientation, cultural beliefs and values, primary language(s), and physical and mental functioning.

 Additional considerations include their experience with the health care system, attitudes toward different types of health problems, and willingness to use certain types of health services. Particular attention should be paid to the needs of underserved audience members



• This holistic approach to training ensured that nurses could deliver enhanced healthcare services, which contributed to improved health outcomes in the community. By empowering nurses with the necessary tools and knowledge, the training program played a pivotal role in strengthening the overall healthcare system's response to both ongoing and emergent public health challenges.

3. Empowering Communities through Health Training and Engagement

- Training sessions empowered MAS leaders to effectively disseminate health information within their communities. This initiative fostered local leadership and encouraged active participation in health promotion and advocacy, leading to more informed and health-conscious communities. Equipped with vital knowledge and skills, MAS leaders bridged the gap between healthcare providers and the community, thereby enhancing the impact of health interventions.
- Focused Group Discussions conducted by IIPH teams with the community members provided valuable qualitative insights into specific community health challenges and potential solutions. These discussions informed targeted interventions, ensuring initiatives addressed the community's actual needs. By incorporating local perspectives, the interventions became more relevant and effective, leading to improved health outcomes.
- Monthly health awareness camps conducted with a total of 28 MAS groups (17 located in Delhi NCR and 11 in Bhubaneswar) significantly boosted community engagement and the use of health services. In total such camps catered to a population of more than 250 community members (8-10 members in each camp). These camps offered a platform for accessing essential health information and services, resulting in improved health outcomes. Increased participation reflected increased community awareness and proactive approach to health management.
- These initiatives combined to create a synergistic effect, amplifying the overall impact on community health. The empowered MAS leaders, active community engagement in health camps, and the enhanced capabilities of nurses collectively contributed to a more resilient and health-aware community.



The Orientation session, conducted by PHFI, has enhanced healthcare professionals' skills in urban slums. It emphasized on community engagement, holistic health strategies, and capacity building, leading to improved health outcomes in Bhubaneswar's slums.

As narrated by a Medical Officer, UPHC, Bhubaneswar (Odisha)

4. Capacity building of Government stakeholders

- The project involved extensive collaboration with government bodies, including the Bhubaneswar Municipal Corporation (BMC) and Urban Primary Health Centres (UPHCs) from both the locations, to enhance the capacity and skills of public health officials. These partnerships were instrumental in providing tailored training programs that addressed specific local health challenges and improved the overall effectiveness of public health interventions.
- Establishing strong relationships with key stakeholders, such as government officials and technical experts, was crucial for securing support for capacity-building initiatives. These alliances ensured the sustainability of health interventions by fostering a shared



Figure 87: Orientation session with Medical

Officers and Medical representatives

Image Source: Implementing Partner (IIPH Bhubaneswar)

commitment to public health goals and facilitating the integration of new practices into existing systems.

- To strengthen these partnerships with Government stakeholders, orientation session with the Medical Officers, representatives from BMC, and the NHM officials in Bhubaneswar emphasized the importance of collaboration among government agencies, NGOs, and stakeholders to integrate health services and optimize resource utilization. This collaborative approach aimed to enhance patient outcomes and address public health challenges more effectively by leveraging the strengths and resources of various entities such as civil society organisations, BMC, NHM, etc.
- In contrast, however, the Municipal Corporation of Gurgaon (MCG) faced limitations due to restrictions on collaborating with NGOs, translating into IIPH not being able to conduct similar orientation session in Gurugram. This greatly hindered the effectiveness and reach of project's activities, especially pertaining to collaboration with the Government stakeholders.
- Despite these challenges in Gurugram, the orientation session in Bhubaneswar improved collaboration and communication among health officials. This improvement fostered and led to better teamwork and more effective decision-making related to public health initiatives, ultimately resulting in more cohesive and responsive health services for the community.

10.4. IRECS Analysis

Basis the interactions with the key stakeholders and desk review, the impact of the project was also assessed on the IRECS framework parameters. The IRECS analysis summary has been presented in below table:

Parameter	Assessment from Study
Inclusiveness	• The project empowered 28 MAS leaders and their groups, fostering local leadership and active community participation in health promotion and advocacy , thereby ensuring that diverse community voices were included.
	• FGDs with the community representatives from the MAS groups captured local perspectives, ensuring that health sessions were tailored to address the actual needs of various community members.
	• The blended education model accommodated the demanding schedules of working nurses, ensuring that all participants, regardless of their work responsibilities, could access the training.
Relevance	• Training programs addressed the critical public health challenges faced by nurses, such as managing chronic diseases, maternal and child healthcare, and communicable disease prevention, directly improving patient outcomes.
	• The curriculum was updated to include advanced techniques in infection prevention and mental health support, making it highly pertinent during the COVID-19 pandemic.
	• FGDs with MAS members provided qualitative insights into community-specific health challenges, ensuring interventions were directly relevant to community needs.
Effectiveness	• The project catered to 53 nurses through a total of 62 sessions held at both centers. Further, monthly health awareness camps were organized for 28 MAS groups (a total of more than 250 community members), with 17 situated in NCR and 11 in Bhubaneswar.

Table 22: IRECS Analysis

Parameter	Assessment from Study
	• Nurses reported a significant boost in confidence and competence , empowering them to meet the evolving healthcare demands of their communities effectively.
	• The training enhanced collaboration and communication among health officials, fostering better teamwork and more effective decision-making in public health initiatives.
	• The comprehensive nature of program enabled nurses to deliver more effective and holistic care, contributing to improved health outcomes in the community.
Convergence	• Extensive collaboration with government institutions like BMC and UPHCs ensured that tailored training programs addressed specific local health challenges.
	• Orientation session with the MOs and Health Officials in Bhubaneswar (in alignment with the BMC) emphasized the importance of collaboration among government agencies, NGOs, and stakeholders to integrate health services and optimize resource utilization.
	• Despite MCG's limitations in collaborating with NGOs, the project highlighted the need for flexible policies to enable broad-based partnerships in public health efforts.
Sustainability	• Establishing strong relationships with key stakeholders, including government officials and technical experts, ensured the sustainability of health interventions by fostering a shared commitment to public health goals.
	• Empowered MAS leaders and nurses created a long-lasting impact on community health, promoting a culture of prevention and wellness.
	• The comprehensive training program, incorporating both online and in-person learning, allowed nurses to continue providing essential services while advancing their education, ensuring the sustainability of improved health services.

10.5. Alignment to the Infosys BPM Limited's CSR policy and the UN **SDGs**

The project is aligned with Infosys BPM Limited's CSR policy which includes healthcare as one of the key CSR focus areas for Infosys BPM Limited. The project is also aligned with following Sustainable Development Goal (SDG)55:



SDG-3 emphasises on ensuring healthy life and promoting well-being for all at all ages, with a specific focus on strengthening healthcare systems. The project involved creating a blended education program to train 53 public health nurses in Bhubaneswar and Gurugram, engaging urban local bodies (total 22 BMC officials through orientation session) for public health priority setting and capacity building, and enhancing community leadership through training sessions for 28 MAS groups consisting of more than 250 members.

10.6. Study Limitation

Non-availability of stakeholders from MCG: During the interaction with the PHFI team, it was noted • that MCG was not authorized to collaborate with NGOs and hence, none of the project activities planned with the MCG could materialise. Hence, the assessment team was unable to engage with the MCG during the interactions.

55 Source: https://sdqs.un.org/goals

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10.7. Case Stories

Following case stories have been gathered through discussions held with the project stakeholders during field visit to IIPH center:

Case Story 1: Empowering Healthcare Heroes: Transforming Communities through Education and Dedication

Laxmi^{*}, a dedicated nursing tutor, experienced a significant transformation through the Blended Education Certificate Programme in Public Health, supported by the Infosys Foundation and conducted by PHFI. The programme equipped her with essential skills and knowledge to address various public health challenges, including infection control, mental health support, and chronic disease management.

Laxmi applied her newfound expertise by training fellow nurses in her community. Her efforts led to improved infection control practices, reducing disease spread. She also enhanced mental health support services, providing crucial care to those affected by stress and anxiety. Additionally, her work in chronic disease management resulted in better health outcomes for patients.

The impact of Laxmi's dedication was evident throughout her community. Health outcomes improved, and the overall well-being of residents saw a positive shift. Her success story highlights the transformative power of education and community engagement in public health, demonstrating how one individual's commitment can lead to significant improvements in healthcare delivery.

Case Story 2: Transforming Public Health: One Doctor's Commitment, Countless Lives Improved

Dr. Singh* a committed Medical Officer at an Urban Primary Health Center (UPHC) in Bhubaneswar, experienced a profound transformation through the Blended Education Certificate Programme in Public Health, supported by the Infosys Foundation and conducted by PHFI. The programme provided him with essential skills and knowledge to tackle various public health challenges, particularly in the underserved slum areas.

Dr. Singh utilized his newfound expertise to address specific health issues faced by the residents of these communities. He focused on improving infection control practices, which significantly reduced the spread of communicable diseases. Additionally, he enhanced mental health support services, offering crucial care to individuals affected by stress and anxiety. His efforts in managing chronic diseases also led to better health outcomes for patients.

Dr. Singh's dedication and proactive approach had a noticeable impact on the community. Health outcomes improved, and the overall well-being of residents saw a positive shift. His success story underscores the transformative power of education and community engagement in public health, illustrating how one Medical Officer's commitment can lead to substantial improvements in healthcare delivery and community health.

*Name Changed

Project 8: Capacity expansion & rezoning of the Narayan Rao Melgiri National Law Library at National Law School of India University

11.1. About the Project

Libraries have always been central to academic institutions, providing resources and spaces for quiet study, research, and intellectual exchange. As academic demands evolve and student populations grow, libraries must expand and adapt their spaces to meet diverse needs. Once primarily focused on housing physical books, they now accommodate silent study, collaborative work, and provide physical and digital resources.

Over the years, Infosys Foundation has implemented numerous educational projects through its CSR efforts. One such project is providing CSR funding support to the Narayana Rao Melgiri National Law Library (NRMNLL), Bengaluru. This project focuses on expanding and rezoning the library to increase its seating capacity to 400 students⁵⁶ and enhancing its services to the growing student population. Below Figure depicts an overview of project specifics:

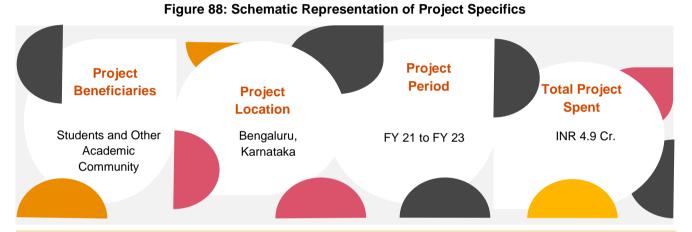
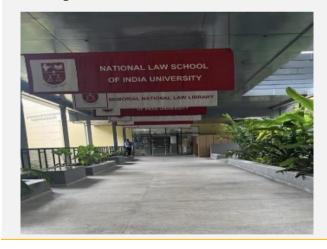


Figure 89: Entrance of the NRMNLL



Housed at the National Law School of India University (NLSIU), NRMNLL is a **prominent academic facility** with a built-up area of 30,000 square feet. The library holds a comprehensive collection of over **70,000 volumes, including 50,000 books and 20,000 journals, covering diverse general and specialised legal subjects**. This collection comprises textbooks, reference materials, back volumes⁵⁷, and legal periodicals, serving as an invaluable resource for research and education.⁵⁸ The NRMNLL was **originally designed to accommodate a maximum of 200 students**. The **institution's plan to increase the intake of the students placed a substantial demand to increase the capacity of the library**.

Under this project, the rezoning of library commenced in November 2022, following the **signing of the Memorandum of Understanding (MoU)** in December 2021, with an initial budget allocation of INR 4 Cr. To ensure the successful completion, an additional INR 90 lakh was approved in September 2023.⁵⁹ As shared by the Chief Operating Officer (COO) of NLSIU, the renovation work concluded in May 2023, and the library was provisionally opened. The final handover of the facility was completed in September 2023.

⁵⁶ Source: MoU between Infosys Foundation and NLSIU, December 2021

⁵⁷ Back volumes refer to volumes of a journal that have been published before the current issues.

⁵⁸ Source: Narayana Rao Melgiri National Law Library Website, NRMNLL

⁵⁹ Source: MoU (December 2021) and addendum (September 2023) to MoU between Infosys Foundation and NLSIU

11.2. Method of Impact Assessment



The impact assessment study utilised an **integrated and cohesive approach to evaluate project's social impact.** The process began with a kick-off meeting with Infosys Foundation, followed by a briefing call with the NLSIU team. These discussions provided the research team with vital insights into the project's specific support elements.

Following the meeting, PW team received following project documents:



- MoU signed with NLSIU containing project's operational details
- Addendum signed with NLSIU providing extension of timeline and additional grants
 - Handover acknowledgement letter of the library from NLSIU

Accordingly, PW team conducted a desk review of the above documents utilising insights gained from the kickoff meeting. This process helped in **designing the assessment framework and finalising the key stakeholders for the interactions**.

A **qualitative research methodology** was leveraged to assess the impact owing to the nature of this project. This methodology was instrumental in exploring subjective experiences and providing in-depth insights into the individual perspectives of various stakeholders related to the project.

Key stakeholders were identified (Figure 90) and tailored tools were prepared for each stakeholder to ensure comprehensive and insightful data collection.



Figure 90: Research design for the study

Following In-depth Interviews (IDIs) and Focused Group Discussions (FGDs) were conducted:

- Admin representative at NLSIU (1 IDI)
- Librarian at NLSIU (1 IDI)
- Faculty of NLSIU (1 FGD)
- Research scholars of NLSIU (1 FGD)
- Students of NLSIU (1 FGD)

11.3. Analysis and Findings

This section summarises the findings from the desk review and interactions:

11.3.1. Challenges Before the Project



The team noted following challenges that emerged prior to project intervention:

- Overcrowding due to the Limited Seating Capacity: The library faced consistent overcrowding as student intake grew. This resulted in insufficient seating for the growing number of students, scholars, and faculty requiring access to its resources.
- Lack of Dedicated Research and Collaborative Spaces: The lack of designated areas for group discussions and research collaborations limited opportunities for peer learning and hindered effective mentoring and guidance.

• **Outdated Infrastructure:** The library's original structure lacked modern facilities, including amenities to support varied usage patterns and appropriate spaces for academic events such as seminars and workshops.

11.3.2. Summary of the Impact Created

1. Accommodating the Growing Needs of the Students

- Space constraints necessitated **layouts that support future growth**, ensuring the expansion and rezoning to accommodate long-term capacity requirements.
- The library now features **new seating and dedicated study zones**, allowing users to comfortably engage in their preferred study methods.
- Library staff reported a significant increase in footfall, with daily student attendance rising from approximately 200-250 to 350-400, and the official capacity reaching 650 during peak times.

Figure 91: Common seating area at the entrance of the library



This marked a 30% increase in daily visits, primarily for physical book access after the expansion.

Following the recent transformation, the library experienced a rise in visitor frequency, particularly
among students. In response to growing demand, closing hours were extended from 10 PM to
midnight. This adjustment underscores the library's commitment to supporting students' needs and
reinforces its role as a central resource hub on campus.

According to the librarian, the NRMNLL spans three floors, each designated for specific purposes:

- The lower ground floor serves as a collaborative space, featuring a reading hall, compactors room (closed stack), meeting rooms, and an event area.
- The ground floor functions as a semi-silent zone, including the library entrance, book issue/return counter, an assistive technology room for visually impaired users (SAP), and an open-air seating balcony.
- The first floor is designated as a silent zone, including an open-air terrace, providing a quiet environment conducive for study and research.
- According to the admin representative, there is no immediate plan for further expansion as the increased capacity is sufficient to accommodate the present needs. However, vacant research spaces can be repurposed if necessary. For example, dedicated areas for research scholars could be converted into additional seating. These potential adjustments will be considered as needed, in line with the new infrastructure developments to meet the evolving needs of the student population.



The library's expansion has positively impacted teaching, learning, collaboration processes, although this can't be quantified. Stakeholders take immense pride in this library, frequently discussing it with friends and bringing visitors to showcase the space.

- As narrated by an administrative staff during interaction

2. Ensured Accessibility in Library Design

The project aimed to eliminate barriers for all students and faculty in accessing the library's resources physical limitations. Stakeholders interactions revealed that experts were consulted to guide the design process, ensuring every element was intentionally placed to meet the needs of differently-abled individuals.

This inclusive approach has resulted in a fully accessible space, allowing all users, including those with special needs, to navigate with ease. The library features a ramp that provides an inclusive pathway for everyone as informed by different stakeholders. Team also noted that students were aware about the Infosys's involvement as a CSR funding partner in this project.

3. Augmented Study through Designated Zones

- The library has introduced dedicated quiet zones specifically designed to foster deep focus and individual study, creating an environment with minimal distractions. Faculty feedback on student usage indicates that these zones are essential for maintaining a guiet atmosphere, enabling concentrated study without interruptions.
- Additionally, the library incorporates now collaborative spaces for group discussions, ensuring that these activities do not disturb the quite study areas. Previously unavailable, these collaborative areas have been heavily utilised for academic activities, such as project work and moot court⁶⁰ preparations. This change addresses the evolving needs of the student population for versatile learning environments.

Figure 92: Collaborative space



Faculty and library staff shared that since this new

space was created, the usage of library facilities for group study has notably increased, which highlighted the positive impact of adaptable spaces in meeting diverse academic needs.



Silent Zone

Figure 93: Different facilities in library







Exhibition Area

Furthermore, the library has introduced dedicated research zones with small cubicles tailored as individual workstations for researchers. Researchers informed that these designated areas create an ideal environment for in-depth study and daily tasks, enhancing their capability to focus effectively on their work.

⁶⁰ Moot Court is an artificial Court which is especially made for the lawful students to have the practical knowledge of drafting, pleading and conveyancing. Price Waterhouse Chartered Accountants LLP Impact Assessment Report 126

 Unlike traditional libraries that often lacks separate spaces for collaboration, this modern facility supports diverse learning styles. It provides silent zones with classic desks and chairs for individual study, as well as semi-silent and collaborative zones with sofas and leisure style seating. However, students and researchers also indicated that during peak times, the silent zone is saturated, and hence, they would prefer an expansion of designated silent zones.

Figure 94: Research Zone at ground & first floors



• It was noted during our discussions with the stakeholders, that sometimes there is a noise interference from adjacent areas while utilising the basement meeting rooms.



The shift in perception of the library's role reflects a growing recognition of diverse study preferences, and it is no longer seen solely as a silent space.

As narrated by a faculty during interaction

4. Elevated User Engagement through Multi-use Infrastructure

- Stakeholders revealed that the library's upgraded basement have enhanced its capacity for faculty and student consultations by providing meeting rooms. These rooms offer a conducive environment for academic discussions. The COO mentioned that prior to the upgrade, no dedicated meeting rooms were available within the library.
- In addition, the library's updated facilities now enable it to host seminars, workshops, and small conferences which posed challenges in the older setup (classroom setup). This enhancement has broadened the scope of library-supported activities, fostering collaborative learning among students, researchers, librarians and faculty. Stakeholders have praised the spaces for events for their well-designed, open and natural aesthetics, which allowed users to plan semi-formal gatherings. The design was open rather than cluttered, and different stakeholders for this project appreciated the openness and its natural aesthetics.
- The interactions with the library staff revealed that in collaboration with QAMRA (Queer Archive for Memory Reflection and Activism) Archives (archive of LGBTQ+ history), the library allocated dedicated space for resources to create awareness around LGBTQ+ issues. This partnership reflected library's commitment to community convergence.
- Several notable events such as public lectures and internal research presentation, are being conducted at the library, highlighting its role in facilitating intellectual engagements. Additionally, book reading events featuring both internal faculty and external speakers are hosted in the academic environment of the stage area.
- According to the library staff, the library is open to the general public, as it serves as a national library.
- The open access catalogue allows everyone, including external visitors, to check online for available books and journals. Daily transactions average between 65 to 70 books, demonstrating its commitment to fostering inclusive access. This also supports a wider academic community, and further encourage collaborative research among diverse scholars.

Figure 95: Lower ground floor space



Space for Events



Group Activity Space for Students



Conference Room

NRMNLL has integrated compactors into its new design, organising the book storage process and saving space. Library staff mentioned that this integration had streamlined inventory management and improved operational efficiency. It enabled quicker access to resources, allowing students to request and receive books seamlessly. This enhancement had also led to increased user satisfaction, with students appreciating the reduced waiting times.

Figure 96: Compactor room

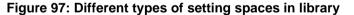


5. Enhanced learning environment by comprehensive design enhancements

- The library design prioritised natural light and included outdoor areas such as a terrace and balcony, creating an inviting atmosphere for studying and group work. Library did not have air conditioning except in the conference rooms, with the majority of the space relying on natural airflow and fans. This reduced reliance on artificial lighting and electricity usage, promoting eco-friendly practices. The open layout was appreciated by students and highlighted the importance of natural design.
- The library design ensured a versatile and welcoming atmosphere that fostered creative thinking and informal study sessions, as noted during the interactions with the stakeholders. The introduction of various seating options made studying more comfortable. For example, the inclusion of stairs with cushions allowed students to relax and study in various positions rather than sitting upright. This flexibility facilitated a more natural and dynamic learning environment, enabling individuals to choose from different types of chairs and sofas at various angles. This has also enhanced overall engagement and creativity.



Terrace (First floor)





Balcony Seating



Stepped Sitting

- Moreover, the transition from metal to refined wooden racks of different sizes (6 ft, 4 ft, and 2 ft) has improved the library's aesthetics and functionality. It has created a more cohesive and appealing space.
- It was observed that every desk includes a power outlet, ensuring that students could easily access electricity for their devices. Additionally, power points had

Figure 98: Physical books on floor in wooden box



also been strategically placed in the balcony area too which facilitate a **productive work environment for students, faculty, and researchers in the open setting**. Furthermore, it was noted that these enhancements had contributed to the **overall convenience and functionality of the library space**.



Aesthetically and functionally, this library is more pleasing now, making it feels like the intellectual hub of the university, especially with its collaborative spaces.

As narrated by one of the students during interaction

11.4. IRECS Analysis

Basis the interactions with the key stakeholders and desk review, **the impact of the project was also assessed on the IRECS framework parameters**. The IRECS analysis summary has been presented in below table:

Parameter	Assessment from Study
Inclusiveness	• The library was designed to be accessible to everyone, extending beyond NLSIU students and faculty to include the general public.
	• The library layout included inclusive design features such as ramps for wheelchair access to facilitate movement.
	• The library provides designated study zones to cater to the specific needs of different users, including spaces for collaborative work as well as private study. It ensures that the users could access the environment in a way that best fulfills their needs.
Relevance	• This library enhances capacity and creates improved study environments to accommodate the growing needs of its users.
	• Newly designated zones, such as quiet areas and collaborative spaces, cater to diverse learning styles, promoting both concentrated study and group discussions. Additional seating and specialised study zones fostered both individual study and collaborative work. It ensured that the library would remain relevant to the evolving academic demands of the students.
Effectiveness	• The capacity of the library has increased up to 400. Daily visits to the library have increased from approximately 200-250 to 350-400 , indicating a 30% rise in usage .
	• Extending library hours from 10 PM to midnight fulfilled the students' need to use library more after the renovation.

Table 23: IRECS Analysis

Parameter	Assessment from Study
	 Upgraded basement spaces facilitated faculty and student consultations, meetings and enhanced engagement by hosting seminars, workshops, and small conferences. Dedicated research zones feature small cubicles which are designed as individual workstations for researchers, empowering them to focus effectively on their work.
Convergence	 The library's collaboration with QAMRA Archives to allocate dedicated space for LGBTQ+ resources demonstrated its commitment to convergence within the academic community. The establishment of spaces for events and intellectual engagements, such as public lectures and workshops, highlights the library's role in fostering collaboration among students, researchers, librarians and faculty members. NRMNLL is a national library also supported by the Government of Karnataka, hence this support from Infosys Foundation is aligned with the government's efforts towards education.
Sustainability	 The library design utilises natural light and includes outdoor areas, promoting eco-friendly practices by reducing reliance on artificial lighting and electricity usage. The integration of compactors simplified the book storage process, improving operational efficiency and saving space for expanding library capacity in future. Post the handover, the institute is responsible for maintenance of the library contributing to its long-term sustainability.

11.5. Alignment to the Infosys Limited's CSR policy and the UN SDGs



The project is aligned with Infosys Limited's CSR policy which includes **education as one of the key CSR focus areas for Infosys Limited**. The project is also aligned with following Sustainable Development Goal (SDG)⁶¹:



SDG-4 emphasises on **ensuring inclusive and equitable quality education and promoting lifelong learning opportunities for all**. Expanding and rezoning the NLSIU library enhances access to quality educational resources and supports lifelong learning, promoting equitable learning opportunities within the institution.

11.6. Study Limitation

• Limited availability of students: Since students were out of campus on their internships, interactions were primarily conducted virtually. The number of students and their time available for in depth discussion was limited.

⁶¹ Source: <u>https://sdgs.un.org/goals</u> Price Waterhouse Chartered Accountants LLP

11.7. Case Stories

Following case stories have been gathered through discussions held with the project stakeholders during field visit to NLSIU:

Case Story 1: Transforming learning

Aditi*, a law student at NLSIU, often felt that the library's previous layout limited her learning experience. As a highly collaborative student, she frequently sought spaces for group study sessions, mock court rehearsals, and exam preparation. The need for a library that catered to both group activities and quiet individual study was evident among Aditi and her peers. With the recent expansion and rezoning project at the NRMNLL, funded by the Infosys Foundation, the library transformed into a dynamic and flexible learning space. The redesign incorporated a variety of zones to meet diverse study needs, from collaborative areas to quiet study floors.

For group activities, Aditi and her classmates found that the newly added collaborative spaces provided the perfect setup for mock court rehearsals and intensive exam preparation. A terrace and balcony area were also introduced, offering an open-air environment where she could study under natural light, which Aditi found refreshing. Additionally, whenever she needed quiet time for individual study, the silent zone on the first floor allowed her to focus deeply without interruptions.

Case Story 2: Innovative Spaces for Research

Rahul*, a research scholar at the NLSIU, spends most of his time in the library because it serves as his workspace. The recent expansion of the NRMNLL introduced a dedicated space specifically for research scholars, where he can work efficiently. The redesigned library now offers a variety of adaptable spaces tailored to meet the demands of intensive research. Rahul frequently uses the meeting rooms, which he can reserve in advance, for focused discussions with fellow scholars and to lead group projects. These spaces provide a professional yet secluded environment, ideal for brainstorming sessions and in-depth analysis.

An informal gathering space for workshop has also been introduced, where Rahul has hosted small workshops This setting offers him a refreshing change from the traditional setup creating a more relaxed atmosphere.

*Name Changed

Project 9: Construction of a Multipurpose Hall at Karnataka Public School

In

12.1. About the Project

The education systems are being enhanced globally to equip students with the knowledge and skills essential for leading healthy and productive lives. A critical aspect of this endeavour is the development of school infrastructure which fosters a supportive learning environment. This is instrumental in improving educational outcomes and promoting student engagement. Additionally, well-designed educational facilities contribute to the holistic development of students, irrespective of their socio-economic backgrounds.⁶²

Over the years, Infosys Foundation has undertaken several such projects to enhance learning opportunities for children. One such project is the "Construction of a Multipurpose Hall" at Karnataka Public School (KPS), Chitradurga district, Karnataka, which was funded by Infosys Limited and Infosys BPM Limited. This project enhances extracurricular experiences for underprivileged students and creates a space for community engagement. Below Figure provides an overview of project specifics:

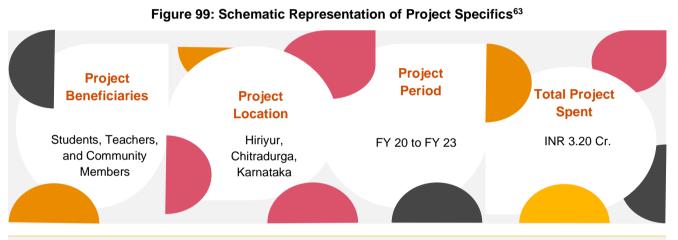


Figure 100: Karnataka Public School Building



KPS was **established** to meet the demand for quality education in the region. Over the past six decades, the school has undergone significant renovations and expansions to accommodate the growing student population. In the current academic year (FY 25), the school has **754 students, and over 50 teachers.**⁶⁴

In June 2023, Infosys Foundation handed over the newly constructed Multipurpose Hall ("Sujnana Sadhana") to KPS. This state-of-the-art facility includes an auditorium designed to accommodate up to 1,000 individuals. This Multipurpose Hall also features changing rooms, a restroom complex, and comprehensive interior enhancements such as seating, a stage, lighting, and other essential amenities. The school administration will be responsible for the ongoing maintenance following the project's completion.

63 As per the project documents shared by Infosys Foundation and KPS.

⁶² Source: https://documents1.worldbank.org/curated/ru/853821543501252792/pdf/132579-PUB-Impact-of-School.pdf

⁶⁴ As per data shared by KPS

Price Waterhouse Chartered Accountants LLP

12.2. Method of Impact Assessment



The study leveraged an integrated and cohesive approach to assess the social impact of this project. A kick-off meeting was organised with Infosys Foundation and KPS team to understand the support provided under this project. This meeting also helped to gather any additional requirements for starting the impact assessment process.

Following the meeting, PW received following project documents from Infosys Foundation:

Memorandum of Understanding (MoU) and 2 addendums signed with KPS, specifying details . of project, and other operational requirements related to the execution of project



- List of events conducted at the newly constructed Multipurpose Hall
 - List of students enrolled across classes and teachers employed at KPS

Handover letter of the Multipurpose Hall from Infosys Foundation to KPS

The PW team started the desk review of the project using information collected during the kick-off meeting and from the project documents. This step enabled the team to design the assessment framework and finalising the key stakeholders for subsequent interactions.

A mixed research methodology was leveraged, incorporating both qualitative and quantitative methods to assess the impact of this project. While the quantitative survey was conducted with students from class VII to class XII, qualitative research was undertaken with various stakeholders mentioned in Figure 3. These interactions were useful in assessing subjective experiences of stakeholders.

The sampling plan involved In-depth interviews (IDIs) and Focused group discussions (FGD) with following stakeholders:

Figure 101: Research Design of the Study



- Quantitative surveys with a sample of 201 students from KPS*
- Principal (1 IDI) and Teachers (2 IDIs)
- Students (2 FGDs)
- Parents of students (6 IDIs)
- Community members (2 IDIs)
- Project team of Infosys Foundation (1 IDI)

*According to the information provided by KPS, the team noted that the project benefited 754 students. Consequently, a sample size of 201 was determined, using a 90% confidence level and a 5% margin of error. The sample was representatively divided among students from classes VIII to XII to ensure accurate recall of the project activities and its impact. The quantitative sample for the survey was finalised in consultation with Infosys Foundation.

12.3. Analysis and Findings

Based on interactions and a review of the project documents, the findings have been summarised as follows:

12.3.1. Challenges Before the Project

Following challenges were identified prior to the project intervention:

Challenges with Outdoor Events: In the past, school events such as assemblies, festival celebrations, and various extracurricular activities were conducted outdoors. This often resulted in challenges for students, who had to stand for extended periods in direct sunlight. Inclement weather occasionally necessitated either relocating these events to smaller venues or leading to their cancellation.

- Limited Capacity of Indoor Venues: Many events were conducted on a limited scale within classrooms, restricting opportunities for students to display their talents beyond academic performance.
 Educational seminars were typically held in smaller seminar rooms, accommodating only a select number of participants. This lack of adequate venues prevented a broader range of students from engaging in events of their choosing, thereby impeding their holistic development.
- Lack of Space for Community Engagement: The need for a dedicated space for community events and parent-teacher meetings was recognised. The absence of such facilities hindered community participation in school activities and support for students. Additionally, no nearby institutions provided the necessary amenities to facilitate these initiatives. In response, KPS reached out to the Infosys Foundation for financial support to construct a Multipurpose Hall to effectively serve the needs of the school and the community.

12.3.2. Summary of the Impact Created

1. Beneficiary Profile:

This section presents the socio-demographic profile of project beneficiaries (n=201):

The project benefitted both male and female students. The survey respondents comprised approximately 47% male and 53% female students.

The respondents were current students at the school in classes VIII to XII over the age of 12 years.



Majority of the respondents (88%) were from Below Poverty Line (BPL) families and all students resided in nearby vicinity of Chitradurga district.

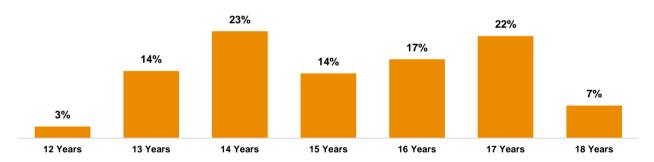
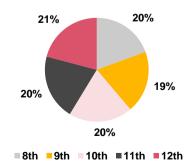


Figure 102: Age of the Respondents

• An equal proportion of students were from classes VIII to XII were surveyed to effectively demonstrate the project's impact at each academic level (Figure 103).

Figure 103: Class-wise Spilt-up of Respondents



Price Waterhouse Chartered Accountants LLP

• The **primary source of income** for these families was **daily wage labour** (34%) and agricultural work on their own land (34%) (refer Figure 104).

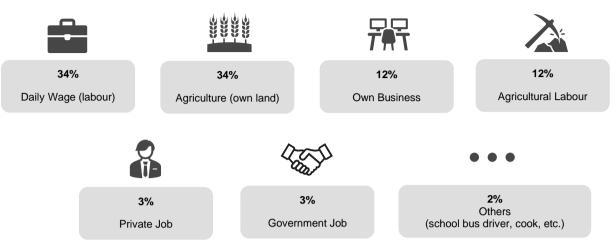


Figure 104: Primary Source of Income of the Respondents' Families

2. Enhanced Educational Infrastructure:

- 60% indicated that before the construction of the hall, the school lacked a designated space for events or meetings. Furthermore, 98% expressed the need for such a facility.
- Stakeholders suggested that this Multipurpose Hall has set a significant benchmark for educational infrastructure in the region. Notably, KPS is the first school in Hiriyur Taluk to offer such a comprehensive space for extracurricular activities.
- Participants reported high satisfaction with the facility's features, as illustrated in Figure 105. The stage and seating capacity received the highest ratings, each scoring 4.7.⁶⁵ Additionally, 99% expressed overall happiness with the construction quality of this hall.

Figure	105:	Rating	of	Amenities
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Changing rooms	\star \star \star \star \star	4.2/5
Stage	$\star \star \star \star \star$	4.7/5
Seating Space	$\star \star \star \star \star$	4.7/5
Audio Facilities	$\star \star \star \star \star$	4.6/5
Lighting	$\star \star \star \star \star$	4.6/5
Toilets	\star \star \star \star \star	4.3/5

Figure 106: Interior and Exterior Building of the Multipurpose Hall



• 82% stated that they have not faced any issues with the Multipurpose Hall. Additionally, all of them felt that KPS was making their best efforts to maintain the facility. However, upon further inquiry, students highlighted the need for more toilets, an RO water filter, air conditioning for the Multipurpose Hall, and an electrical backup for power outages.

⁶⁵ Scoring was on a scale of 1 to 5, with 1 being the lowest and 5 being the highest score. Price Waterhouse Chartered Accountants LLP Impact Assessment Report

- 94% were aware that this Multipurpose Hall was constructed by Infosys Foundation. Interactions with other stakeholders confirmed this awareness. Respondents indicated that they knew of the facility through:⁶⁶
 - Communication from the school (73%)
 - Branding present within the auditorium building (22%)
 - Word of mouth from peers/ other sources (5%)

Figure 107: Infosys Branding



Previously, the district lacked a dedicated space for events or meetings, limiting students' extracurricular opportunities. This hall's state-of-the-art amenities have significantly enhanced the overall experience for students. This improvement has addressed a critical infrastructure gap and bolstered the school's reputation, attracting families seeking superior educational prospects for their children.

As narrated by a Parent during interactions

3. Augmented a Holistic Learning Environment:

- Since its inauguration from June 2023, this Multipurpose Hall has successfully hosted over 35 events through August 2024.⁶⁷ Survey results indicate:⁶⁸
 - o 96% perceived a significant improvement in the quality of events hosted in this facility over time,
 - The availability of space contributed to a greater frequency of events, with **50% respondents visited** weekly, and **44% often attending events in the Multipurpose Hall** (refer Figures 108 & 109),
 - 86% reported an increase in engagement and participation in school events.
- The Multipurpose Hall hosted a variety of events, including annual celebrations, festivals, special commemorative days, and talent showcases. It served as a venue for award ceremonies recognising student achievements, textbooks distribution, parent-teacher meetings, and health camps. Guest lectures, such as seminar conducted by the Indian Science and Research Organisation (ISRO), were well-received and generated considerable interest among the students.

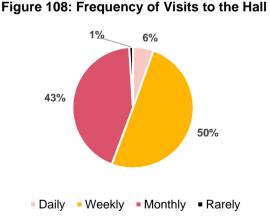
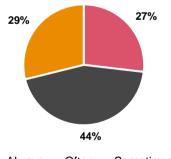


Figure 109: Frequency of Events



Always Often Sometimes

- The benefits of this Multipurpose Hall were evident both academically and in extracurricular performance.
 - Academically, the Multipurpose Hall fostered a more holistic learning environment. 83% respondents felt more motivated to attend school due to the frequent events and activities held at the venue. Additionally, 83% recognised the establishment of a peer-learning environment, and 80% reported an overall improvement in their school experience.⁶⁹

⁶⁶ Multiple choice question. Hence, the sum of responses will exceed 100%.

⁶⁷ As per the data shared by KPS.

⁶⁸ Multiple choice question. Hence, the sum of responses will exceed 100%.

⁶⁹ Multiple choice question. Hence the sum of responses will exceed 100%.

Price Waterhouse Chartered Accountants LLP Impact Assessment Report

- The range of extracurricular activities organised at the Multipurpose Hall created opportunities for student participation. A majority of respondents (85%) reported increased exposure to various activities. Additionally, 84% noted encouragement to learn, and 73% were able to explore their individual talents.⁷⁰
- Most respondents (82%) appreciated the spacious seating capacity of the facility. This was followed by praise for the modern design and technologically advanced amenities (77%), and the enhanced audiovisual experience during events (75%) (refer Figure 110).⁷¹

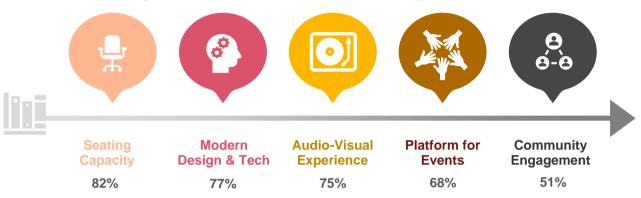


Figure 110: Benefits to the School with a Multipurpose Hall

This Multipurpose Hall has provided a dedicated space for students to engage in various activities, including cultural events, workshops, and seminars. This has led to increased student participation, as they now have a proper stage to display their talents. The expanded capacity for events offers students more opportunities to get involved throughout the year. Students are thrilled to perform on such a stage and be appreciated by their peers and community members.

As narrated by a Teacher at KPS during interactions

4. Improved Community Engagement:

- 100% respondents acknowledged that this Multipurpose Hall has enhanced the school's reputation within the region (n=201).
- They also believed that this Multipurpose Hall plays an important role in motivating other children and youths to enrol at KPS. Since the beginning of the academic year FY 24, the school has welcomed over 50 new students.
- According to student feedback, the facility has significantly supported the community and fostered a sense of unity, with 86% of respondents in agreement. Furthermore, it has established a valuable platform for community learning (79%), social awareness (76%), and self-expression (56%) among participants (n=201).⁷²
- Over time, KPS has hosted multiple events including Taluk-level competitions, Parent-Teacher Meetings (PTMs), and Health camps for community members.

Figure 111: Entrance and Seating Capacity of the Multipurpose Hall



⁷⁰ Multiple choice question. Hence the sum of responses will exceed 100%.

⁷¹ Multiple choice question. Hence, the sum of responses will exceed 100%.

⁷² Multiple choice question. Hence the sum of responses will exceed 100%. Price Waterhouse Chartered Accountants LLP Impact Assessment Report

Stakeholders regard the facility as a valuable community asset. Furthermore, all survey respondents (n=201) expressed pride in their school, attributing it to the Multipurpose Hall.



I attended a medical camp held at the auditorium and witnessed its significant value for our community. Doctors from local hospitals conducted essential health check-ups and offered important guidance on maintaining our well-being. This initiative has been vital, especially for individuals with limited access to healthcare services. Such events not only raise awareness of health issues but also provide essential services to those in need.

As narrated by a Community Member of Chitradurga District

12.4. IRECS Analysis

Basis the interactions with the key stakeholders and a desk review, the impact of the project was assessed using the IRECS framework parameters. A summary of IRECS analysis is presented in the table below:

Parameter	Assessment from Study
Inclusiveness	• The Multipurpose Hall aims to enhance the educational infrastructure for underprivileged children. Located in KPS, a government school in the Chitradurga district of Karnataka, this facility serves both boys and girls, predominantly from below poverty line (BPL) households (88%).
	• The project also emphasizes community engagement through various events held at the Multipurpose Hall, such as health camps, Parent-Teacher Meetings, and taluk-level competitions for students.
Relevance	• Lack of dedicated space for extracurricular events highlighted the need for a Multipurpose Hall at KPS. Previously, events were either held outdoors or confined to a classroom or seminar room, making them vulnerable to weather conditions, and space availability. This was felt by the students, with 98% respondents stated the requirement for a multipurpose hall.
	• Furthermore, no other school in the region had a similar facility. There was also no other open platform for community engagement activities.
Effectiveness	• Almost all the respondents confirmed that there has been an increase in the frequency of events post the construction of the hall. The students are now given more opportunity to participate in extracurricular activities and attend seminars.
	• The students have rated the new facilities of the Multipurpose Hall highly. The ratings include changing rooms (4.2/5), stage (4.7/5), seating space (4.7/5), audio facilities (4.6/5), lighting (4.6/5) and toilets (4.3/5).
	• 82% have not faced any issues with the hall. Students stated that the building requires, a generator set and better ventilation as the current situation leads to difficulties during power shortages at the school. Additionally, students stated that it would be beneficial to have an RO water filter at the hall.
	• This project elevated a sense of unity among the community and created a sense of pride in the students towards this school.
Convergence	• KPS is a state government-run institution which has benefited from the support of the Infosys Foundation. Hence, this project aligns with the government's efforts to enhance the quality of education for children and youth from underprivileged communities.

Table 24: IRECS Analysis

Parameter	Assessment from Study
Sustainability	• All beneficiaries reported that the construction is of high quality and durable, with minimal repairs anticipated in the coming years. Although maintenance costs are the school's responsibility, there is confidence that these can be managed effectively.

12.5. Alignment to the Infosys's CSR policy and the UN SDGs



The project is aligned with the CSR policy of Infosys Limited and Infosys BPM Limited respectively which includes education as one of the key CSR focus areas. The project is also aligned with following **Sustainable Development Goals (SGDs)**⁷³:



SDG-4 aims to **ensure inclusive and equitable quality education and promote lifelong learning opportunities** for all. The Multipurpose Hall supports this goal by providing a versatile space that enhances educational quality and inclusivity, bringing about a holistic development beyond classroom learning.

SDG-9 focuses on **building resilient infrastructure, fostering innovation, and supporting sustainable development**. This goal has been achieved by construction a Multipurpose Hall for both academic and extracurricular activities. The improvement in infrastructure serves as a sustainable asset, contributing to long term educational and social growth.

12.6. Study Limitation

• Limited Availability of Students: The study involved interactions with students from several classes. However, the qualitative interactions were limited due to examinations taking place during the field visit to the school. As a result, the school was only able to mobilise students who were not scheduled for exams at that time.

12.7. Case Stories

Following case stories have been gathered through discussions held with the project stakeholders during field visit to KPS:

Case Story 1: Community Togetherness through the Multipurpose Hall

Ramanna* from Chitradurga district attended a medical camp organised by Dayananda Hospital at the Multipurpose Hall. During the event, doctors conducted health check-ups and provided valuable tips on maintaining good health. He believed this initiative was especially beneficial for those who did not have easy access to healthcare. Such events raised awareness about health issues and offered services that the community genuinely needed. He mentioned that the community felt there had been an increase in awareness about events at KPS since this hall was built. The school was now seen as more active and involved due to the variety of events that were conducted. Furthermore, the school's reputation improved as a result.

After visiting a few schools with smaller auditoriums, Ramanna noted that while those spaces served their purpose, they were not as spacious or well-equipped as the Multipurpose Hall. The other auditoriums lacked the same capacity and facilities, which restricted the number of people able to attend events. The Multipurpose Hall stood out because it could accommodate a larger audience and offered better amenities, making it a more valuable resource for the community.

Case Story 2: A Platform for New Opportunities at the Multipurpose Hall

Anitha*, a student at KPS School, faced numerous difficulties before the Multipurpose Hall was constructed. Events were often held outside on the field or in the corridor, exposing students to the sun or rain, making the experience uncomfortable and unenjoyable. Without proper seating, students crowded together. However, with the completion of the new hall, everything has changed for the better.

The spacious hall now allows events to be held on an actual stage equipped with good lighting and sound. Anitha appreciates the addition of a green room where students can prepare before performing, and the clean restrooms enhance overall comfort. The Multipurpose Hall fosters a sense of community among students.

They now come together for momentous events such as Independence Day celebrations, health camps, talent shows, and special educational sessions like the ISRO workshop. Anitha feels a sense of pride in participating in these events. Receiving an award on stage now feels much more meaningful, and she enjoys the experience significantly more. With enough seating for all students, no one must stand in the sun or crowd together anymore. The support from Infosys has transformed school events, making them more enjoyable and inclusive for everyone. Anitha takes pride in being part of these activities, and the new Multipurpose Hall has enhanced her school life.

*Name Changed

Project 10: Digital Inclusion for Democratising Access to Library Resources at National Law School of India University

13.1. About the Project

Digital inclusion transforms access to information, fostering equal learning opportunities. Students and scholars with disabilities or socioeconomic constraints, often face obstacles in obtaining academic resources. Libraries bridges this gap by meeting diverse needs and helping students overcome these barriers. Equipping libraries with cutting-edge digital tools and accessibility technologies enhances academic engagement and ensures resources are easily accessible for all.

Infosys BPM Limited (IBPM) has contributed its CSR funding for **digital inclusion and democratise access to library resources** at the National Law School of India University (NLSIU), Bengaluru. Implemented by Infosys Foundation, this project aims to **advance educational equity and digital literacy across India. It empowers students and researchers by providing access to essential academic resources.**⁷⁴

Under this project, accessibility tools were provided for the library users along with need-based scholarships to 117 deserving candidates (students and researchers) across the country.⁷⁵ The scholarships were non-monetary in nature and under the scholarship, the students were given access to digital resources on an annual basis. A schematic representation of the project specifics is given below:

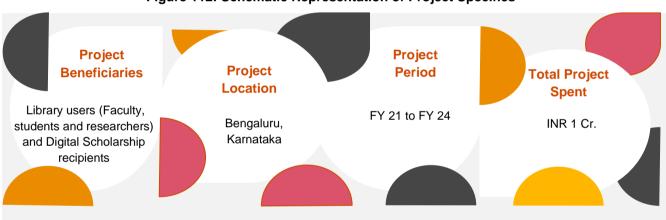


Figure 112: Schematic Representation of Project Specifics

The support provided by IBPM includes the following:

Table 25: Facilities provided in NLSIU Library 76

#	Facilities/ Digital Initiatives	Purpose
1.	Koha Open-Source Library System	• To give a full view of all physical resources of the library to students
2.	Federated Search and Access (RemoteXS, Elsevier and Summons)	 RemoteXS for accessing information outside campus in secure way Elsevier for online access to digital commons Summons for global federated search across all resources
3.	Radio Frequency Identification (RFID) in Library	 For book search, tracking, automated issue/return, inventory tracking, and access control.
4.	Dragon Legal Software	For voice recognition assistance
5.	Braille Printer	For accessible text

⁷⁴ Source: Annual report of Infosys Foundation, 2021-22, <u>Annual report</u>

⁷⁵ Source: MoU between Infosys Foundation and NLSIU, December 2021

⁷⁶ Source: Project documents shared by Implementing Partner an as shared during interaction with the librarian Price Waterhouse Chartered Accountants LLP Impact Assessment Report

#	Facilities/ Digital Initiatives	Purpose
6.	JAWS Talking Reader (2 units)	For screen reading
7.	Topaz XD Desktop Magnifier and Smart Reader	For document magnification
8.	Online Daisy Player	For audio resources
9.	Tactile Flooring in Library	 Modern sticker based flexible tactile flooring implemented in library

13.2. Method of Impact Assessment



The impact study utilised a comprehensive and structured approach to evaluate the social impact of the project. The process began with a kick-off meeting with Infosys Foundation, followed by a briefing call with the NLSIU representative. These interactions provided the research team with insights into the project's specific support elements.

Following the meeting, PW team received the following project documents:

- Memorandum of Understanding (MoU) signed with NLSIU containing project's operational details
- List of recipients of Infosys Digital Scholarship
- Two **project update reports** mentioning status of utilisation and outcomes for the period of reporting

Accordingly, PW team performed a desk review of the above documents, using insights from the kick-off meeting. This process helped in **designing the assessment framework and determining the key stakeholders for the interactions**.

A **mixed method approach**, comprising both quantitative and qualitative research methodologies, was leveraged for the impact assessment study. A quantitative survey was conducted with Infosys Digital Scholarship students, while qualitative interactions were held with other key stakeholders of the project. This approach facilitated the exploration of individual experiences and provided a deeper understanding of the perspectives of various stakeholders of the project.

Key stakeholders were identified (Figure 113) and tailored tools were prepared for each stakeholder to ensure comprehensive and insightful data collection.

Figure 113: Research design for the study



- Quantitative surveys with a sample of 55 students* who received Infosys Digital Scholarship
- Following In-depth Interviews (IDIs) and Focused Group Discussions (FGDs) were conducted:
 - Visually challenged students of NLSIU (1 FGD)
 - Visually challenged faculty at NLSIU (1 IDI)
 - Administrative representative at NLSIU (1 IDI)
 - Librarian at NLSIU (1 IDI)

*The quantitative sample for the study was finalized based on the information provided by NLSIU. 117 students had received the Infosys Digital Scholarship against the target of 100 students as per the MoU. The CAPI based survey was rolled out to 76 students who had accessed the digital resources as per the list provided by NLSIU. Team was able to gather responses from 55 respondents.

13.3. Analysis and Findings

This section summarises the findings from the desk review and interactions:

13.3.1. Challenges Before the Project



The team noted following challenges that emerged prior to project intervention:

- Lack of sufficient resources for remote access: Insufficient resources for remote access hindered the library's ability to serve users effectively, exacerbating challenges due to rising student numbers and a shift towards online learning.
- Limited tools to support students with disabilities: The limited availability of tools for students with disabilities impeded efforts to create an inclusive environment, restricting their use of library resources.
- Lack of access to quality digital learning resources: A shortage of quality digital learning resources deprived deserving students and researchers nationwide, not enrolled at NLSIU, of essential educational materials.

13.3.2. Summary of the impact created

1. Enhanced Accessibility and Inclusivity

- The project ensured universal access to library resources, focusing on supporting visually challenged students to promote independent learning and equal access to academic materials.
- A **dedicated SAP Room**⁷⁷ was established, equipped with various accessibility tools, becoming a crucial resource for visually challenged students and faculty to independently engage with academic materials.
- The project procured tools like JAWS Talking Reader, Dragon Legal Software, and Braille Printer, with JAWS being the most frequently used, enhancing digital content access.
- Training sessions were conducted for students and staff on the new accessibility tools, but visually challenged students reported a need for more comprehensive, hands-on training sessions rather than just notifications or one-time events.



Figure 114: Tools for visually challenged students and faculty at the SAP room



SAP room

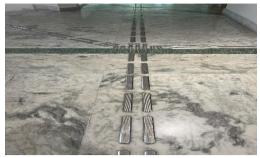
Braille Printer and Desktop Magnifier

Smart Reader

⁷⁷ SAP room is a dedicated space where tools for visually impaired students is kept, specifically for their use. Price Waterhouse Chartered Accountants LLP Impact Assessment Report

- Tactile flooring was installed throughout the library to help visually challenged students navigate independently, earning appreciation for enhancing security and autonomy. However, students noted gaps in coverage, like the rooftop and water cooler, and suggested adding Braille signage at key locations.
- The library added ramps and lifts to improve accessibility for users with disabilities, significantly enhancing inclusivity. Faculty and students reported that these changes have made the library more accommodating for individuals with mobility challenges.

Figure 115: Tactile sticker flooring in NLSIU library



2. Improved Resource Management and Operational Efficiency

- The library's operational upgrades have streamlined processes, enhanced resource management and improved experiences for both staff and students.
- The Koha Open-Source Library System has improved resource organisation and tracking, though visually challenged students face interface challenges.
- RFID technology has expedited inventory and borrowing systems, reducing the need for staff assistance and speeding up book transactions.
- Digital upgrades have streamlined resource management, allowing students to focus more on academics and improving staff efficiency.
- Technological integrations have created a more organised and user-friendly library, benefiting both students and staff with enhanced productivity.

3. Extended Remote Access to Academic Resources

- The introduction of RemoteXS and Elsevier Online Access has enhanced academic resource accessibility, benefiting students and faculty by improving research capabilities and teaching efficiency.
- The Federated Search and Access Framework has streamlined the search process, significantly reducing the time students spend finding academic content.
- The integration of digital platforms has provided continuous access to academic resources, supporting the institution's commitment to flexible and inclusive learning environments.
- Remote access, particularly through RemoteXS and Elsevier, has been invaluable for research, enabling students to access up-to-date publications essential for long-term projects.



The fellowship has empowered me to engage more confidently across various fields. I have published several blogs and presented a paper at an international seminar on AI's impact on India. These resources have been invaluable during my internships, including my current judicial internship under the Hon'ble Justice of the Karnataka High Court. They have also been crucial in moot court competitions, with access to databases like SC and Manupatra saving time and enhancing my knowledge. I am deeply grateful for this opportunity and look forward to continuing as a fellow in the coming year.

As narrated by a recipient of Infosys Digital Scholarship

4. Ensuring Academic Inclusivity

This section presents the key findings that emerged from quantitative interactions carried out with project beneficiaries (n=55) to understand the impact of Infosys Digital Scholarship.

4.1. Respondents' Profile

 53% of the respondents were female, while 45% were male. 2% preferred not to disclose their gender. This shows a relatively balanced representation of both male and female participants in survey regarding the scholarship programme.





- Team noted that the Infosys Digital Scholarship is worth ₹ 10,000 notional value per recipient. 62% had utilised the scholarship for less than 6 months, while 38% had used it for 6 months to 1 year, reflecting that the programme was relatively new for many participants.
 - **95% reported being first in their family to receive a fellowship or scholarship** reflecting the scholarship as a one of the first aids for academic excellence in the family.
 - 91% reported being aware that the Infosys Foundation was the provider of the Infosys Digital Scholarship.
- Social media 47% was the most common source of information, followed by the university website 20%, reflecting the growing importance of digital platforms for outreach (Figure 117).
- 43% access library digital resource weekly, indicating the resources' importance in supporting regular academic and research activities. Additionally, 29% had accessed these resources daily, showcasing their critical role in meeting intensive academic

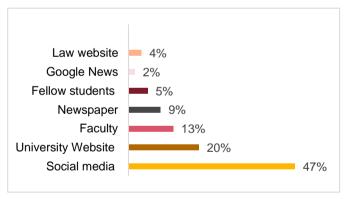


Figure 117: Source of information (n=55)

needs (Figure 118). This demonstrates that the library's digital resources had been a vital component for the majority of respondents.

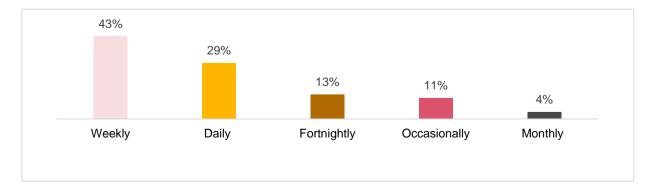
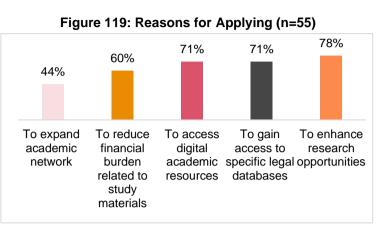


Figure 118: Frequency of Accessing Library's Digital Resources (n=55)

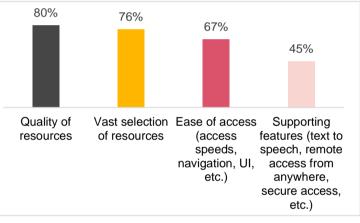
4.2. Improved Academic Exposure and Capabilities

- This scholarship enhanced recipients' academic networking opportunities. 78% (n=55) of respondents believed that access to digital resources enabled them to expand their academic networks, such as building connections with faculty, researchers, and peers, while 22% believed otherwise.
- 78% indicated that the scholarship 0 provided them with enhanced research opportunities. It can be interpreted that the scholarship effectively addressed a strong demand for resources that could support and elevate their research pursuits. 71% expressed a strong interest in accessing digital academic and specific resources legal databases or journals while 60% viewed the scholarship as a way to alleviate the financial burden associated with study materials. Nearly 44% (n=55) of recipients noted that the scholarship allowed them to expand their academic networks. facilitating connections with faculty, researchers, and peers (Figure 119).
- reported (n=55) 0 93% expressed satisfaction with the quality of resources accessed through the Infosys Digital Scholarship. 80% of those (n=51) liked the quality of such resources while 76% liked the vast of resources selection available (Figure 120).
- 98% reported (n=55) to have witnessed a positive impact of the Infosys Digital Scholarship on their academic performance. Of which, 89% (n=54) responded that their academic performance improved due to enhanced digital skills and research capabilities (Figure 121).
- The respondents also rated access to digital academic resources on a 3point scale (1 being the lowest and 3 being the highest), with average rating of 2.87 (n=55). This indicated that students generally had positive perception for the access to digital resources.



Multiple choice question. Total may not add to 100%.

Figure 120: Scholarship features liked by students (n=51)



Multiple choice question. Total may not add to 100%.

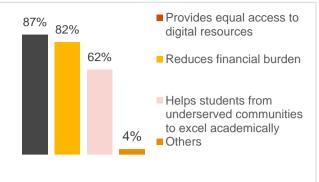
31% 4.1% 5.1% 6.1%</li

Figure 121: Impact of scholarship on academics (n=54)

4.3. Enhanced Inclusivity and Opportunities

 100% (n=55) agreed that scholarships were important. On probing further about the importance of scholarship, team noted that 87% (n=55) believed that scholarship provided equal access to digital resources while 82% felt that scholarship reduce the financial burden and 62% stated that scholarship has help students from underserved communities to excel academically. This reflects that this project played a key role in supporting deserving





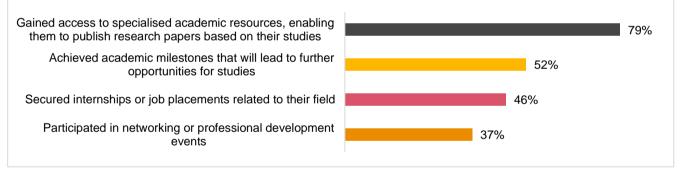
students in fulfilling their academic needs Multiple choice question. Total may not add to 100%. (Figure 122).

95% (n=55) of respondents believed that the Infosys Digital Scholarship has opened new opportunities for their future career or further studies. This highlights the scholarship's impact on the academic and professional prospects of the participants.

On further probing into the specific opportunities, following insights were revealed (Figure 123):

- **79%** (n=52) gained access to specialised academic resources, enabling them to publish research papers based on their studies.
- 52% achieved academic milestones that will lead to further opportunities for studies.
- 46% secured internships or job placements related to their field.
- 37% participated in networking or professional development events.

Figure 123: Opportunities Opened by Scholarship (n=52)



Multiple choice question. Total may not add to 100%.

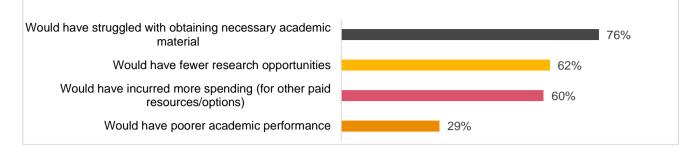
 Respondents rated usefulness of digital resources for coursework and opportunities opened for future studies or career development on a 3-point scale (1 being the lowest and 3 being the highest).
 Below Figure 124 indicates that students generally found the access to digital resources both useful and assistive in further opportunities.

Figure 124: Average rating on usefulness and opportunities opened (n=55)

2.78	Usefulness of the digital resources for your coursework		2.67	Opportunities opened for future studies or career development
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Notably, when asked about their situation without the scholarship, 76% (n=55) of respondents said they would have struggled to obtain necessary academic materials. Additionally, 62% indicated they would have fewer research opportunities, while 60% stated they would incur higher costs for other resources. This underscores the scholarship's importance (Figure 125).





Multiple choice question. Total may not add to 100%.

4.4. Elated Students' Experience

Respondents rated overall academic experience after receiving the digital and overall scholarship application and documentation process on a 3-point scale (1 being the lowest and 3 being the highest). Figure 15 indicates that students generally had an elated user experience with respect to their academics and the overall application process.

Figure 126: Average rating on scholarship experience (academics and application process) (n=55)

2.83	Overall academic experience after receiving the digital		2.72	Overall application and documentation process
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13.4. IRECS Analysis

Basis the interactions with the key stakeholders and a desk review, **the impact of the project was assessed using the IRECS framework parameters**. A summary of IRECS analysis is presented in the table below:

Table 26: IRECS Analysis

Parameter	Assessment from Study
Inclusiveness	• The project ensured the accessibility of academic resources for students, particularly for those with visual impairments. The establishment of the SAP Room with accessibility tools was a key step toward inclusive education.
	• Tactile flooring was introduced to assist visually impaired students in navigating the library independently. This improvement helped create a more accessible environment for all students.
Relevance	• The Infosys Digital Scholarship is supporting 117 students from across the country, allowing them access to valuable academic resources and digital tools, directly addressing gaps in educational equity.
	• 78% (n=55) of respondents indicated that access to digital resources enabled them to expand their academic networks, facilitating connections with faculty, researchers and peers.
	• The inclusion of legal databases and e-journals in the scholarship programme was particularly relevant to students pursuing academic and research excellence in law.
	• 76% (n=55) of the respondents stated that they would have struggled with obtaining necessary academic material, 62% stated that they would have fewer research opportunities and 60% would have incurred more spending for other paid resources in the absence of the scholarship showcasing its relevance.

Parameter	Assessment from Study
Effectiveness	 The introduction of RFID allowed for quicker and more independent borrowing and returning of books.
	 The Koha Open-Source Library System streamlined catalog management, improving resource tracking, benefiting both staff and students.
	• The integration of RemoteXS and Elsevier Online Access allowed students and faculty to access academic resources remotely, enhancing research capabilities and teaching effectiveness.
	• The efficiency of cataloging and resource management has reduced manual errors and increased the accuracy of records, enhancing the overall functioning of the library.
	• 78% indicated that the scholarship provided them with enhanced research opportunities.
	• 100% agreed that scholarships were important. Scholarships are perceived as vital tools for supporting disadvantaged students. They are seen to provide equal access to digital resources, alleviate financial burdens, and empower students from underserved communities to achieve academic success.
	 The introduction of RemoteXS and Elsevier Online Access has significantly improved access to academic resources for both scholarship receipts and NLSIU users.
Convergence	• The team did not note any convergence or partnership due to the nature of project.
Sustainability	• The continued availability of the assistive tools in the library for current and future batches ensures ongoing support for independent learning.
	• The availability of the Infosys Digital Scholarship has created a long-term impact, with 95% indicating that the scholarship had opened up new opportunities for future career or further studies.

13.5. Alignment to the IBPM Limited's CSR policy and the UN SDGs



The project is aligned with Infosys BPM Limited's CSR policy which includes education as one of the key CSR focus areas for Infosys BPM Limited. The project is also aligned with following Sustainable Development Goal (SDG)⁷⁸:



SDG-4 emphasises **ensuring inclusive and equitable quality education and promoting lifelong learning opportunities for all**. The digital upgrades at NLSIU enhance access to academic resources for both students and faculty within NLSIU. These improvements **enabled students to access journals and academic materials from any location, promoting equal learning opportunities and supporting lifelong learning.** Additionally, the provision of digital scholarships further expanded access to **quality education for deserving students from outside NLSIU facilitating broader educational opportunities.**

13.6. Study Limitation

• Limited availability of student responses: The online survey was rolled out to 76 students per the list provided by NLSIU of the students, but only 55 responses were received. Hence, the findings from survey may not fully represent the experiences of all the recipients of the Infosys Digital Scholarship.

13.7. Case Stories

Following case stories have been gathered from our discussion with various project stakeholders during the field visit:

Case Story 1: Guiding Digital Inclusion

Mr. Raghav*, a professor, joined NLSIU after serving at another prestigious university, where he had extensive experience using assistive tools to support visually impaired students. His prior exposure to these technologies allowed him to provide valuable feedback when NLSIU began implementing its digital inclusion project. Mr. Raghav played a pivotal role in advising the university on which assistive devices to procure, drawing from his own experience in using tools like the JAWS Talking Reader and desktop magnifiers. His insights helped in the process ensuring that the most practical and efficient technologies were made available to students.

"Having seen how these tools can transform the academic experience of students with disabilities, I knew exactly what NLSIU needed to enhance accessibility. My input helped them select the right tools, ensuring that students have the resources they need," Dr. Raghav explained.

Mr. Ragav continues to guide both students and faculty in using these technologies effectively. He often provides mentorship on how to integrate digital tools into daily academic activities, making the learning process more inclusive. His contributions have not only enhanced NLSIU's infrastructure but have also helped create a supportive environment where faculty members, librarian are more aware of how to accommodate students with disabilities.

Case Story 2: Empowering Independence

Aman* is a visually challenged law student at NLSIU. For Aman, studying law presents unique challenges, especially when it comes to accessing large volumes of legal texts and research papers from the library. Before the implementation of the project, Aman had to rely heavily on friends or librarians to assist him with reading physical books, which made his studies more challenging and time-consuming.

With the introduction of tools like the JAWS Talking Reader and Magnifier glasses, Aman has gained much more independence in his academic pursuits. He uses JAWS to read digital texts on daily basis and the magnifier glasses for printed materials, making it easier to navigate through vast legal resources. His reliance on e-resources has increased, as these tools allow him to access a wide range of academic papers, legal journals, and case studies independently.

"Now, whenever I need access to e-resources, the librarians are quick to assist me. The setup in the special assistive room includes everything I need, from OCR readers to the Braille printer. This has made my study sessions far more productive and less dependent on others," Aman shared.

Although Aman doesn't use the Braille printer often, he finds it easy to access whenever needed. He also mentions that while the RFID system is a great help for his peers, he doesn't use it personally. However, the library's overall accessibility, from tactile flooring to well-organised assistive technology, ensures that all resources are easily available when required. These tools have made the library a more inclusive space, allowing Aman to focus on his studies without facing constant barriers.

* Name changed

Project 11: Provision of Diagnostic and Medical Care Equipment to Rajiv Gandhi Government General Hospital, Chennai

14.1. About the Project

Access to diagnostic and medical care equipment for neurology in India is inadequate. Essential medical equipment and portable diagnostic devices are often unavailable, hindering early diagnosis and effective treatment of neurological problems. Additionally, the intersection of neurology and COVID-19 presents significant challenges. The pandemic has been associated with various neurological complications, including stroke, encephalitis, and peripheral neuropathy. Understanding these impacts was crucial, as early diagnosis and management of neurological symptoms in COVID-19 patients could improve outcomes and reduce long-term disability.79

Over the years, Infosys Foundation has undertaken numerous healthcare initiatives through their CSR efforts. As a part of it, Infosys collaborated with Rajiv Gandhi Government General Hospital (RGGGH), Chennai to strengthen its medical infrastructure with an objective to effectively treat neurology and neurosurgery patients. This CSR project was designed to benefit around 20,000 patients annually at the hospital during COVID-19.80

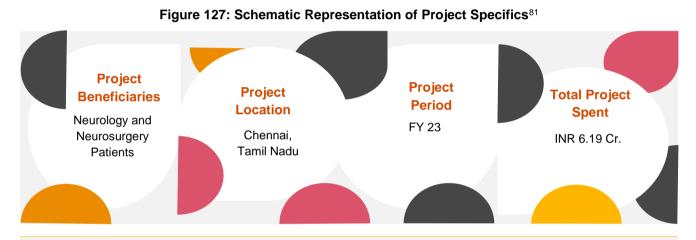


Figure 128: RGGGH Hospital Building



Established in 1664, RGGGH is one of the oldest medical institutions in Asia. In 1835, the hospital also established Madras Medical College (MMC) and has been providing healthcare services and medical education in the country.

The hospital boasts of state-of-the-art treatment facilities including a specialised high-end bone marrow transplant unit, 24x7 advanced transfusion services and a round-the-clock chest pain clinic. These facilities enable the provision of quality care to patients. 82

Under this project, RGGGH submitted its requirements (such as preferred brands and models of medical equipment) to Infosys Foundation. Infosys procured the equipment (Table 1) through its empanelled vendors and installed them at RGGGH.

Table 27: Medical Equipment Provided under the Project⁸³

⁷⁹ Shehata, G.A.; Lord, K.C.; Grudzinski, M.C.; Elsayed, M.; Abdelnaby, R.; Elshabrawy, H.A. Neurological Complications of COVID-19: Underlying Mechanisms and Management. Int. J. Mol. Sci. 2021, 22, 4081. https://doi.org/10.3390/ijms22084081

⁸⁰ Source: Memorandum of Understanding (M0U) signed between Infosys Foundation and Rajiv Gandhi Government General Hospital in February 2023. ⁸¹ Source: MoU between Infosys Foundation and Rajiv Gandhi Government General Hospital
 ⁸² Source: Rajiv Gandhi Government General Hospital website: <u>http</u>

https://www.mmcrgggh.tn.gov.in/ords/r/wsmmc/mmc120/rgggh and https://www.mmcrgggh.tn.gov.in/ords/r/wsmmc/mmc120/home

#	Medical Items and Equipment	Quantity	Purpose ⁸⁴
1.	Cardiorespiratory Autonomic Lab	1	Examines whether the autonomic nervous system is functioning properly, including breathing, heartbeat, body temperature and digestion.
2.			determine the precise location of affected tissue before and
3.	Neuro Microscope	1	Assists in the execution of intricate procedures and enhances precision during the surgical process through higher magnification and enhanced visualisation.
4.	ICU Ventilators with Compressor and Paediatric Patient Compatibility	10	Assists the breathing of patients in Intensive Care Units using a compressor for high-pressure air supply.
5.	C-Arm with X-ray	2	Fluoroscopy machines that provide high-resolution images in real-time allowing surgeons to monitor progress during surgical procedures.
6.	High-End Multi-Parameter Monitor	15	Used in ICUs to continually monitor patients' parameters including heart rate, blood pressure, respiratory rate and oxygen saturation.

14.2. Method of Impact Assessment

The impact assessment study **used an integrated and cohesive approach to assess the social impact of the project**. A meeting was held with Infosys Foundation and RGGGH team to understand the nature of support under this project and gather any added requirements for starting the assessment exercise. The team also requested specific documents from Infosys Foundation and RGGGH for desk review.

Subsequently, following project documents were received:



Memorandum of Understanding & Addendum signed with RGGGH

Utilisation Data of medical equipment

Accordingly, PW team commenced a **desk review** of the project, drawing on the information gathered from the kick-off meeting and the relevant project documents. This effort facilitated the design of the **assessment framework** and the **identification of key stakeholders** for interactions.

Qualitative research methodology was leveraged to assess the impact of this project. Qualitative research was useful in **assessing subjective experiences and exploring in-depth information** of individual perspectives pertaining to the project.

Key stakeholders were identified and tailored **research tools were prepared** to ensure comprehensive and insightful data collection. Interactions were planned with health care practitioners at multiple levels within the hospital as depicted in Figure 129:

Price Waterhouse Chartered Accountants LLP

⁸⁴ Sources: Autonomic Testing: <u>https://medlineplus.gov/lab-tests/autonomic-testing/;</u> What is Neuro-Navigation System:

https://www.medinnovasystems.com/what-is-neuro-navigation-system-how-does-it-work/, Neurosurgical Microscopes' Role In Enhancing Surgical Procedure Precision: https://www.medinnovasystems.com/neurosurgical-microscopes-role-in-enhancing-surgical-procedure-precision/; Ventilators: All you need to know: https://www.trivitron.com/blog/all-you-need-to-know-about-the-c-arm-x-ray-machines-2/; Towards enhancing the performance of multi-parameter patient monitors https://pmc.ncbi.nlm.nih.gov/articles/PMC4612731/

Figure 129: Sampling Plan



Following In-Depth Interviews (IDIs) were conducted:

- Head of Department (HoD) and Professor, Neurosurgery, RGGGH and MMC (1)
- **Professor**, Neurosurgery, RGGGH & MMC (1)
- Staff nurses, Neurosurgery, RGGGH & MMC (2)
- Professor and Assistant Professor, Neurology, RGGGH & MMC (1)

* Due to the institution's privacy policy, it was not possible to interact with patients or their caregivers during the visit.

14.3. Analysis and Findings

This section summarises the findings from the desk review and interactions:

14.3.1. Challenges Before the Project



Inadequate Equipment Impacting Surgical Success and Treatment Quality: The reliance on basic and substandard equipment slowed surgical procedures and impeded healthcare practitioners from optimal performance. This compromise in surgical precision has adversely affected treatment quality. For instance, RGGGH surgeons struggled to perform complex paediatric cases due to immature bone structure, as the equipment lacked the necessary precision. Additionally, clinical tests to detect autonomous imbalance have yielded inconclusive results, leaving room for doubt.

Budget Constraints to Procure New Equipment: As a government hospital is subject to budget allocations, procuring new equipment or upgrading existing equipment was challenging. Despite requests for new equipment from the neurosurgery department, these had remained unfulfilled for a long period. Catering to low-income populations, RGGGH faced an ever-increasing demand for life-saving ventilators and multi-parameter





monitors, often falling short of the requirement. The situation was exacerbated by the periodic unavailability of some machines, which required repairs due to constant use.

Learning Impeded by Inadequate Neuro Microscope: The solo neuro microscope had a malfunctioning panel and limited light intensity and manoeuvrability, preventing assistants and post-graduate students from observing surgical procedures. This hindered their learning and their ability to demonstrate understanding at health conferences.

14.3.2. Summary of the Impact Created

1. Enhanced accuracy and efficiency in the diagnosis and better outcomes for patients

The medical equipment significantly enhanced the effective treatment of patients, ensuring higher precision and better outcomes. Below Figure 131 provides an overview of number of patients treated over a period of time:

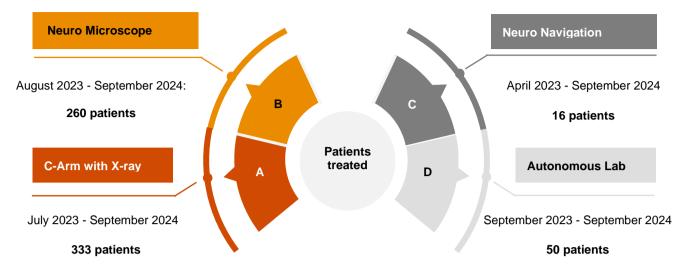


Figure 131: Number of Patients Treated with the Equipment Provided⁸⁵

Table 28: Number of patients treated with the Equipment Provided by Infosys Foundation

Medical Equipment	Installation Date	Number of patients treated in FY 24 (since installation)	Number of patients treated in FY 2025 (till September)	Total Usage
Neuro Microscope	Aug-23	88	172	260
Neuro Navigation	Apr-23	7	9	16
C-Arm with X-Ray	Jul-23	121	212	333
Autonomous Lab	Sep-23	10	40	50

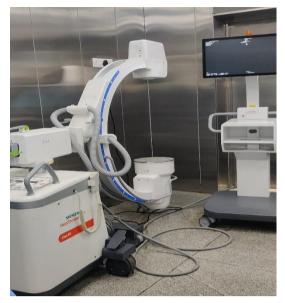
Above medical equipment were installed at different times, contingent upon their availability. As mentioned by RGGGH team, Neuro Microscope and C-Arm are being used in all surgeries while Neuro navigation and Autonomous Lab are being used only for specialised surgeries, accounting for the low utilisation rates. The equipment donated by Infosys was not limited to addressing COVID-related issues but fulfilled long-standing needs of the neurology departments to enhance their work. This support benefitted both COVID-19 patients and other patients. Further, health practitioners unanimously agreed that the provision had significantly improved outcomes, enabling them to achieve their goals more effectively.

- **Neuro Navigation:**
 - This device has reduced operating time, enhanced accuracy, improved outcomes and reduced 0 morbidity in patients.
 - For deep-seated brain lesions, health practitioners shared that the device accurately indicates the 0 location and depth of the lesion, as well as the exact trajectory to access it. Previously, surgeons had to rely on their imagination of the anatomical structure and proceed cautiously. Now, the probe sets off an alarm if they deviate from the planned path, allowing for easier access.
 - Conducting minimally invasive biopsies has not only limited exposure during craniotomies but also reduced potential damage to adjacent brain structures. This was a risk when such sophisticated tracking was not possible.
- C-Arm with X ray:

⁸⁵ As the ventilators and multi-parameter monitors provided by Infosys Foundation are a fraction of those available at the hospital, it was not possible to obtain usage data for the ones donated specifically by Infosys Foundation. Price Waterhouse Chartered Accountants LLP 157

- This device produces instant images, reducing both surgery time and duration patients need to be under anaesthesia. One doctor pointed out that both C-Arms have been in constant use since their installation. There is a possibility of wear and tear of these equipment due to the constant use but regular maintenance by RGGGH and vendors mitigates this risk.
- In paediatric cases with immature bone structures, the C-Arm provides highly precise images and for all surgeries, it provides real-time intra-operative information.
- From a patient's perspective, safety has improved due to limited exposure. Additionally, the exact location of the lesion can be identified, allowing biopsies to be taken without injuring adjacent brain structures.

Figure 132: C-Arm with X-Ray



- Neuro Microscope:
 - The previous basic device has been replaced by a much faster and more accurate microscope, leading to quicker operating and turnaround time.
 - o It also reduced waiting period for patients, allowing for improved resource utilisation at RGGGH.
 - As the new equipment is easily manoeuvred and faster, surgery time has been significantly reduced to less than half the time it used to take earlier, and as shared by a staff nurse.
 - Additionally, the microscope's immunofluorescence capability highlights the exact size of the tumour, further **reducing excision time**.
- Multipara Monitors and Ventilators:
 - The contribution from Infosys Foundation adds to the 300+ ventilators already at RGGGH, helping them meet the growing demand, as the hospital treats 3500 patients daily. These lifesaving devices have been distributed across various wards within the neurosurgery department, and have been particularly beneficial in the paediatric ICU, which had no compatible ventilators until these were installed.
 - These enabled practitioners to respond faster to critical cases as the time required for the device to start-up time is less compared to existing monitors.
- Autonomous lab:
 - The professor reported that assessments are more accurately with this device, which also assess pupils and provides a comprehensive view of the functioning of the autonomic nervous system. As the results are detailed and precise, a quicker diagnosis can be made than earlier.

The Head of Department pointed out that the advanced surgeries enabled by these devices, which would cost INR 6-7 lakh in a private hospital, **are provided free of charge to patients at RGGGH**. Poor patients can now access high quality care without incurring enormous expenses, as the scans, medication, implants, beds and operating theatres are also provided at no cost.

Impact Assessment Report

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Our primary goal is to provide quality care to patients and ensure positive surgical outcomes by performing surgeries with precision and using latest technical advancements. This has been made possible due to the equipment provided by Infosys Foundation. What truly matters is not the number of surgeries performed but the ability to avoid complications and achieve positive outcomes. This objective has been successfully accomplished.

As narrated by a Professor of Neurosurgery, RGGGH

2. Improved job satisfaction and well-being among healthcare practitioners

- In the absence of paediatric compatible ventilators, RGGGH doctors would visit the Institute of Child Health to consult patients. Now, the availability of specialised equipment indicates that **newborns and children are directly referred to RGGGH for treatment**. This reduces the need for doctors to visit multiple hospitals and allows them to monitor their patients more effectively.
- Practitioners noted that greater accuracy and magnification enabled by these devices had reduced ambiguity and boosted their confidence levels.
- The C-Arm with X-ray not only provided better image quality and resolution but also exposed health practitioners to less radiation and improved worker safety. One nurse



shared that with the older model, the exposure levels were sometimes so high that they could not stand the following day.

- Higher manoeuvrability and flexibility in using the machines have reduced back and neck pain for surgeons, requiring fewer breaks between surgeries. This had decreased fatigue among surgeons.
- The alarm feature of the multi-parameter monitors provided by Infosys Foundation allowed nurses to carry out their **administrative work more efficiently**. As the monitor sounds an alarm when any patient parameters went out of range, **nurses could promptly attend to patients without worrying about delayed responses**, allowing them to manage other tasks effectively.



With the earlier microscope, magnification and intensity were limited, and even slight movements would cause the image to go out of focus. I had to maintain a fixed position for 3-4 hours during surgery, **resulting in severe neck and back pain.** As a result, I could not perform more than one surgery per day. This in turn created long waiting times and delay in treatment of patients, especially those with major problems. Now I finish at one table, then move on to the second and sometimes do a third surgery also. I can handle three complex cases consecutively because the new devices adapt to our needs.

As narrated by the Head of Department, Neurosurgery, RGGGH

3. Boost to academic and research activities of the department

• RGGGH also functions as an academic institution and serves as a post-graduate teaching centre. Healthcare practitioners confirmed that the equipment has significantly enhanced teaching, learning and research at the institution.

Figure 134: Autonomic Lab Equipment







- Earlier post graduate students could not observe the surgeon's actions closely. However, with the neuro microscope, images could be projected onto a screen, allowing students to closely observe submillimetre precision surgeries. Students can take photos, record videos, and make recordings for later review or replication, significantly improving teaching outcomes.
- The presence of sophisticated equipment has **enhanced the image of RGGGH**, attracting more postgraduate students to choose their institution for their postings. RGGGH has become a preferred option for top-ranking students who wish to work with the latest technology and learn about complex surgical procedures.
- Research and academics have also benefitted, as professors can now take higher quality photos and videos of their surgeries and **share their findings at conferences** (common practice).

4. Greater ability to work at full capacity and provide sustained and quality services

- The Head of Department shared that while operating tables were available, the absence of sophisticated equipment previously **prevented practitioners from using them at full capacity**. Now, with reduced surgery time, they can perform multiple surgeries in a day, reaching a point where additional operating tables are required to serve more patients.
- All those interviewed reported extreme satisfaction with the quality of equipment provided, noting that the brands are among the best in the world. Further, most of the equipment is upgradable, allowing practitioners to use them efficiently in the coming years.
- In addition to providing the equipment, Infosys Foundation, upon request from the Head of the Department, **purchased an extended warranty**. This was necessary due to high utilisation of the equipment and difficulty in obtaining specialised spares. Beyond that, one practitioner shared that the government would take up an annual maintenance contract as per their standard policies.
- The vendors who installed the equipment also provided training and guidance to the health practitioners, making the learning curve smooth. They were readily available in-person and on video calls to troubleshoot any doubts or minor problems. **Regular maintenance has been carried** out so far by the vendors.



These are sophisticated equipment, and more institutions should procure them as they are immensely helpful for research and treatment purposes. We are one of the few government hospitals with such high-quality equipment. In fact, a doctor from a private medical college came here to observe the equipment and purchase it for their hospital. I am extremely satisfied and hope they donate more such equipment so we can serve patients better.

As narrated by a Professor of Neurology, RGGGH

14.4. IRECS Analysis

Basis the interactions with the key stakeholders and desk review, the impact of the project was also assessed on the IRECS framework parameters. The IRECS analysis summary has been presented in below table:

-

Parameter	Assessment from Study		
Inclusiveness	• RGGGH exists as a facility that provide comprehensive treatment to patients free-of-cost . As highlighted by the Head of Department, the scans, medication, implants, food, surgery, post-operative care are all provided without charge to patients, regardless of their socio-economic background.		
	• The hospital treats patients not only from Chennai, but other parts of Southern India, who are referred to the hospital. Paediatric-compatible ventilators had enabled treatment of newborns and children at RGGGH, which was earlier not possible.		
Relevance	 Neurology and neurosurgery are highly specialised fields and require a high level of precision for diagnosis and treatment that was enabled by the equipment provided. 		
	• As healthcare practitioners face a high degree of stress and fatigue, the equipment in multiple ways helped to improve well-being and satisfaction among them. Reduced exposure to radiation, lower ambiguity and higher confidence due to high precision and reduced physical pain from performing complex surgeries due to faster and more accurate information – all these benefits were noted by practitioners and made the project relevant, from both the user point of view and the provider.		
	• The high-end features of the neuro navigation, neuro microscope and C-Arms gave a boost to the academic and research objectives of RGGGH/ MMC by enabling better observation of surgeries by post-graduate students and the capturing of photos and videos for study, review and presentation by both faculty and students.		
Effectiveness	• The new equipment has vastly improved efficiency at RGGGH by reducing operating time, enhancing accuracy and reducing morbidity in patients . Practitioners in neurosurgery reported being able to work at full capacity.		
	• The neuro navigation device helped accurately locate deep-seated lesions and the trajectory to access it, limiting exposure and damage. C-Arms provided precise images for surgeries and improved patient safety with lower exposure. The neuro microscope was much faster and allowed for immunofluorescence, again reducing the duration of surgery and waiting time for patients. High-end multi- parameter monitors had a faster start-up time and practitioners could respond faster to critical cases. Autonomous lab gave detailed and precise diagnosis which aided in better treatment.		
	• As multi-parameter monitors had alarms, nurses could complete administrative tasks without having to worry about constantly monitoring patients for any sudden variations in their vitals.		

Table 29: IRECS Analysis

Parameter	Assessment from Study	
Convergence	 This project was undertaken in partnership with RGGGH, which is a government medical institute. Infosys Foundation supported the government's mandate of providing state-of-the-art care for underprivileged patients in the neurology and neurosurgery departments. 	
Sustainability	• The equipment provided by Infosys Foundation was reported to be sophisticated and high quality, made by leading global companies , and thus expected to last for a longer duration of time.	
	• Routine maintenance and service as well as on-call support provided by company representatives ensured that the equipment was functioning optimally .	
	• The purchase of extended warranty by Infosys Foundation as part of its funding support was seen as vital in improving the longevity of use of the equipment. This, along with the fact that some of them were upgradable meant that practitioners expected to sustain their use for 5-10 years' time.	

14.5. Alignment to the Infosys Limited's CSR policy and the UN SDGs



The project is aligned with Infosys Limited's CSR policy which includes **healthcare** and education as key CSR focus areas for Infosys Limited. The project is also aligned with following Sustainable Development Goal (SGD):⁸⁶



SDG-3 emphasises **ensuring a healthy life and promoting well-being for all at all ages**, with a **specific focus on strengthening healthcare systems**. Provision of medical equipment for treatment of patients with COVID-19 and complex neurological problems plays a critical role in enabling medical institutions to save the life of patients in situations of emergency.

SDG-4 aims to ensure inclusive and equitable quality education and promote lifelong learning opportunities for all. The available of equipment that enables complex medical procedures to be conducted at RGGGH has improved the quality of education for post-graduate students, who can better observe procedures and also view recordings to enhance their understanding and learning.

14.6. Study Limitation

 Stakeholders' unavailability for interactions: In accordance with the hospital's policy on patient confidentiality, PW was not permitted to interact with patients or their caregivers to gauge their perceptions of the treatment provided. However, healthcare practitioners noted that these are sophisticated neurological treatments, and it is unlikely that patients would be able to articulate their experiences with these devices. Additionally, due to the unavailability of doctors or nurses in the paediatric ward, it was not possible to assess the impact of paediatric-compatible ventilators through interactions with medical staff.

Project 12: Cath Lab & Vascular Access Centre

15.1. About the Project



Over the years, Infosys Foundation has undertaken numerous **healthcare initiatives through their CSR efforts**. One such project is **setting up a state-of-the-art "Cath Lab & Vascular Access Centre"** at the Institute of Nephro Urology (INU), Victoria Hospital, Bangalore.

Managing comorbidities such as diabetes, hypertension, and cardiovascular issues is crucial for the early detection and prevention of Chronic Kidney Disease (CKD) among renal patients. Hence, **high-quality healthcare infrastructure with specialised medical equipment and staff**, is essential to avoid complications and disease progression.

A schematic representation of the project specifics is depicted below:

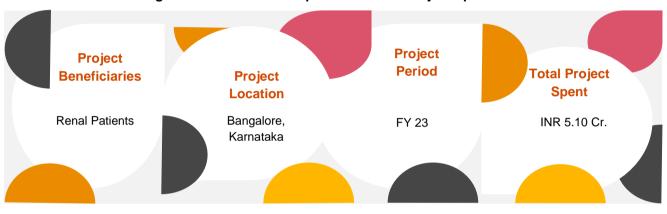


Figure 136: Schematic Representation of Project Specifics⁸⁷

Figure 137: INU Building



Since its inception in 2004, INU has provided **specialised patient care & conducted research** in the field of **Nephrology and Urology**. It serves a diverse population from various socio-economic backgrounds, and states across the country. **Treatment at the center is either subsidised or offered free of cost** to patients.⁸⁸

Currently, INU provides a **comprehensive range of services** including In-Patient and Out-Patient Services, 24x7 Emergency Services, Operation Theatres, Intensive Care Units, Radiology and Imaging Services, and Dialysis Treatment, among others. For **medical professionals**, the institute offers **structured fellowship programmes, fostering** advanced learning and professional development.

This project was **specifically aimed at addressing the widespread cardiovascular issues among underprivileged populations** suffering from renal diseases. The support, spanning over **September 2022 to March 2023**², facilitated the **purchase and installation of the image guided system** (Table 1). This cutting-edge technology is designed for interventional procedures in gastroenterology, vascular, peripheral, neuro and cardiology procedures.

⁸⁸ Source: https://nephrourology.karnataka.gov.in/english Price Waterhouse Chartered Accountants LLP

⁸⁷ Source: MoU and other project documents shared by Infosys Foundation and INU

Table 30: Medical Equipment Provided under the Project⁸⁹

#	Medical Items and Equipment	Quantity	Purpose
1.	Hybrid Cath Lab	1	Provides diagnostic and operative support to curb renovascular hypertension.
2.	Intravascular Ultrasound Machine	1	Helps understand the underlying pathology causing cardiovascular morbidity in renal patients and develop new therapeutic support.
3.	Ultrasound Machines 2 Assisting non-invasive imaging of renal patients with cardiovascul conditions and detect abnormalities and other hindrances in vascul access.		

15.2. Method of Impact Assessment



The impact assessment study leveraged **an integrated, consultative and cohesive approach to assess the social impact** of this project. To initiate the assessment, a kick-off meeting was held with Infosys Foundation, followed by a project briefing call with the medical staff at INU. These meetings provided the research team with valuable insights into the specific support provided under this project.

Following the meeting, PW received following project documents:

- **Memorandum of Understanding (MoU)** signed with the Institute of Nephro Urology containing project's operational details
- **Commencement Letter** to Infosys Foundation, intimating the initiation of Cath Lab services for public use by the Institute of Nephro Urology
- **Beneficiary Count** report including the total number of in-patients and out-patients attended, procedures undertaken, and academic papers published
- **Impact Report of Cath Lab and Vascular Access Center** highlighting the need for holistic renal-cardiovascular care, patients treated, and the publications produced by the institute

PW team commenced a **desk review** of these project documents which **facilitated the design of the assessment framework and the identification of key stakeholders** for interactions.

A **qualitative research methodology** was leveraged to assess the impact owing to the nature of this project. Qualitative research was useful in **assessing subjective experiences and exploring in-depth information** of individual perspectives pertaining to the project.

Key stakeholders were identified and tailored research tools were prepared. Subsequently, an on-site visit to INU situated in the Victoria Hospital campus was conducted. A total of fourteen interactions were concluded during this visit. (Figure 138).

Figure 138: Stakeholder Interactions

Following In-depth Interviews were conducted:

- Doctors (2)
- Nurses (3)
- **Project Lead** from the Institute (1)
- **Research Fellows** at the Institute (2)
- Current Patients at the Institute (5) *
- **Project Team** of Infosys Foundation (1)

*Due to the data confidentiality, patients' data was not requested from the hospital as a practice. However, the team was able to interact with a few patients during the visit to the facility to understand the impact of overall healthcare services offered at the Institute.

⁸⁹ Source: MoU and other project documents shared by Infosys Foundation and INU Price Waterhouse Chartered Accountants LLP Impact Assessment Report

15.3. Analysis and Findings

This section encapsulates the findings from the desk review and interactions:

15.3.1. Challenges Before the Project



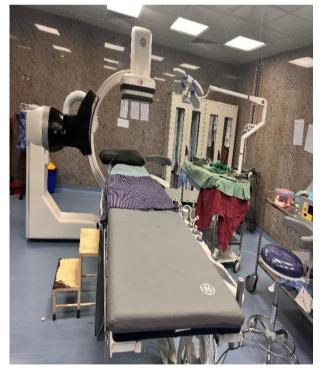
Team identified the following challenges prior to the project intervention:

- Delayed Diagnosis and Limited Treatment Availability: Renal failure fatalities were linked to
 underlying conditions such as diabetes, hypertension, and cardiovascular diseases. Additionally,
 dysfunctional vascular access and inadequate arteriovenous (AV) access at early stages contributed
 significantly to cardiovascular morbidity and mortality in renal disease patients. This underscored the
 urgent need for specialised diagnostic and treatment facilities in the region.
- Declining Quality of Life Among Patients: Individuals, particularly from underprivileged backgrounds, faced a decline in quality of life following a CKD. The financial strain of daily dialysis, limited access to quality healthcare, and dependency for daily tasks adversely affected patient wellbeing. These circumstances underscored the necessity for alternative treatment approaches that provided accessible, subsidised/ free healthcare, enabling patients to regain their normal lives.

15.3.2. Summary of the Impact Created

1. Availability of Medical Infrastructure to Support Specialised Care for Renal Patients:

- The 'Cath Lab and Vascular Access Centre' is one of the few facilities in India offering specialised healthcare services to renal patients, particularly those with vascular issues. The facility has provided timely support to individuals during:
 - Interventional and diagnostic procedures such as angiography and arteriography
 - Procedures to repair and maintain arteriovenous access for dialysis
 - Management of complications like stenosis and thrombosis
- Compared to previous treatment methods, the availability of this facility at INU has significantly reduced the risk of complications and infections. It ensures streamlined and accurate care. Since the installation of equipment, mortality rates due to vascular complications have decreased from 30% to less than 1%⁹⁰.



Enhanced medical infrastructure has led to an increase in the footfall and number of procedures undertaken at the institute. In FY 22, there were 49,479 outpatients and 5,562 inpatients. This number increased to 1,08,005 outpatients and 7,479 inpatients between August 2023 to July 2024. With the support of advanced equipment, INU has delivered a range of services, including 4,215 central vein catheter insertions, 2,268 vascular imaging procedures, 1,950 renal biopsies, 402 tunneled catheter insertions, and 192 ultrasound-guided vascular access salvage procedures⁹¹.

Figure 139: Cath Lab

⁹¹ This data has not been verified by PW Team and is provided by the Institute of Nephro Urology. Price Waterhouse Chartered Accountants LLP Impact Assessment Report

⁹⁰ As shared by a Doctor at INU

- Doctors stated that with the support of Infosys, they can undertake ultrasound guided procedures which have reduced radiation exposure for patients by 75%-80% on an average. However, it can be further reduced with superior ultrasound machines, with advanced imaging technology that can support better decision making and outcomes for patients. They further highlighted that current machines had a 1-year warranty. This led to INU procuring grants from the government for taking up Comprehensive Maintenance Contracts (CMC) for the upkeep of the equipment.
- INU staff was aware that these medical equipment were provided by Infosys Foundation but there
 was no visible branding. A doctor mentioned that even though everyone on campus is aware of Infosys
 Foundation's contributions to the Institute, they are soon planning to install a plaque to recognise their
 support.



The establishment of this centre was an absolute necessity for the region. Many trained doctors struggled to work efficiently due to the lack of appropriate machinery. Even with two decades of experience in Nephro Urology, I have not encountered such advanced equipment elsewhere in the country. Additionally, the lab has reduced our dependency on multiple machines, offering an all-inclusive and highly reliable solution.

- As narrated by a Doctor, INU

2. Quality Treatment for Underprivileged Patients at Reduced or No Cost:

- Interactions revealed that the specialised treatment options available at INU, not only increased patients' footfall but also expanded the institute's geographical reach. Patients with diverse socio-economic backgrounds began visiting the center from across India, including states like Andhra Pradesh, Odisha, and various parts of Karnataka.
- Predominantly, patients at INU belong to the Below Poverty Line (BPL) category and receive free treatment through various government schemes such as Ayushman Bharat. Individuals slightly above the BPL category receive a 30% discount on diagnostic, consultation and procedural charges. Interactions with doctors unfolded that vascular access complications could cost up to INR 2.00.000/- in private hospitals and INR 40.000/in government institutions. At INU, this cost has been reduced to approximately INR 25,000/due to the specialised equipment provided by Infosys Foundation.

Figure 140: Ultrasound Machines



- The provision of subsidised or free of cost treatment, including antibiotics and lab testing, especially benefits **women in accessing healthcare**. Patients added that because the facility is in Bangalore city, transportation **costs for treatment were reduced**. A woman patient stated that although she was not a BPL cardholder, her **procedure costed her less than one-third the price, at INR 38,000/-,** compared to INR 1,50,000/- at a private facility.
- Free or subsidised treatment options for renal patients have long existed in government hospitals, but those facilities were often overwhelmed with patients. The situation improved with specialised equipment at INU, reducing referrals and balancing patient load. However, INU is now also experiencing an overflow of patients, resulting in longer wait times. This underscores the need for additional equipment at INU and other institutions that lack such resources.



I visited INU based on a friend's recommendation while experiencing significant physical and emotional stress due to an immature fistula requiring treatment. Fortunately, as a BPL cardholder, I received free healthcare services which was covered under the Ayushman Bharat government scheme. The treatment at INU was far superior to any other government facility I had visited. The medical staff was kind and empathetic, and my issue was resolved. Today, I feel much better and am leading a more normal life.

- As narrated by a Patient, INU

3. Promotion of Academia, Innovation and Research in Nephro Urology:

- Experts at the INU have presented 27 scientific papers at national and international conferences, including 12 award-winning research papers till July 2024. Doctors stated that it was with the support of the equipment that they were able to generate their research findings. One of the scientific papers even won the Best Paper Award at the prestigious American Society Meeting. Additionally, this project enabled six innovations in vascular access care, significantly enhancing patient treatment. It also supported comprehensive training for all medical staff at INU, ensuring effective use of the specialised equipment. The institute has trained six residents for peripheral postings. Furthermore, INU has also conducted a one-day training workshop with fifty doctors from across the country to help raise awareness about the intricacies of vascular access care.
- INU has established the first-ever accredited fellowship programme in Interventional Nephrology in the country. This programme attracted students nationwide, with an entrance exam conducted for the one-year fellowship. The Institute has received accolades from Nephrologists in the United States (US) and Japan for their work using the new equipment provided under this project. Furthermore, 18 residents and three fellows at INU have received world-class training in advanced vascular access salvage procedures with the support of the available equipment. A doctor mentioned that "All this hard work has helped build our institute's reputation and improve the quality of care we provide to our patients. By encouraging research and training, we're not only keeping up with the latest medical practices but also ensuring that our patients receive the best treatment possible."
- Discussions revealed that INU is close to being recognised as a leading center for training healthcare professionals in Vascular Access care. Additionally, INU has received an approval from Rajiv Gandhi University of Health Sciences to launch two new courses for Nephrologists and Allied Health Sciences professionals.



This fellowship programme is a groundbreaking opportunity in India, as it is the first of its kind. No other institute provides such unique fellowships paired with specialised equipment like a Cath Lab. INU stands out by offering hands-on training in Vascular Access, an essential area for a Nephrologist like me. Without this program at INU, I would have been forced to seek similar courses in South Korea, the US, or Singapore. Securing a position in India that aligns with my interests would have been exceptionally challenging without this invaluable opportunity.

- As narrated by a Current Fellow at the INU

15.4. IRECS Analysis

Basis the interactions with the key stakeholders and desk review, the impact of the project was also assessed on the IRECS framework parameters. The IRECS analysis summary has been presented in below table:

Table 31: IRECS Analysis

Parameter	Assessment from Study
Inclusiveness	 INU primarily serves BPL patients (irrespective of their age, gender), providing them with free of cost treatment through various government schemes. Patients slightly above BPL are also provided treatment at subsidised costs. Over the years, with the presence of specialised equipment and advanced healthcare services for renal patients, INU has garnered a reputation for treating patients nationwide, including those from middle and upper-class.
Relevance	 Many deaths from renal failure were linked to underlying conditions such as diabetes, hypertension, and cardiovascular diseases. Dysfunctional vascular access and AV access at early stages also contributed to high rates of cardiovascular morbidity and mortality among individuals with renal disease. The deteriorating quality of life among end-stage renal patients due to lack of access highlighted the urgent need for specialised diagnostic and treatment to address such conditions among patients in the region. This project addressed this pertinent issue by establishing a state-of-the-art Cath Lab and Vascular Access Center equipped with advanced medical technology. This center enabled timely and accurate diagnosis and treatment of renal and vascular conditions, reducing cardiovascular morbidity and mortality rates.
Effectiveness	 The facility is one of the few facilities in India that offers such specialised healthcare services to renal patients. During FY 22, INU served 49,479 outpatients and 5,562 inpatients. This number increased to 108,005 outpatients and 7,479 inpatients between August 2023 and July 2024.⁹² With the support of advanced equipment, INU has been able to deliver a range of services for renal patients that were previously not feasible. The institute has also alleviated the financial burden on patients by offering accurate diagnosis and treatment either free of cost or at nominal rates. At private facilities, vascular access complications could cost up to INR 2,00,000/- while at government facilities, it would be anywhere near INR 40,000/-⁹³. Specifically At INU, this cost has been reduced to approximately INR 25,000/- due to the specialised equipment provided by Infosys. Additionally, this project has enhanced the academic rigor of the institute through research and innovations in Nephro Urology. It also supported comprehensive training for all medical staff at INU, enabling them to effectively use the specialised equipment.
Convergence	 The INU is a government run organisation and hence, this support from Infosys Foundation aligned with the government's efforts towards enhancing the quality of healthcare for patients from all socio-economic backgrounds. Additionally, the state and central government provide support to patients through government schemes such as 'Ayushman Bharat' in Karnataka. The state government covers the costs of treatment for renal patients from Below Poverty Line communities.
Sustainability	 Maintenance of the machines is the responsibility of INU; however, the equipment has a 1-year warranty period. This led to INU procuring funding for

Parameter	Assessment from Study
	equipment CMC through the government after the expiration of the warranty period.

15.5. Alignment to the Infosys Limited's CSR policy and the UN SDGs



The project is aligned with Infosys Limited's CSR policy which includes healthcare as one of the key CSR focus areas for Infosys Limited. The project is also aligned with Sustainable Development Goals (SDGs)⁹⁴:



SDG-3 aims at ensuring healthy lives and **promote well-being at all ages**. This project contributes to this goal by providing **essential**, **specialised healthcare** that improves patient outcomes for **those with chronic and critical conditions**. The quality of life is improved with the help of **advanced technology and skilled care**.

SDG-9 emphasises on building resilient infrastructure through modern facilities and fostering innovation. This project enhances healthcare infrastructure through specialised and modern centers, improving efficiency and patient safety. Additionally, creating jobs for skilled medical professionals and strengthening local healthcare infrastructure.

15.6. Study Limitation

• Limited Availability of Patients: Patients at INU, undergoing treatments and medical examinations, were understandably focused on their ongoing treatment processes. Consequently, interactions were primarily conducted after their procedures, and the time available for in depth discussion was limited.

15.7. Case Stories

Below case stories were gathered from hospital staff during the field visit:

Case Story 1: A New Lease on Life, Amit's Journey through INU's Specialised Care

Mr. Amit*, a 50-year-old auto-rickshaw driver, was the sole breadwinner for his family of four, including two children in high school. He was on maintenance haemodialysis three times a week, working during the day and receiving dialysis treatments in the evening. One day, after a session, he experienced vomiting and dizziness but felt better and was sent home.

When he returned for his next dialysis session, his technician found that his fistula was not working, and he couldn't be dialysed. This was a major shock for him, as missing a dialysis session endangered his life. In extreme distress, Mr. Amit visited the Institute of Nephro Urology, where the Vascular Access Centre offered hope. He underwent an ultrasound-guided endovascular salvage procedure to restore his clotted fistula and was dialysed within an hour of arriving at the hospital. Tears flowed down his face, and his family's, as the procedure gave him a new lease on life. The best part was that the procedure was performed at minimal cost, leaving Mr. Amit incredibly grateful to the Institute of Nephro Urology and the Infosys Foundation for saving his life.

Case Story 2: Lifesaving Care for Hari

Mr. Hari*, a 26-year-old male, was devastated when doctors informed him that both of his kidneys were permanently damaged, a diagnosis of bilateral kidney failure that came only when the disease had reached its end stage. Like many kidney patients, Mr. Hari had been asymptomatic, unlike patients with other organ diseases who may experience symptoms earlier on. Given his young age, Mr. Hari was advised to undergo a kidney transplant, and after thorough testing, his mother's kidney was found to be suitable for donation. While this was a hopeful path, Mr. Hari came from an underprivileged family in a remote village of Karnataka and knew that the costs of a kidney transplant in the private sector would wipe out his family's savings.

He decided to pursue the transplant at a public hospital, but in the meantime, he had to undergo haemodialysis to stay fit. Unfortunately, after his fistula was created, his blood vessels were not suitable, and even after two months, it was not ready for use. This left Mr. Hari severely depressed, anxious about the complications of tube insertion and the uncertainty of his future. At this point of time, he came to know that Infosys foundation had supported setting up of a Vascular Access Centre at Institute of Nephro Urology through his fellow patient. He approached the doctors of the Vascular Access Centre at INU who thoroughly diagnosed his blood vessel condition. Mr. Hari successfully underwent ultrasound guided angioplasty following which the fistula was ready for haemodialysis. He was promptly initiated on haemodialysis, and he underwent live related, renal transplantation at the institute of Nephro Urology

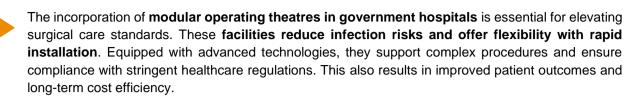
Case Story 3: Path to Recovery, Kavita's Health Restored through INU's Advanced Care

Mrs. Kavita*, a 60-year-old lady who was diagnosed with and stage renal disease. She was started on haemodialysis and was found to have unsuitable blood vessels for creation of long-term Vascular axis. She had undergone a synthetic catheter insertion in her chest for continuing haemodialysis. After one year of this treatment, she developed swollen face and change in her voice. She was unable to sleep because of breathing difficulty and was going through lot of distress for close to 3 months. Her doctor at Guwahati had referred her to institute of Nephro urology. After being aware of the world class Vascular Access Centre. Thanks to the Infosys grand and world class equipment, she under a new fistula Surgery, and after few weeks the synthetic catheter in her chest was removed. Her facial swelling was gone and her discomfort in the neck was gone. She was able to sleep comfortably and peacefully after the procedure. The family expressed their immense gratitude to the Institute of Nephro Urology and the Infosys Foundation for the life-saving care they received.

*Name Changed

Project13:ContributiontoYashwantraoChavanMemorialHospital(YCMH)forModularOperation Theatre

16.1. About the Project



Over the years, Infosys Foundation has undertaken numerous healthcare projects as part of its CSR efforts. The Foundation has collaborated with Yashwantrao Chavan Memorial Hospital (YCMH) in Pimpri-Chinchwad, Pune, to set up **two state-of-the-art modular operation theatres (OTs)**. This project empowers healthcare professionals to perform a range of surgical procedures with enhanced **safely and efficiently**. Initially designed as a COVID-19 relief initiative, this project saw the increased usage of the modular OTs, after the subsidence of the pandemic. Below Figure depicts an overview of project specifics⁹⁵:





Figure 142: YCMH Building



YCMH provides **high-quality medical services** to the community, serving thousands of patients annually, including those from socio-economically disadvantaged backgrounds.

Under this project, this hospital has enhanced its surgical capabilities by establishing two advanced modular operation theatres (OTs). These OTs are well- equipped with Return Air Raisers, X-rays, Storage Units, Surgeon Pendant Double Arm, OT Light Double Dome Polaris, Anaesthesia Pendant Single Arm, and Pass Box etc. ⁹⁶

16.2. Method of Impact Assessment



The impact assessment study adopted a collaborative and cohesive approach to evaluate the social impact of this project. To initiate the assessment, a **kick-off meeting** was held with the Infosys Foundation, followed by project briefing calls with the Medical Administrator and key representatives from YCMH. These interactions provided the research team with key insights into the specific support provided under this project.

95 As per the documents received from the YCM Hospital

⁹⁶ <u>https://www.ycmhpgi.org/hospital.php</u> Price Waterhouse Chartered Accountants LLP

Following the meeting, PW received following project documents:

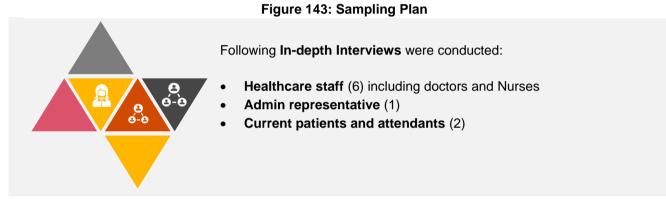


- Memorandum of Understanding (MoU) indicating project objectives and operational details
- Demand letter from YCMH covering the request to convert the two existing OTs to Modular OTs
- **Completion Certificate** containing handover confirmation of OT to the hospital
- Periodic review reports containing the beneficiary impacted data until March 2024

PW team commenced a **desk review** of the project documents which **facilitated the design of the assessment framework and the identification of key stakeholders** for interactions.

A **qualitative research methodology** was leveraged to assess the impact owing to the nature of this project. Qualitative research was useful in **assessing subjective experiences and exploring in-depth information** of individual perspectives pertaining to the project.

Key stakeholders were identified and tailored research tools were prepared to ensure comprehensive and insightful data collection. Subsequently, an **on-site visit** to YCMH was conducted. A total of 9 interactions were concluded during the visit (Figure 143).



^ To maintain data confidentiality, we didn't request patient's data from the Hospital as a standard practice. However, during our visit to the hospital, our team was able to interact with a few patients' attendants (due to the patients being sedated) to gain insights into the impact on patients' lives.

16.3. Analysis and Findings

This section summarises the findings from the desk review and interactions:

16.3.1. Challenges Before the Project



Following challenges were identfiled prior to the project interventions:

• Limited Capacity: YCMH struggled with limited OT capacity. Of the four available OTs, two were obsolete, equipped with outdated medical equipment and facilities. It hindered the performance of complex surgeries. This inadequacy led to delays and prolonged waiting times for patients in need of surgical procedures, often affecting critical health outcomes. The absence of a modern, sterile environment necessary for safe and intricate operations further compounded the problem.

 Maintaining Sterilization and Infection Control: YCMH encountered major challenges in maintaining sterilization standards necessary for prolonged surgical procedures. Surgeons frequently worked under suboptimal conditions, heightening the risk of postoperative infections. Outdated equipment and

inadequate infection control measures were ongoing obstacles, particularly for complex surgeries that demand rigorous sterilization protocols to safeguard patient safety.

- Financial Implications for the Patients: Serving a population from financially constrained large backgrounds, YCMH previously faced inadequate OT facilities, prompting some patients to seek treatment in private hospitals. This shift imposed a significant financial burden as private hospitals charge considerably higher fees. Consequently, access to affordable surgical care became challenging for underprivileged patients who depend on YCMH for accessible healthcare.
- Operative Burden on YCM Hospital: Inadequate OT facilities placed considerable stress on the hospital's

Figure 144: Plaque depicting Infosys Foundation's support



daily surgical procedures. It struggled with high caseload, long waiting lists, and insufficient infrastructure to meet the growing demand for quality healthcare in the Pimpri Chinchwad and its surroundings.

16.3.2. Summary of the Impact Created

1. Enhanced Infection Control with Advanced Air Handling Systems:

- The modular OT features advanced air handling systems that significantly lower infection risks during surgeries. This enhancement is critical for patient safety as it adheres to modern infection control standards. Equipped with specialized air handling units, OT maintains sterile conditions, thereby minimizing cross-contamination.
- This setup has resulted in quicker patient recovery times and a reduced incidence of post-operative infections, fostering a safer environment for both patients and surgical staff. A medical staff suggested extending the air handling systems beyond the OT entrance. This would maintain sterility from the pre-surgery preparation areas to the operating room.



The modular OT stands out as a state-of-art-facility in the vicinity. The entire project process from vendor selection to the grant approval, has been remarkably smooth by with Infosys support. After conveying the urgent need to Infosys, we faced no undue resistance from them. We are deeply grateful to Infosys for this initiative, which not only promises to be well-maintained but also serves as a model for government hospitals in the area. It offers hope to a large segment of the population reliant on government-owned medical infrastructure.

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As narrated by a Doctor at YCM Hospital

2. Increased OT Admissions:

• The OT admission rate at YCMH has increased markedly, from **272,288 in FY 21 to 609,492 in FY 23.** This growth reflects the hospital's enhanced infrastructure, supported by Infosys Foundation, which now meets **the increased demand for elective surgeries**. Consequently, **patient waiting times have** decreased, and doctors can perform these surgeries more efficiently. This improvement also ensures costeffectiveness of procedures for underserved communities in vicinity.

 Previously, these two OTs had limited capacity for elective surgeries. Since the establishment of the new modular facility, this hospital has conducted 1,066 surgeries in both OTs from October 2023 to October 2024. This upgrade has significantly improved the hospital's ability to provide critical care.

• Patients needing elective surgery, who were once waitlisted for at least a week, can now

Figure 145: Doctors and Hospital Staffs Attending the Patient



receive surgery much sooner. This initiative has reduced the waiting time of surgery admissions to just **0-2 days**, depending on the urgency of the cases. As a result, healthcare providers can deliver **timely support crucial for patient recovery.**

3. Improved Patient Outcomes and Enhanced Staff Capacity:

- Overall patient outcomes have significantly improved, with YCMH staff attributing the increased capacity to serve more patients requiring urgent surgical procedures. A major success was the removal of watermelon-sized cancerous tumour from a 90-year-old patient's abdomen. Medical staff attributed this success to the initiative, as maintaining a zero-infection rate was crucial given the patient's age and susceptibility. Such a procedure would have been impossible without the controlled environment provided by the upgraded facilities.
- This upgrade has also alleviated pressure on existing healthcare resources, allowing medical staff to **operate more efficiently**. With increased capacity and enhanced resources, healthcare professionals can respond to current demands and make decisions more efficiently. This initiative has **bolstered the community's confidence in the hospital's ability to deliver quality healthcare**.

Figure 146: Medical Equipment in the Modular OTs at YCMH



3 Bay Scrub Sink



Equipment Air pressure monitoring tool



Anaesthesia Levels Monitoring Tools

"

Before transitioning to the new OT, our nursing staff were concerned about adapting to sophisticated technology, given their experience with outdated tools and limited resources. Additionally, **high patient-to-nurse ratios led to burnout and compromised care quality.** However, the integration of advanced OT has empowered nurses to plan more effectively and implement timely interventions, thereby reducing the incidence of adverse events.

As narrated by a Head Nurse (Operation Theatre) of YCMH

- At YCMH, the fee structure follows the state hospital guidelines. Typically, the charges are around INR 5,000, but in cases where complications arise from a procedure, the fees can rise to approximately INR 15,000. The team noted that complex surgeries, such as hip or knee replacements or tumour removals, can cost between INR 2.5 INR 3 lakhs at private hospitals. Hence, the project has been able to reduce the financial burden on patients significantly.
- Discussions with doctors revealed that this initiative has positioned YCMH at the forefront, attracting attention from the local community in Pimpri- Chinchwad. Success stories and media coverage in print and electronic outlets have further motivated the staff to perform at their best.



Having been with YCMH for years, I can say that this is the first time I have seen patients express such pride in the modular OT facility with a state of art functioning in a government hospital which is hard pressed for resources. They feel it matches the standards of private hospitals without imposing a financial burden. As a staff member, this fills me with pride and motivates me to strive for even better care.

As narrated by YCMH admin representative

16.4. IRECS Analysis

Basis the interactions with the key stakeholders and desk review, **the impact of the project was also assessed on the IRECS framework parameters**. The IRECS analysis summary has been presented in below table:

Table 32: IRECS Analysis

Parameter	Assessment from Study
Inclusiveness	• Patients benefit from subsidized fees for quality services, making healthcare more accessible to a broad demographic, including marginalised population. This project enhances infrastructure in YCMH, providing holistic healthcare that includes comprehensive care for underserved communities.
	• This project ensures that this population receive timely and essential medical attention, even when they cannot afford costly privately owned healthcare facilities.
Relevance	• This project specifically addresses the local community's needs in elective surgery, tackling the primary cause of dissatisfaction associated with lack of proper effective infrastructure in government hospitals.
	• Over the past three years, OT admissions at YCMH have increased by 54%, underscoring the project's necessity and significance for the community's benefit.
Effectiveness	• The project has enhanced patient outcomes and experiences at YCMH by enabling timely interventions and reducing wait times for surgeries, thereby improving the overall quality of care.
	• The infection rate and post-surgery complications have significantly decreased in recent years due to better infrastructure.

Parameter	Assessment from Study
	• Additionally, the wait times for surgical admissions have decreased significantly to 0-2 days, which previously extended to a week.
	 The project has been able to reduce the financial burden on patients as it charges between INR 5,000 – INR 15,000 depending upon the severity of cases. This is significantly lower than fees of INR 2.5 Lakh - INR 3.5 lakh charged by private hospitals.
Convergence	• YCMH, operated by a municipal corporation of Pimpri, benefitted from the support from Infosys Foundation. This support aligns with the government's efforts to enhance healthcare in the Pimpri- Chinchwad area. This collaboration improved infrastructure and provided quality healthcare at affordable rates to underserved communities
Sustainability	• YCMH's enhanced capability to perform critical surgeries has strengthened community trust, ensuring ongoing support and patronage. This trust is vital for sustaining hospital operations and services .
	 Additionally, YCMH has secured a two-year warranty for the maintenance of the modular OT and has plans in place to continue working with the existing vendor for any future issues. As a government-run hospital, it aims to retain ownership of all equipment and maintain transparency with the local community during annual general body meetings.

16.5. Alignment to the Infosys Limited's CSR policy and the UN SDGs

The project is aligned with Infosys Limited's CSR policy which includes **healthcare as one of the key CSR focus areas for Infosys Limited.** The project is also aligned with following Sustainable Development Goals (SGDs)⁹⁷:



SDG-3 (Good Health and Well-being): The project focuses on ensuring healthy lives and promoting wellbeing for all ages by strengthening healthcare systems. Establishing a modular OT enhances healthcare accessibility, improves patient outcomes, and supports healthier lives for diverse communities.

SDG-9 (Industry, Innovation, and Infrastructure): By constructing advanced healthcare infrastructure, the project fosters innovation in medical practices and enhances the resilience of health systems. It emphasizes building sustainable and inclusive frameworks that cater to the evolving healthcare needs of society.

16.6. Study Limitation

• Limited Access to Patients: Patients at the hospital were focused on their ongoing treatments and medical examinations, which limited their availability for in-depth interactions. As a result, most discussions were held with doctors, nurses, and other hospital staff.

⁹⁷ Source: <u>https://sdgs.un.org/goals</u> Price Waterhouse Chartered Accountants LLP

16.7. Case Stories

Following case stories have been gathered through discussions held with the **project stakeholders** during field visit to YCM Hospital:

Case Story 1: Beating Cancer and Embracing a new Life at 90

Amir*, a 90-year-old man from Chakan, had been suffering from mild yet persistent abdominal pain for the past six months. Despite consulting multiple hospitals and trying various medications, he found no relief. Concerned about his ongoing discomfort and the financial strain of continuous treatments, his family decided to seek help at YCMH. After a series of tests and no improvement from medications, it was revealed that Amir had a large tumour in his abdomen, which was causing swelling in his right kidney. Dr. Thorat at YCMH recommended surgical removal of the tumour. The five-hour surgery was successful, saving Amir's life despite the risks associated with his age and existing health conditions. Remarkably, the operation was completed with a 0% infection rate, a feat made possible by the hospital's exceptionally advanced technology and infrastructure for conducting high-risk procedures.

Case Story 2: The Miracle Tumour Removal: A New Dawn for a Brave Girl

Mira*, a lively 10-year-old girl, had been coping with the discomfort of a growing lump in her abdomen for several years. This mysterious and concerning condition recently worsened, prompting her worried family to seek medical help at YCMH in Pimpri. Upon their arrival, a dedicated team led by Associate Professor Dr. Ratnadeep Sonawane* conducted a series of comprehensive investigations. After careful evaluation, they diagnosed Mira with a rare and serious condition: an adrenal teratoma, a cancerous tumor weighing an astonishing 1.5 kg. This large mass was pressing against her right kidney and liver, increasing her discomfort and anxiety.

Determined to restore Mira's health, Dr. Sonawane expertly led a complex three-hour surgery on October 24, 2024. The operation presented numerous challenges, but through meticulous planning and teamwork, the surgical team successfully removed the tumor entirely. Remarkably, despite the tumor's size and the inherent risks of such a procedure, they managed to preserve Mira's kidney function. Following the surgery, Mira's recovery progressed well, allowing her to leave the hospital just 12 days later—a testament to the skill of her medical team.

Dr. Sonawane highlighted the rarity of adrenal gland cancer and credited the successful outcome to the advanced facilities and collaborative spirit at YCMH. Today, Mira is back to enjoying her daily activities, her bright spirit shining through as she fully embraces life once again. Her journey serves as a remarkable example of the hospital's excellence in addressing complex medical challenges, made possible by their state-of-the-art modular OT and dedicated care.

*Name Changed

Project 14: The Lancet Citizens' Commission on Reimagining India's Health System

17.1. About the Project



India's public health landscape is riddled with challenges such as inequitable access to quality healthcare and health staff shortages, despite advancements in health indicators. COVID-19 pandemic highlighted the gaps in the health system, prompting collaboration among stakeholders to address these issues. Robust research is needed to evaluate the current health system and inform evidence-based policies.

A proposal was submitted by various health and public policy experts to "The Lancet", a leading medical journal, to examine challenges and opportunities to achieve Universal Health Coverage (UHC) in India. Consequently, The Lancet Citizens' Commission on Reimagining India's Health System (Commission) was established in December 2020. Christian Medical College (CMC), Vellore was selected as the academic hub for the Commission due to its cutting-edge research in health field.98

In 2021, Infosys Limited partnered with CMC to provide CSR funding support to prepare a roadmap for comprehensive, accountable, accessible, affordable and inclusive quality healthcare to all citizens in India.99 Below provides an overview of the project activities:

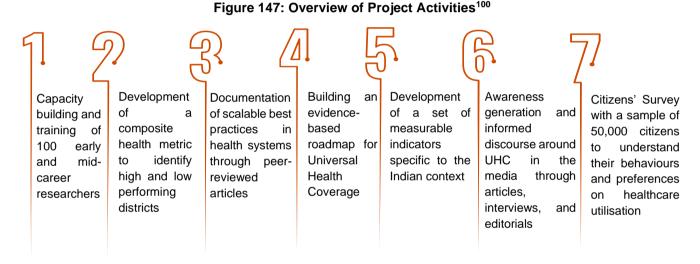


Figure 148 depicts an overview of project specifics.

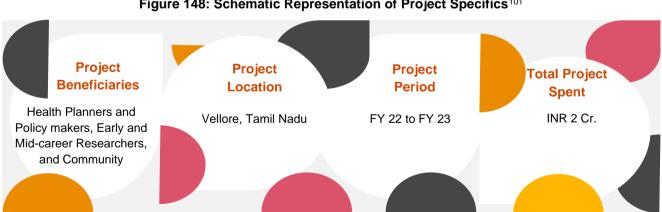


Figure 148: Schematic Representation of Project Specifics¹⁰¹

99 Source: Memorandum of Understanding (MoU) signed between Infosys Limited and Christian Medical College Vellore (July 2021) 100 Source: MoU signed between Infosys Limited and Christian Medical College, Vellore (July 2021) and Project Progress Report submitted to Infosys Limited by CMC Vellore

¹⁰¹ Source: MoU between Infosys Limited and Christian Medical College, Vellore (July 2021) Price Waterhouse Chartered Accountants LLP Impact Assessment Repor

⁹⁸ Source: Based on the interactions with stakeholders

Figure 149: Christian Medical College



Founded in 1900, CMC Vellore is a **renowned institution for education, healthcare, and research**. It contributes to studies on diseases and partners globally for prominent publications.¹⁰²

Under this project, CMC Vellore received CSR funding to coordinate efforts among researchers, healthcare professionals, and community organisations. Alongside Infosys Limited, funding was also provided by CMC, several research institutes and foundations, collectively enhancing the project's impact.

17.2. Method of Impact Assessment



The impact assessment study leveraged an **integrated and cohesive approach** to assess the social impact transpired since the project's implementation. A **kick-off meeting** was held with **Infosys Limited** to understand the nature of support for this project and align on the assessment exercise.

Following the meeting, PW received following documents:



- Memorandum of Understanding (MoU) signed with CMC describing project details
- Final progress report submitted by CMC Vellore to Infosys Limited
- **Workshop agendas and presentations** on understanding pathways to UHC in India: A District-Level Study conducted in March, May and August 2023

PW team then began the project's desk review based on the information gathered during the kick-off meeting and the project documents. This helped in **designing the assessment framework and finalising the key stakeholders** for subsequent interactions.

A qualitative research methodology was employed to assess the impact of this project. This methodology was instrumental in evaluating subjective experiences and gaining in-depth insights into the perspectives of various stakeholders involved in the project.

The team noted that the Commission was led by **four Co-Chairs**. Numerous experts from various fields were invited to join as Commissioners on the core committee. Accordingly, **key stakeholders were mapped** and tailored **research tools were prepared** to ensure comprehensive and insightful data collection. Total **eight in-depth interviews** were conducted (Figure 150):

Figure 150: Sampling Plan



Following In-Depth Interviews (IDI) were conducted:

- **Co-Chairs** of the Lancet Citizens' Commission (2)
- **Commissioners** of the Lancet Citizens' Commission (3)
- **Mid-career researchers** participated in the capacity building sessions (3)

17.3. Analysis and Findings

This section summarises the findings from the desk review and interactions:

¹⁰² Source: Website of Christian Medical College, Vellore (<u>https://www.cmch-vellore.edu/about-us/</u>) Price Waterhouse Chartered Accountants LLP

17.3.1. Challenges Before the Project



As mentioned by the Co-Chairs and the Commissioners, **UHC has been an unmet need in India due to its large population, economic disparities, and systemic inefficiencies.** Despite healthcare advancements, public health suffers from limited access to services and high out-of-pocket costs. The pandemic highlighted these issues and offered an opportunity to create a comprehensive public health roadmap. Previous health commissions lacked resources for a thorough examination, leading to limited progress. Hence, there was an **urgent need to unite stakeholders to build a resilient health system toto offer accountable, accessible, inclusive, and affordable quality healthcare for all Indians.**

17.3.2. Summary of the Impact Created

1. Collaborative approach to integrate diverse perspectives on UHC

The Co-Chairs and Commissioners repeatedly emphasised that UHC is a divisive issue due to differing ideological views on service provision and delivery. Therefore, they prioritised the inclusion of diverse stakeholders to ensure comprehensive research through their expertise. A Co-Chair mentioned that the Commission successfully united over a hundred researchers from across the country and the diaspora. While the Chairs and the Commissioners contributed as thought leaders, authors and research associates worked on different studies produced by the Commission. The CSR funding from Infosys Limited played a crucial role in assembling such a vast network of experts, and they have been recognised as a partner on Commission's website (seen in Figure 151).

Figure 151: Infosys's Support for the Commission Prominently Featured on its Website



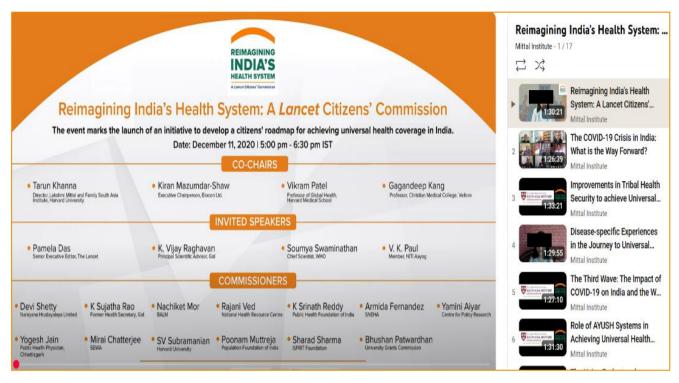
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This Commission was committed to engaging a diverse range of Commissioners with varied perspectives. The discussions and deliberations were notably rigorous, ensuring substantive engagement rather than just superficial dialogue, which is often the case with many commissions.

As narrated by a Commissioner, Citizen Engagement

• The Commissioners for the five workstreams – finance, citizen engagement, technology, human resources and governance – had the autonomy to define the focus areas and approach. They organised meetings, webinars, seminars and consultations to shape the agenda and regularly invited stakeholder feedback on their findings. An example of one such webinar is shared in Figure 152.

Figure 152: Snippet of a Webinar organised by Commission (available on YouTube)



Government representatives participated in webinars and specific activities. For example, during the district-level metric consultations, districts officials identified barriers and challenges. These officials were later invited to review their district scores, share successes and **discuss strategies** for UHC.

The Co-Chairs stressed the **importance of maintaining the report's independence, especially since the government is the primary audience.** They anticipate greater government involvement post submission to The Lancet, when officials will review findings and discuss their implications.



The Commission included health sector professionals, economists, public policy experts, and government representatives. This diversity proved to be both an asset and a challenge as consensus building took longer. While it increased the time required to complete the report, I believe that it has ultimately resulted in a richer and more credible output, thanks to the extensive dialogue and debate that took place.

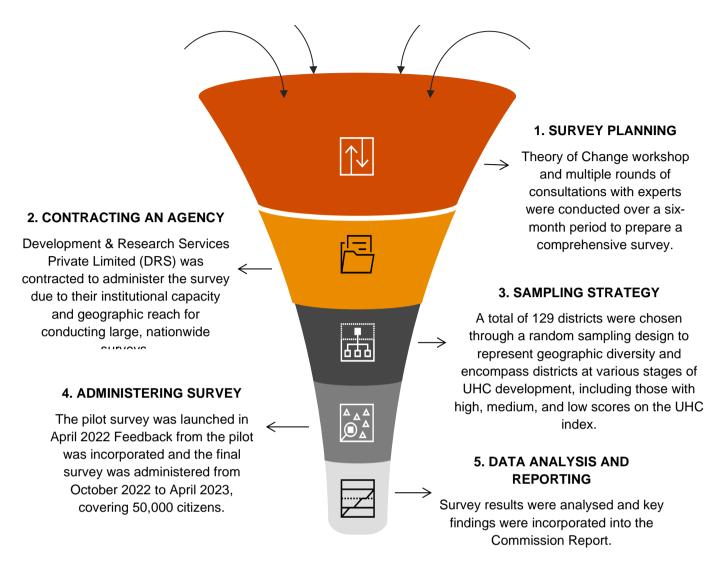
As narrated by a Co-Chair, Finance

2. Bridging the gap between health policy and user perspectives

In the absence of studies in India capturing health users' experiences and aspirations of public health systems, the Commission designed a comprehensive citizens' survey to address this gap.¹⁰³ This survey (process in Figure 6) collected data from **50,000 individuals** across various geographies and socio-economic backgrounds. The objective was to **understand citizens' behaviours and preferences regarding healthcare utilisation**:

¹⁰³ Details on the structure and process of the Citizens' survey were obtained from background documents shared by CMC Vellore and during interviews with the Co-Chairs of the Commission. The survey was administered by DRS (engaged by CMC) and PW was not involved in this survey process in any manner.

Figure 153: The Citizens' Survey Process



The Co-Chair mentioned that it was feasible to conduct such a **large-scale survey because of the funding from Infosys Limited**. The outcomes of the survey include:

- Vast volumes of raw data: It captures detailed information on the duration and quality of health care, spending on health services, and the preferences and aspirations of Indian citizens from the public health system. The Commission plans to make the raw dataset free and open access to be used by any researcher interested in using this data for studies on health preferences. Access to healthcare data can drive significant advancement in research, policy-making and innovation. The Co-Chairs expect that this data will support multiple publications over the upcoming years. This will address research questions that the Commission Report could not explore due to time constraints and the sheer volume of data generated.
- Findings on healthcare preferences: First-of-its-kind findings that have emerged on healthcare preferences have been incorporated into the larger Lancet Commission Report to inform policy recommendations. For example, the findings reveal, citizens prefer public primary healthcare over private healthcare when given the choice. In states with substantial government investment in healthcare, citizens prefer public health systems. Conversely, in states with low government spending and deteriorating public health systems, the poor turn to private healthcare. This evidence underscores the importance of public healthcare and will be shared with officials from Niti Aayog once the Commission Report is published.

The primary end users of this survey are the **government**, which can use the findings to validate public spending on healthcare, and the **research community**, which can further explore healthcare preferences in India.

Additionally, the Co-Chair expressed the hope that the findings **would be shared with the public through national-level dissemination and community-level engagements.** Key stakeholders in the health system such as doctors, nurses, medical associations, etc, who are directly impacted by spending priorities and citizen preferences, would also be informed.



In the coming years, several major, independent, scientific publications will emerge based on the citizens' survey data. We have utilised barely 5% of this data for the Commission Report, which was important to directly inform our understanding of healthcare and respondent preferences, thereby shaping our recommendations. However, much remains unanalysed. We believe research should be public and our aim is to set a standard by making this extensive dataset accessible to anyone for any area of health research.

- As narrated by Co-Chair and Commissioner

3. Strengthened the capacities of researchers on public health in India

- According to the Co-Chair, several issues persist in the field of public health research in India:
 - Young researchers in clinical medicine often lack a deep understanding of public health systems and the **real challenges** involved in delivering health care.
 - Researchers rarely get the opportunity to work in teams that can enhance their skills and expand their professional networks.
 - Evidence syntheasis and systematic reviews¹⁰⁴ are rarely recongnised as valuable methodolgies for knowedge generation, despite being among the highest forms of research for achieveing a comprehensive and in-depth understanding of a particular area of study.

To address these issues, capacity building sessions for early and mid-career researchers were organised. The goal was to train 50 researchers in over 20 evidence synthesis exercises and conduct more than 100 qualitative research studies.¹⁰⁵ The Commission invited researchers from various organisations, including central govenrment institutions, and published a call for participation on The Lancet website.

• More than 50 participants joined on a voltuntary basis and 40 weekly webinars were conducted online to familiarise them with evidence synthesis method of research. This training included identifying, selecting and compiling relevant literature from online sources on various health system aspects. Additionally, participants received training in using software that aids in scoping and systematic reviews, enabling collaborative analysis of thousands of studies on a particular topic.

Once trained, researchers were **divided into teams to work on different topics under the five broad workstreams of the Commission,** with mentorship provided by senior researchers. Some of the topics included: (a) the human resources requirement for providing primary mental healthcare, (b) assistive technologies for vulnerable groups, (c) tele-radiology, and (d) drivers of choice in accessing AYUSH services.¹⁰⁶

• Many studies have been published in journals over the past year, including The Lancet, Lancet Regional Health-South East Asia, PLoS One Global Public Health, and so on.¹⁰⁷ Others are currently undergoing peer review and will be published shortly. To ensure wider reach, the Commission covered the publication fees for open-access.

¹⁰⁴ Evidence synthesis or systematic review involves identifying, selecting and compiling findings from multiple studies to develop a comprehensive understanding of a particular topic and/ or to answer a research question that has policy relevance. More information can be found here: <u>https://libguides.northwestern.edu/evidencesynthesis</u>

¹⁰⁵ Source: MoU signed between Infosys Limited and Christian Medical College

¹⁰⁶ Source: Document on Evidence Synthesis research groups and focus areas shared by CMC Vellore

¹⁰⁷ Some of the published studies can be accessed here: <u>Study 1; Study 2; Study 3; Study 4; Study 5; Study 6; Study 7</u> Price Waterhouse Chartered Accountants LLP

According to the Co-Chair, the outcomes of capacity building sessions extend beyond the publications. Some researchers have become campaigners and others have made public health a key focus area. Many fellows continuing to network and engage with these issues.



In the Indian context, evidence synthesis is paramount. Public health policies should be grounded in guidelines informed by systematic reviews. Consequently, researchers must first identify gaps through systematic reviews, subsequently frame their research questions, and then conduct trials.

Under this project, we have trained researchers, many of whom have published their reviews. This has a huge cascading effect over time, as they are going to both train other researchers and undertake research in critical areas of public health areas that can inform policy making. We have gradually transformed the ecosystem, ensuring long-lasting impact.

As narrated by a Professor at CMC Vellore and Workshop Facilitator

Developed a composite UHC metric to measure and monitor public health services

- As reported by the Commissioners of the Governance, there was a need to develop a standardised and measurable metric of UHC to effectively assess and monitor the performance of healthcare systems in India. Using the WHO framework on Universal Health Coverage¹⁰⁸ (recognised as a gold standard), indicators were adapted to the Indian context. Routine national data was employed to calculate the UHC score for 697 districts nationwide. A total of 24 tracer indicators in 5 tracer domains were developed as part of this research exercise using WHO framework.¹⁰⁹ Districts served as the units of analysis, given that key decisions are implemented at this level. Based on the findings, districts were classified into low, medium and high performing categories.
- In parallel, a district-level qualitative research study was conducted with various stakeholders, • including district health officials, ASHA workers, health providers and Panchayat representatives across 6 districts. This study aimed to understand stakeholer priorities, challenges, enablers and feasible solutions. To foster collaborations, partners from each of the six states led the qualitative study and numerous consultations were held to design the study and jointly analyse findings. The outcomes of this initiative are:
 - District-level averages of UHC have been made publically available, enabling comparisons 0 across districts and over time.
 - As this is a first-of-its-kind study across the globe, the approach and findings have been shared 0 with representatives from Ethiopia during a webinar organised by Johns Hopkins **University** to explore synergies and pathways to UHC.
- The Commissioners reported that the study produced critical and nuanced findings for achieving UHC in India. These include (a) the barriers created by socio-economic determinants of health in different states, (b) the importance of community engagement and citizen participation, and (c) the constraints created by technology on health practitioners.
- The metric, gualitative study and consultative exercises demonstrated that there are multiple pathways to achieve UHC. Rather than relying on one-size-fits-all solutions, flexible and decentralised appraoches proved to be most effective. Additionally, the initiative provided a platform for district officials to share their experiences, fostering extensive cross-district and cross-state collaboration.

The WHO approach and framework to Universal Health Coverage can be found here: https://www.who.int/news-room/factsheets/detail/universal-health-coverage-(uhc) The details on the framework and indicators developed is available here: https://cdn.who.int/media/docs/default-source/bulletin/onlinefirst/blt.23.290854.pdf?sfvrsn=aa12e610_2 Price Waterhouse Chartered Accountants LLP

Besides being incorporated into the Commission Report, the study's insights have been included in other published papers.



Government officers expressed great enthusiasm in attending our workshops. They actively asked questions, engaged in conversations about their respective districts, and deliberated on overarching priorities. Rather than soliciting improvement ideas, we concentrated on constraints, understanding current contexts, and exploring actionable changes, fostering a reflective environment. This study has not only contributed cutting-edge research for the Commission Report, but also generated new evidence for public health in India.

As narrated by a Commissioner, Governance Workstream

Generated evidence through the Commission Report and other publications

The Commission Report, which will be published in The Lancet, will be a comprehensive document presenting extensive evidence on UHC in India. A Commissioner emphasised that this report is expected to drive transformative change. The funding from Infosys Limited was critical, enabling long-term, meticulous and intensive research The support enabled the research team to identify what has worked and what hasn't in the context of UHC in India. These critical findings have been included in the report, which acknowledges the contribution from Infosys, as seen in Figure 154.

Figure 154: Screenshots of the Lancet Commission report, including the section that acknowledges Infosys Support

THE LANCET CITIZENS' COMMISSION ON REIMAGINING INDIA'S HEALTH SYSTEM

Vikram Patel ** † Anuska Kalita ** , Kheya Melo Furtado*, Nachiket Mor* †, Shubhangi Bhadada*, Yamini Aiyar[†], Sandra Albert[†], Hasna Ashraf, Satchit Balsari, Indu Bhushan[†], Vijay Chandru[†], Mirai Chatterjee[†], Sarika Chaturvedi, Sapna Desai[†], Raghu Dharmaraju, Atul Gupta[†], Kiran Mazumdar-Shaw[†], Gautam Menon, Arnab Mukherji[†], Poonam Muttreja[†], Anjali Nambiar, Thelma Narayan[†], Bhushan Patwardhan[†], Tejasvi Ravi, Sharad Sharma[†], Devi Shetty[†] Sudheer Kumar Shukla, SV Subramanian[†], Leila Varkey[†], Sandhya Venkateswaran[†], Siddhesh Zadey, Tarun Khanna*

co Joint First and Corresponding Authors

* Core Writing Group. Authors in the Core Writing Group are listed by contribution. All other authors are listed alphabetically

[†]Commissioner

Author Information

- Vikram Patel, PhD. Paul Farmer Professor of Global Health, Harvard Medical School; Member of the Managing Committee, Sangath (India); <u>vikram patel@hms.harvard.edu</u>
 Anuska Kalita, MA, MPH. Director and Health Systems Specialist, Department of Global Health and Population, Harvard TH Chan School of Public Health; <u>atalita@isph.harvard.edu</u>
- Kheya Melo Furtado, PhD. Associate Professor, Healthcare Management, Goa Institute of Management, Associate, The Lakshmi Mittal and Family South Asia Institute, Harvard University; <u>Kheya furtado@gin</u>
- o@gim.ac.in 4. Nachiket Mor, PhD. Visiting Scientist, Banyan Academy of Leadership in Mental Health (India)
- 5. Shubhangi Bhadada, LLM, BCL, Mittal Institute Fellow, Lakshmi Mittal and Family South Asia Institute

- Shubhangi Bhadada, LLM, BCL. Mittal Institute Fellow, Lakshmi Mittal and Family South Asia Institute, Harvard University, <u>shubadad@ah.avard.edu</u>
 Yamini Aiyar, MSc. Senior Visiting Fellow, Brown University. Former President and Chief Executive, Centre for Policy Research; <u>vaivar76@pmail.com</u>
 Sandra Albert, DrPH. Professor, Director, Indian Institute of Public Health Shillong; <u>sandra albert@iiphs.ac.in</u>
 Hasan Asharf, MA. Research Associate, PoreSor in Emergency Medicine, Harvard Medical School, Associate Professor in Global Health and Population, Harvard TH Chan School of Public Health; <u>balaar@ibba.hurard.edu</u> hsph.har rd.edu
- Indu Bhushan, PhD. Founding (ex) CEO, National Health Authority (India); <u>ibhushan6161@gmail.con</u> Vijay Chandru, PhD. Visiting Professor, Centre for Brain Research; Executive Advisor (Healthcare), ARTPark; Indian Institute of Science; vijaychandru@iisc.ac.in
- Indian Institute of Science; yijayehandru@ukis.ca.in 12. Mirai Chatterjee, MIS, Director, SEWA Social Security & Chairperson, SEWA Cooperative Federation; marachattere@sewa.org
- minituative ways and the second se araju@gmail.com

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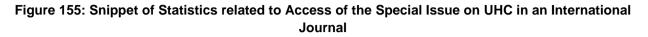
The work of the Lancet Citizens' Commission on Reimagining India's Health System was funded by the Lakshmi Mittal and Family South Asia Institute, Harvard University: Christian Medical College, Vellore: Department of Global Health and Social Medicine. Harvard Medical School; Azim Premiji Foundation; Rohini Nilekani Philanthropy; Vikram Kirloskar; Serum Institute of India; Mahindra and Mahindra Limited; and Infosys Foundation. The funders had no role in the writing of the manuscript or the decision to submit it for publication

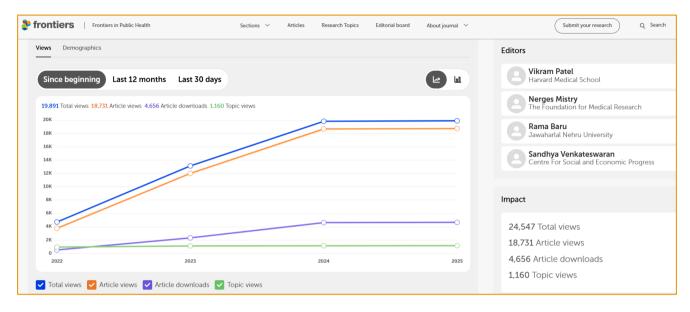
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While the report itself is expected to unveil unique insights, the Commissioner highlighted that the extensive volume of research generated has also contributed to additional papers and articles in The Lancet and other journals such as Journal of the Indian Institute of Science, The Lancet Regional Health - Southeast Asia, Centre for Social and Economic Progress, PLOS One, Global Public Health and

Annals of Global Health.¹¹⁰ In particular, a special issue on Realizing Universal Health Coverage in India has been **published in an international journal**, The Frontiers of Public Health.¹¹¹ The issue, which includes 6 articles written by 22 authors, has received more than 24,500 views since it was published. The statistics on usage are shared in Figure 155.





- The target audience of the report is the government. Commissioners reiterated **the goal of influencing policies and enhancing health systems**. Many Commissioners and authors, already collaborating with the government in various capacities, intend to continue the dialogue through webinars, seminars, and consultations, etc post release of the report
- They added that there is a possibility that the government may not fully accept the findings of first draft
 of Commission Report and could potentially discuss it further with Commission to finalise. At the time of
 this assessment, the report had been submitted to The Lancet and shared with experts, incuding those
 in the government. As a result, it was not possible to gauge the government's response and their
 perception of its relevance and significance.



We have never undertaken such an ambitious programme, encompassing **the largest** health study in the history of independent India. Infosys's funding was a game changer and without it, the scope of engagement would have been limited. The engagement is both wide-ranging and in-depth, ensuring that we will continue to examine and address public health issues in India.

As narrated by Co-Chairs of the Commission

17.4. IRECS Analysis

Basis the interactions with the key stakeholders and desk review, the impact of the project was also assessed on the IRECS framework parameters. The IRECS analysis summary has been presented in the table below:

Table 33: IRECS Analysis

¹¹⁰ A complete list of publications can be found on the Commission website, here: <u>https://www.citizenshealth.in/publications/</u>

 ¹¹¹ The issue can be accessed here: https://www.frontiersin.org/research-topics/31672/realizing-universal-health-coverage-in-india/magazine
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Parameter	Assessment from Study
Inclusiveness	• The Commission intentionally brought together experts from diverse ideologies and backgrounds to contribute to the report.
	• The citizens' survey gathered data from 50,000 individuals across various geographies and socio-economic contexts.
	• UHC metrics were calculated for 697 districts, supplemented by qualitative research that included perspectives from health practitioners, frontline workers, district officials, panchayat representatives, and ASHA workers.
	• Capacity-building sessions were open to researchers nationwide , attracting participants from various organisations, including government institutions.
	• The Commission decided to make all publications open access , using Infosys Limited's CSR funds to cover publication fees. Additionally, raw data from the citizens' survey and UHC district indicators have been made publicly available.
Relevance	• Every Commissioner highlighted that India is lagging in providing Universal Health Coverage and stressed the urgent need for in-depth research to identify causes, constraints, solutions, and best practices.
	• By uniting stakeholders with diverse ideologies and employing consensus-building approaches, the Commission aimed to address the most pertinent concerns within the health system through this report.
	• The citizens' survey is the first comprehensive examination of health preferences across India since independence. Similarly, the UHC district-level pathways represent the first global effort to customise the WHO framework to a national context.
Effectiveness	• The citizens' survey data clearly reflect the preferences and aspirations of citizens and the outcomes of public spending across different states in India. However, these findings have yet to be shared with Niti Aayog representatives for evaluation of their effectiveness.
	• Webinars on evidence synthesis, conducted for researchers, were deemed effective by interviewees. They noted that engaging in systematic reviews as part of a team solidified their knowledge and boosted their confidence to conduct similar research in the future.
Convergence	• Over one hundred researchers from around the globe contributed to the report and other publications generated from the Commission's research.
	• The Commissioners and authors comprised health experts, economists, public policy specialists, and government representatives from various institutions.
	• In the district UHC metric, government officials from different states convened to discuss the qualitative study findings, facilitating an exchange of experiences and learning across states.
	• The Co-Chair emphasised the importance of maintaining the report's independence, limiting government involvement in the evidence generated. Greater convergence is anticipated once the draft report is reviewed by government representatives and during future consultations and dissemination sessions. However, there is no assurance that the government will engage with the Commission or act on its findings.
Sustainability	• As a premier health journal, The Lancet lends definitive, authoritative, and enduring credibility to the Commission Report that will be published on its platform.

Parameter	Assessment from Study
	• Training early and mid-career researchers in systematic review is expected to have a ripple effect, as many have taken up public health issues and continue to network with one another.
	• Although the focus was on the Commission Report, interviewees emphasized that their efforts would persist , resulting in numerous publications and papers derived from the citizens' survey data, district-level UHC mapping, and dialogues held during webinars and agenda-setting sessions.
	• The government is the key end user of the report. Therefore, the significance and impact of the findings on shaping public health in India depends on the government's response, which could not be gauged at the time of the study.

17.5. Alignment to the Infosys Limited's CSR policy and the UN SDGs



The project is aligned with Infosys Limited's CSR policy which includes **healthcare** as one of the key CSR focus areas for Infosys Limited. The project is also aligned with following UN Sustainable Development Goal (SDG):¹¹²



SDG-3 aims to **ensure good health and well-bring** and promotes a **healthy life and well-being for all at all ages**, with a **specific focus on strengthening healthcare systems**. This project is rooted in re-imagining health systems in India and is expected to strengthen universal health coverage in the country.

17.6. Study Limitations

- **Delay in completion of the report**: The Commission Report was initially expected to be published in August 2022; however, it faced delays due to the various reasons such as pandemic, stakeholders' unavailability, and the extensive volume of research. Consequently, this assessment could only evaluate the intended impact of the report findings.
- Exclusion of perspectives of government representatives: The study initially aimed to capture the views of the government by conducting IDIs with representatives from Niti Aayog. However, since the draft Commission Report had only recently been shared with them for expert review, their perspectives could not be included in this assessment due to their non-availability as informed by CMC.

¹¹² Source: <u>https://sdgs.un.org/goals</u> Price Waterhouse Chartered Accountants LLP

17.7. Case Stories

The following case story is based on an interview with a participant of the evidence synthesis workshops:

Developed knowledge and gained confidence through participation in evidence synthesis workshops

I have studied medicine and specialised in microbiology. Upon joining CMC Vellore, I realised that I lacked the necessary skills to fit the research profile, prompting me to enroll in the capacity-building workshop. Systematic reviews are considered the highest form of evidence but are challenging to undertake. As a young researcher, I was initially intimidated and believed it to be beyond my capacity. However, the workshop's material was broken down into short, manageable sessions, and real-life studies were discussed. We were trained to use specialised software and provided with a vast array of reading materials, which helped me understand that anyone can undertake a systematic review with dedication and hard work.

Following the webinars, we were assigned to teams and given specific topics to work on. The papers resulting from this exercise are poised to impact public health systems significantly, addressing pressing issues in India's health system. However, to cater to the Indian context effectively, a larger section of researchers across the country needs to participate in such efforts, as these publications alone are not sufficient.

As a researcher, publishing a systematic review elevates my profile, demonstrating that I have achieved more than my peers due to the difficulty of publishing such a study. Now, I know the steps required to publish a systematic review, including how to choose the right partners, as generating data requires considerable time and collaboration. This experience has significantly boosted my confidence and enhanced my research skills.

Dr Rose Abraham*

*Name changed

Project 15: Free Dialysis Care for Women Patients

18.1. About the Project



Chronic Kidney Diseases (CKD) represent a growing health concern that disproportionately affects women. Therefore, timely diagnosis and access to quality healthcare services are crucial for improving patient outcomes. Over the years, Infosys Foundation has supported numerous healthcare initiatives through its CSR efforts. One such project is the 'Free Dialysis Care for Women Patients'. As a part of this, Infosys Foundation collaborated with Bangalore Kidney Foundation (BKF) to deliver free dialysis treatment to underprivileged women with CKD. A schematic representation of the project specifics is depicted below:



Figure 156: Schematic Representation of Project Specifics¹¹³

Figure 157: Bangalore Kidney Foundation (BKF)



BKF is a non-profit organisation dedicated to raising awareness, preventing and treating kidney diseases in underprivileged communities in Karnataka.¹¹⁴ It has been providing regular dialysis to patients through a combination of affordable and free treatment options. BKF also offers nutrition, medication, and diagnostic tests.¹¹⁵

Currently, the center can accommodate approximately **100 patients** at a time with **state-of-the-art dialysis machines**. While catering to both men and women, BKF places special emphasis on **meeting the healthcare needs of women patients**. This center has established a **dedicated women's wing with women staff** and **35 beds** on the ground floor.

In June 2022, Infosys funded BKF to carry out the dialysis treatment of **84 women patients** suffering from CKD for one year. This project aimed to provide **life-saving**, and cost-free daily dialysis treatment and **promote self-sufficiency within 6 months**. It enabled **patients to return to their normal life** within 24 months, with the potential for a kidney transplant within three to five years.

¹¹³ As per Memorandum of Understanding (MoU) received from the Infosys Foundation.

¹¹⁴ https://www.bkfindia.in/about-us/about-bkf/

¹¹⁵ https://www.bkfindia.in/about-us/why-dialysis/

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18.2. Method of Impact Assessment



The impact assessment study employed an integrated and cohesive approach to assess the social impact. An initial meeting with Infosys and the administrative staff of BKF clarified the project's support and helped in aligning on requirements for commencing the assessment.

Following the meeting, PW received following documents:



- Memorandum of Understanding (MoU) signed with BKF containing project details
- Cost break-up for each dialysis session for a patient
- Final Report highlighting details and outcomes of project

PW team commenced a desk review of these documents. This facilitated the design of the assessment framework and the identification of key stakeholders for interactions.

A qualitative research methodology was employed to assess the impact. This methodology was instrumental in evaluating subjective experiences. It also helped the team to gain in-depth insights into the perspectives of various stakeholders involved in the implementation.

Key stakeholders were identified, and customised research tools were prepared to support guided conversations with each stakeholder. Subsequentially, an on-site visit was conducted to the BKF center to administer the questionnaires with the respective stakeholders. A total of twenty-one interactions were concluded as depicted in Figure 158:

Figure 158: Stakeholder Interactions¹¹⁶



Following In-depth Interviews (IDIs) were conducted:

- Healthcare staff at BKF including two doctors and three Nurses (5)
- Administrative representative at BKF (1)
- Current patients at the BKF center (15)

18.3. Analysis and Findings

Based on interactions and a review of the project documents, the findings have been summarised as follows:

18.3.1. Challenges Before the Project

- BKF reported significant challenges in CKD management, with few patients diagnosed and even fewer treated. In rural areas, the issue was acute among women, as families were reluctant to allocate resources for their treatment, leaving many untreated. Lack of awareness about free treatment programmes exacerbates the problem, resulting in many women neglecting their kidney issues due to financial constraints.
- Further, in many underprivileged communities, dialysis for women was considered taboo, as most were not earning members of the family. This often led to women being abandoned by their families, sometimes with their children, as they were seen as burdens. Consequently, their children faced physical and emotional distress and dropped out of school due to financial constraints.
- Women from neighbouring districts faced numerous obstacles in accessing dialysis treatment. As reported by doctors, major challenge for patients was the long commute to find such facility for

¹¹⁶ Due to the data confidentiality, patients' data was not requested from the hospital as a practice. However, the team was able to interact with a few patients during the visit to the facility to understand the impact of the free dialysis treatment offered to the women patients at the center. Price Waterhouse Chartered Accountants LLP 195 Impact Assessment Report

dialysis treatment. Some women could **only afford one dialysis session per week**, severely impacting their quality of life. Upon reaching the hospital, patients often encountered technical issues with machines or a lack of dedicated staff to provide dialysis treatment.

18.3.2. Summary of the Impact Created

• Enhanced Access to Free Quality Healthcare for Diverse Socio-Economic Groups:



BKF had only **55 women patients at the start of the project**, which has grown substantially to **130** patients a year after. BKF team stated that the provision of a free of cost treatment helped attract many women patients and increase their access to treatment. It was noted that approximately **85%** of the women reported no sickness during the **12-month period** of the project. Currently, the medical team at BKF includes **2 full-time doctors**, **3 rotational nephrologists**, and **20 nursing staff**, along with the team of technicians, administrative personnel, and cleaning staff.



The patients enrolled in this project are **local women** residing within a **50 km radius of Bangalore**, Karnataka. These individuals are identified through **targeted awareness campaigns, advertisements facilitated by BKF** in neighbouring communities, or referrals from other medical facilities in the vicinity. Priority is accorded to women who have been abandoned by their families. BKF team highlighted that **approximately 80% of these women originate from BPL households**, and **many are engaged in daily wage labour.**

At various private hospitals, the expense for dialysis treatment varied from **INR 2,500/- to 3,500/- per session**. However, patients highlighted that even if this center was to offer these sessions at a **subsidised cost of INR 400-500/-**, it would still pose a significant financial burden for them to attend daily. This project addressed this issue by providing free of cost treatment to these patients. Infosys covered the cost of each session at BKF, amounting to **INR 1,250/-**, thereby enabling a total of **12,352 dialysis sessions** through their funding.

Based on the feedback from women patients, this project introduced a 'women-only' floor to ensure the safety and privacy during dialysis treatment. This floor is managed exclusively by women doctors and nurses, enhancing patient confidence and comfort. BKF ensured prominent display of Infosys's branding in all activities, including dialysis sessions and public awareness events. Figure 159: Dialysis Treatment at BKF



Despite the availability of healthcare facilities, treatment is often deprioritised by patients or their families, leading to inconsistent care and treatment. Patients reported that, although the dialysis treatment was supported by Infosys Foundation, additional out-of-pocket expenses were borne by the patients or their families.



This project assists families in overcoming financial challenges and ensures that women patients receive proper care. The necessity of three times checkup in a week, lifelong dialysis poses a significant financial burden for many. Cost-free dialysis empowers more women patients from underprivileged communities to pursue essential treatment. Additionally, we ensure prompt follow-ups for missed appointments.

As narrated by a Nursing Staff, Bangalore Kidney Foundation

Enhanced Overall Health and Well-being of Patients:

A doctor emphasised the importance of **regular dialysis to prevent the buildup of harmful substances in the body** and **enable patients to lead normal lives**. Under this project, BKF **monitors vital parameters of patients** throughout the dialysis sessions and manage conditions like hypertension and diabetes, which often accompany CKD. The center provides **supportive treatments and maintain detailed records** to ensure that patients adhere to their treatment schedules.



The administrative staff reported that **regular dialysis has reduced contamination levels** in patients' blood, **leading to better health and well-being**. Many patients have shown **improved nutritional status, experiencing healthier weight gain and better appetite**. Additionally, **numerous women have resumed normal routines**, including family care, and in some cases, have returned to work or engaged in small-scale livelihoods.

BKF has fostered an **atmosphere of camaraderie for their patients**, rather than a typical hospital environment. Women patients find their time more enjoyable through various activities such as music, games, and interaction with children. This makes them feel that they are there for their well-being, not just for treatment.

Over 6 months, approximately **35 women showed nutritional improvement and could function without a caretaker**. Around **15 women resumed active professions**, including working on handicrafts, embroidery or tailoring. Out of 84 women¹¹⁷, this project **enrolled 25 for potential kidney transplants**, with **10 women likely to undergo the treatment**.

Additionally, women felt more equipped to contribute to their families, and care for their children. This reduced challenges like school dropouts and the risk of abuse for children. Many women reported more fulfilling married lives and greater stability after receiving treatment. They feel less fatigued, manage daily activities better, and have improved eating habits by following dietary advice from BKF doctors. Overall, they experience fewer illnesses, leading them to feel like they can live normal lives. Due to the positive impact and high-quality treatment, this project has seen an increase in referrals from regional nephrologists.



This project has significantly improved physical health of women patients and restored their confidence. It has enabled them to lead productive lives with improved energy levels and the ability to manage daily tasks effectively. Initially, these women often present as weak and isolated, but consistent dialysis helps them regain their health and energy levels. The supportive environment at this center not only facilitates physical recovery but also offers emotional support, helping patients regain a sense of purpose.

As narrated by an Administrative Staff, Bangalore Kidney Foundation

• Creating Awareness on the CKD and Taboos Related to its Treatment:



Over the years, this project has recognised the **impact of the social stigma and taboos** associated with CKD on **patients' ability to access treatment, particularly for women**. Women, often viewed as non-earning members of the family, are **less likely to receive support for their treatment**. In such situations, women may **resign themselves to fate & refrain from seeking necessary medical care.**



Providing free treatment, creating a women-friendly environment and involving families in the treatment plan have helped shift perspectives and reduced the stigma associated with dialysis. Families are now more accepting and supportive, understanding the importance of regular treatment and the positive impact on health and quality of life.

Education and knowledge sharing with patients and families have made them **more comfortable with the treatment**. The doctor and administrative staff stated that they raised awareness about the free dialysis treatment for women with CKD through **social media**, **hospital signages**, **and public placards**. This led to a significant influx of women seeking treatment. This project **helped disseminate vital information**, **encouraging women to seek treatment independently**.

This project also **engaged counsellors** on a weekly basis to provide positive reinforcement regarding dialysis outcomes to patient and their families. Over time, **women who have been undergoing treatment act as community ambassadors**, encouraging others with CKD to seek treatment. Despite ongoing education efforts, not all patients have registered for dialysis or kidney transplants, highlighting the need for continued efforts in this area.

Given the project's focus on women, doctors suggested that similar projects could be considered in the future to support male patients as well, given their circumstances during CKD. It is important since these men often lose their jobs due to the physical and time-related demands of dialysis treatment, which involves 4-hour sessions, three days a week. As breadwinners, their health and well-being are crucial for the financial stability of their entire household.



Many women from underprivileged communities, including myself, are often overlooked or neglected by their families when health issues arise. We feel like burdens to our families, and societal stigmas and taboos prevent us from seeking medical help. When I was diagnosed with CKD, a friend introduced me to BKF, which saved my life. The support from Infosys Foundation enabled me to receive free treatment, completely transforming my life. It has been 8 years since I started coming to this center, and now I am living a normal and healthy life.

As narrated by a Patient, Bangalore Kidney Foundation

18.4. IRECS Analysis

Basis the interactions with the key stakeholders and desk review, **the impact of the project was also assessed on the IRECS framework parameters**. The IRECS analysis summary has been presented in below table:

-

Parameter	Assessment from Study
Inclusiveness	• This project demonstrates inclusivity by providing treatment to women patients from economically weaker sections of society irrespective of their age and socio-demographic background.
	• This project provides this dialysis treatment free of cost , thereby breaking taboos around CKD and increasing women's access and awareness of kidney disease treatment.
Relevance	• Women from underprivileged communities often do not seek treatment due to financial and struggles and societal taboos. In India, kidney disease is not prioritised and only a fraction of patients receive treatment.
	• In the past, BKF encountered numerous cases of women missing regular dialysis sessions due to financial instability.
	 Therefore, there was a need to spread awareness and conduct free dialysis programmes for women from these underprivileged communities.

Table 34: IRECS Analysis

Parameter	Assessment from Study
Effectiveness	• Over the past 12 months, more than 84 women patients have undergone regular dialysis sessions, either 8 or 12 dialysis per month, as prescribed. The regular dialysis supported by Infosys and the free renal medication given has resulted in the patients being relatively free from sickness and hospitalization.
	• Regular dialysis has significantly improved patients' wellbeing. Over 25% of the women patients have been able to attend treatment independently, without needing a care giver to accompany them to Bangalore Kidney Foundation
	• Approximately 85% of the women reported no sickness during the 12-month period . Out of the 84 women, the project has enrolled 25 for potential kidney transplants, estimating that around 10 might successfully undergo transplantation.
	• Additionally, the project enhanced the privacy , safety and comfort of women patients with the construction of a 'Women only floor'.
Convergence	• There was a growing need for awareness and treatment of chronic kidney disease among women. This partnership between the Infosys Foundation and Bangalore Kidney foundation has successfully addressed this need, improving healthcare for women from underprivileged communities.
	• Additionally, this project boasts of partnerships and support from numerous other financial donors and caters to referrals of dialysis patients from many other hospitals within the Bangalore periphery.
Sustainability	• The first batch of women who participated in the project have become the ambassadors for the center, promoting the benefits and encouraging others to seek dialysis treatment.

18.5. Alignment to the EdgeVerve's CSR policy and the UN SDGs



The project is aligned with EdgeVerve Systems Limited's CSR policy which includes **healthcare** as their key CSR focus areas. The project is also aligned with Sustainable Development Goal¹¹⁸ as follows:



SDG-3 emphasises on ensuring healthy life and promoting well-being for women, with a specific focus on ensuring reintegration women afflicted with CKD into their normal life. Additionally, by offering nutrition, medication, diagnostic tests and healthcare awareness, the project promotes long-term well-being. This aligns with the goal of ensuring healthy lives for women, ultimately improving community health outcomes.

SDG-5 aims to achieve gender equality and empower all women and girls. This project supports this goal by providing women with access to essential healthcare services and helping them achieve self-sufficiency and independence in leading normal lives during CKD. By providing dialysis treatment, it reduces gender disparities in healthcare access and ensures women receive the necessary care.

18.6. Study Limitation

• Limited availability of patients: Patients at the center undergoing treatments and medical examinations, were understandably focused on their treatment. Consequently, the time available for in depth discussion was limited.

¹¹⁸ Source: <u>https://sdgs.un.org/goals</u> Price Waterhouse Chartered Accountants LLP

18.7. Case Stories

Following case stories have been gathered through discussions held with the project stakeholders during field visit to this center:

Case Story 1: Journey of Self-Transformation

Rita*, a 32-year-old mother of three, faced a significant challenge when diagnosed with kidney failure. Her husband, unable to cope, left her and their children at her parents' home. Despite profound emotional distress, Rita showed remarkable resilience. Initially seeking treatment at Victoria Hospital, she found it overwhelming physically, financially, and mentally. Battling depression and constant worry about her children's education and her own health, Rita, with limited education and no income, hesitated to further burden her elderly parents. At this critical juncture, she learned about this center through Victoria Hospital and sought their assistance.

Currently, Rita undergoes dialysis on alternate days, resulting in significant improvements in her health and energy levels. The center also connected her with NGOs to ensure her children received proper education. Additionally, BKF supported her in acquiring skills such as stitching and embroidery, which she now uses to generate a modest income. The dialysis treatment has not only enhanced Rita's physical well-being but also transformed her outlook on life. She has regained her strength and confidence, actively managing her household.

Case Story 2: Rama's Resilience: Transforming Life with BKF and Infosys Foundation Support

Rama^{*} faced a significant challenge when diagnosed with kidney failure, requiring regular dialysis. This diagnosis prevented her and her husband, a photographer, from having children, which was emotionally difficult, especially for Rama. Determined to live a meaningful life, she found support through the Infosys Foundation Dialysis Programme at BKF, which improved her quality of life. Before this project, the financial burden of dialysis was overwhelming. The free treatment provided by the programme allowed her to focus on her health without worrying about costs. She now undergoes dialysis three times a week, maintaining her energy levels and staying active. Rama has embraced her role in the BKF community. She participates in marathons and awareness programmes, helping raise awareness about kidney health. Her educational background enables her to share valuable knowledge with fellow patients, offering guidance on diet, lifestyle choices, and maintaining a positive outlook during treatment. Regular yoga practice has become vital for her physical fitness and mental strength. This Infosys-supported project has not only provided quality treatment but also empowered Rama to take control of her life.

Case Story 3: Empowered Through Adversity

Priya*, a 28-year-old woman, was diagnosed with kidney failure two years ago. She had to undergo dialysis three times a week, disrupting her life. Coming from an underprivileged background, Priya couldn't afford the high cost of treatment and struggled to find a solution. Learning about the free dialysis programme through a neighbour changed everything. With support from the Infosys Foundation, she now receives regular treatment without financial strain. Priya's energy levels have improved, and she feels much better. She even took up small tailoring work to support herself, earning a modest income while managing her health. Empowered by the care and support she receives; Priya is now hopeful for the future. She has applied for a kidney transplant and dreams of living a more independent and healthy life. Though challenges remain, her determination and the support from Infosys have given her the confidence to plan for a better future.

*Name Changed

Project 16: 20-bed ICU facility at Telangana State Road Transport Corporation (TSRTC) Hospital

19.1. About the Project



Accessible healthcare facilities are vital for community development. Proximity and timely access to these services can significantly enhance quality of life and improve health outcomes. Adequate access reduces disparities, prevents disease progression, and bolsters overall community well-being.

Over the years, Infosys Foundation has implemented numerous healthcare initiatives through its CSR efforts. One notable project is its support for establishing a fully equipped 20-bed ICU facility at Telangana State Road Transport Corporation (TSRTC) Hospital, Hyderabad, Telangana through its Implementing Partner, United Way of Hyderabad. This ICU facility aims to enhance the hospital's capacity to provide critical care, ensuring that patients receive timely and effective medical attention. Equipped with advanced monitoring equipment and technology, it is designed to enable healthcare providers to manage complex cases efficiently. The ICU facility was established with the primary objective of addressing COVID-19-related symptoms after the decline in active cases. The scope of the facility has since been expanded to provide comprehensive critical care services to all patients, reflecting a strategic shift to meet broader healthcare needs. Below Figure depicts an overview of project specifics:

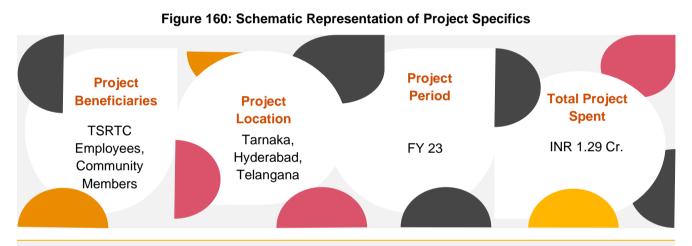


Figure 161: TSRTC Hospital Building



TSRTC Hospital serves as both a preventive and curative healthcare facility, catering to over 500,000 people annually. The hospital offers free treatment to the TSRTC employees while also attending to a substantial number of students from Osmania University and residents from more than socio-economically 20 nearby deprived neighbourhoods (Bastis). The hospital plays a pivotal role in promoting health and well-being by providing comprehensive medical services. Under this project, an additional 20-bed ICU ward was set-up complement the existing 10-bed ICU to infrastructure in the hospital. Below table provides an overview of support provided by Infosys under this project:

Table 35: Medical Equipment Provided under the Project¹¹⁹

#	Medical Items and Equipment	Quantity	Purpose
1.	Intensive Care Unit (ICU) Beds	20	To provide critical care and close monitoring to patients with severe or life-threatening illnesses or injuries

¹¹⁹ Source: Project documents shared by Implementing Partner Price Waterhouse Chartered Accountants LLP

#	Medical Items and Equipment	Quantity	Purpose
2.	Defibrillators with Automated External Defibrillators (AED) and Pacing	2	To restore a normal heartbeat by sending an electric pulse to the heart
3.	Arterial Blood Gas (ABG) Machines	2	To measure levels of oxygen (O2), carbon dioxide (CO2), pH, and other parameters crucial for assessing respiratory and metabolic functions
4.	Multi-parameter Monitors	20	To monitor a patient's vital signs
5.	Multi-parameter Monitors with end-tidal capnography (EtCO2)	5	To give continuous, real-time details about how a person is breathing
6.	Ventilators	7	To help a patient breathe
7.	Endotracheal Tubes (various sizes)	4	To provide oxygen and inhaled gases to the lungs and protects them from contamination, such as gastric contents or blood
8.	Laryngoscopes	5	To examine a patient's throat and vocal cords
9.	Ambubags	9	Used for resuscitation in emergency situations, such as cardiac arrest
10.	Airbeds/Alpha Beds	10	Used for patients who are bedridden and need to be turned frequently to prevent pressure sores
11.	Steel Instrument Trays	18	Vital in clinical care for organizing instruments, ensuring sterility, and enhancing efficiency during procedures
12.	Steel Bins	50	Used for safe storage of various types of clinical waste
13.	Wheelchairs	5	To provide mobility for patients who have difficulties in walking
14.	Collapsible Stretchers	6	Used for moving the patients to and from operation theatres or ambulance
15.	Intravenous (IV) Stands	100	To provide support for intravenous therapy and ensuring the safe delivery of medications and fluids
16.	Infusion Pumps with Stands	50	To deliver fluids, such as nutrients and medications, into a patient's body in a controlled manner
17.	Crash Carts	6	To store essential medical supplies, equipment, and medications to treat life-threatening medical emergencies
18.	Glucometers	10	To monitor a patient's blood sugar levels
19.	Suction Apparatuses	10	To remove obstructions, like mucus, saliva, blood, or secretions from a person's airway
20.	Electrocardiogram (ECG) Machines	3	To record how often the heart beats (heart rate) and how regularly it beats (heart rhythm)
21.	Bedside Waste Collection Bins	20	To store general waste being generated in the ward for further safe transport and disposal
22.	Large Waste Collection Bins (with wheels and lids)	20	

19.2. Method of Impact Assessment



The impact assessment study utilised **an integrated, consultative and cohesive approach to evaluate the social impact** of the project's implementation. To initiate the impact assessment exercise, a kick-off meeting was held with Infosys Foundation, followed by a project briefing call with the Medical Administrator and Head Doctor from TSRTC Hospital and Project SPOC from United ways of Hyderabad (Implementation Partner). These meetings provided the research team with valuable insights into the specific support provided under this project.

The team also requested specific project documents from the Foundation, the Implementing Partner and the Hospital representative for desk review. Subsequently, PW received the following **project documents** from Infosys Foundation:

• **Request letter from TSRTC** to United Way of Hyderabad specifying the requirement of the new ICU facility



- **Memorandum of Understanding (MoU)** signed between Infosys Foundation and United Way of Hyderabad containing project's operational details
- **Acknowledgement letter** from the Superintendent and CMO (TSRTC Hospital) acknowledging Infosys Foundation's support in setting up the ICU facility
- **Project Closure report** indicating the project period, spent, and expected outcomes

Accordingly, PW team commenced a **desk review** of the project documents which **facilitated the design of the assessment framework and the identification of key stakeholders** for interactions.

The project activities focused on establishing a state-of-the-art 20-bed Intensive Care Unit (ICU) to serve patients, requiring critical care. A qualitative research methodology was employed to assess the impact of this project. This methodology was instrumental in evaluating subjective experiences and gaining indepth insights into the perspectives of various stakeholders involved in the project.

Key stakeholders were identified and tailored research tools were prepared to ensure comprehensive and insightful data collection. The stakeholders include:



Figure 162: Sampling Plan

- Five In-depth Interview (IDIs) with healthcare staff working in TSRTC hospital and associated with the ICU unit including two IDIs with doctors and three IDIs with Nurses
- One IDI with admin representative at TSRTC Hospital
- Three IDIs with current patients' attendants at TSRTC Hospital^
- One IDI with the project team of Infosys Foundation
- One IDI with United Way of Hyderabad

^To maintain data confidentiality, patients' information was not requested from TSRTC Hospital as a practice. However, during our visit to the hospital, team was able to interact with a few patients' attendants to gain insights into the impact on their patients' lives.

19.3. Analysis and Findings

This section summarises the findings from the desk review and interactions:

19.3.1. Challenges Before the Project

- TSRTC Hospital is tasked with providing healthcare services to a substantial population, including over
 45,000 employees and their families. This large demographic group places a substantial demand on the hospital's resources, particularly in critical care. Besides, the team also noted following challenges prior to project interventions:
- Limited ICU Capacity: The previous ICU facility of hospital was limited, accommodating only ten
 patients at a time. This inadequate capacity posed challenges in meeting the high volume of patients
 requiring intensive care especially during "golden hour¹²⁰". The hospital repeatedly found itself
 overwhelmed by the demand for ICU beds, resulting in severe overcrowding and an inability to offer
 timely care to all the critically ill patients.
- Financial Burden on TSRTC: Earlier, when the ICU reached full capacity, the hospital was compelled to refer its patients to other hospitals for treatment. Since, TSRTC is responsible for covering the medical expenses of its employees and their families, this practice not only delayed essential care but also imposed a substantial burden on the hospital. As reported by the hospital administration, the costs incurred from transferring patients to external facilities can be substantial, often exceeding the government rate for ICU services.
- Financial Implications for the Patients: Furthermore, this hospital extends its services beyond TSRTC employees and their family members, particularly catering to those from financially deprived communities. Previously, due to limited patient capacity in the ICU ward, these patients often had to seek treatment at nearby private facilities which imposed a significant financial burden. The treatment costs at these private institutions are substantially higher compared to the Government- approved costs at TSRTC hospital.

19.3.2. Summary of the Impact Created

1. Addressing the substantial demand for critical care services

- The new ICU facility is equipped with seven • ventilators, strategically positioned to optimize patient care. Since its inception, these critical life-saving devices have played an instrumental role in providing essential ventilatory support to numerous patients. This is particularly significant as, despite the presence of other nearby hospitals, majority of the patients prefer TSRTC Hospital for their treatment.
- Additionally, the area surrounding the hospital frequently experiences seasonal outbreaks of infectious diseases, such as dengue, and fever, particularly during the monsoon season. This leads to a surge in patients with respiratory

Figure 163: Plaque depicting Infosys Foundation's support



complications. According to the hospital staff, the ventilators installed in the ICU have enhanced the hospital's capability to deliver advanced care during such crisis.

¹²⁰ The "golden hour" is a critical time period immediately following a traumatic injury, such as those sustained in accidents. It is generally considered to be the first hour after the injury occurs. During this vital window, the chances of survival and the likelihood of minimizing long-term consequences are significantly higher if the patient receives prompt and appropriate medical treatment. Rapid intervention, including emergency care and stabilization, can be crucial in preventing severe complications and improving outcomes for the injured individual. Price Waterhouse Chartered Accountants LLP

"

The criticality of the ventilators installed in the ICU becomes particularly evident during and immediately after the monsoons. During this period, outbreak of infectious diseases such as dengue occur in the nearby **bastis**, resulting in numerous patients arriving at the hospital with various complications. Some of these patients require ventilator support due to severity of the disease and the associated acute respiratory distress syndrome (ARDS). Without the ventilator-equipped ICU, accommodating such patients would have been extremely difficult.

As narrated by a Doctor at TSRTC Hospital

2. Augmented capacity for patient management

- TSRTC hospital offers complimentary treatment and consultation services to approximately 45,000 TSRTC employees and their families, resulting in a substantial influx of patients. As reported by the hospital staff, the facility handles an average of 1,300 to 1,400 consultations daily.
- Previously, the 10-bed ICU could only meet the demands of limited patients requiring critical care. However, since the new ICU facility has been set-up, close to 1,500 patients have utilized the facility. Thus, the upgrade and addition of a 20-bed ICU has significantly enhanced the hospital's capacity to deliver critical care to patients in need.



Figure 164: Staff attending to the patients at the ICU

- It was also reported that patients requiring critical care were previously placed on a waitlist, often for 8-10 days, due to full occupancy of beds in the existing ICU facility. However, this expansion has reduced the waiting time for ICU admissions to 0-2 days (depending on the severity of the cases), allowing healthcare providers to deliver timely support crucial for patient recovery.
- While the hospital staff acknowledged the superior quality of equipment in the new ICU facility, they also
 reported that the mattresses on the ICU beds have undergone some wear, tear and bending. This
 has been attributed to continued and extended usage. As per the staff, this inhibits ability to
 enhance comfort and ensure proper alignment, particularly for patients who are bedridden for
 extended periods.

3. Enhanced patient outcomes and increased staff capacity to deliver affordable quality care

• Consequently, the overall patient outcomes have also shown considerable enhancement. According to hospital staff, this is due to the hospital's increased capacity to serve a larger volume of patients requiring intensive care, ensuring timely treatment at critical moments. This capability not only enhances the quality of care, but also reduces likelihood of complications from delayed treatment.

Figure 165: Medical Equipment in the ICU Facility



Defibrillators

Multi-parameter Monitors

- Ventilators
- This upgrade also alleviates strain on existing healthcare resources, enabling staff to function more efficiently. With expanded capacity and enhanced resources, healthcare professionals can respond more adeptly to emergencies. This bolsters the community's confidence in the hospital's readiness to deliver essential care during crises.



Before receiving new medical equipment, nursing staff struggled with outdated tools and limited resources. Further, high patient-to-nurse ratios often resulted in burnout and compromised care quality. Following the integration of advanced medical equipment, nursing staff participated in training sessions to familiarize themselves with new technologies, ensuring confident and proficient use. With access to multi-parameter monitors, nurses can now detect changes in the patient's conditions well in advance, enabling timely interventions and reducing the incidence of adverse events.

As narrated by Head Nurse (ICU Unit) of TSRTC Hospital

 Furthermore, while TSRTC employees and their families incur no consultation or treatment costs, other patients benefit from significantly subsidized fees. The attendants of patients reported that all the equipment within the ICU facility is of high standard. Combined with minimal or no costs, this enables patients to access high-quality medical care without incurring significant expenses. According to one of the doctors, the ICU bed rate for non-TSRTC patients is fixed at INR 3,000 per night at the hospital, whereas similar accommodations in private hospitals with basic equipment can easily range from INR 8,000 to INR 10,000 per night.

4. Alleviated financial strain on TSRTC Administration

- This project has also reduced instances of patient referral to other hospitals. Earlier, transferring patients for critical care support resulted in annual losses of approximately INR 3- 4 Crore for TSRTC, as the organisation had to bear the cost of transfer and subsequent treatment costs for its employees.
- This reliance on outside facilities not only strained the hospital's budget but also complicated the logistical
 management of patient care. However, following the enhancement of ICU infrastructure, the current
 expenditure related to patient referrals has decreased to around INR 1.2- 1.5 Crore per annum.
 This reduction of approximately 50% in operating costs alleviated the financial burden on the
 hospital.
- With fewer patients requiring external transfers, resource allocation **can now be allocated to further enhance care quality within the hospital.** The preserved budget can be reinvested into vital areas such as staff training, medical supplies, and facility improvements, thereby further enhancing the hospital's operational capacity.



The ICU facility has undoubtedly been beneficial for both patients and the healthcare staff at the hospital. The hospital administration has also reaped benefits. One of the very pertinent impact areas is reduction in costs associated with patient referrals, resulting in substantial annual savings. These saving can be redirected towards developing infrastructure in other parts of the hospital and establishing additional specialty wards.

As narrated by TSRTC Hospital admin representative

19.4. IRECS Analysis

Basis the interactions with the key stakeholders and desk review, the impact of the project was also assessed on the IRECS framework parameters. The IRECS analysis summary has been presented in below table:

-

Parameter	Assessment from Study
Inclusiveness	 TSRTC Hospital is committed to inclusive healthcare, offering free treatment and consultations to approximately 45,000 TSRTC employees and their families. Additionally, non-TSRTC patients benefit from subsidized fees, making healthcare more accessible to a wide demographic. This comprehensive care includes access to the ICU facility, supported by Infosys Foundation under the project. The ICU facility plays an important role in managing seasonal outbreaks of infectious diseases, such as dengue, which predominantly impact local
	communities . This project ensures that vulnerable populations receive timely and essential medical attention.
Relevance	• This project addresses the local community's needs, particularly during monsoon seasons when respiratory complications surge due to infectious diseases . This is especially crucial for residents of neighborhood (<i>bastis</i>) , who often come from economically weaker strata of society.
	• The Hospital averages 1,300-1,400 consultations daily , amounting to approximately 5,00,000 patients annually. With an upgrade to additional 20-bed ICU , the hospital effectively meets the growing critical care demands driven by high patient influx , demonstrating its responsiveness to local healthcare needs.
Effectiveness	• The project has enhanced patient outcomes and experience by enabling timely interventions and reducing wait times for ICU admissions, thereby improving the overall quality of care.
	• The integration of advanced medical equipment has streamlined operations, allowing nursing staff to more effectively detect changes in patient condition. This leads to timely care and a reduction in adverse events.
	• The wait times for critical care admissions in ICU is decreased considerably, which previously extended to 8-10 days. Patient admissions and wait times now depend more on patient criticality rather than availability of beds in the ward.
	• The enhancement of ICU infrastructure has reduced annual patient referral costs to INR 1.2-1.5 crore , cutting operating expenses of TSRTC by about 50%. This significant decrease eases the hospital's financial strain and improves its ability to provide quality care.
Convergence	• TSRTC hospital is a state government-run hospital and hence, this support from Infosys Foundation is aligned with the government's efforts towards improving healthcare within the state of Telangana.
	Accountants LLP Impact Accossment Papart 209

Table 36: IRECS Analysis

Parameter	Assessment from Study
Sustainability	• The reduction in patient referrals has resulted in significant cost savings , approximately 50% decrease in operating costs for TSRTC. This enabled the hospital to reinvest in essential areas such as staff training and medical supplies, contributing to long-term sustainability.
	• The hospital's enhanced capacity to provide critical care during emergencies fosters community confidence, ensuring ongoing support and patronage. This trust is vital for sustaining hospital operations and services.

19.5. Alignment to the Infosys Limited's CSR policy and the UN SDGs



The project is aligned with Infosys Limited's CSR policy which includes **healthcare as one of the key CSR focus areas for Infosys Limited.** The project is also aligned with following Sustainable Development Goal (SGDs)¹²¹:



SDG-3 emphasises on **ensuring healthy life and promoting well-being for all at all ages**, with a **specific focus on strengthening healthcare systems**. Setting up an ICU ward enhances healthcare access and improves patient outcomes, thereby ensuring healthier lives and well-being for all ages

SDG-9 pertains to **building resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation**. The project involves building critical healthcare infrastructure which would foster innovation in medical practices and strengthens the resilience of health systems.

SDG-11 emphasises on making **cities and human settlements inclusive, safe, resilient and sustainable**. By setting up the ICU ward in the hospital, the project contributes to building resilient infrastructure in the urban setting and ensuring that communities can access essential health services.

19.6. Study Limitation

• Limited availability of patients: Patients at hospital, undergoing treatments and medical examinations, were understandably focused on their ongoing treatment processes. Consequently, interactions were primarily conducted with their attendants, and the time available for in depth discussion was limited.

¹²¹ Source: <u>https://sdgs.un.org/goals</u> Price Waterhouse Chartered Accountants LLP

19.7. Case Stories

Following case stories have been gathered through discussions held with the project stakeholders during field visit to TSRTC Hospital:

Case Story 1: From Crisis to Recovery^

Sita* a 45-year-old woman from Telangana, lived a busy life, balancing part-time work and household responsibilities. During the monsoon season, she developed a high fever, body aches, severe headaches, and joint pain. Initially dismissing it as a viral fever, she opted for over the counter medicines. However, her symptoms worsened, prompting her family to take her to a clinic. There, she was diagnosed with dengue fever. Her platelet count had plummeted to critical levels, and she was showing signs of dengue haemorrhagic fever, a severe form of dengue that can cause internal bleeding. Doctors soon noticed black stools, a symptom of gastrointestinal bleeding. Her platelet counts further dropped further, falling below 20,000, which put her at risk for additional complications. She was then admitted to the ICU at TSRTC Hospital in Tarnaka, where doctors placed her on intravenous fluids and monitored her closely. After several exhausting days of intensive treatment including supportive care for her fever, pain, and critical platelet levels, her condition began to improve. Her platelet count stabilized, and the internal bleeding subsided. After two weeks in the hospital, she was discharged with instructions for rest and proper nutrition to aid her recovery. It further took a month of home care and follow-ups for her to fully regain her strength. Sita's case underscores the importance of timely and expert critical care in managing severe diseases.

Case Story 2: Lifeline in times of need

Rakesh*, a long-time bus driver with TSRTC, recently began experiencing troubling symptoms, including low blood pressure and persistent numbness that significantly disrupted his daily life at home and work. After enduring these symptoms for a week, his condition worsened, prompting his wife to seek medical attention. At the TSRTC hospital, he was diagnosed with dangerously low electrolyte levels, a condition that can lead to severe complications if left untreated. The numbness he experienced highlighted the critical nature of his imbalance, necessitating immediate medical intervention. Rakesh was admitted to the ICU, where the medical team promptly initiated treatment to restore his electrolyte levels. Thanks to his employment with TSRTC, the family did not face any financial burden for his hospital stay, allowing them to focus entirely on his recovery without the added stress of medical expenses. This support provided significant relief during a challenging time. The hospital staff delivered attentive care, closely monitoring his condition and administering the necessary intravenous fluids and electrolytes. As his condition improved, Rakesh was soon ready to be transferred to the general ward, with plans for his discharge within a few days. This case underscores the importance of timely medical intervention and the benefits of supportive employment policies during health crises.

* Name changed

A Case Story 1 has been provided by the hospital staff, while the Case Story 2 has been gathered through direct beneficiary interaction

Project 17: Advancing Healthcare Access at KEM Hospital, Pune

20.1. About the Project



The foundation of a prosperous community lies in its ability to provide **accessible**, **advanced**, **and reliable healthcare services**. A **robust healthcare infrastructure**, **equipped with state-of-the-art technology**, ensures timely medical intervention and fosters equitable health outcomes, especially for vulnerable populations.

In alignment with its mission to bridge critical healthcare gaps, Infosys Foundation has partnered with KEM Hospital in Pune, to strengthen its ability to deliver specialised care. A core aspect of this project involved the procurement of **two medical equipment**:

a. An MRI-compatible ventilator, with accessories for the Paediatric Intensive Care Unit (PICU), and
b. A mobile IVUS system for the Catheterization laboratory (Cath Lab)

These cutting-edge technological equipment **aimed at improving hospital's capacity to manage complex cases in the Department of Cardiology and PICU of KEM Hospital**, enabling precisiondriven care to critically ill patients, including those sufferings from COVID-19 and post COVID-19 syndrome.

Below figure depicts an overview of project specifics:

Figure 166: Schematic Representation of Project Specifics¹²²



Figure 167: KEM Hospital, Pune



Established in 1912, KEM Hospital, Pune is one of the largest private hospitals in the region. Began with 4 maternity beds, it is now a **550+ bedded multi-specialty tertiary level teaching institution.** It stands as a cornerstone of healthcare for the community in and around Pune, offering high-quality medical services to thousands of patients annually, including individuals from socio-economically disadvantaged backgrounds.¹²³

By providing the hospital with these advanced medical equipment, this project underscores Infosys Foundation's unwavering commitment to advancing healthcare infrastructure and improving lives.

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Price Waterhouse Chartered Accountants LLP

¹²² MoU signed between Infosys Foundation and KEM Hospital

20.2. Method of Impact Assessment



The impact assessment study adopted an **integrated and consultative** approach to evaluate the social impact of this project. To initiate the process, **a kick-off meeting** was conducted with Infosys Foundation, followed by **a project briefing call with the Medical Administrator and staff at KEM Hospital.** These discussions provided the research team with critical insights into the project's activities and its intended outcomes.

The team also requested specific project documents from the foundation and hospital representative for desk review. Subsequently, PW received the following project document:



• Memorandum of Understanding (MoU) signed between Infosys Foundation and KEM Hospital containing project's details and information

Accordingly, PW team commenced a **desk review** which **facilitated the design of the assessment framework and the identification of key stakeholders** for interactions.

A qualitative research methodology was employed to assess the impact of this project. This approach was instrumental in capturing subjective experiences and obtaining in-depth insights from stakeholders, allowing for a comprehensive evaluation of the project's effectiveness and its contribution to improving healthcare delivery.

Key stakeholders were identified and tailored research tools were prepared to ensure comprehensive and insightful data collection. The stakeholders include:



Figure 168: Sampling Plan

- Four In-depth Interview (IDIs) with healthcare staff working in KEM Hospital (two IDIs with doctors, one IDI with Nurse and one IDI with Cath Lab technician)
- One IDI with admin representative at KEM Hospital
- Two IDIs with caregivers at KEM Hospital^
- One IDI with the project team of Infosys Foundation

^To maintain data confidentiality, patients' information was not requested from KEM Hospital as a practice. However, during our visit to the hospital, team was able to interact with a few caregivers to gain insights into the impact on their patients' lives.

20.3. Analysis and Findings

This section summarises the findings from the desk review and interactions:

20.3.1. Challenges Before the Project

The following challenges were identified prior to the project interventions at KEM Hospital:

Limited Access to Advanced Medical Equipment: Prior to the intervention, KEM Hospital struggled to
access specialised equipment essential for managing complex paediatric and cardiac cases. The
absence of these equipment forced the medical staff to depend on third-party suppliers to rent necessary
equipment (INR 25,000/- per case), hindering timely access to vital healthcare facilities and creating
financial burden on the patients. Furthermore, inconsistent equipment availability caused delays and
compromises in patient care. As the hospital experienced an increase in critical and specialised cases,
these constraints became significant obstacles in meeting patient demands and delivering high-quality,
timely healthcare.

- Inadequate Ventilation Support during Patient Transfer: The absence of an MRI-compatible ventilator posed difficulties in transferring critically ill paediatric patients from the PICU to the MRI facility. In its absence, medical staff resorted to manual bagging techniques to supply oxygen, requiring nurses or other personnel to manually compress an Ambu Bag. This method was not only physically draining but also prone to inconsistencies, varying among staff members, which could result in insufficient oxygen supply or excessive pressure. Additionally, this method lacked continuous monitoring capabilities, increasing the risk of oxygen deprivation or complications. Consequently, patient transfers were particularly stressful, heightening the risk of compromised safety, especially for vulnerable paediatric patients who require precise and uninterrupted respiratory support.
- Limited Diagnostic Precision and Ability to Identify Critical Areas: KEM Hospital faced considerable difficulties in diagnosing and visualising critical cardiovascular issues, especially in complex cases.

The lack of advanced diagnostic tools often left doctors "working blindfolded," as a senior cardiologist described, inhibiting their ability to fully identify or assess abnormal branches and other critical areas during angiography. This limitation was especially evident in younger patients who did not present typical risk factors like diabetes or smoking history. The absence of detailed, three-dimensional insights into these vascular conditions impeded precise and timely diagnoses, affecting the delivery of specialised care and determining future treatment courses.

20.3.2. Summary of the Impact Created

1. Enhanced Diagnostic Precision and Improved Patient Transfers:

 With the introduction of the Mobile IVUS system at KEM Hospital, the quality of care for patients with vascular conditions has significantly improved. The IVUS system provides detailed three-dimensional images of the interior of blood vessels as highlighted by Doctors. This allows medical staff to see blockages, vessel walls, and other important aspects that previous imaging might miss, leading to a more accurate diagnosis.

With clearer insights into vascular conditions, doctors are now able to more effectively determine the severity and nature of issues such as blockages or aneurysms. This precision has enabled them to devise more effective treatment plans for their patients.

Further, the ability to diagnose and treat conditions with greater accuracy has





reduced the likelihood of complications and ensured that patients receive appropriate and timely medical attention. Younger patients often present with symptoms that are non-standard or harder to diagnose with traditional methods. The IVUS system helps detect underlying vascular conditions in these patients, who then benefit from timely and targeted treatment.

Critically ill paediatric patients often require MRIs for detailed imaging, but the process can be risky without continuous and reliable ventilatory support. The MRI-compatible ventilator provided by Infosys Foundation mitigates these risks by ensuring uninterrupted breathing support throughout the procedure as mentioned by the KEM Hospital staff. Unlike manual bagging techniques, which are prone to variability and may not provide consistent ventilation, this ventilator has offered reliable, controlled. continuous and support. reducing stress and risk during transfers.

By minimizing the risks associated with manual ventilation methods, the **MRI-compatible** ventilator helps in avoiding potential adverse events, such as hypoxia or respiratory failure, significantly enhancing the safety of young

Figure 170: MRI – Compatible Ventilator



patients during MRI procedures. The implementation of this advanced technology has enabled KEM Hospital to strengthen its commitment to maintain a high standard of care, reinforcing their focus on patient safety and improved health outcomes.

During the interactions, the team noted that KEM Hospital does not document information on the project's key output indicators. As a result, the report will largely rely on qualitative findings. This issue is further compounded by recent staff changes, as those who previously managed the project activities are no longer associated with the hospital.



Before the installation of the new ventilators and other equipment, we had to depend on manual methods for patient transfer, particularly in critical paediatric cases. This approach was not only physically demanding for our staff but also posed a considerable risk to the patients. Now, with the MRI-compatible ventilator, we can transfer patients safely without the risk of oxygen deprivation or complications. This represents a significant enhancement in patient safety and our capacity to deliver continuous care while moving patients to the MRI room.

As narrated by a Doctor in the PICU at KEM Hospital during the interactions

2. Access to Specialized Care for Vulnerable Populations:

The COVID-19 pandemic underscored an increase in younger patients requiring specialised medical attention, often without prior risk factors. Due to the new Mobile IVUS system, the medical team now has advanced tools to diagnose and manage these critically ill young patients from underserved populations, who would have posed a greater diagnostic challenge without advanced imaging technology. Additionally, the MRI-compatible ventilator played a pivotal role in maintaining respiratory function during patient transfers, significantly aiding in the stabilisation and recovery

prospects of these young patients during the pandemic.

Figure 171: Mobile IVUS System



- With improved diagnostic and ventilation capabilities, KEM Hospital has bolstered its ability to deliver high-quality, timely care to underserved populations. The hospital's upgraded facilities have improved accessibility for such populations in local region that previously faced barriers to specialised healthcare services. The introduction of new equipment has not only addressed immediate patient needs but also expanded the hospital's ability to serve a larger segment of the local community.
- Hence, the advancements in medical technology and hospital infrastructure at KEM Hospital have enhanced healthcare accessibility, particularly for underserved populations. These strategic improvements collectively ensure that high-quality care is within reach for populations at subsidised fees that were once marginalized in their access to healthcare.

3. Effective Treatment of Patients:

Since the installation of the Mobile IVUS system and MRI-compatible ventilator, KEM Hospital has enhanced its capacity to manage a significant number of cases with precision and efficiency as mentioned by hospital staff during interactions.

- Mobile IVUS system: Used for treating 133 cases at subsidised rates, it has facilitated accurate diagnosis of complex conditions, greatly improving patient care outcomes.
- MRI Compatible Ventilator: Used for 25 critical cases during patient transfers, and an additional 10 times as a routine ventilator, it has provided essential respiratory support, ensuring the safety and well-being of patients in need.
- On probing with the patients caregivers, team noted that they are satisfied with the quality of treatment at the subsidised fees.

Figure 172: Child receiving care with the MRI-Compatible Ventilator during treatment



The treatment we have received here was good. The medical professionals and administrative staff exhibited a welcoming demeanour, influencing my recovery journey. Their commitment to ensuring my uncle's comfort and wellbeing was evident in every aspect of my treatment. We are grateful for the dedication and support provided throughout our time at the hospital.

As narrated by a Patient Caregiver at KEM Hospital during the interactions

4. Strengthened Medical Staff Capacity and Community confidence:

The project has empowered the medical staff, allowing them to handle a **higher volume of critical cases with greater efficiency**. The enhanced capabilities have instilled confidence in the doctors and medical personnel regarding the hospital's capacity to deliver superior healthcare. This development has been positively received, boosting staff morale and reinforcing the community's trust in KEM Hospital's ability to provide high-quality care.



The project has transformed critical care management. Previously, transferring a child on 100% oxygen involved significant risks and was complex. Now, with the new ventilators, **we can safely extend oxygen support for up to 45 minutes to an hour, simplifying critical decisions.** This is vital for children with cardiac issues, ensuring stable heart function during transfers, thereby enhancing patient safety and outcomes.

As narrated by a Doctor at KEM Hospital during the interactions

20.4. IRECS Analysis

Basis the interactions with the key stakeholders and desk review, **the impact of the project was also assessed on the IRECS framework parameters**. The IRECS analysis summary has been presented in below table:

Parameter	Assessment from Study
Inclusiveness	• The project improved access to specialised and advanced care for underserved populations, particularly in paediatric and cardiac treatments.
	• Moreover, the treatment was available to anyone in need , thus ensuring equitable access to high-quality and affordable healthcare throughout its neighbouring and bordering districts.
	• The hospital is now able to offer more timely care to individuals from vulnerable populations.
Relevance	• This project effectively bridges the gap in the hospital's capacity to handle intricate paediatric and cardiac cases. Prior to the intervention, the hospital was without the specialized diagnostic and ventilation equipment needed for managing these critical cases. With the new equipment, the hospital is now well-prepared to address the increasing demand for such services within the community.
	Hence, this initiative is aligned with the hospital's infrastructure with current healthcare needs , ensuring it continues to serve as a vital provider of critical care services in the region.
Effectiveness	• The Mobile IVUS system, utilized in 133 cases, provides detailed three-dimensional visualization, enabling accurate diagnosis and treatment of complex vascular conditions. With the improved diagnostic accuracy, the hospital can ensure timely and effective intervention, ultimately leading to better patient outcomes.
	• The MRI-compatible ventilators have revolutionized critical care at the hospital by providing continuous and reliable respiratory support during patient transfers. Previously reliant on physically taxing and potentially risky manual methods, the staff can now safely extend oxygen support for extended periods, up to 45 minutes to an hour, particularly benefiting children with cardiac issues.
	• The project has promoted accessibility and ensures that underserved communities benefit from specialized medical services, thereby extending the hospital's reach and impact within the local population.
Convergence	• KEM Hospital, a key healthcare provider in Pune, benefitted from the support of Infosys Foundation, which aligned with the hospital's objectives of enhancing its diagnostic and treatment capabilities.
	• The initiative also supports the government's mission to improve healthcare access, particularly for vulnerable populations, by providing specialized care through enhanced diagnostic tools and ventilation support.
	Besides above, no other partnership was noted under this project.
Sustainability	• The hospital has put in place a robust maintenance plan, which includes both Annual Maintenance Contracts (AMC) and Comprehensive Maintenance Contracts (CMC), ensuring the long-term upkeep of the advanced medical equipment.
	• A dedicated biomedical team has been established to handle the day-to-day maintenance and troubleshooting, ensuring smooth operations and minimal downtime for critical equipment.

Table 37: IRECS Analysis

20.5. Alignment to the Infosys Limited's CSR policy and the UN SDGs



The project is aligned with Infosys Limited's CSR policy which includes **healthcare as one of the key CSR focus areas for Infosys Limited.** The project is also aligned with following Sustainable Development Goal (SGD)¹²⁴:



SDG-3 emphasizes on ensuring healthy lives and promoting well-being for all at all ages, with a specific focus on **strengthening healthcare systems**. Equipping KEM Hospital with advanced diagnostic and other equipment's, such as the MRI-compatible ventilator for the PICU and the mobile IVUS system for the Cath Lab, enhances healthcare access and **improves patient outcomes**. This directly contributes to healthier lives and well-being for patients of all ages.

20.6. Study Limitation

• Limited Access to Patients: Patients at the hospital primarily focused on their ongoing treatments and medical examinations, which limited their availability for detailed interactions. Consequently, the majority of discussions were conducted with doctors, nurses, caregivers and other hospital staff.

¹²⁴ Source: <u>https://sdgs.un.org/goals</u> Price Waterhouse Chartered Accountants LLP

20.7.Case Story

Following case story has been gathered through discussions held with the **project stakeholders** during field visit to KEM Hospital:

Case Story 1: A 13-Year-Old Girl Triumphs Over a Life-Threatening Brain Tumour

Meera*, a 13-year-old girl from a socio-economically disadvantaged family on the outskirts of Pune, experienced a harrowing ordeal that began with what seemed to be a routine fever, but her condition rapidly worsened. By the time she arrived at KEM Hospital, she was unresponsive to pain and in a deep state of lethargy, displaying alarming symptoms. The medical team at KEM Hospital immediately initiated emergency care, prioritising her airway support and stabilising her through intubation. Recognising the critical nature of her condition as a CNS case, they conducted an MRI, which revealed a large brain tumour in the posterior cerebellum, causing increased pressure within her brain.

Swift action was taken to perform a craniotomy to remove the tumour. Thanks to the advanced infrastructure and skilled doctors, the surgery was successful, and Meera began showing remarkable improvement the very next day. From being unresponsive to enjoying watching her mobile phone while recovering in the ward, Meera's journey is a testament to the hospital's life-saving capabilities. Today, she is back home, healthy and grateful for the timely intervention that gave her a new lease of life.

* Name Changed

Project 18: Improved Woodstoves in Udaipur - Helping Women and Environment

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21.1. About the Project



In India, particularly in rural regions, conventional cooking practices frequently utilise traditional stoves powered by wood or biomass. This results in indoor air pollution, which presents significant health risks, notably respiratory illnesses, particularly affecting women and children. A range of programmes and policies are being implemented to enhance access to cleaner cooking solutions by replacing traditional stoves with safer and more efficient alternatives.¹²⁵ These initiatives are centred on reducing health risks and minimising environmental impacts.

As part of its Corporate Social Responsibility (CSR) initiative, Infosys Limited has undertaken numerous projects in the realm of environment and sustainability. One notable CSR project is **"Improved Woodstoves in Udaipur - Helping Women and Environment"** which aims to support **18,500 households to access the technology of improved cookstoves.**

The project, referred to as Phase II, served as a continuation to assist households in accessing improved cookstove (ICS) technology and was carried out by Udaipur Urja Initiatives Producer Company Limited (UUIPCL). A total of 18,500 households received 37,000 units of improved biomass cookstoves viz., the Greenway Smart Stove and the Greenway Jumbo Stove. Below Figure 173 depicts an overview of project specifics¹²⁶:



Figure 173: Schematic Representation of Project Specifics

21.2. Method of Impact Assessment

The impact assessment study utilised an **integrated and cohesive approach to evaluate project's social impact.** The process began with a kick-off meeting with Infosys team, followed by a briefing call with the UUIPCL team. These interactions provided the research team with vital insights into the project's specific support elements.

Following the meeting, PW team received following project documents:



 Memorandum of Understanding (MoU) signed between Infosys Limited and Udaipur Urja Initiatives Producer Company Limited

Database of project beneficiaries

Accordingly, PW team conducted a desk review of the above documents utilising insights gained from the kickoff meeting. This process helped in **designing the assessment framework and finalising the key stakeholders for the interactions**.

¹²⁵ Source: https://pib.gov.in/PressReleaselframePage.aspx?PRID=1525934

¹²⁶ Source: Project documents/information received from Infosys

Price Waterhouse Chartered Accountants LLP

A **mixed method approach**, comprising both quantitative and qualitative research methodologies, was leveraged for the impact assessment study. The quantitative survey was conducted with the beneficiaries for generating insights regarding the project's impact, while qualitative interactions were also held with the project stakeholders. This approach facilitated the exploration of individual experiences and provided a deeper understanding of the perspectives of project stakeholders.

Key stakeholders were identified (Figure 174) and tailored tools were prepared for each stakeholder to ensure comprehensive and insightful data collection.

Figure 174: Research design for the study

- Quantitative surveys with a sample of 286 beneficiaries who received the cookstove*
- Following In-depth Interviews (IDIs) were conducted:
 - a. Beneficiary Community Members (8 IDIs)
 - b. Implementing Partner representative (1 IDI)

*Based on the data shared by Infosys team, it was noted that **18,500 beneficiary households have been covered under the project.** Hence, a sample size of 269 was estimated at 90% confidence level and 5% margin of error. However, we have covered more sample size (286) to ensure the appropriate representation of the findings from all the locations in our sample. Four out of five sub-districts were selected based on the number of beneficiaries and the **sampling distribution** for quantitative survey was as below.

Table 38: Distribution of quantitative sample across villages

District	Sub-District	Village	Sample
Udaipur	Kherwara	Pahada	52
		Masaron ki Obari	44
		Nichla talab	41
		Sagwada	16
	Rishabhdeo	Pareda	11
		Kohawada	11
		Birothi	21
	Jhadol	Nichli Sigri	19
		Garanwas	20
	Girwa	Chanavada	19
		Saru	18
		Alsigar	14
Total			286

21.3. Analysis and Findings

This section summarises the findings from the desk review and interactions:

21.3.1. Challenges Before the Project

The team noted following challenges that emerged prior to project intervention:

- Indoor air pollution and associated health risks: Women in these communities experienced prolonged exposure to harmful smoke and gases during cooking, leading to respiratory issues and eye irritation. Children in proximity were also at risk, with additional dangers such as fire accidents.
- **High Wood Consumption**: Traditional cookstoves demanded a relatively greater amount of firewood, contributing to deforestation and environmental degradation. Women often had to travel long distances to collect the firewood which increased their physical strain.
- **Time-Intensive Cooking Process**: Cooking on traditional cookstoves was more time-consuming, requiring constant attention and frequent re-ignition, leaving women with limited time for other household tasks or leisure activities.
- **Restricted Mobility and Maintenance Challenges**: Traditional cookstoves (or mud stoves) were fixed in specific location within the home, limiting their flexibility for use in other areas. This fixed placement also led to soot accumulation on ceilings due to regular use.

21.3.2. Summary of the Impact Created

1. Profile of the respondents

This section discusses the socio-demographic profile of 286 beneficiaries (n=286) based on the quantitative interactions carried out with them. It was noted that:



All the beneficiaries (100%) were women, indicating that the project primarily benefitted the women of the households.

• The majority of the respondents (34.97%), were aged 30-39 years, followed by 25.17% in the 40-49 years group and 17.13% in the 20-29 years range. This diverse age distribution reflected the project's inclusivity, and it aimed to facilitate inclusion across all age groups (Figure 175).

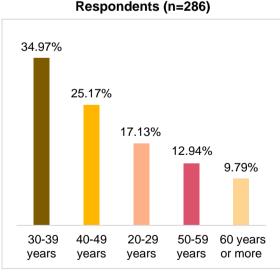
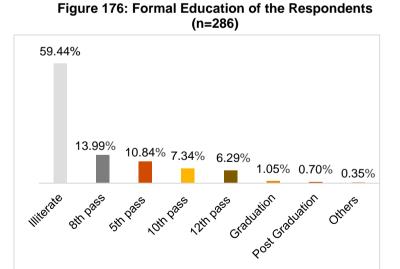
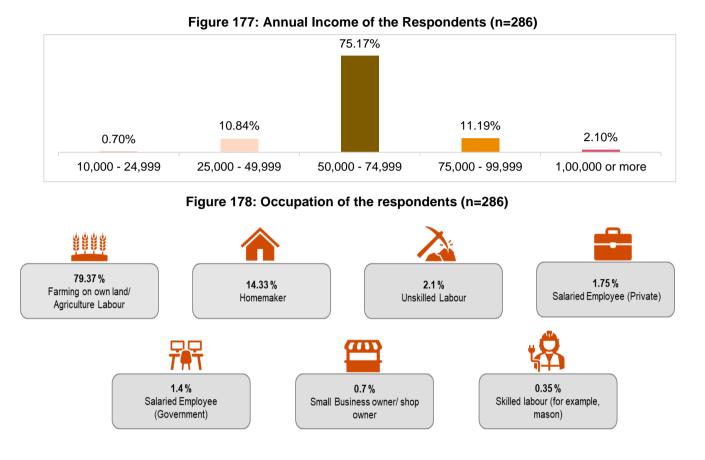


Figure 175: Age Distribution of the

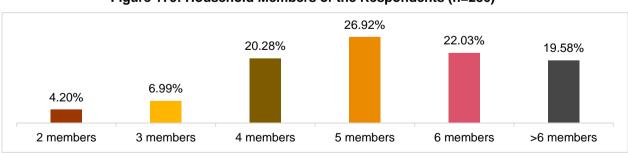


• More than half of the respondents (59.44%) were illiterate, followed by 13.99% having completed 8th grade and 10.84% having attained primary education (Figure 176) displaying the reach of benefits to the most vulnerable sections.

75.17% of respondents reported an annual income between INR 50,000 – INR 74,999, while 11.19% indicated annual income between INR 75,000 – INR 99,000 (Figure 177). Most respondents (79.37%) engaged in farming or agricultural labour highlighting the community's dependence on agriculture (Figure 6). This indicates that the project primarily targets individuals from lower-income backgrounds, offering them financial empowerment.



- More than half (61.89%) of the respondents stated that they belonged to the below poverty line (BPL) families. This indicates that project has reached out to the underserved section of the society.
- **26.92% of the respondents had 5 members** in their household, followed by 22.03% with 6 members. This indicated that **families with larger sizes were benefitted** by the provision of two improved cookstoves which enabled beneficiaries to meet the cooking demands (Figure 179).





2. Increased Awareness and Adoption of Improved Cooking Practices

• All of the respondents reported to currently using the improved cookstoves. Prior to receiving these stoves, all respondents (100%) relied on traditional chulha (open-fire stove) which was also the insight gained during the qualitative interactions.

 All respondents (100%) confirmed their awareness that the support provided under the project was funded by Infosys Limited. The survey (Figure 180) revealed that community meetings (100%) were primary source of information about the project, highlighting its community-driven approach.

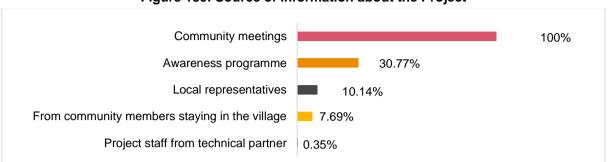


Figure 180: Source of Information about the Project

Multiple choice question, total may not add to 100 %.

- All respondents (100%) reported sharing information about the benefits of the cookstoves with others
 in their community. Further probing revealed that most respondents (94%) actively shared this
 information with neighbours, family members, and friends. During qualitative interactions,
 beneficiaries highlighted that, while sharing the benefits of cookstoves, they emphasised improved
 health, reduced cooking costs, and contribution to a cleaner environment due to this project. This
 demonstrates a strong sense of community engagement and advocacy for the project.
- 99.3% felt that this project had significantly transformed their community, underscoring its impact on both household well-being and broader community awareness. However, it was also reported during the survey that 99.3% (i.e. 284) are still using traditional cookstoves due to the following:
 - One of the primary reasons for continuing the use of traditional cookstoves alongside the improved ones is to facilitate parallel cooking, thereby reducing cooking time highlighted by 97.53% respondents.
 - Additionally, during qualitative interactions, it was reported that the "Smart Cookstove" is smaller in size and features a flat base for the flame, rather than a tapered one, which makes it challenging to balance larger utensils.
- Further, 144 village monitors were trained by the technical partner to use the mobile phones and utilise an application for monitoring this project. This contributed to promote digital literacy and use of technology among these monitors.

3. Reduction in Time Spent for Cooking

- All respondents (100%) reported that the project reduced their cooking time. The majority (~61%) of the respondents stated that they had saved an average of 15 minutes per day, while ~36% saved 30 minutes daily (Figure 181).
- This significant timesaving demonstrated the effectiveness of this project in enhancing cooking efficiency. During discussions, beneficiaries mentioned using the time (saved in cooking) for other productive or personal activities like

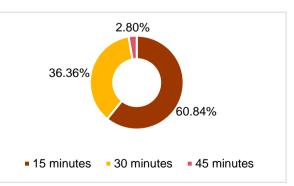


Figure 181: Daily Time Saved in Cooking (n=286)

household works, education of their children, etc. **Most beneficiaries (90.21%) reported improved productivity in household chores**, while 68.88% utilised the time for leisure activities.

4. Improved Indoor Air Quality and Household Well-being

Traditional cookstoves were a major source of indoor air pollution, causing respiratory issues and eye
 irritation. Improved cookstoves positively impacted indoor air quality by reducing smoke production.
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Qualitative discussions revealed that these cookstoves emitted significantly less smoke, leading to fewer health problems associated with smoke exposure.

- 99.3% noticed better indoor air quality with the use of improved cookstoves. Additionally, 98.95% agreed
 that this project has significantly reduced the smoke and gas emissions, leading to a healthier indoor
 environment and improving the overall health and well-being.
- All (100%) reported improved health and well-being of women and children in the household due to this project. This was mainly due to a decrease in respiratory issues and eye irritation from reduced smoke emissions. On probing further on the health aspects of using the improved cookstoves (Figure 182), team noted that:
 - o 95.45% stated more hygienic conditions in their homes, indicating a cleaner cooking environment.
 - o 63.99% experienced fewer burn incidents, demonstrating increased safety.
 - **45.1% reported fewer respiratory diseases, and 34.62% mentioned less coughing**, showcasing the cookstove's role in reducing air pollution-related health issues.
 - 43.01% felt less eye irritation, and 21.68% reported fewer headaches, further emphasising the health benefits linked to improved air quality.

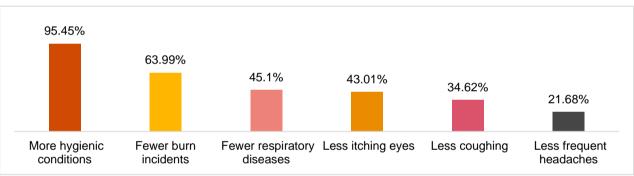


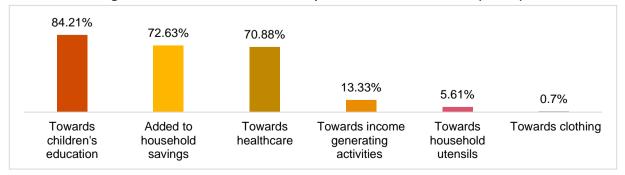
Figure 182: Changes in Health aspect due to Improved Cookstoves (n=286)

Multiple choice question, total may not add to 100%.

5. Financial Benefits derived from the usage of improved cookstoves

- 99.65% reported a decrease in household expenses related to cooking fuel after using the project.
- The survey indicated a reduction in monthly fuel expenses with adoption of cookstoves under this project.
 56.84% reported saving less than INR 500 monthly, while 41.4% saved between INR 500 INR 999 per month. A smaller percentage, 1.75% saved INR 1,000 to INR 1,499. This highlighted the financial benefit of using the improved cookstoves in reducing household fuel costs.
- The saved expenses due to the use of cookstoves were utilised by the respondents for different purposes as depicted below (Figure 183).

Figure 183: Utilisation of saved expenses due to cookstove (n=285)



Multiple choice question, total may not add to 100%.

- Discussions with the implementing partner revealed that these cookstoves were culturally appropriate, featuring designs that suited local cooking methods. They could be lit with thin twigs or dry grass, and once lit, the fire lasted much longer. This reduced the need for frequent relighting or blowing air, enhancing cooking efficiency and decreasing the requirement for fuelwood.
- All of the respondents reported to have reduced need of fuelwood with 84.62% (n=286) respondents reporting a 25% to 50% reduction in the requirement of fuelwood.
- Beneficiaries noted that previously, a **30 kg pile of wood lasted only seven days with traditional stoves.** With improved cookstoves, it now lasts 14-15 days, indicating a significant reduction in fuel consumption and tangible benefits for households.
- Reduced wood consumption **lowers the financial and physical burden on families** who would otherwise need to procure or collect additional firewood.
- All respondents (100%) felt more financially secure since implementing the improved cookstove project. This suggests a substantial impact on their financial well-being, due to reduced fuel costs, increased time savings, and the opportunity to allocate saved resources to other important household needs, such as education, healthcare, and savings.

6. Overall Impact on Women's Lives

- The project positively impacted the lives of women in households using improved cookstoves. They experienced reduced cooking time, lowered fuel requirements, and improved health, which saved their efforts in wood collection and enabled greater participation in community activities.
- 95.8% reported spending less time in the kitchen, allowing them to engage more in work and social activities outside the home. Additionally, 83.22% stated that the cookstoves reduced the need to travel long distances to collect firewood, saving time and reducing physical strain. Furthermore, 46.5% (n=286) of women reported greater participation in community initiatives, reflecting improved social involvement (Figure 184).

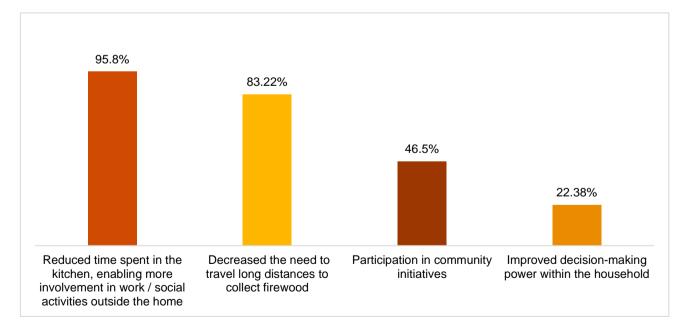


Figure 184: Impact on women (n=286)

Multiple choice question, total may not add to 100%.

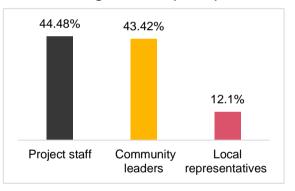
 Additionally, all respondents (100%) agreed that the improved cookstove enhanced the safety of cooking significantly in their households indicated that the cookstove effectively addressed concerns about safety by providing a more reliable and secure cooking experience.

Figure 185: Outdoor and Indoor utilisation of Jumbo and Smart cookstove

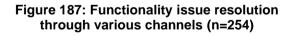


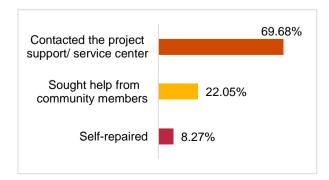
- 7. Operational Sustainability of Cookstoves
- The survey findings demonstrated high satisfaction among respondents with the durability of the improved cookstoves. All respondents 100% expressed being satisfied, indicating effective longevity during the continued use.
- 98.25% had received training on maintaining and caring for the improved cookstove. Of those trained, 44.48% (n=281) reported that the training was provided by project staff of UUIPCL (Figure 186).
- These initiatives ensured that households were wellinformed about proper use and maintenance, contributing to the cookstoves' durability and efficiency. During qualitative interactions, it was revealed that the during the visits by village monitors, beneficiaries were regularly refreshed on proper usage and maintenance of the cookstoves.

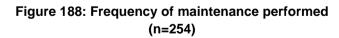
Figure 186: Maintenance and Care Training Providers (n=281)

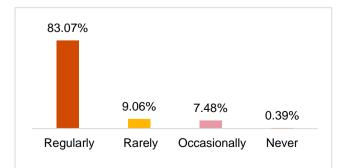


- 88.81% faced functionality issues under this project. Of these, 69.68% (n=254) resolved the issues by contacting the project support or service centre (Figure 187). It was also noted that maintenance was performed regularly by 83.07% (n=254) of respondents (Figure 188).
- During interactions, beneficiaries reported that project staff visited every 15 days spending around 0.5man hours per follow-up visit per household to check the cookstoves' usage. If issues were identified, they collected the faulty units, sent them to a maintenance agency for repair, and promptly returned. This ensured timely maintenance and contributed to user satisfaction.









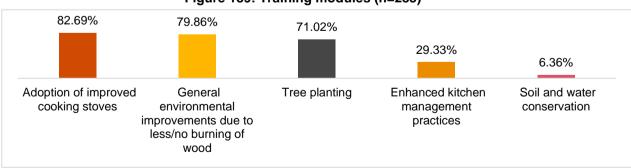
- During the survey, it was reported that for maintenance support, 93.36% relied on the maintenance agency, 4.55% approached local shops, and 2.10% contacted the technical partner. All respondents who utilised maintenance services reported satisfaction with the support provided. During interaction with the implementing partner, it was noted that trained local technicians had been assigned to address any issues promptly.
- During the qualitative interactions, it was reported that the **community widely expressed satisfaction with the improved cookstoves' performance and support in maintenance**.

Households are still using the stoves regularly, and we have not encountered any widespread discontinuation. The stoves have become a reliable part of their daily cooking routines, and we ensure that the stoves remain functional through regular maintenance and quick repair services

- As narrated by implementing partner during interaction

8. Improved Environmental Sustainability

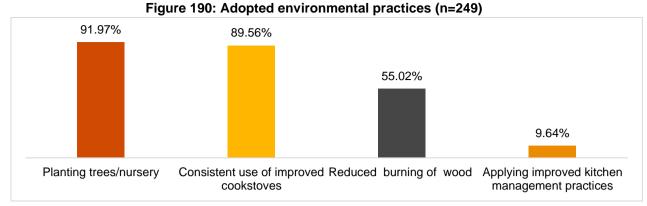
- **100%** reported a reduction in waste generated from inefficient burning of fuelwood during cooking since using the new cookstoves, indicating improved waste management.
- During interactions, beneficiaries frequently shared that traditional stoves produced a lot of unburnt wood and ash. Respondent mentioned that earlier, a lot of wood would remain unburnt, and cleaning the stove was a difficult task. But now, the fuelwood burns efficiently and there's less waste produced. The team noted that the improved cookstoves, with their efficient combustion technology, allowed for better fuel utilisation, resulting in notably reduced ash and unburnt residues. This not only made daily cleaning easier but also contributed to better waste management at the household level.
- It was reported that the reduction in requirement of fuelwood contributed to environmental conservation as the prerequisite of less firewood required lower amount of wood extraction from the trees. It led to a decrease in environmental degradation caused by deforestation and reduced pressure on local forests.
- Additionally, nearly all (99.95%, n=286) of respondents had received training on environmental aspects, with the majority learning topics like adoption of improved cookstoves (82.69%, n=283), general environmental improvement due to less burning of wood (79.86%), tree planting (71.02%), etc. as illustrated below (Figure 189).





Multiple choice question, total may not add to 100%.

• Furthermore, **87.06% adopted environmentally friendly practices** because of the project. The most adopted practices by beneficiaries involved **planting trees (91.97%, n=249), consistently using the improved cookstoves (89.56%)**, and **reducing the burning of wood (55.02%, n=249)**. These actions reflected the project's influence in **promoting environmental sustainability** within the community (Figure 190).



Multiple choice question, total may not add to 100%.

21.4. IRECS Analysis

Basis the interactions with the key stakeholders and desk review, the impact of the project was also assessed on the IRECS framework parameters. The IRECS analysis summary has been presented in below table:

	· · · · · · · · · · · · · · · · · · ·
Parameter	Assessment from Study
Inclusiveness	• 59.44% were illiterate displaying the reach of benefits to the most vulnerable sections.
	• 61.89 % of the respondents (n=286) belonged to the BPL families and came from the marginalised socio-economic sections of society.
	• Community meetings (100%, n=286) was primary source of awareness about the project, indicating inclusiveness through community-driven approach .
Relevance	• Before receiving the improved cookstoves, all respondents relied on traditional chulhas. Now, all use the project-provided cookstoves, reflecting a strong preference and need. The traditional stoves posed issues like high wood consumption, smoke, indoor pollution, and health problems, underscoring the project's relevance.
	• A total of 99.3% reported that the project significantly transformed their community, improving household well-being and awareness . The cookstoves were culturally tailored to suit local cooking methods and offered flexibility for indoor and outdoor use, making cooking more convenient and reducing maintenance.
Effectiveness	• The improved cookstoves significantly boosted cooking efficiency , with all users reporting reduced cooking time and enhanced health benefits. A total of 99.3% noticed better indoor air quality, and 98.95% saw reductions in smoke and gas emissions .
	• Women's health improved across the project. 99.65% reported lower cooking fuel expenses. Reduced wood consumption eased financial burdens, allowing better resource allocation to education, healthcare, and savings.
	• The project also positively impacted lifestyle and environmental practices . With 95.8% spending less time in the kitchen , respondents engaged more in work and social activities, enhancing their quality of life. The cookstoves' flexible use reduced maintenance , and all users noted decreased cooking waste , indicating effective waste management.
	• The reduced need for fuelwood contributed to environmental conservation, with 87.06% adopting more environmentally friendly practices.
Convergence	• The project aligns with the Unnat Chulha Abhiyan programme, promoting biomass cookstoves to provide a clean cooking energy solution that reduces fuel wood

Table 39: IRECS Analysis

Parameter	Assessment from Study	
	consumption with higher efficiency and low emissions. It collaborates primarily with community institutions, especially Gram Vikas Committees, which are essential for the project's implementation, monitoring, and feedback processes, ensuring effective management and alignment with their objectives.	
Sustainability	 All respondents reported satisfaction with the cookstoves, highlighting their longevity and durability. The project enhanced community capacity by training members in effective use and maintenance, with 98.25% having received such training. All users of maintenance services expressed satisfaction, supported by the prompt response of trained local technicians. Regular maintenance and repair services ensured the cookstoves' sustainability. 	

21.5. Alignment to the Infosys Limited's CSR policy and the UN SDGs

The project is aligned with Infosys Limited's CSR policy which includes **education as one of the key CSR focus areas for Infosys Limited**. The project is also aligned with following Sustainable Development Goal (SDG)¹²⁷:



SDG 3: emphasises **ensuring healthy lives** and **promoting well-being** for all at all ages. The improved cookstove project **reduces indoor air pollution**, **mitigating health risks** for women and children and **fostering healthier living** conditions.

SDG 4: focuses on **ensuring inclusive** and **equitable quality education** and **promoting lifelong learning opportunities for all**. By **reducing the time spent on firewood collection and cooking**, the project enables women and children with an **opportunity to dedicate more time to education** and skill development, supporting lifelong learning.

SDG 7: promotes **access to affordable, reliable, sustainable, and modern energy** for all. The introduction of improved cookstoves **facilitates a shift towards efficient cooking**.

SDG 8: highlights promoting sustained, inclusive, and sustainable economic growth, full and productive employment, and decent work for all. With more time available, women are empowered to be able to engage in productive activities.

SDG 13: supports **climate action by reducing greenhouse gas emissions and promoting sustainability**. The adoption of improved cookstoves **reduces greenhouse gas emissions**, supporting global efforts toward environmental sustainability and climate resilience.

21.6. Study Limitation

• The team conducting did not face any limitations while conducting the impact assessment study.

¹²⁷ Source: <u>https://sdgs.un.org/goals</u> Price Waterhouse Chartered Accountants LLP

21.7. Case Stories

Following case stories have been gathered through discussions held with the project stakeholders during field visit:

Case Study 1: Empowerment through Improved Cookstoves

Meera* and her daughter, residents of a rural community, had always struggled with the challenges of cooking on a traditional mitti chulha (open stove). The thick smoke from the fire often caused Meera respiratory issues, while the ceiling of their home was covered in soot. Their days were long and exhausting due to the time spent cooking meals over the stove.

When Meera heard about the improved cookstove project in community meeting, funded by the Infosys, she decided to give it a try. After attending an orientation, she and her daughter were introduced to the new technology and quickly embraced it.

The change was immediate. The improved cookstove produced much less smoke, which improved the health of both Meera and her family. No longer was she coughing or suffering from eye irritation, and the kitchen remained cleaner, with no soot on the walls or ceiling. The time saved from cooking was also a game-changer for the family. Meera, once confined to the kitchen, now had more time to tend to the family farm. This shift allowed her to contribute more significantly to their livelihood. Meanwhile, her daughter, who had been helping with cooking, now had the opportunity to focus more on her studies, paving the way for a brighter future.

Case Study 2: Transformation through Improved Cookstoves

Shanti* and her family had been accustomed to cooking over a traditional open stove for years. The smoky environment often left her with sore eyes and difficulty breathing. The cooking process was slow, and Shanti spent hours preparing meals for her family.

When the improved cookstove project was introduced in their village by the Udaipur Urja Initiatives, Shanti and her family were eager to make the switch. The usage of cookstove, which was explained and demonstrated during an orientation by the project staff, was a welcome change.

The new cookstove brought immediate benefits to Shanti's family. The reduction in smoke made a huge difference in her health; she no longer struggled with the constant irritation in her eyes or throat. Moreover, the time saved from faster cooking meant that Shanti could spend more time on other tasks, such as looking after the children's education. In addition to these responsibilities, Shanti used the extra time to engage in tailoring work, which helped her earn additional income for her family. The cookstove not only improved her family's health but also empowered Shanti to balance her responsibilities more efficiently while contributing financially.

* Name changed

Project 19: Improved Woodstoves in Maharashtra - Helping Women and Environment

22.1. About the Project

In rural regions of India, traditional chulhas, constructed from clay or mud and fueled by biomass such as wood and dung, are widely used for cooking. Although these stoves are culturally significant, they contribute to substantial indoor air pollution and inefficient fuel consumption, resulting in health complications and environmental degradation. Annually, 3.2 million people die prematurely due to household air pollution from solid fuels and kerosene¹²⁸. To address these challenges, various programmes have been initiated to replace traditional chulhas with cleaner and more efficient alternatives. These initiatives aim to reduce health risks and environmental impacts.

Infosys Limited has been actively involved in various CSR projects aimed at addressing environmental and health challenges associated with traditional chulhas. One notable initiative is the **"Improved Woodstoves in Maharashtra - Helping Women and Environment". This project aims to mitigate indoor air pollution and reduce greenhouse gas emissions by promoting the use of improved biomass cookstoves to replace traditional biomass chulhas.**

To carry out this project, Infosys Limited engaged Envirofit India Private Limited (Envirofit) as a technical partner to install **37,200 units improved cookstoves across households**. These cookstoves are designed to be more efficient and produce less smoke, thereby enhancing indoor air quality. Below Figure 191 depicts an overview of project specifics¹²⁹:

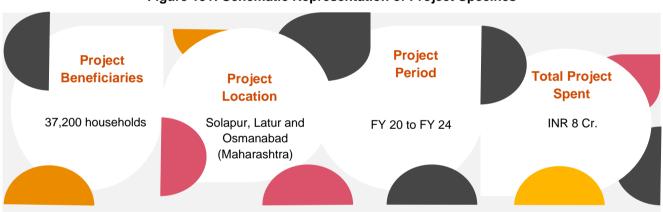


Figure 191: Schematic Representation of Project Specifics

22.2. Method of Impact Assessment

The impact assessment study utilised an **integrated and cohesive approach to evaluate project's social impact.** The process began with a kick-off meeting with Infosys team, followed by a briefing call with the Envirofit team. These interactions provided the research team with vital insights into the project's specific support elements.

Following the meeting, PW team received following project documents:



- Memorandum of Understanding (MoU) signed with Envirofit
- Database of project beneficiaries

Accordingly, PW team conducted a desk review of the above documents utilising insights gained from the kickoff meeting. This process helped in **designing the assessment framework and finalising the key stakeholders for the interactions**.

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¹²⁸ Source: <u>https://www.who.int/news-room/fact-sheets/detail/household-air-pollution-and-health</u>

¹²⁹ Source: Project documents/information received from Infosys

A mixed method approach, comprising both quantitative and qualitative research methodologies, was leveraged for the impact assessment study. The quantitative survey was conducted with the beneficiaries for generating insights regarding the project's impact, while qualitative interactions were also held with the project stakeholders. This approach facilitated the exploration of individual experiences and provided a deeper understanding of the perspectives of project stakeholders.

Key stakeholders were identified (Figure 192) and tailored tools were prepared for each stakeholder to ensure comprehensive and insightful data collection.

Figure 192: Research design for the study

- Quantitative surveys with a sample of 309 beneficiaries who received the cookstove*
- Following In-depth Interviews (IDIs) were conducted:
 - a. Beneficiary Community Members (8 IDIs)
 - b. Technical Partner representative (1 IDI)

*Based on the data shared by Infosys team, it was noted that **37,200 beneficiary households have been covered under the project.** A **sample size of 273 beneficiaries** was estimated at 90% confidence level and 5% margin of error. However, to ensure the appropriate representation of the findings from all the locations in our sample, the survey covered 309 beneficiaries, exceeding the original sample size. Two talukas from each of the districts (Solapur, Latur and Osmanabad) were selected based on the highest number of beneficiaries. Sampling distribution for quantitative survey was as below.

Table 40: Distribution of quantitative sample across villages

District	Taluka	Village	Sample
Solapur	Malshiras	Akluj	44
		Malshiras	32
	Mohol	Mohol	32
		Kolegaon	22
	Latur	Latur (Rural)	49
		Sarola	34
Latur	Ausa	Lamjana	33
		Killari	21
Osmanabad	Umarga	Dalimb	13
		Mulaj	14
	Osmanabad	Tadwala K.	15
Total			309

22.3.Analysis and Findings

This section summarises the findings from the desk review and interactions:

22.3.1. Challenges Before the Project

The team noted following challenges that emerged prior to project intervention:

- Indoor air pollution and associated health risks: Indoor air pollution from traditional cooking methods, using biomass fuels, possessed significant health risks, particularly to women and children. Prolonged exposure to harmful pollutants led to respiratory diseases and eye irritation.
- **Prolonged Cooking Time**: The use of traditional cookstoves required constant attention and frequent efforts to relight the fire, resulting in significant time spent on cooking. This limited women's ability to manage other household tasks or enjoy personal and social activities.
- **Economic Burden of Purchasing Firewood:** For many low-income households, buying firewood for cooking was an additional financial challenge, making it difficult to sustain their daily needs.
- **Physical Fatigue and Limited Leisure Time**: The labour-intensive task of collecting firewood took a toll on women's health, leaving them fatigued. This routine left them with little to no time for leisure or social activities.

22.3.2. Summary of the Impact Created

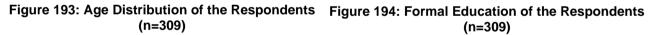
1. Profile of the respondents

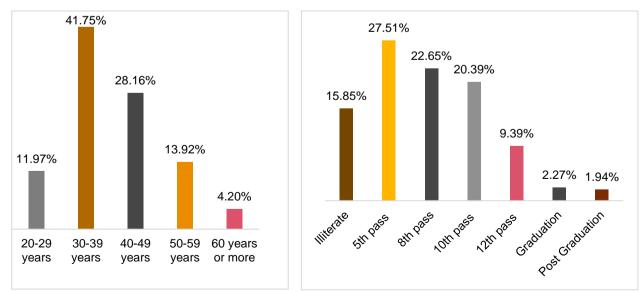
This section discusses the socio-demographic profile of 309 beneficiaries (n=309) based on the quantitative interactions carried out with them. It was noted that:



This project primarily benefited women, with 99.68% of the surveyed beneficiaries being female, highlighting its focus on enhancing the well-being of women within the households.

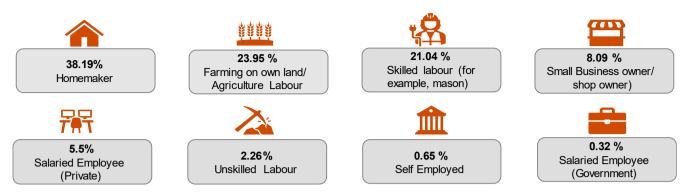
- The majority of the respondents (41.75%), were aged between 30-39 years, followed by 28.16% and 13.92% in the age group of 40-49 years and 50-59 years respectively. This diverse age distribution reflected the project's inclusivity, facilitating participation across all age groups (Figure 193).
- 27.51% had completed up to 5th grade, followed by 22.65% and 20.39% who had completed 8th grade and 10th grade respectively. This indicates that the project engaged individuals from various educational backgrounds, notably reaching a significant portion of those with limited formal education.



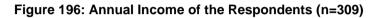


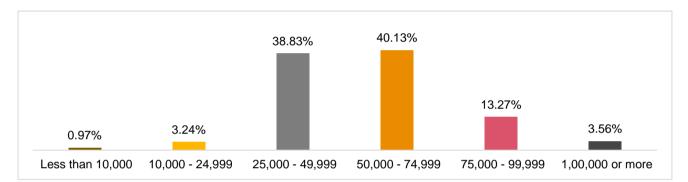
23.95% of respondents had been engaged in farming or agricultural labour, underscoring the community's reliance on agriculture (Figure 195). Furthermore, 40.13% had reported an annual income ranging from INR 50,000 to INR 74,999, while 38.83% had indicated an income between INR 25,000 and INR 49,999 (Figure 6). This illustrates that the project successfully supported individuals from lower-income groups, aiming to enhance their financial well-being.

Figure 195: Occupation of the respondents (n=309)

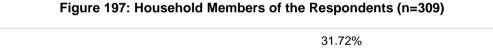


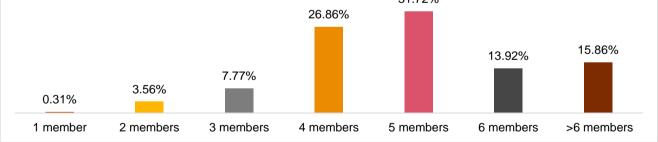
• 96.12% reported belonging to below poverty line (BPL) families, indicating that the project effectively reached underserved sections of society.





31.72% reported that their household comprised five members, followed by 26.86% who reported having four members. This suggested that the project benefitted medium to large sized households (Figure 197).

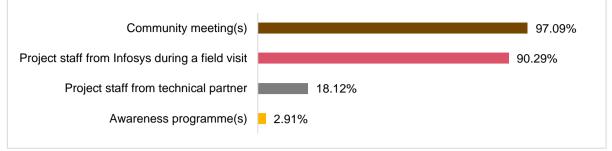




2. Increased Awareness and Adoption of Improved Cooking Practices

- Currently, 99.68% (n=309) reported to be using the improved cookstoves. Prior to receiving these stoves, 98.7% (n=308) of current users had relied on traditional chulhas (open-fire stoves), also corroborated by qualitative discussions. One respondent who had discontinued using the improved cookstove stated that their stove had stopped working as the reason for not using the cookstove any longer.
- All respondents (100%, n=309) confirmed their awareness that the support provided under the project was funded by Infosys Limited. According to the survey (Figure 198), community meetings were identified as the primary source of information for 97.09% of respondents, reflecting the project's community-driven approach. Additionally, 90.29% reported learning about the project through field visits by Infosys's project team, underscoring the importance of direct engagement in enhancing awareness.

Figure 198: Source of Information about the Project (n=309)

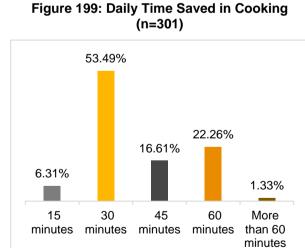


Multiple choice question, total may not add to 100 %.

- 96.12% shared information about the benefits of the improved cookstoves with others in their community. During qualitative interactions, beneficiaries highlighted beneficiaries noted that their conversations often centred on the enhanced health outcomes, reduced fuel expenses, and the positive environmental impact, such as diminished deforestation. This helped expand the project's reach and advocacy within the community.
- 99.35% expressed strong support for expanding the improved cookstove project to their own or neighbouring villages. This highlights the community's positive reception and perceived benefits of the initiative.
- 97.41% felt that the project had significantly transformed their community, indicating a positive impact on household well-being and awareness about the advantages of using improved cookstoves. However, 21.75% (n=308) still continue to use traditional cookstoves alongside the improved ones due to the following reasons:
 - A key factor was the need for parallel cooking to reduce overall cooking time, as indicated by 77.61% (n=67) of respondents.
 - Furthermore, it was also reported anecdotally that during family functions or gatherings, the traditional cookstoves are preferred to accommodate the larger quantities of food usually prepared for such occasions, accommodating the increased number of attendees.

3. Reduction in Cooking Time

- 97.41% (n=309) stated that the project had contributed to reducing their cooking time, Of which, 53.49% (n=301) reported saving an average of 30 minutes daily, while 26.26% saved around 60 minutes each day (Figure 199). It was noted that the amount of time saved varied depending on to the nature of meals being prepared and personal cooking preferences. This reduction in cooking time highlight's the project's effectiveness in improving cooking efficiency.
- Beneficiaries reported utilising the saved time for both productive and personal activities, including household chores and children's education. A notable 97.34% engaged in leisure activities with the time saved, while 87.38% experienced an increase in household productivity.



4. Improved Indoor Air Quality and Household Well-being

• Traditional cookstoves were a major source of indoor pollution, leading to discomfort and health issues like respiratory problems and eye irritation. The transition to improved cookstoves has reduced smoke emissions, resulting in better air quality within homes. During qualitative discussions, beneficiaries noted that this reduction in smoke led to fewer health concerns, underscoring the positive effect on their overall well-being.

- A majority of respondents (98.06%, n=309) reported a noticeable improvement in indoor air quality, following the adoption of improved cookstoves. Furthermore, 99.35% acknowledged that the project played a role in reducing harmful emissions, thereby fostering a safer and cleaner home environment.
- The improvement in air quality had direct positive impact on the women's health within households, with 99.03% reporting improved health and well-being. Upon further investigation into the health benefits of using improved cookstoves (Figure 200), the team noted that:
 - **97.73% mentioned a decrease in respiratory ailments**, demonstrating the project's success in reducing the adverse health effects of prolonged exposure from traditional cookstoves.
 - 97.09% reported a noticeable reduction in coughing, while 89% mentioned fewer incidents of burns during cooking. This suggests that improved cookstoves not only enhanced safety but also offered a user-friendly design, addressing common hazards associated with traditional cooking methods.
 - 96.76% reported less eye irritation and improved hygiene in their homes, indicating that the introduction of improved cookstoves significantly contributed to a cleaner and healthier indoor cooking environment.

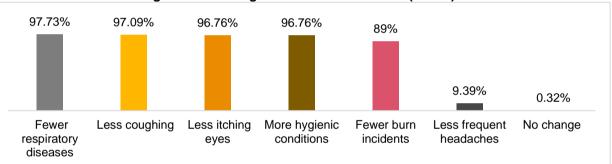


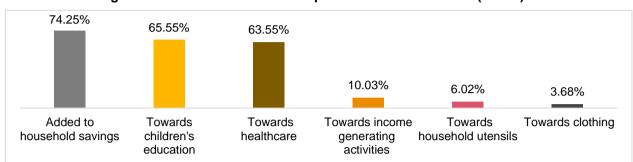
Figure 200: Changes in Household Health (n=309)

Multiple choice question, total may not add to 100%.

5. Financial Benefits derived from the usage of improved cookstoves

- 99.35% reported using wood as the primary source of cooking fuel in their households. Most beneficiaries either sourced the wood from nearby forests or purchased it, as it was more accessible and cost-effective compared to other fuel options.
- When probed further, respondents shared that the improved cookstoves are designed to cook food more efficiently, which has reduced the amount of fuelwood required (99.68%, n=309) with 50.65%(n=308) respondents reporting a 25% to 50% reduction and 48.38%(n=308) respondents reporting more than 50% reduction in the requirement of fuelwood.
- This reduction in fuel consumption translated into measurable savings for the households. The survey findings indicated the reduction in monthly fuel expenses with adoption of cookstoves under this project.
 96.76% reported a decrease in household expenses on cooking fuel after using the improved cookstove.
 96.99 % of these (n=299) reported saving less than INR 6,000 annually.
- 99.03% expressed that the project had enhanced their financial security. During interactions with beneficiaries, it was highlighted that savings from reduced fuel costs were used for children's education

and healthcare needs, in-turn enhancing household well-being. Additionally, these savings were also allocated towards repaying loans to community members demonstrating the financial empowerment facilitated by the cookstove project (Figure 201)





Multiple choice question, total may not add to 100%.

- It was further reported that the use of improved cookstove eliminated the need to repaint the walls repeatedly due to smoke damage, thereby saving money which was previously saved for wall paint.
- Discussions with the technical partner revealed that the cookstoves' design remained consistent in the market, without major changes to the core technology. However, changes have been made to materials and components based on feedback from community. These enhancements, undertaken by the Envirofit's research and development (R&D) team, were directed at improving the cookstoves' performance and durability, ensuring they remain effective and enduring with technological advancements.



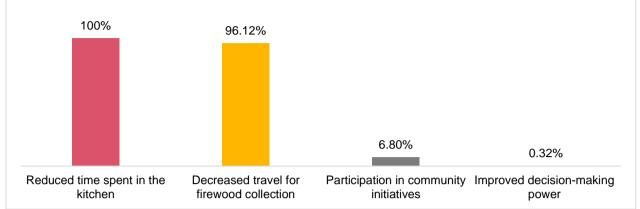
I no longer purchase firewood; the wood that I gather suffices for cooking needs. With the money saved, I have expanded my beauty parlour business and am able to manage household expenses effectively.

As narrated by a beneficiary during interactions

6. Overall Impact on the Lives of Women and Children

- The project brought **transformative changes to women's daily routines** by minimising the **time spent on cooking and reducing dependency on firewood**. This allowed them to focus on other responsibilities, explore income-generating opportunities, and actively engage in social and community events.
- Some beneficiaries shared that they had started small tailoring or home-based parlour services due to the time saved using improved cookstoves. This allowed them to attend to customers and **earn additional income, contributing to their financial independence.**
- All respondents (100%) reported that they spend less time in the kitchen, which allows them to participate more in work and social activities outside the home. Additionally, 96.12% stated that the improved cookstoves have reduced the need to travel long distances to collect firewood, thus saving time and reducing physical strain (Figure 202).

Figure 202: Impact on women (n=309)



Multiple choice question, total may not add to 100%.

98.06% agreed that the improved cookstove has enhanced the safety of cooking, ensuring a more secure environment for women and children in the households and contributing to a greater sense of well-being and confidence during daily cooking activities.



Figure 203: Cookstoves provided under the project

7. Operational Sustainability of Cookstoves

- The survey findings demonstrated high satisfaction among respondents with the durability of the improved cookstoves. All respondents (100%) expressed being satisfied, indicating effective longevity during the continued use.
- 94.82% had received training on maintaining and caring for the improved cookstove. Of those trained, 98% (n=293) reported that the training was provided by the Envirofit project team and Community Resource Persons (CRPs) from Maharashtra Arthik Vikas Mahamandal (MAVIM).¹³⁰ These initiatives equipped households with necessary knowledge for proper usage and upkeep of the cookstoves, ensuring their sustained functionality and optimal performance over time.
- It was noted that the technical partner had trained the MAVIM resources at the start of the project on the different aspects of the project implementation including the usage and maintenance of the cookstoves, monitoring of the project, etc. for smooth implementation of the project. Qualitative interactions revealed that the monitoring visits were carried out by the MAVIM area coordinators and CRPs, who regularly offered

¹³⁰ Maharashtra Arthik Vikas Mahamandal (MAVIM) is an agency dedicated to women's development throughout the Indian state of Maharashtra. Envirofit collaborated with MAVIM for utilising MAVIM's field resources for the implementation of the project. MAVIM's field resources like the Community Resource Persons (CRPs), Area Coordinators, etc. were engaged for identification of the beneficiaries, distribution of the cookstoves and monitoring of the project. Price Waterhouse Chartered Accountants LLP Impact Assessment Report 241

beneficiaries guidance on the proper usage and maintenance of the cookstoves, helping to **sustain their** performance and durability.

- During interactions with the technical partner, it was noted that the **improved cookstove model required minimal maintenance**. Cleaning involved simply wiping out the ashes from the combustion chamber after each use, and cleaning the outer body with a spoonful of edible oil every 15 days was sufficient, with washing not being necessary. This **design feature simplified maintenance and ensured the cookstove's longlasting efficiency.**
- Only 9.06% of respondents reported any functional issues with the cookstoves in this project, underscoring durability of the cookstoves and enhancing project sustainability.
- Of the respondents (n=28) who reported facing any functional issues with the cookstoves, 39.3% reported to perform the maintenance regularly while 21.4% reported to perform the maintenance rarely.



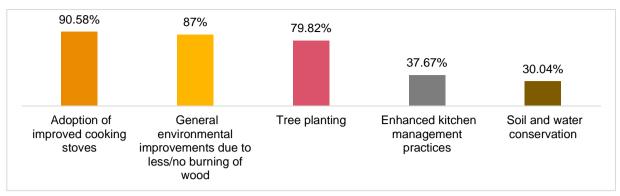
The biggest challenge was ensuring the new cookstoves were culturally suitable and userfriendly. This was addressed by designing stoves that required minimal changes to existing cooking habits, alongside regular training and support. Their durable design and low maintenance need also contributed to their sustained use.

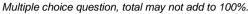
- As narrated by the Envirofit representative during interaction

8. Improved Environmental Sustainability

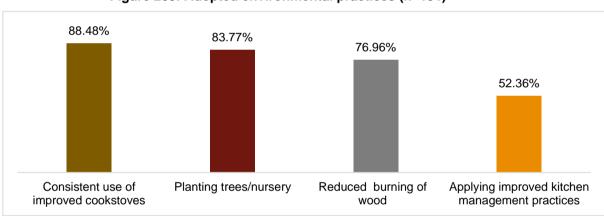
- The new improved cookstoves could utilise small twigs in addition to the traditional use of wooden logs as fuel and were more efficient in utilising the fuel. Hence, the improved cookstoves required lower usage of wood as fuel and resulted in the reduction of waste generated due to cooking. **99.68%** reported a **reduction in waste generated from cooking** since adopting the new cookstoves, indicating **improved waste management**.
- Beneficiaries highlighted that the improved cookstoves significantly reduced the generation of waste, including ash and unburnt wood. This is due to the increased fuel efficiency of the improved cookstoves resulting in reduction of firewood usage with 99.03% (n=308) respondents reporting more than 25% reduction in the requirement of fuelwood for cooking. This reduction not only simplified household cleaning routines but also reduced the frequency of waste disposal. Moreover, many beneficiaries reported using the small amount of ash produced as compost for their gardens, promoting sustainable waste management practices.
- It was reported that the improved cookstoves required considerably less firewood, which played a role in protecting the environment. This reduction eased the pressure on local forests, contributing to decreased deforestation and supporting the conservation of natural resources.
- Additionally, 72.17% of the respondents had received training on environmental aspects, with the majority learning topics like adoption of improved cookstoves (90.58%, n=223), general environmental improvement due to less burning of wood (87%), tree planting (79.82%), etc. as illustrated below (Figure 204).







 Furthermore, 61.81% of respondents reported adopting environmentally friendly practices because of the project with beneficiaries reporting consistent use of improved cookstove (88.48%, n=191), planting trees (83.77%) and reducing the burning of wood (76.96%). These behaviours highlighted how the project effectively encouraged sustainable practices, contributing to environmental conservation within the community (Figure 205).





Multiple choice question, total may not add to 100%.

22.4.IRECS Analysis

Basis the interactions with the key stakeholders and desk review, the impact of the project was also assessed on the IRECS framework parameters. The IRECS analysis summary has been presented in below table:

Table	41:	IRECS	Analysis
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Parameter	Assessment from Study
Inclusiveness	 The project effectively reached marginalised groups, with 96.12% of respondents belonging to BPL families. It primarily catered to educationally vulnerable individuals as 86.14% of the beneficiaries had education up to the 10th grade or below. Community meetings were the primary source of awareness about the project for 97.09% of respondents highlighting a community-driven and inclusive approach.

Parameter	Assessment from Study
Relevance	 Before the adoption of improved cookstoves, households depended on traditional chulhas (open-fire stoves) for cooking. 99.68% currently use the project-provided cookstoves, reflecting a strong preference and need. The traditional stoves posed significant challenges, such as inefficient fuel usage, indoor air pollution, and potential health hazards, emphasising the project's relevance. 97.41% respondents reported significant changes in their community due to the project, highlighting its positive impact on household well-being and awareness.
Effectiveness	 The improved cookstoves significantly boosted cooking efficiency, with 97.41% of respondents reporting reduced cooking time. This time saved allowed for increased involvement in work and social activities, enhancing overall quality of life. Indoor air quality improved noticeably for 98.06% of the respondents, and 99.35% acknowledged a reduction in harmful emissions, leading to safer, cleaner home environments and better health outcomes.
	 96.76% of respondents saw a decrease in household fuel expenses, and 96.12% reported lesser need to travel long distances for firewood, reducing both time and physical strain. The decreased reliance on fuelwood promoted environmental conservation, with
	61.81% of respondents adopting more eco-friendly practices.
Convergence	 The project successfully fosters collaboration with MAVIM by engaging their area coordinators and CRPs. The project also aligns with the government's efforts (Programmes such as "The Unnat Chulha Abhiyan") to provide a clean cooking energy solution that reduces consumption of fuel wood with higher efficiency and low emissions.
Sustainability	• The technical partner had trained the MAVIM resources at the start of the project on the different aspects of the project implementation including the usage and maintenance of the cookstoves, monitoring of the project, etc., empowering them to guide the beneficiaries on the proper usage and maintenance of the cookstoves, helping to sustain the cookstove's performance and durability.
	• All respondents reported satisfaction with the durability of the cookstoves, emphasising their longevity and resilience. The project empowered the community with 94.82% of participants receiving the training on maintaining and caring for the improved cookstove.
	• The improved cookstove was designed for minimal maintenance , requiring only basic cleaning: wiping ashes after each use and applying edible oil to the outer body every 15 days. This efficient and low-maintenance design ensured the cookstove's long-term sustainable use.

22.5. Alignment to the Infosys Limited's CSR policy and the UN SDGs



The project is aligned with Infosys Limited's CSR policy which includes **education as one of the key CSR focus areas for Infosys Limited**. The project is also aligned with following Sustainable Development Goal (SDG)¹³¹:



SDG 3: emphasises **ensuring healthy lives** and **promoting well-being** for all at all ages. The improved cookstove project **reduces indoor air pollution**, **mitigating health risks** for women and children and **fostering healthier living** conditions.

SDG 4: focuses on **ensuring inclusive** and **equitable quality education** and **promoting lifelong learning opportunities for all**. By **reducing the time spent on firewood collection and cooking**, the project enables women and children with an **opportunity to dedicate more time to education** and skill development, supporting lifelong learning.

SDG 7: promotes **access to affordable, reliable, sustainable, and modern energy** for all. The introduction of improved cookstoves **facilitates a shift towards efficient cooking**.

SDG 8: highlights promoting sustained, inclusive, and sustainable economic growth, full and productive employment, and decent work for all. With more time available, women are empowered to be able to engage in productive activities.

SDG 13: supports **climate action by reducing greenhouse gas emissions and promoting sustainability**. The adoption of improved cookstoves **reduces greenhouse gas emissions**, supporting global efforts toward environmental sustainability and climate resilience.

22.6.Study Limitation

• The team conducting the impact assessment did not face any limitations while conducting the study.

22.7. Case Stories

Following case stories have been gathered through discussions held with the project stakeholders during field visit:

Case Study 1: Empowering Change with Improved Cookstoves

Rita*, from Solapur district, used to cook for her family three times a day on a traditional chulha. The task was exhausting, and the constant exposure to smoke led to eye irritation and breathing issues. Additionally, Rita had to gather firewood (mostly from the jungle) which consumed a lot of time and energy.

However, everything changed when she learned about the improved cookstove project through the SHG members in her village. After attending the training session, Rita was introduced to the new cookstove, which provided immediate benefits. Unlike the traditional stove, the improved cookstove required less fuel and produced little smoke. The use of improved cookstove reduced her respiratory problems and kept the kitchen clean.

With the time saved from lesser firewood collection and shorter cooking times, Rita was able to focus on running her own small parlour at home enabling her to earn extra income.

On rare occasions, when hosting large gatherings or events, Rita still sometimes uses the traditional stove but on a regular basis, she prefers the improved cookstove for its efficiency and health benefits.

Case Study 2: Enhancing Lives Through Efficient Cooking Solutions

In a small village in Solapur district, the life of Afreen* was once marked by the challenges of cooking over a traditional mud stove (*mitti chulha*). She cooked three meals daily, enduring thick smoke that caused coughing and eye irritation. The soot covered her home, and the constant strain of gathering wood for fuel added to her burdens.

However, the introduction of the improved cookstove through her local CRP changed everything. Afreen embraced the new technology after learning about it from CRP. The reduction in smoke from the cookstove brought immediate relief to her health easing her chronic cough and eye discomfort.

Beyond health benefits, the cookstove saved Afreen valuable time and energy. With less fuel needed, she spent less money on wood. The time she saved from cooking chores was now dedicated to tailoring, which became an additional income source for her family.

Regular visits from CRP ensured that Afreen maintained her cookstove properly. She kept it clean by oiling. While she still gathered wood from the jungle occasionally, the physical strain was much less compared to before.

Afreen's story is one of transformation, demonstrating how the cookstove project brought not only health improvements but also empowerment and economic opportunities, inspiring other families in her village to embrace this life-changing innovation.

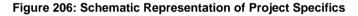
* Name changed

Project 20: Restoration of historic stepwells & traditional water systems at Rashtrapati Nilayam, Hyderabad

23.1. About the Project

Restoring ancient stepwells in India presents a valuable opportunity to address water management issues while preserving cultural heritage. These historic structures, which highlight India's architectural brilliance, have historically served as essential water storage systems. Amid current water scarcity challenges, rejuvenating stepwells and traditional water systems can play a key role in enhancing water conservation by increasing rainwater storage and improving groundwater recharge. Besides improving water management, revitalized stepwells provide access to clean water and reduce the strain on existing resources. These efforts also preserve cultural heritage for future generations to appreciate India's historical and engineering achievements. Economically, these stepwells can become tourist attractions, thereby boosting local economies and creating business opportunities, while environmentally, they support ecosystems health and biodiversity.

Infosys Limited and EdgeVerve Systems Limited collaborated together to undertake one such project on "Restoration of historic stepwells & traditional water systems at Rashtrapati Nilayam, Hyderabad" through Infosys Foundation. This project, in partnership with the Society for Advancement of Human Endeavour (SAHE) Foundation, emphasizes the importance of traditional water conservation practices. It further exemplifies Infosys's commitment to sustainability reinforcing its leadership in integrating environmental, social, and cultural considerations into its CSR. Below depicts the project specifics:



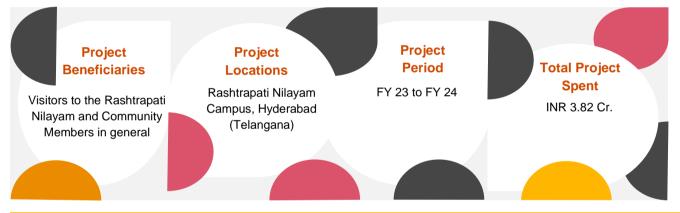


Figure 207: Rashtrapati Nilayam, Hyderabad



Located in the Secunderabad, Hyderabad, Rashtrapati Nilayam stands as a testament to India's rich Presidential heritage. Originally built in 1860, it has been open to the public since March 2023 and serves as the President of India's winter retreat. Spanning 97 acres, it offers visitors with an oasis for cultural and historical exploration, featuring thematic gardens, interactive exhibitions, and educational tours.¹³²

This project has been implemented by **SAHE Foundation**, an organization dedicated on creating sustainable social impact through collective action. By bringing together likeminded individuals, SAHE aims to address relevant social issues in the Hyderabad.¹³³

¹³² Source: About Rashtrapati Nilayam - <u>https://visit.rashtrapatibhavan.gov.in/visit/rashtrapati-nilayam-hyderabad/p2</u>

¹³³ Source: SAHE India - <u>https://saheindia.in/</u>

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Below is brief description of the project's various activities¹³⁴:

- Restoration and Revival of Traditional Water Systems: This project involved the restoration of historic water networks, including three stepwells, to reduce dependency on external water sources. By clearing vegetation and waste from sumps and reconnecting network pipes, the system's functionality was revived, vital for irrigating the Nilayam gardens.
- Aquifer Capacity Assessment and Groundwater Management: A comprehensive assessment of the aquifer capacity was conducted using a polygon of survey points. This enabled sustainable water usage planning and identified areas for further geophysical surveys. Effective management of borewells and open wells included discharge and pumping tests, with strategies to repurpose non-functional borewells for recharge.
- Rainwater Harvesting and Eco-Channel Construction: Rainwater harvesting systems and recharge
 pits were built to enhance groundwater recharge, strategically positioned to maximise rainwater capture
 and reduce runoff. Eco-channels were created to direct rainwater to recharge points, improving
 groundwater levels through increased infiltration.
- **Development of Interpretation Centre:** An interpretation centre was established to educate visitors about India's traditional water management systems, aiming to raise awareness and appreciation of sustainable water practices and the cultural heritage associated with these historical systems.

23.2. Method of Impact Assessment

The impact assessment study employed a **consultative and cohesive approach** to evaluate the project's social impact. To begin the assessment process, **a kick-off meeting was held with Infosys Foundation**, followed by a **project briefing call with SAHE representative**. These meetings offered the research team **essential insights into the specific support** provided under this project.

Following the initial calls, PW received the following project documents:

1=%	
=%	

- **Memorandum of Understanding (MoU) and an Addendum to the MoU** signed with SAHE containing project's operational details
- **Detailed Project Reports** from SAHE detailing the project activities carried out during the implementation phase

Accordingly, PW team commenced a **desk review** of the project documents which **facilitated the design of the assessment framework and the identification of key stakeholders** for interactions.

A qualitative research methodology was employed to assess the impact of this project. This approach not only offered deep insights into participants' experiences and perspectives but also examined the contextual factors influencing the project's outcomes. By utilizing this methodology, the evaluation provided a thorough understanding of the project's effectiveness and highlighted potential areas for enhancement.

Key stakeholders were identified, and **customized research tools were developed** to **ensure thorough and insightful data collection**. The team conducted **in-depth interviews (IDI)** with the selected stakeholders:

¹³⁴ Project MoU and Detailed Project Report Price Waterhouse Chartered Accountants LLP

Figure 208: Sampling Plan



- Estate manager at the Rashtrapati Nilayam (1 IDI)
- SAHE project team members (2 IDIs)
- **Visitors** (General visitors and School Teachers from a group visiting the location) at the location (5 IDIs)
- Project team of Infosys Foundation (1 IDI)

23.3. Analysis and Findings

This section summarises the findings from the desk review and interactions:

23.3.1. Challenges Before the Project

During the assessment, team noted following key challenges prior to the implementation of the project, which made a compelling case for the intervention:

- Water Scarcity and Groundwater Depletion: The region in and around the estate faced a severe water scarcity crisis, marked by rapidly declining groundwater levels. This necessitated urgent interventions to enhance local water storage capacity and reduce the Nilayam campus' significant reliance on external water sources. The scarcity not only impacted daily water usage but also posed a threat to horticulture activities within the vast expanse of gardens in the campus. In earlier times, the water needs of estate area were met by three stepwells. Back then, the water requirements were modest, catering only to gardening, daily utilities for a select group of people, and laundry activities. These stepwells supplied water to nearly 60% of the area through gravity channels and CI pipes. Nowadays, the water demand has risen due to an increase in activities and needs, as the entire area has been transformed into gardens. Further, there has been an increase in staff including gardeners, tour guides and President's security personnel (during President's visit) who are primarily dependent on water availability at campus.
- Deterioration of Historical Structures: The campus's stepwells, important historical landmarks, were experiencing various structural issues. The masonry had developed cracks, and the lime plaster was deteriorating, undermining which compromised the integrity and safety of these ancient structures. Additionally, unchecked vegetation growth further compromised was encroaching on the stepwells, further threatening their architectural stability and historical value. These issues highlighted the need for immediate conservation efforts to preserve the stepwells for future generations.

Figure 209: Vegetation growth within the stepwells and the sumps prior to the implementation of the project





 Community Engagement and Education: There was a notable lack of community engagement and awareness regarding the historical and environmental importance of the stepwells. Many community members were unaware of the cultural heritage embodied by these structures and the benefits of preserving them. Educational resources were limited, necessitating initiatives to promote a deeper understanding and appreciation of the stepwells within the local population. Community engagement was crucial for ensuring the long-term success of conservation efforts.

23.3.2. Summary of the Impact Created

1. Revival and preservation of historical step wells

• The restoration of the three stepwells, namely, Jai Hind, Nakshatra, and Chinna Baavi preserves historical and architectural landmarks. These structures showcase the artistic and engineering prowess of past civilizations. The project revives traditional water systems, such as the bullock-run lifting system and the mechanised Persian wheel.

Figure 210: Restored Jai Hind stepwell under the project



Stepwells and water systems are integral to the region's cultural heritage as they exemplify ancient engineering marvels that provided reliable water sources in these areas, reflecting the ingenuity and adaptability of past societies., Preserving them. therefore, reinforces area's cultural identity. They foster a sense of continuity with the past, connecting generations through shared historv and innovation. The stepwells act as living monuments, engaging both the community and visitors. They offer educational and experiential opportunities through school excursions and exposure visits

Figure 211: Bullocks for demonstration of traditional water lifting mechanism for the visitors



along with guided tours for visitors, enriching cultural understanding.

- Βv incorporating modern rainwater harvesting techniques. the project addresses contemporary water scarcity challenges. It provides a sustainable water management model for the present and future. This project serves as an exemplar for other areas with dilapidated water structures and grappling with similar issues pertaining to scarcity of water, demonstrating practical solutions through a blend of traditional and modern methods.
- Since the inauguration of the project in December 2023, the Rashtrapati Nilayam campus has attracted 1.5 to 2 Lakh visitors to date. Revenue from ticket sales, priced at INR 50 per person, is reinvested into estate maintenance including the upkeep of water management systems, thereby ensuring longterm self-sustainability. Additionally, with the revitalised Jai Hind stepwell and the nearby interpretation centre being primary attractions, it can be deduced that the project ensures longterm self-sustainability through tourism revenue.

Figure 212: Murals depicting before and after condition of the step wells



During the interaction with the visitors, it was

noted that they found stepwells meticulously preserved. Further they highlighted that bullock-run water lifting systems stand out as architectural masterpieces, showcasing the intricate design and engineering prowess of ancient civilizations. The quided tours too, provide in-depth knowledge about their history and significance. They also emphasized the campus's accessible design, which enhances the visitor experience and supports inclusivity for visitors with special needs.



The restoration of traditional water systems, coupled with modern water management practices, has likely ensured a sustainable water supply for the estate gardens. By implementing advanced filtration techniques, the water quality has been enhanced, offering the essential resources needed for robust plant growth.

As narrated by a Rashtrapati Nilayam estate manager during interactions

2. Sustainable Water Management and Groundwater Enhancement

- Despite having nine borewells, the campus previously relied on external water resources. For • instance, before the project's implementation, the gardens at Nilayam required maintenance for 100 days. During these days, approximately 1,000 water tankers were used for irrigation and gardening, averaging 10 tankers (average capacity of 5,000 liters per tanker) per day¹³⁵. This was primarily due to limited water availability from the borewells for irrigation within the estate's vast expanse of gardens, especially in the dry season. To achieve water self-reliance, several key interventions were implemented under this project.
 - Installation of recharge pits These structures facilitate rainwater percolation into the groundwater 0 table, reducing surface runoff and significantly enhancing groundwater levels.

¹³⁵ These numbers, however, changed significantly during Presidential visit to the estate. This would also depend upon the number of people traveling with the Presidential convoy. Price Waterhouse Chartered Accountants LLP

- **Development of eco-channels** Designed to transport water while preserving the ecological balance, these channels improve water quality.
- Introduction of an injection borewell system This system efficiently manages rainwater, ensuring optimal utilisation and conservation.

Figure 213: Injection borewell (Left), Recharge pit (Middle) and Board depicting the placement of eco-channel (Right)



• These targeted interventions highlight a successful model of achieving water resilience through a blend of traditional and modern techniques. Moreover, the formerly dilapidated stepwells have been restored to hold water close to their maximum capacity (Table 1) during peak seasons of monsoons. As a result, the gardens within the estate can utilise water for self-sustenance and the campus now serves a model of sustainable water management for other regions.

#	Name of the step-well	Traditional method to draw water	Maximum Capacity (Litres)
1	Jai Hind	Bullock-run water lifting system	1.56 Lakh
2	Nakshatra Garden Stepwell	Persian Wheel	25.2 Lakh
3	Chinna Baavi	Pulley System	6.87 Lakh

- Through these integrated efforts, the project is anticipated to significantly enhance groundwater levels in future. Water capacity of the underground aquifer is expected to increase from an estimated 23.5 lakh litres to 1 crore litres. This improvement not only enhances water quality but also ensures better availability for surrounding communities. The increased capacity meets current demands while safeguarding resources for the future, thereby reinforcing the project's role in promoting sustainable water management practices.
- 3. Transformative Educational and Cultural Engagement
- The interpretation centre (near the Jai Hind stepwell) serves as an educational hub, focusing on the estate's water management structures. It offers visitors insights into the historical and cultural significance of these systems.
- The centre showcases the evolution of water management practices over the centuries, illustrating
 role of ancient techniques in addressing today's environmental challenges. This approach fosters a
 deeper appreciation and understanding of cultural heritage. Visitors learn how historical practices
 can inform and improve modern water management strategies. By connecting the past with present,
 this centre highlights the relevance of traditional wisdom in contemporary contexts.

Figure 214: Inauguration plaque outside the interpretation centre (Left), Model depicting a traditional water lifting system (Right)



- The interpretation centre enhances the visitor experience, contributing to visitor footfall. This surge in visitors drives economic benefits for the campus. The centre's activities also support ongoing conservation efforts. By drawing attention to the significance of the estate and its water systems, this centre plays a key role in sustaining interest and investment in heritage preservation.
- The amphitheatre near the Jai Hind Step Well functions as a vibrant cultural hub, where local talents are showcased through performances, lectures, and exhibitions. This venue not only promotes cultural pride but also strengthens community ties by offering a space for cultural expression and celebration. Since February 2024, the amphitheatre has hosted cultural events every weekend. The booking schedule is currently reserved till August 2025, attracting over 100 attendees during each event at the amphitheatre.

Figure 215: Murals depicting the construction and utility of eco channels



As a result, these initiatives enhance community cultural engagement and encourage the preservation and appreciation of local heritage.



As an educator, I am thoroughly impressed with the Jai Hind Stepwell Interpretation Centre. It offers an educational experience to our students that enriches our understanding of historical and modern water management practices. This centre is a remarkable resource for inspiring the next generation to appreciate and preserve our cultural heritage.

- As narrated by a schoolteacher visiting the Nilayam with the school group
- Further, an **AV room located opposite to the centre presents curated video content**. This content **details the conservation process, making the experience both engaging and informative.** In doing so, it enhances visitors' understanding of the estate's heritage and the importance of preserving such landmarks.

Figure 216: Audio-Visual content being played in the AV room





23.4. IRECS Analysis

Basis the interactions with the key stakeholders and desk review, **the impact of the project was also assessed on the IRECS framework parameters**. The IRECS analysis summary has been presented in below table:

Parameter	Assessment from Study
Inclusiveness	• The stepwells and the associated structures (such as injection wells, interpretation centre) can be visited by any member visiting the Rashtrapati Nilayam campus. A guided tour of the Interpretation centre is included within the entry fees of INR 50 per ticket for the Nilayam tour.
	• The project actively involves local communities by providing educational and experiential opportunities at the stepwells and interpretation centre. It encourages participation from diverse groups, fostering inclusivity in heritage preservation.
	• By showcasing local talents and traditions through performances and exhibitions at the amphitheater, the project ensures that various cultural narratives are represented and celebrated, promoting inclusivity in cultural expression.
Relevance	• The project is highly relevant to contemporary challenges by integrating traditional and modern water management techniques, such as rainwater harvesting and recharge pits, to address water scarcity issues effectively.
	• The restoration of the historical stepwells and the establishment of the interpretation centre highlight the relevance of preserving cultural heritage in today's rapidly modernizing world, connecting past practices with current needs.
Effectiveness	• The interventions, including recharge pits and the injection borewell system, have effectively made the campus water self-reliant, significantly boosting groundwater levels from 23.5 lakh liters to 1 crore liters.
	• Rashtrapati Nilayam has attracted 1.5 to 2 lakh visitors since the project's inauguration. The revenue generated supports estate maintenance, proving the project's economic viability.
	• The interpretation centre has successfully engaged a wide audience through interactive and immersive learning experiences, significantly raising awareness and understanding of historical water management among visitors and the local community.
Convergence	• The project aligns with the overarching vision of the Rashtrapati Bhavan management to rejuvenate the diminishing traditional water management systems within the estate, while simultaneously transforming these structures into a visitor-friendly environment.
	• The initiative was executed in close consultations with the Rashtrapati Nilayam staff , underscoring its strategic alignment and collaborative nature.

Table 43: IRECS Analysis

Parameter	Assessment from Study		
	• Additionally, discussions with the Estate Manager and the Implementing Partner highlighted the potential for future collaborations with educational institutions to facilitate research initiatives around water management .		
Sustainability	• By enhancing groundwater recharge and implementing sustainable water practices, the project ensures the long-term availability of water resources for the campus and surrounding communities.		
	• The project drives sustainable tourism, reinvesting ticket sales revenue into maintenance and conservation efforts, ensuring the continued preservation of cultural landmarks and supporting local economies.		

23.5. Alignment to the Infosys's CSR policy and the UN SDGs



The project is aligned with the respective CSR Policy of Infosys Limited and EdgeVerve Systems Limited which includes Environmental Sustainability and National Heritage, Art and Culture as one of the key CSR focus areas. The project is also aligned with following Sustainable Development Goal (SDG)¹³⁶:



SDG-6 emphasises on **ensuring that everyone has access to clean water and sanitation**. Through the implementation of infrastructure like recharge pits and the injection borewell system, the project promotes sustainable water management and self-reliance, ensuring long-term water availability.

SDG-11 focuses to **make cities and communities sustainable, safe, inclusive, and resilient**. The project, through revitalisation of historical water management structures, enhances cultural heritage preservation and sustainable urban tourism, contributing to the cultural and economic vitality of the community.

23.6.Study Limitations

- Interactions with local shops and businesses: The research team aimed to evaluate the impact of visitor footfall on local businesses. However, during the assessment, it was found that there are no local shops in the immediate vicinity of the Nilayam estate. Additionally, the implementing partner indicated that any effects on local community located more than 1 km from the estate, particularly concerning water table improvements, would not be immediate. Hence, no interaction was conducted with this stakeholder group.
- Long-term impact of the project: During the assessment process, it was observed that most activities related to groundwater and aquifer recharge are expected to yield long-term benefits for the community. Given that only one year has passed since the project's completion, the immediate impact of these activities could not be fully evaluated at this time.

23.7. Case Story

Following case story has been gathered through discussions held with the project stakeholders during field visit to at Rashtrapati Nilayam. Names of the respondents have been changed to maintain anonymity:

Case Story: Discovering Heritage: A Visitor's Journey at Rashtrapati Nilayam

For Ravi Kumar*, a long-term resident of Hyderabad, his visit to Rashtrapati Nilayam was a revelation. Despite living in the city for decades, he was unaware of this hidden gem within its borders, a place rich in historical and aesthetic importance.

He was particularly enthralled by the interpretation centre, which offered a wealth of information. The exhibits meticulously detailed the estate's rejuvenation efforts, highlighting how traditional water management techniques were being preserved and integrated into modern methods. As Ravi moved through the centre, he was impressed by the depth of knowledge and cultural heritage encapsulated within Rashtrapati Nilayam's walls.

Ravi resolved to spread the word about this remarkable site. He believed that the interpretation centre provided an invaluable educational opportunity, especially for the younger generation. Encouraging families to visit, Ravi stressed the importance of exposing children to such rich cultural and historical content. He envisioned a future where the youth, informed by the past, would carry forward the legacy of sustainable water management.

Ravi left Rashtrapati Nilayam feeling grateful and driven to advocate for greater public engagement with the site. His visit not only deepened his understanding of Hyderabad's heritage but also reinforced his commitment to practising and promoting environmental stewardship.

*Name Changed

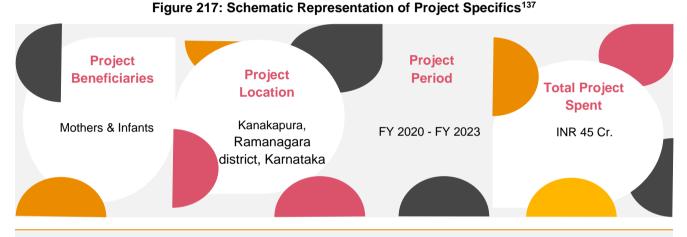
Project 21: Infant and Maternity Hospital, Kanakapura

24.1. About the Project



The accessibility and availability of healthcare facilities for mothers and infants are paramount to ensuring their health and well-being. **Timely access to quality maternal and neonatal care** can significantly **reduce maternal and infant mortality rates**. It prevents childbirth complications and promotes healthy development of newborns.

Over the years, **Infosys Foundation has supported numerous healthcare and rural development initiatives** through its CSR efforts. One such project is the 'Infant and Maternity Hospital', wherein **the Foundation supported the construction of a 100-bed Infant and Maternity Hospital** in Kanakapura, Ramanagara district, Karnataka. The objective was to **ensure quality and timely care for mothers and children from underprivileged communities.** Below is a schematic representation of the project specifics:



This hospital operates under the administrative supervision of the Directorate of Health and Family Welfare Services (Health Department), Government of Karnataka. With a history spanning over 40 years, the hospital initially started as a Primary Health Centre (PHC) and later expanded into a 30-bed infant and maternity hospital. In 2019, Infosys Foundation committed to support its upgrade to a 100-bed facility.

Today, this hospital offers a range of specialised and advanced healthcare services to women and children which include: Figure 218: Infant and Maternity Hospital Building



Source: Infant and Maternity Hospital Team

- Outpatient Department (OPD) Services: General consultations and check-ups for both paediatric and gynaecological cases
- Inpatient Services: Care for patients admitted to the hospital, including deliveries, specialised treatments, and emergencies
- Family Planning Services
- Newborn Stabilisation Unit (NBSU)
- Nutritional Rehabilitation Center
- Immunisation Services etc.

¹³⁷ As per Memorandum of Understanding (MoU) and Handover letter from the Infosys Foundation.

In February 2023, the Infosys Foundation handed over the newly constructed building of the Infant and Maternity Hospital to the Health Department, Karnataka¹³⁸. The facility boasts a state-of-the-art infrastructure including a basement, ground floor, and two additional floors. The hospital features electrical and plumbing systems, fire protection measures, HVAC systems¹³⁹, oxygen and medical gas pipelines, and a passenger lift. It was agreed that any additional items, besides the infrastructure, whether **medical equipment, human resources, and the future maintenance activities would be the responsibility of the health department and hospital authorities.**

24.2. Method of Impact Assessment



The impact assessment study employed an **integrated and cohesive approach** to assess the social impact of project's implementation. An **initial meeting** was organised with **Infosys Foundation** and the **administrative staff of the Hospital** to understand the support provided by the project. The meeting also helped to identify **any additional requirements** necessary for commencing the assessment process.

Subsequently, PW team received following project documents from Infosys Foundation:



- **Memorandum of Understanding (MoU)** signed between the Health Department of Government of Karnataka, and Infosys Foundation containing project details
- Handover letter from the Infosys Foundation, affirming project completion
- **OPD monthly report** from September 2023 to July 2024

Accordingly, PW team commenced a **desk review** of the project, drawing on the information gathered from the kick-off meeting and the relevant project documents. This effort facilitated the design of the **assessment framework** and the **identification of key stakeholders** for interactions. Moreover, PW team focused on developing a **qualitative research methodology** for assessing the impact of the project.

A qualitative research methodology was employed to **assess the impact of the project**. This approach was essential for exploring the **subjective experiences of participants**, providing detailed insights into their individual perspectives related to the project. Hence, qualitative research enabled the team to gain a **deeper understanding of the diverse viewpoints and perceptions** of the different stakeholders. It captures the **nuanced dynamics and contextual factors** that influence the project's overall impact.

After this, **key stakeholders were identified**, and **customised research tools were prepared** to support guided conversations with each stakeholder. An **on-site visit to the hospital** was conducted to administer the questionnaires with the respective stakeholders. A total of **eleven interactions were concluded**. The **evaluation framework** for the study is as follows:

Figure 219: Stakeholder Interactions¹⁴⁰

- 9. 0 0.0 0.0
- a. Five In-depth Interview (IDIs) with healthcare staff at hospital including two IDIs with doctors and three IDIs with Nurses
- One IDI with the administrative representative at the Hospital
- Five IDIs with current patients at the hospital

¹³⁸ Source: Handover letter from the Infosys Foundation, affirming project completion

¹³⁹ Heating, Ventilation, and Air Conditioning (HVAC) systems

¹⁴⁰ Due to the data confidentiality, patients' data was not requested from the hospital as a practice. However, the team was able to interact with a few patients during the visit to the facility ounderstand the impact of overall healthcare services offered at the newly constructed facility as compared to facilities offered previously in the 30-bed hospital.

24.3. Analysis and Findings

The necessity for the project, along with a summary of key impact, is outlined below:

24.3.1. Challenges Before the Project



This project was proposed in response to the **rising number of patients and increased demand for better healthcare due to the deteriorating conditions of the existing 30-bed hospital** in the area. A combination of factors led the Karnataka Health Department to seek funding from Infosys Foundation for construction of a 100-bed infant and maternity hospital:

- The hospital encountered difficulties in providing timely treatment to the growing number of patients. Consequently, many patients experienced delays in receiving care or were referred to distant hospitals in Bangalore, a non-viable option due to their economic circumstances. The **lack of convenient access to quality healthcare** was particularly challenging for those in urgent need of medical attention.
- The limited infrastructure further compromised the delivery of healthcare services, resulting in inadequate treatment for complex cases and a lack of emergency services. The deteriorating condition of the facility underscored the need for expansion to enhance the range of services provided and meet modern healthcare standards. This improvement was essential to effectively manage the increasing volume of complicated, and urgent cases.

24.3.2. Summary of the Impact Created

Recognising the challenges at the previous healthcare facility, Infosys Foundation and the Health Department collaborated to establish a 100-bed infant and maternity hospital, enhancing **the well-being of the community**. This support from Infosys Foundation now offers a **range of benefits to the community members coming from various socio-economic categories and geographical locations**, as outlined below:

Enhanced Medical Infrastructure:



This hospital now significantly elevates the standard of healthcare services for mothers and children by offering an expanded range of advanced medical treatments. With its robust infrastructure, the facility is now fully equipped to provide specialised care and efficiently manage the increasing number of patients. Beyond maternity and paediatric services, this hospital has become capable of handling complicated pregnancies and delivering critical emergency care. It administers immunisations and operates a state-of-the-art laboratory with blood storage capabilities. This comprehensive set of services marks a transformative improvement from the previous conditions.



The hospital is staffed by a dedicated team comprising **3 doctors and 20 nurses**, complemented by additional lab technicians, administrative personnel, and other support staff. OPD services are available from 9:00 AM to 4:30 PM. With **the construction of the new facility, emergency services are now available around the clock**, ensuring patients receive immediate care when needed. Furthermore, the **hospital provides ambulance support for cases requiring referrals to other medical institutions**.

The infrastructure has been meticulously designed to accommodate advanced medical equipment thereby empowering healthcare workers to deliver more effective treatment. Doctors have reported enhancement in the quality of care they can provide, which was unattainable in the former facility. Notably, the incidences of referrals to other hospitals and fatalities due to lack of resources have markedly reduced.

The expanded facility now offers ample space for treatment, facilitating **timely intervention and the** effective prevention and management of complicated cases and infections. Improvements in postdelivery care have also been noticed, resulting in better health outcomes for both mothers and infants. Doctors have highlighted that the previous hospital's limited space forced all health specialties to share areas, increasing the risk of infections. For instance, **patients undergoing Caesarean sections (C-section) were housed in the same surgical ward as other patients, leading to cross-contamination**. The new facility effectively mitigates these concerns by providing distinct, specialised areas for maternal and childcare treatment.

The administrative staff has mentioned that the construction of the large hospital building has led to a notable increase inpatient admission. Prior to the construction, team noted the monthly footfall of approximately 1,500 patients. However, with the construction of this hospital, IMH team highlighted an increase in the average monthly footfall to over 2.800 paediatric and gynaecological combined outpatients, more than 260 inpatients, and 97 deliveries. Between September 2023 - July 2024, the hospital has served over 31,000 outpatients, 2,884 inpatients, and conducted 1,067 deliveries, including both normal & Lower Segment C-section procedures.141

Figure 120: Paediatric Ward at the Hospital



The building features a rainwater harvesting system to address water shortage during high temperatures and prevent waterlogging and flooding during heavy rains. This underscores a commitment to sustainability and environmental responsibility. However, some areas for functional improvements have been identified, particularly the heavy reliance on power for lighting and ventilation. The administrative staff suggested increasing the number of windows for natural ventilation and installing solar panels to reduce dependence on artificial power and enhance comfort.



The presence of such facility is very important, especially for women in remote areas. It plays an essential role in reducing maternal and infant mortality rates by providing comprehensive and timely care. The new hospital has improved survival rates among pregnant women and newborns. Although major cases of miscarriage were initially infrequent, the enhanced capabilities of the new facility have substantially improved our ability to manage emergencies effectively, which earlier had to be referred to other hospitals in Bangalore city.

As Narrated by an Administrative Staff at IMH

Access to Free of Cost Quality Healthcare for Patients:



This support was instrumental in constructing a facility designed to serve large population spanning over 100 villages in Ramanagara District, and neighbouring areas of Tamil Nadu and Karnataka. The hospital is now frequently visited by diverse communities seeking trusted and quality healthcare services.



The primary beneficiaries of the hospital are **predominantly antenatal mothers from Kanakapura** and **paediatric patients under 18 years of age**. While most of these patients come from **Below Poverty Line (BPL) households**, the hospital also serves individuals from various socio-economic backgrounds. Generally, patients traveling **within the taluka cover distance less than 50 kilometres**, depending on their location and accessibility of transportation.

The administrative staff reported that "prior to the establishment of the new facility, many patients faced the **challenge of traveling long distances for medical care**, incurring significant costs and logistical hardships. The new hospital has mitigated these difficulties by **enabling patients to access treatment in closer proximity to their homes, leading to reduced transportation expenses and travel time**. The inconvenience in accessing healthcare services also led to **reluctance among communities to utilise such modern facilities**.

¹⁴¹ As per OPD monthly report from September 2023 to July 2024 received from the Hospital.

A member of nursing staff added that "the capacity expansion has addressed the reluctance to seek medical services among patients and caregivers has reduced the number of referrals to other hospitals."

The Infant and Maternity Hospital continues to provide high-quality services at no cost, as it historically done. This approach has substantially alleviated the financial burden on patients who would otherwise, have been compelled to seek specialised treatment at private facilities. According to statements from medical practitioners and patients, nearby private hospitals typically charge between INR 15,000 and INR 20,000 for a normal delivery, and up to INR 50,000 for a C-section. Gynaecological surgeries at private hospitals can range from INR 70,000 to INR 1,00,000.

Figure 221: Newborn Stabilisation Unit (NBSU)



Stakeholders collectively expressed their appreciation for **the enhanced space and the availability of advanced medical services** in their vicinity. The accessibility and provision of free treatment have been particularly well-received, contributing to a favourable perception of the new hospital. Although the facility can accommodate a larger influx of patients and is well-maintained by the hospital authorities, the medical and nursing staff face **challenges with the availability of permanent, round-the-clock-doctors.** They mentioned that despite hospital's large size, it remains underutilised due to a shortage of adequate human resources.



This hospital was the clear choice for me due to its proximity to my home. As the sole provider of free treatment in the area, this new and expansive government facility is well-equipped and staffed by diligent professionals who offer exemplary care. Having access to superior healthcare so close to home is truly reassuring. Moreover, the glowing recommendations from others further solidified my decision to seek treatment here.

As narrated by a patient of IMH

Enhanced Overall Patient Experience:

During stakeholder interactions, numerous stories emerged, shedding light on patient experiences at the newly constructed hospital. One compelling instance came from a nurse who recounted a case involving a pregnant woman with severe complications during delivery. Previously, such a situation would have necessitated transferring the patient to a distant hospital, thereby increasing the risk. However, thanks to the upgraded facilities at the new hospital, the medical team was able to provide immediate care and efficiently perform a C-section.



The new facility has **notably reduced wait times** for patients and **improved access to care**. The **larger space and enhanced resources have enabled the medical staff to treat more patients efficiently**. Stakeholders noted that although the facility is not multi-specialty, it delivers the **highest quality of care at the grassroot-level**. Furthermore, patients reported that the quality of services and infrastructure at this facility are at par, those offered by private hospitals in the area.

Patients mentioned that they would **recommend the hospital** to their family and friends for maternity and paediatric care. When asked for the reasons, they cited the **quality of infrastructure**, **ease of treatment**, **accessibility**, **free of cost and the quality of medical care**.

One patient remarked, "the **hospital's infrastructure is so advanced** that I wouldn't consider seeking treatment for my child anywhere else. It's **akin to having a major facility in a city – people are naturally drawn to it because they expect top facilities**."

Patients also cited **privacy**, **safety**, **and comfort** as key factors to their positive experience. One patient noted that the hospital appeared to be designed with the safety of female patients in mind. Additionally, **the inclusion of an elevator has facilitated the seamless transfer of patients** across different floors. Equipped with **CCTV cameras**, the hospital ensures a secure working **environment for doctors and a safer experience for patients**, especially women.

Further, all stakeholders confirmed their **awareness of** the facility's construction by Infosys Foundation, **largely** due to the prominent branding displayed outside the building.

Figure 222: Waiting Area for Patients



Figure 223: Infosys Foundation Logo





Although the facility is new, I have been visiting for the past seven months for checkups. My first baby was born at the previous facility, and I have noticed significant improvements in space, cleanliness, and quality of treatment at the new building. Establishing such facilities for women is crucial, especially in underprivileged communities where many women are often viewed as a burden and do not receive timely treatment. Such hospitals can provide high-quality care with dignity at no cost, encouraging women to seek medical attention without hesitation.

Patient at the Infant and Maternity Hospital, Kanakapura

24.4.IRECS Analysis

Basis the interactions with key stakeholders and a desk review, the impact of the project was also assessed on the IRECS framework parameters. The summary of IRECS analysis is presented in the table below:

Parameter	Assessment from Study	
Inclusiveness	• This project exemplifies inclusivity by establishing a healthcare facility that provides free treatment to all women and children, irrespective of age or socio-economic status.	
	• While primarily serving patients from Below Poverty Line (BPL) households, the hospital also accommodates individuals from a wide range of socio-economic backgrounds.	

Table 44: IRECS Analysis

Parameter	Assessment from Study
	• The hospital helped serve large populations across 100+ villages in the Ramanagara District, and neighbouring areas in Tamil Nadu and Karnataka.
Relevance	 Previous 30-bed hospital struggled to provide timely treatment to a growing patient population. It resulted in delayed care or referrals to distant hospitals in Bangalore, often unfeasible due to economic constraints. Patients increasingly faced challenges in accessing quality healthcare, especially in urgent situations. Limited infrastructure hindered effective service delivery, leading to inadequate treatment for complex cases and a lack of emergency services. The deteriorating condition of the previous facility underscored the need for expansion to enhance service offerings and meet modern healthcare standards. This would enable it to effectively address the rising number of complicated and urgent cases.
Effectiveness	 The hospital construction has provided ample space for treatment, enabling timely intervention and effective management of complex cases and infections. Additionally, post-delivery care has improved, resulting in better health outcomes for mothers and infants. The new facility has led to an increase in patient admissions. An average monthly patient volume of over 2,800 combined paediatric and gynaecological outpatients, more than 260 inpatients, and 97 deliveries were noted. This facility has also enhanced healthcare accessibility, reducing the need for referrals and lowering patient transportation costs. The provision of free treatment has alleviated financial burdens for patients who would otherwise seek specialised care at private facilities. This project has further contributed to the privacy, safety, and comfort of patients. Patients also cited the quality of infrastructure, ease of access to treatment, and the standard of medical care as advantages.
Convergence	• Infosys Foundation partnered with Healthcare Department, Government of Karnataka to construct the hospital. As a government hospital, the support from Infosys Foundation aligns with the government's efforts to improve care for women and children from underprivileged communities. This partnership helps address broader community needs, making it convergent to existing government healthcare efforts.
Sustainability	 Future upkeep and cleaning of the hospital infrastructure are managed by hospital, ensuring contribution to the sustainability of project. Although the hospital is currently underutilised due to a shortage of medical personnel, this situation presents an opportunity for future expansion of services as demand increases.

24.5. Alignment to the Infosys Limited's CSR policy and the UN SDGs



The project is aligned with Infosys Limited's CSR policy which includes **healthcare and rural development** as their key CSR focus areas. The project is also aligned with Sustainable Development Goal¹⁴² as follows:



SDG-3 emphasises on ensuring healthy life and promoting well-being for women and children, with a specific focus on strengthening maternity and paediatric healthcare systems. Additionally, by offering family planning services and healthcare awareness, the project promotes long-term well-being. This aligns with the goal of ensuring healthy lives for women and children, ultimately improving community health outcomes.

SDG-5 aims to achieve gender equality and empower all women and girls. This project supports this goal by providing women with access to essential healthcare services, particularly during pregnancy and childbirth. By improving maternal healthcare, the project reduces gender disparities in healthcare access and ensures women receive the care they need to safely navigate pregnancy and after-care.

SDG-9 focuses on **building resilient infrastructure and promoting innovation**. This project enhances **healthcare infrastructure particularly in underserved areas**, ensuring that women and children have **access to modern, reliable medical facilities and care**. The hospital utilises **advanced medical technologies and modern healthcare practices**, improving the quality of maternal care.

SDG-11 aims to make cities, **mainly underserved areas**, **inclusive**, **safe**, **resilient and sustainable**. Offering a **dedicated facility** for maternal and neonatal care, the project **helps create healthier**, **more resilient communities**. The hospital contributes to **urban planning**, by ensuring critical services are available, **reducing inequality in access to medical services**.

24.6.Study Limitations

- **Incomplete building interior:** Despite the completion of the building's construction, the field team encountered restricted access to certain parts of the facility due to ongoing interior and maintenance work managed by hospital administration.
- Difficulty in connecting with patients and healthcare staff: Engaging with patients from the project period at the previous hospital facility proved challenging due to ethical considerations and data confidentiality. Further, interacting with patients during their treatment at hospital posed further difficulties during interviews. Moreover, the healthcare and administrative staff were engaged in managing scheduled operations, making it difficult to conduct detailed conversations to gauge their perceptions on impact of this project.

¹⁴² Source: https://sdgs.un.org/goals

24.7. Case Stories

Case Story 1: Swift and Efficient Emergency Care

Kavitha* a resident of Uttar Pradesh, had come to Kanakapura with her husband for work. As her due date approached, she began experiencing sudden and severe labor pain early in the morning at their temporary residence. At around 4:30 AM, Kavitha and her husband arrived at Kanakapura Hospital, seeking urgent medical assistance. The situation was critical as Kavitha was in active labor, and prompt care was needed to ensure the safety of both mother and baby. Upon arrival, Kavitha was immediately attended to by the hospital's emergency team. The state-of-the-infrastructure of the hospital played a crucial role in managing her case efficiently. The hospital's around-the-clock emergency care ensured that Kavitha received immediate medical attention without any delays. Kavitha was quickly moved to one of the hospital's modern delivery rooms. These rooms are designed for efficient management of emergency deliveries, equipped with advanced medical tools and technology. With the help of the well-equipped delivery room and experienced staff, Kavitha delivered a healthy baby boy without any complications. The hospital's ability to provide comprehensive care on-site meant that Kavitha did not need to be transferred to another facility, thus avoiding potential delays, and ensuring both her and her baby's well-being. She was extremely satisfied with the care she received. She appreciated the hospital's efficient handling of her emergency, and the supportive environment provided by the new infrastructure.

Case Story 2: A Lifeline of Hope: Uma's Journey Through Hospital's Advanced Care

Uma* had been trying to conceive for 18 years and finally succeeded through IVF, making this pregnancy her last chance for a child. She had been receiving all her treatment at Kanakapura Hospital and arrived with premature labor pains, needing an urgent C-section. The hospital, with its newly upgraded infrastructure, had a fully equipped operating theatre and dedicated staff ready to manage her case. However, due to a temporary unavailability of anaesthesia, the hospital made the difficult decision to refer her to a Bangalore facility with the necessary resources. The hospital ensured a seamless transfer, coordinating closely with the Bangalore facility and providing comprehensive support during the referral. The advanced facilities including modern delivery rooms and emergency services, were fully utilised to stabilise Uma and ensure her safety until she could be transferred. Despite the need for referral, Uma appreciated the readiness and quality of care provided by hospital, which remained her preferred option due to its well-equipped infrastructure and supportive environment.

Case Story 3: Overcoming Obstacles: Sunitha's Lifesaving Surgery at Kanakapura Hospital

Sunitha*, a resident of Ramanagara, was facing a medical issue. She had a large ovarian cyst that was deemed too risky to treat at several local hospitals due to the complexity of her condition and her limited financial resources. Despite being rejected by these facilities, Sunitha's situation was critical and required immediate surgical intervention. With limited options, she could not afford the treatment at Vani Villas Hospital in Bangalore. Previously, the Kanakapura Primary Health Centre (PHC) had limited resources and infrastructure, which constrained its ability to handle complex cases like Sunitha's. Many patients with severe conditions, like Sunitha, often had to be referred to distant, better-equipped hospitals, leading to delays and increased financial burden. Sunitha was promptly assessed and admitted. The hospital's modern facilities allowed for an accurate diagnosis and preparation for surgery. The surgical team successfully operated on Sunitha, removing the ovarian cyst, and stabilising her condition. The entire process was streamlined, from pre-operative care to post-operative recovery. Sunitha was discharged in stable condition relieved and grateful for the successful treatment.

* Name Changed

Above case stories were gathered from hospital staff during the field visit.

Project 22: Construction of a Girls' Hostel Facility for the Indian Institute of Information Technology (IIIT), Tiruchirappalli

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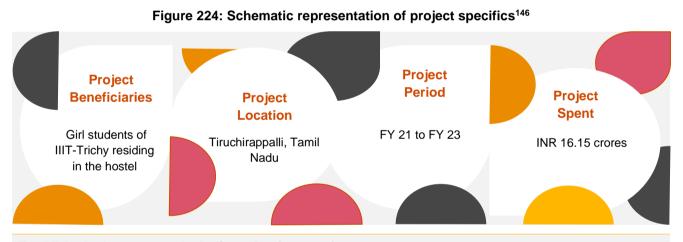
INFOSYS FOUNDATION GI

25.1. About the Project



Education serves as a fundamental pillar for personal and societal development, equipping students **with the knowledge and skills** necessary to navigate an increasingly complex world. Therefore, access to education is imperative for developing nations like India. However, **access to education** is often hindered by various challenges, such as regional disparities and gender inequality, leaving many students, particularly girls, without the basic opportunity to attend an education institute. Therefore, initiatives on raising awareness about the importance of women empowerment and building safer infrastructures, like hostel facilities, are critical. **Hostels serve a vital link** in connecting education with opportunities, facilitating access for students and fostering personal and professional growth.

Infosys Foundation contributed its **CSR funds towards the construction of a Girls' Hostel** at the Indian Institute of Information Technology, Tiruchirappalli. This project aligns with **Infosys' commitment to promoting education, gender equality, and the empowerment of women**.¹⁴³ The newly constructed hostel, spanning 5 floors and covering an area of 62,000 square feet, provides a supportive environment for girl students pursuing education in the technology sector. The facility includes a total of 127 rooms with 254 beds, designed with amenities such as entrance lobbies, restroom facilities, washing areas, office space, and provisions for elevators.¹⁴⁴ Approximately **128 girls currently reside in the hostel, comprising of 123 undergraduate students, 1 postgraduate student, and 4 Ph.D. candidates**.¹⁴⁵ A schematic representation of the project specifics is given below:



Established in 2013, the Indian Institute of Information Technology Tiruchirappalli (IIIT-Trichy), is an academic and research institute sponsored by the Government of India (50%), Government of Tamil Nadu (35%) and Industry Partners (15%) under the non-profit Public-Private Partnership (N-PPP) model of the Ministry of Human Resource Development. It offers a range of academic programmes, including undergraduate, postgraduate, and doctoral degrees. It is an Institute of National Importance and one among the 20 IIITs established under the said N-PPP model.¹⁴⁷

Figure 225: Entrance of IIIT-Trichy, Tamil Nadu



¹⁴³ Source: Corporate Social Responsibility Policy of Infosys Limited, <u>https://www.infosys.com/investors/corporate-governance/documents/corporate-social-responsibility-policy.pdf</u>

¹⁴⁴ Source: MoU between Infosys Foundation and Indian Institute of Information Technology Tiruchirappalli, August 2020

¹⁴⁵ Source: Data on hostel students as shared by IIIT-Trichy (as of August 2024)

¹⁴⁶ Source: MoU between Infosys Foundation and Indian Institute of Information Technology Tiruchirappalli, August 2020; handover letter of the hostel from Infosys Foundation to IIIT-Trichy. We noted that total 14 Ph.D. candidates are studying in IIIT-Trichy and institute has provided optional hostel facility to them in case they want to reside in hostel. Only 4 out of 14 Ph.D. candidates have opted this option.
¹⁴⁷ Source: Indian Institute of Information Technology Tiruchirappalli (IIITT) website: http://www.iiitt.ac.in/about

As stated by the Registrar during the interactions, IIIT-Trichy was situated within the premises of other technology institutes from 2013 to 2021. Initially, the institute operated in a temporary facility at the National Institute of Technology (NIT) in Tiruchirappalli. Following this, it moved to a temporary facility on the campus of Oxford Engineering College in July 2020. In June 2021, IIIT-Trichy transitioned to its permanent campus located in Sethurapatti, approximately 15 kilometres from Tiruchirappalli city.

The construction of Infosys Foundation Girls' Hostel commenced in August 2020, with a timeline of 36 months as stipulated in the Memorandum of Understanding (MoU).¹⁴⁸ The handover of the hostel facility to IIIT-Trichy was done in February 2023.¹⁴⁹ The construction of the hostel was managed by Infosys Foundation through its empanelled contractors/ vendors. This was not a grant, so no funds were not transferred to IIIT-Trichy.

#	Provided by Infosys Foundation	#	Provided by IIIT-Trichy
1.	Rooms designed for double occupancy	1.	Optical fibre cable (OFC) for fibre to the home (FTTH) connection
2.	Tactiles in the corridors of all floors	2.	FTTH device for each occupancy
3.	Restrooms in all floors with essential items	3.	RO systems for drinking water
4.	Sick room / first aid room on the ground floor	4.	Washing machine facility on each floor
5.	Two guest rooms for visitors and parents	5.	PV panels for utilisation of solar power
6.	Gym/ TV hall within the block	6.	Essential furniture items (cot, table, chair, and wooden almirah)
7.	Dedicated zone for drying clothes on each floor	7.	CCTV camera around hostel building
8.	Provision of (space) for installation of two lifts/ elevators	8.	Fire extinguisher and fire safety equipment (ongoing)
9.	Pre-wired distribution board (DB) with miniature circuit breaker (MCB)	9.	Lift/ elevator facilities (ongoing)
10.	Anti-suicide fan rods		
11.	Hand dryers in all floors		
12.	Wheelchair ramp at main entry		
13.	Water heater at roof for provision of hot water		
14.	UPS backup for lights in room and corridors		

Table 45: Facilities provided in Infosys Foundation Girls' Hostel¹⁵⁰

25.2. Method of Impact Assessment



The impact study adopted a holistic and systematic approach to assess the social impact of this project. A **kick-off meeting** was organised with Infosys Foundation to understand the specifics of support rendered under this project and to gather any additional information required to initiate the assessment process.

Following the meeting, the PW team received the following **project documents:** from Infosys Foundation and IIIT-Trichy:



Copy of the **MoU and its two addendums** specifying details of project, and other requirements related to the execution of project

Copy of the handover letter of the hostel from Infosys Foundation to IIIT-Trichy

¹⁵⁰ Annexure to the project report listing features of the Girls' Hostel Price Waterhouse Chartered Accountants LLP Impact Assessment Report

¹⁴⁸ Source: MoU (August 2020) and two addendums (August 2021 & April 2023) to MoU between Infosys Foundation and Indian Institute of Information Technology, Tiruchirappalli

¹⁴⁹ The Planning and Development In-Charge shared that in 2022, the institute requested Infosys Foundation to complete the construction of the ground floor, so that they could accommodate the existing girl students for that academic year. Accordingly, 7-8 rooms were handed over.

- Copy of the **project report submitted by IIIT-Trichy to Infosys Foundation** along with an annexure listing the features of the Girls' Hostel and data on students
- Copy of the **fees structure for the academic year** 2024-25 to understand the fees incurred by students in availing hostel facilities

PW team proceeded with a desk review of the project, drawing on the information gathered during the kick-off meeting and relevant project documents. This step enabled the team **to design the assessment framework and identify key stakeholders** for subsequent interactions.

A **mixed method approach**, incorporating both quantitative and qualitative methods, was employed to evaluate the project's impact owing to the nature of this project. The quantitative survey was conducted with girl students (beneficiaries) and was complemented by qualitative interactions with other key stakeholders of this project. This combination enabled in **assessing subjective experiences and exploring in-depth perspectives of various stakeholders** related to this project.

The sampling plan involving following stakeholders, is shared in Figure 226.

Figure 226: Sampling Plan



- Quantitative surveys with a sample of 91 girl students residing in Infosys Foundation Girls' Hostel facility *
- A focused group discussion (FGD) with 15 girl students from different batches residing in the hostel
- One In-depth Interview (IDI) with the Director and the Registrar (administrative representatives) of IIIT-Trichy
- One IDI each with the Planning In-Charge of the Girls' Hostel, a lady faculty member and the hostel warden

* The quantitative sample for the study was finalised based on the information provided by IIIT-Trichy. We noted that the total number of girl students residing in the hostel is 128 (including undergraduate, postgraduate and Ph.D. candidates). As the admission of first year undergraduate students was still under progress and many of them were yet to join the hostel, they were excluded from this survey post discussion with Infosys team. Further, only 4 Ph.D. candidates (out of 14) and one postgraduate student were residing in the hostel, but IIIT-Trichy was unable to mobilise these students for the interactions. The **number of undergraduate students in the 2nd, 3rd and final years residing in the hostel was 91 girls** and **all of them** were covered during the quantitative interactions.

25.3. Analysis and Findings

Based on interactions and a review of the project documents, the findings have been summarised as follows:

25.3.1. Challenges Before the Project



When IIIT-Trichy shared facilities with the NIT-Trichy between 2016-2020, boys were housed in the boys' hostel at NIT. However, there was **no accommodation facility for girls during this period**.¹⁵¹

Initially, an arrangement was made for girl students to stay in the Girls' Hostel of a private engineering college which was ~25 kilometres away. But the distance made it unfeasible to commute on a daily basis. Consequently, new arrangements were made, and the girl students

were accommodated in one of the faculty quarters of NIT-Trichy. However, this led to overcrowding in the hostel facility, resulting in limited access to amenities. Additionally, the facility was situated far from the dining hall, further complicating the living conditions. The lack of a proper hostel facility for girls at IIIT-Trichy resulted in low girl students' enrolment, often limited to single-digit figures.

Although the need for dedicated accommodation facilities for girls on the new campus was acknowledged, the Planning and Development in-charge shared that the funding allocated by the government for campus construction was insufficient to cover the cost of all necessary facilities.

To address the funding shortfall, **there was a need to** engage with **private partners**. Consequently, **the Director of IIIT-Trichy reached out to Infosys Foundation**, specifically requesting financial support for the **construction of a Girls' Hostel**.

25.3.2. Summary of the Impact Created

1. Beneficiary Profile

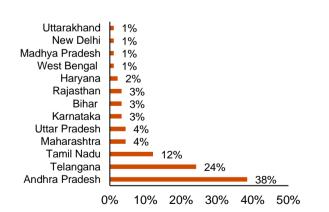
This section presents the key findings that emerged from quantitative interactions carried out with project beneficiaries (n=91) to understand the impact of the construction of Girls' Hostel on their lives.



• The respondents hail from various states across India, with the **highest representation from Andhra Pradesh (38%)**, followed by Telangana (24%) and Tamil Nadu (12%). The remaining students come from different parts of the country, as reflected in Figure 227.

• The respondents **are aged between 17 to 21 years** and include undergraduate students in their 2nd, 3rd, and 4th years who were residing in the hostel. (Figure 228)

Figure 227: Representation of respondents from states across India (n=91)



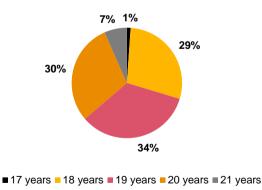


Figure 228: Age of the respondents (n=91)

2. Increase in girl student enrolment at IIIT-Trichy

The provision of a Girls' Hostel facility has contributed to a sustained increase in girl students' enrolment as reflected in Figure 229 below:

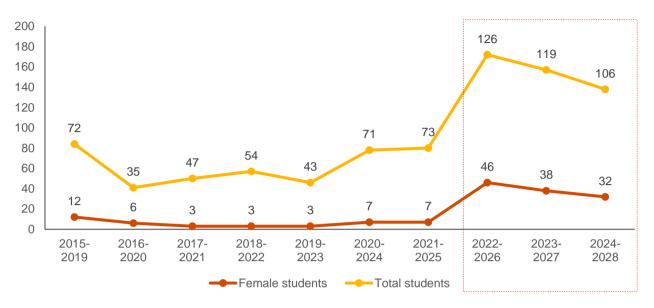


Figure 229: Girl student and total student enrolment each year at IIIT-Trichy¹⁵²

- As evident, the number of girl students at IIIT-Trichy remained in single digits until 2022 (batch 2021-2025) but has steadily increased over the past three years when the hostel facility became available. Furthermore, the availability of a hostel facility is a significant reason for attracting girl students from other states in India. The students clearly highlighted that they specifically opted to enroll in IIIT-Trichy because it offered hostel accommodation. The college surroundings otherwise also lack private lodging facilities.
- The Director of IIIT-Trichy shared that they have now introduced an admissions quota of 50 girl students per year. This initiative aims to enhance girl students' enrolment at the institution, positioning IIIT-Trichy as the **first IIIT in the nation to offer this opportunity.** This is made possible by the construction of the Girls' Hostel by Infosys.



Over the past three academic years, there has been a notable increase in the intake of girl students. Having a Girls' Hostel within campus, has positively influenced parents' decisions when seeking admission for their daughters, as they inspect the accommodation and express satisfaction with the facilities provided.

Planning and Development In-Charge at IIIT-Trichy

3. Affordable and improved residential facilities

The team noted that none of the current students at IIIT-Trichy have resided in the earlier facilities provided by the institution.¹⁵³ However, **24 respondents (n=24)** reported having lived in other hostel facilities prior to this one. When asked to compare those facilities with the one constructed by Infosys,

- 58% expressed (n=24) that the quality of infrastructure at the Girls' Hostel was far superior.
- Additionally, half of the respondents felt that the new hostel offered greater convenience and safety compared to their previous hostels.

¹⁵² The overall enrolment numbers, including girl students, have declined in FY 23 and 24. Upon probing the reasons, the team observed that IIIT-Trichy, being a government institute, handles admissions including counselling through government processes. Over the past two years, the counselling process has commenced quite late. By this time, most private and self-financing colleges have completed their admissions and started their semesters. Due to the uncertainty of their final allotment, students often initially secure admissions in private colleges. Even if they later receive an offer from IIIT-Trichy, private colleges typically do not refund fees, which can range from INR 6-8 Lakhs. Consequently, parents often prefer to let their children continue their studies in private institutions, contributing to the decline in enrolment numbers.

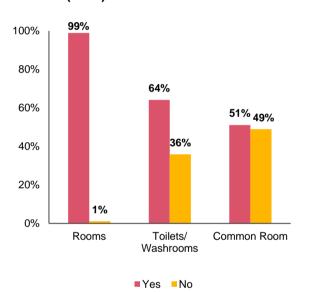
¹⁵³ The Planning and Development In-Charge explained that the current 3rd and 4th year students participated in online classes during their first two years due to the pandemic. As a result, they did not utilise the other facilities that were available prior to the construction of Infosys Foundation Girls' Hostel.

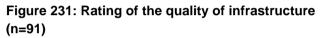
Further, an examination of the hostel fees for the academic year FY 25 reveals that IIIT-Trichy charges • INR 43,000¹⁵⁴ which is significantly lower than the average annual fees of approximately INR 69,000 paid by these students at other facilities, making it more affordable.

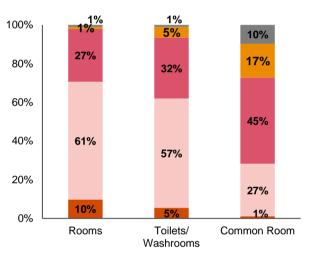
4. Provision of adequate and quality of infrastructure facilities

- Almost all students (99%) indicated that there were enough rooms available (Figure 230).
- 64% felt that there were sufficient washrooms and toilets available (Figure 230).
- Only half of the students believed that there were adequate common room facilities. On probing further, they shared that the common room is too small for all residents, so meetings and gatherings have to be held in the corridors or reception area (Figure 230). Team noted that Infosys Foundation began construction of hostel after the layout plan was approved by IIIT-Trichy.
- In terms of quality of infrastructure, almost three-fourth (71%) of the students rated rooms as either • excellent or good (Figure 231). Additionally, 62% shared a similar sentiment regarding the toilets and washrooms. However, only 28% of the students expressed similar sentiments regarding the common rooms due to inadequate size of common room.

Figure 230: Whether adequate facilities are available (n=91)







Excellent Good Moderate Poor Don't know/ can't say

- In rating specific aspects of the rooms, respondents reported that they were appropriately sized, welllit, and consistently maintained (Figure 232).¹⁵⁵ However, during the discussion, they added that the placement of fans in the centre of the room was not optimal, as it was not aligned with the cots (beds), and this compromised the ventilation in the room.
- Similarly, the toilets and washrooms were also regarded as adequately sized and well-lit, with good • drainage facilities as shown in Figure 233. However, a few students shared that all toilets are western style, and Indian toilet facilities could have also been provided, as they are easier to keep clean and dry. Also, the use of automatic taps for the washroom sinks have resulted in the need for frequent repairs as the sensors often malfunction.

¹⁵⁴ Source: Document shared by IIIT-Trichy of the fees structure for the academic year 2024-25 ¹⁵⁵ On a scale of 1-4 (1- poor, 2- moderate, 3- good, 4- excellent) Price Waterhouse Chartered Accountants LLP

Figure 232: Rating of the quality of the hostel	
rooms (n=91)	

Size	***	2.8 / 4
Ventilation	***	2.4 / 4
Lighting	***	3.0 / 4
Cleanliness	***	2.8 / 4

Figure 234: View of an (unoccupied) room in the Girls' Hostel



Figure 233: Rating of the quality of the toilets/ washrooms (n=91)

Size of cubicles	***	2.5/4
Ventilation	**1	2.2/4
Lighting	***	2.6/4
Water facility	***	2.4/4
Drainage facility	***	2.5/4
Cleanliness	***	2.3/4

Figure 235: Side View of the Girls' Hostel



Daily or frequent problems relating to broken fittings, dampness or seepage of water and peeling of paint were reported by 20%, 11% and 18% of the respondents respectively (Figure 236). In contrast, the presence of mosquitoes and pests was identified as a persistent problem by 76% of the respondents. On this, some students shared that the mosquito meshes were not properly fixed and there were noticeable gaps in the alignment, resulting in a mosquito and pest problems.

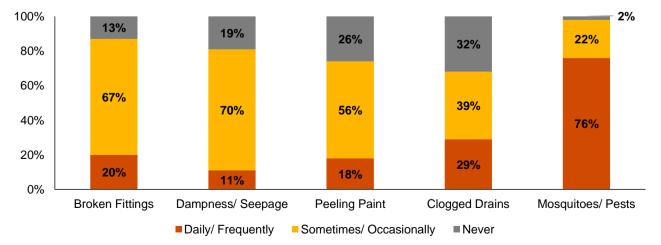


Figure 236: Frequency of infrastructure-related problems arising in the Girls' Hostel (n=91)

During the focused group discussion, students indicated that the following essential facilities can also be improved/ added in the hostel to contribute further to their convenience and comfort:

Impact Assessment Report

- A designated study room or reading hall would Figure 237: Common room in the Girls' Hostel have provided a tranguil environment for students to focus on their academic endeavors without interruption.
- Inclusion of a pantry would enable students to sustain themselves during late-night study sessions.
- Although the list of amenities provided by the Infosys Foundation includes UPS backup for lights in the rooms and corridors during power outages, students have noted that backup power for fans would greatly enhance their comfort, considering the high temperatures in Trichy.
- Infosys Foundation, after discussion with IIIT-Trichy, installed a centralised water heater on the hostel's terrace, supplying hot water at scheduled times daily.



However, periodic issues with temperature regulation have proven difficult to resolve due to the complexities of a centralised system. While energy-efficient, this system does not allow residents to activate the heater on demand or quickly address issues.

Besides above small issues, these students, overall, expressed that the hostel facility was adequate and comfortable, noting that the fittings in both the rooms and bathrooms were of high quality. They indicated that the availability of these amenities was a key factor in their decision to enrol at the institution.



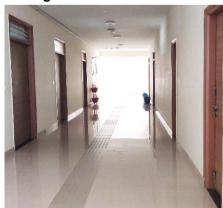
The rooms are spacious, well-lit, and well-ventilated, designed to foster a sense of community as they face other. Additionally, the washrooms are constructed to a high standard, enhancing the overall living experience.

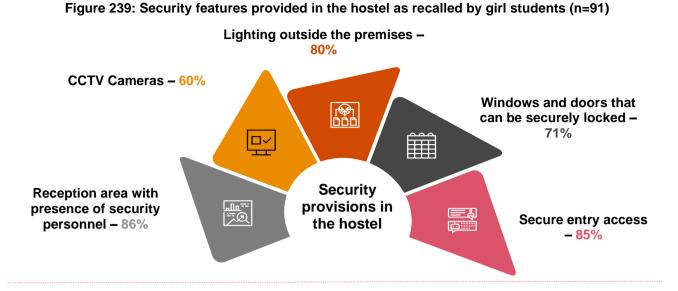
A student resident in the Girls' Hostel of IIIT-Trichy

5. A supportive living environment through a provision of a safe, accessible, and durable hostel building Figure 238: Corridors with tactile

- The construction of the new hostel includes a ramp for the accessibility of specially abled students. In the absence of elevators thus far, two ground-floor rooms have been designed for easier access, along with toilets for specially abled students. Additionally, the corridors feature tactile flooring to assist visually impaired students.
- The safety and security of girl students are prioritised through various measures (Figure 239). While there are CCTV cameras provided outside the building, students noted that it would be helpful if additional cameras had been installed in the common areas inside the building.

flooring





- In terms of emergency features like fire extinguishers, water sprinklers, smoke detectors, fire alarms, and emergency evacuation signboards, etc., the institute has engaged an agency to install these necessary features to deal with potential emergency situations.
- The administrators shared that Infosys Foundation accepted almost all their requests for facilities and requirements to ensure the Girls' Hostel is at par with the boys' hostel. The Foundation developed the design plan, engaged a contractor for construction, and regularly monitored the project until its completion. However, the team noted that neither the institute nor the representatives from Central Public Works Department (CPWD) were involved in decisions related to the design, planning, or fittings.¹⁵⁶ Quality checks were conducted independently by the Foundation and the MoU did not mention the participation of CPWD in this process.

Despite above, the administrators expressed satisfaction with the construction of the building and the facilities provided, noting with confidence that any minor issues that arose could be addressed by the institute. Unlike other campus buildings, which were constructed using prefabricated material, the Infosys Foundation Girls' Hostel was built from grounds up. Additionally, the Registrar highlighted that the building features an aesthetically pleasing design and upon completion, the quality and finish were notably superior to that of other buildings on campus.



There are no major issues, except for some minor electrical or plumbing issues which are promptly addressed by our on-campus maintenance staff. The quality of the construction is very good, allowing it to withstand another 5-10 years without any additional maintenance or repair work.

Hostel Warden, IIIT-Trichy

25.4. IRECS Analysis

Basis the interactions with the key stakeholders and a desk review, the impact of the project was assessed using the IRECS framework parameters. A summary of IRECS analysis is presented in the table below:

Parameter	Assessment from Study
Inclusiveness	• The hostel is designed specifically for girl students, promoting gender inclusivity .

Table 45: IRECS Analysis

¹⁵⁶ The CPWD handled the construction of all the other facilities on the IIIT-Trichy campus. Price Waterhouse Chartered Accountants LLP Impact Assessment Report

Parameter	Assessment from Study
	 Over 80% of the hostel residents come from various states across India because such a facility exists in the institute. Accessibility features included a ramp at the entrance, tactile flooring in the corridors, accessible toilet facilities for specially abled students, and designated ground-floor rooms, as there are no elevators to upper floors.
Relevance	 In the absence of a dedicated accommodation facility for girl students at IIIT-Trichy, the enrolment of girl students remained low for the first few years. The increase in enrolment of girl students from single digits to over 30 students since 2022 underscores the project's relevance. Parents expressed satisfaction with the facilities during their visits and actively encouraged their daughters to apply to this institute.
Effectiveness	 The provision of the hostel has enabled increased intake of girl students, prompting IIIT-Trichy to implement a quota of 50 girl students per year. The annual fee of INR 43,000/- for the hostel facility is lower than the average fees previously paid by 24 students in other accommodations, making it a more affordable option. 71% (n=91) of current residents rated the quality of the rooms as excellent or good, while 62% rated the washrooms similarly. The ratings indicate that rooms are well-sized (2.8/4) and well-lit (3.0/4), with toilets and washrooms also rated as well-sized (2.8/4) and well-lit (3.0/4), with toilets and washrooms also rated as well-sized (2.5/4) and well-lit (2.6/4). However, half of the surveyed students (n=91) deemed the common room inadequate due to its small size. Issues arising due to the quality of infrastructure, including broken fittings, dampness, seepage and peeling paint were reported as frequent concerns by less than 20% of residents (n=91). Safety and security measures, including restricted access doors, secure window and door locks, CCTV cameras, and adequate outdoor lighting, have been implemented. Students suggested several additional facilities to enhance the comfort and convenience of the hostel, including study halls, pantry facilities, access to the terrace, power backup for fans, sports and recreation rooms.
Convergence	 The project was executed in a government educational institution in response to a need expressed by the administrators of IIIT-Trichy. The MoU with Infosys Foundation specified that the Foundation would independently manage the design, construction, monitoring, and quality check of the facility, with no involvement from the institute's administrators or the CPWD in these areas. Besides, team did not note any other convergence or partnership considering the nature of project.
Sustainability	 All stakeholders shared that the construction was high quality and durable, with only minimal repairs anticipated in the coming years. The institute was confident that its maintenance team could handle the same. The capacity of the facility is sufficient for the next 5-10 years, after which additional facilities will need to be constructed to accommodate the growing number of girl students.

25.5. Alignment to the Infosys Limited's CSR policy and the UN SDGs



The project is aligned with Infosys Limited's CSR Policy which includes education and women's empowerment and gender equality as key CSR focus areas.



The project is also aligned with the following SDGs:¹⁵⁷

- SDG-4 aims to ensure inclusive and equitable quality education and promote lifelong learning opportunities for all: The availability of on-campus residential facilities has significantly enhanced educational accessibility for students from distant or remote areas, effectively mitigating challenges related to transportation and housing.
- SDG-5 aims to achieve gender equality and empower all women and girls: By establishing an oncampus hostel facility, Infosys Foundation has created an environment conducive to promoting women education in technology. The dedicated Girls' Hostel provides a secure and supportive living space, encouraging more girl students to pursue education and careers in the technology sector.
- SDG-9 focuses on building resilient infrastructure, promote inclusive and sustainable industrialisation and foster innovation This is being promoted through the creation of state-of-the-art infrastructure within the campus.

25.6. Project Study Limitation

1. **Sample size:** The study initially aimed to gather the views and insights of all girl students residing in the hostel. As IIIT-Trichy was only able to mobilise 91 girl students currently enrolled in the second, third, and final years, this sample was covered for conducting the impact assessment study.

¹⁵⁷ Source: <u>https://sdgs.un.org/goals</u> Price Waterhouse Chartered Accountants LLP

25.7. Case Stories

Following case stories have been gathered through discussions held with girl students residing in the hostel during the field visit to IIIT- Trichy:

Case Story 1- Empowering Education: How On-Campus Housing Transformed Pranjali's Academic Journey

Pranjali*, a 19-year-old student from Madhya Pradesh, was able to relocate to Trichy to pursue her studies thanks to the availability of the Girls' Hostel on campus. Without this residential facility, her family would have been hesitant to allow her to move so far from home. The hostel provides a secure living environment, enabling Pranjali to concentrate on her studies without concerns about daily commutes or safety. Additionally, living on campus has facilitated better communication and collaboration with her peers on academic assignments, allowed for late-evening study sessions, and helped her enhance her focus on her studies. The academic and informal discussions foster a sense of camaraderie, making the learning experience more enjoyable and less isolating. The hostel offers her the safety and support necessary to thrive academically, while also promoting collaboration and personal development.

Case Story 2: Fostering Academic Excellence and Personal Growth: Disha's Experience with On-Campus Housing

Disha*, a second-year student from Andhra Pradesh, has been residing in the campus hostel for the past year. Beyond the convenience of on-site accommodation, Disha values the ease with which she can organize group study sessions with her classmates. This collaborative approach facilitates the tackling of challenging subjects and the exchange of insights, thereby enhancing academic performance as well as problem-solving and teamwork skills. Additionally, participating in social activities organized within the hostel has significantly contributed to Disha's personality development. The hostel has provided her with not only a comfortable living space but also a vibrant community, greatly enriching her overall college experience.

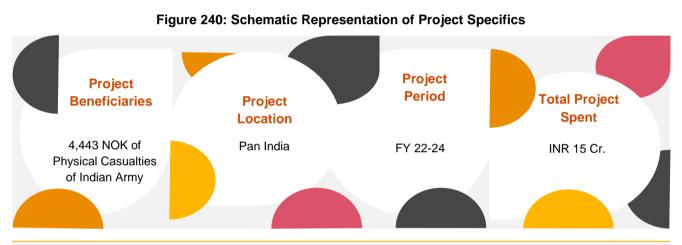
* Name changed

Project 23: Rehabilitation and Welfare Grants for Veterans and their Families

26.1. About the Project

The Army personnel are integral to national security, often encountering unpredictable and demanding circumstances. Despite their invaluable service, their families may be left vulnerable, particularly when a **soldier passes away due to physical casualties** on duty. In these instances, **financial support** is vital to address immediate needs and ensure long-term stability. The complexity of navigating benefit claims can further exacerbate their difficulties. **Providing financial assistance** not only acknowledges the sacrifices of soldiers but also reinforces the nation's commitment to supporting its service members and their families.

In recognition of this need, Infosys Foundation has undertaken a project on providing grants to the Indian Army through the Rehabilitation and Welfare Section, Directorate of Indian Army Veterans, Ministry of Defence. These grants offer vital immediate financial assistance and educational support to the Next of Kin (NOK) of Indian Army personnel who have suffered physical casualties. Below Figure provides the overview of project specifics:



Under this project, the support was distributed in **three tranches** during the project period.¹⁵⁸ The initial **two tranches were dedicated to the disbursement of Immediate Financial Assistance (Ex-Gratia)** to the next of kin (NOK) of deceased soldiers. The **third tranche**, while continuing to offer Ex-Gratia support, primarily **focused on providing an Education Grant** for the families of soldiers who suffered fatal physical casualties.¹⁵⁹



Ex-Gratia Support:

This support comprised a grant of **INR 1 Lakh** provided to NOK upon a soldier's demise. The assistance was facilitated through the Army unit where the soldier was stationed. Upon submission of a detailed case report to the Rehabilitation and Welfare Section, the amount was reimbursed to the respective unit, ensuring a structured process for financial assistance.

8\$8 E

Education Grant:

This grant aimed to support the educational needs of the children and widows of soldiers who suffered fatal casualties. The **grant amounts varied according to the education level**¹⁶⁰, ranging from INR 10,000 for students in classes I-VIII to INR 50,000 for those undertaking professional courses. Beneficiaries were required to submit applications for the grant, which, upon approval, were disbursed directly into their pension accounts.

¹⁶⁰ The rates are based on the Adjutant General Branch of Indian Army's schemes to support the education of children/ widows of physical casualties. The grants for various classes are: i) Class I-VIII – INR 10,000 ii) Class IX-XII – INR 14,000 iii) Graduation – INR 20,000 iv) Post Graduation – INR 25,000 v) Professional Courses – INR 50,000, each.

¹⁵⁸ As per information shared by Infosys Foundation and Rehabilitation and Welfare Section.

¹⁵⁹ The three tranches were of INR 5 Cr. each per year across FY 22-24. However, the last instalment of INR 5 Cr. was advanced and provided in FY 23. Thereby, the total amount received in FY 23 was INR 10 Cr.

26.2. Method of Impact Assessment



The impact study employed a **comprehensive and systematic approach** to evaluate the social effects of this project. A kick-off meeting was held with the Infosys Foundation and the Rehabilitation and Welfare Section team to understand the nature of support provided under this project. Additional requirements needed to commence the assessment process were also gathered during this meeting.

Following the meeting, PW received following project documents:



- **Memorandum of Understanding (MoU) and its amendment** specifying project details and other requirements related to the execution of project
- **Project document** on specifications and the use of the Ex-Gratia and Education Grant
 - Sample entailing the beneficiaries of Ex-gratia and Education Grant from respective tranches

The PW team then began a **desk review of the project**, using information collected during the kick-off meeting and from various project documents. This review played a crucial role in **designing the assessment framework** and **in identifying and finalising the key stakeholders** for interactions. By analysing the available data, the team ensured a clear understanding of the project's scope and objectives, which provided a foundation for the subsequent phases of the assessment.

A **mixed research methodology** was employed, incorporating both qualitative and quantitative methods to assess the impact, given the nature of this project. The **quantitative survey** was conducted with families that received the **Education Grant**. In contrast, the **qualitative research** was valuable for **assessing the subjective experiences and exploring in-depth information** from families that received the Ex-Gratia support from the project.

The sampling plan involved quantitative surveys and In-depth interviews (IDIs) with the following stakeholders:

Figure 241: Stakeholder Interactions



- Quantitative survey with parents or guardians of 68 student beneficiaries of the Education Grant*
- **NOK** who received Ex-Gratia support (5 IDI)
- Project team of Rehabilitation and Welfare Section (1 IDI)
- Project team of Infosys Foundation (1 IDI)

*Based on the information provided by the Rehabilitation and Welfare Section, the team identified a **total beneficiary population of 4,443 individuals** across all three tranches of the project. Among these beneficiaries, **998 received Ex-Gratia support** and **3,445 received the Education Grant**. Considering the population size and the sensitive nature of the project, qualitative interactions were used to cover the sample for the Ex-Gratia recipients. Meanwhile, **68 quantitative surveys** were conducted with individuals who received the Education Grant. This **sample size** was determined using a **90% confidence level and a 10% margin of error**.

26.3. Analysis and Findings

Based on interactions and a review of the project documents, the findings have been summarised as follows:

26.3.1. Challenges Before the Project

• Problem of Immediate Financial Distress: The families of deceased soldiers face immediate financial distress due to the cessation of the soldier's pay. This issue is exacerbated by a delay of two to three

months before the family pension commences. This financial gap necessities urgent financial assistance to prevent these families from experiencing severe hardship during this interim period.

- Lack of Support Schemes: There is a notable absence of support schemes specifically tailored for • the families of physical casualties in the Indian Army. This lack of structured financial support leaves these families vulnerable and underscores the need for targeted assistance programmes to provide timely and adequate support. Without such assistance, families may struggle to meet their basic needs and maintain their standard of living.
- Need for Long-Term Stability: There is a pressing need for educational support for the children and • widows of soldiers who have suffered fatal physical casualties. The inadequacy of educational grants can limit the prospects of these families, making it essential to implement schemes that offers financial assistance for education. Such support is crucial to ensure that the dependents of deceased soldiers have access to quality education, which is vital for their long-term well-being and development.

26.3.2. Summary of the Impact Created

A. Beneficiary Profile

Team observed that a total of 998 beneficiaries received support from the Infosys Foundation through the Ex-Gratia, while 3,445 beneficiaries benefitted from the Education Grant. Further,

- The Ex-Gratia support was dispensed in three • tranches (as shown in Figure 242), whereas the Education Grant provided only in the third tranche.
- The Ex-Gratia support extended to NOK including • parents, siblings, spouses (wife/ husband) and children of the deceased.
- The deceased individuals held various ranks ranging from Sepoy, Rifleman, Gunner, Pioneer to Lance Naik, Naik, Havildar, Subedar and Colonel.



Figure 242: Tranche-wise Split of Beneficiaries

8 Tranche 1 Tranche 2 Tranche 3 The study gathered insights on the Ex-Gratia support through gualitative interactions while the findings

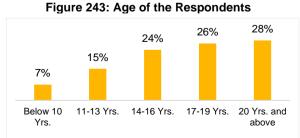
related to the Education Grant were derived from quantitative data. The socio-demographic profile of survey respondents who received the Education Grant under this project (n=68) was also examined, as outlined below:

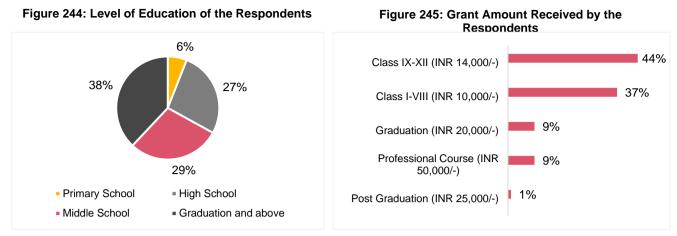
The project benefitted both male and female students with survey respondants comprising 54% male and 46% female students.

These respondents were students of varied age groups, predominantly ages 20 and above (Figure 243), hailing from states such as Haryana, Bihar, Punjab and Maharashtra.

Most of the respondents (88%) reported that the deceased was the primary earning member of the family.

- Most students are currently pursuing graduation or higher education (38%), followed by those in middle school (29%) and high school (27%), as depicted in Figure 244.
- A significant portion of Education Grant (received in FY 23), went to respondents in Classes IX-XII (44%), followed by those in Classes I-VIII (37%) (Figure 245).





Immediate Support:

The Ex-Gratia support provided by the Infosys Foundation played a crucial role for families dealing with the sudden loss of a family member who often served as the primary breadwinner. Beneficiaries highlighted that this financial assistance was **typically credited to the NOK within a few days** following the death, **offering immediate relief during an emotionally difficult time.** The grant was **used to meet following urgent needs:**

- Respondents during interactions stated, that the grant proved indispensable, **covering the immediate expenses associated with funeral rites**.
- Similarly, it has enabled respondents to pay off pressing bills, manage household expenses, cover children's tuition fees, and keep up with home loan instalments. In an instance, a respondent sated that the immediate funds from the Ex-Gratia support helped with her son's B. Tech tuition fees and her daughter's school fees. This proved helpful in maintaining her children's educational continuity amidst upheaval. In another instance, a respondent stated that she utilised the funds in paying an instalment for building a home on the land her late husband had acquired. This helped in securing a stable living environment for her family and ensuring a sense of permanence and security.
- Furthermore, the **Ex-Gratia support provided recipients with a semblance of financial security**, allowing them to **concentrate on their families' future needs**. A respondent's experience exemplified this, as **she set aside a portion of the grant for her children's future** while using pension money for day-to-day expenses. This strategic allocation illustrated the grant's role in offering a financial cushion, crucial for navigating the challenging transition period that followed the death of a spouse. It ensured that essential needs were met without plunging the family into debt or financial instability.

The availability of immediate funds was particularly **important given the emotional toll the loss took on families.** With active income halted and families potentially unable to seek other forms of financial aid due to emotional strain, the Ex-Gratia support offered stability and peace of mind. Quick disbursement and adequate grant amounts were instrumental in addressing urgent financial concerns, allowing beneficiaries to focus on rebuilding their lives and planning for their future with dignity and resilience.

The **timely disbursement and adequacy of the grant were key to the efficacy of the Ex-Gratia support**. By addressing pressing financial concerns promptly, the grant allowed beneficiaries to focus on rebuilding their lives and plan for their future.

Sustained Support:

- The Education Grant has helped a substantial majority (90%) of respondents to achieve their educational objective. Additionally, 87% reported that the grant motivated students to perform better academically. Respondents rated the Education Grant a 4 (out of 5), when asked about its impact on their family's financial situation¹⁶¹.
- The primary benefits of this educational support were reducing the financial burden on families (84%) and assisting in the pursuit of educational goals (78%), as illustrated in Figure 246.¹⁶² Previously, families often had to rely on loans or borrowings to cover school fees, but the availability of grant has helped diminished this necessity.
- Given the grant amount, respondents stated that it was mostly used only for payment of academic fee (96%), while sometimes it was also used for books and uniform, external tuitions, digital resources, etc. (Figure 247)¹⁶³.

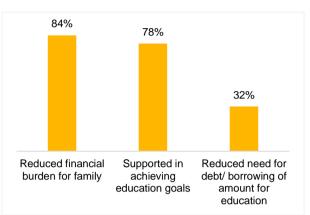
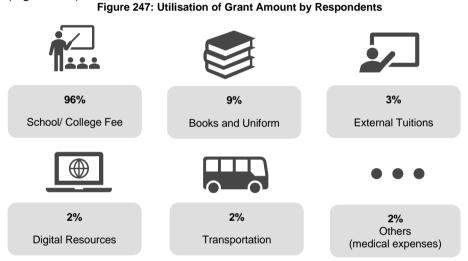


Figure 246: Benefit to the Family of the Respondent



- Despite these positive outcomes, there are areas for improvement:
 - Although respondents were aware that this support would only partially cover educational expenses, 58% reported that the grant accounted for less than 25% of their education fees. This highlights a gap in meeting the full financial needs of the beneficiaries.
 - **Nearly all respondents (99%) advocated for an increase in the grant amount in the future.** They also emphasized that the grant should consider the rate of inflation within the education sector, highlighting the need for enhanced support to fully realise the project's potential impact.



When my husband passed away, I was overwhelmed with grief and, regrettably, received little support from my family. My in-laws were also financially constrained. The immediate financial assistance I received was a crucial lifeline, helping me manage expenses during this challenging period. This aid not only alleviated my financial burdens but also provided a sense of dignity and recognition, giving me the strength to navigate a time without active income until my pension benefits commenced.

As narrated by a beneficiary of Ex-Gratia support during interactions

C. Emotional and Psychological Support:

¹⁶³ Multiple choice question. Hence total will add up to more than 100%. Price Waterhouse Chartered Accountants LLP Impact Assessment Report

¹⁶¹ Rating on a scale of 1 to 5, with 1 being the lowest and 5 being the highest.

¹⁶² Multiple choice question. Hence total will add up to more than 100%.

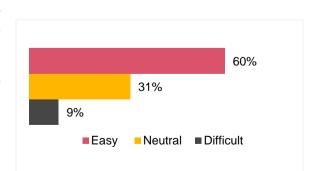
Immediate Support:

- The immediate financial assistance offered through the Ex-Gratia support contributed to emotional reassurance. For example, one respondent, who experienced emotional turmoil and depression following her husband's passing, derived comfort from the financial stability, provided by this grant. This stability enabled her to focus on her mental health and seek counselling for herself and her son, who had become withdrawn since his father's death. Other respondents also noted that their children required therapy sessions to cope with the trauma, underscoring the severe psychological impact of such a loss. The grant's ability to alleviate financial stress aided their emotional recovery by allowing them access to essential psychological support services.
- Moreover, the Army personnel's involvement in facilitating the smooth processing of the Ex-Gratia • grant added an additional layer of emotional support. Many respondents reported timely assistance in resolving any issues, ensuring the efficient transfer of funds to bank accounts of NOK. The team also assisted in opening new bank accounts for families who previously did not have one. This prompt and organised approach reinforced the families' confidence in the Army's commitment to their well-being during such challenging times. The assurance that their financial needs were being addressed. allowed families to focus on healing and rebuilding their lives.
- Respondents also stated that calls from the Army personnel informing them of additional welfare . schemes further alleviated their problems, especially in cases of financial distress. This proactive communication not only provided practical information but also served as a reminder that they were not alone in their struggles. The awareness of available additional resources offered a sense of security and hope, essential for emotional recovery. These interactions cultivated a sense of community and **belonging**, reinforcing the notion that the Army remained a steadfast support system.
- The assurance of continued assistance helped families feel more confident in navigating their new • realities, knowing they had a reliable network to lean on. This ongoing engagement was crucial in rebuilding trust and morale during a period of profound vulnerability. This has also empowered recipients to navigate their grief and emotional challenges with dignity and resilience.

Overall, efforts pursued by the Rehabilitation and Welfare Section bolstered the mental health of beneficiaries through timely assistance and communication. Personal contact through calls and information on welfare schemes further reinforced families' confidence in the Army's commitment to their wellbeing, surpassing the project's agreed scope.

Sustained Support:

- Respondents stated that with the passing away of the primary earning member of the family they were • concerned about their education goals. The timely support received as part of the project, ensured psychological support to students helping them achieve their career goals.
- Respondents stated that the information regarding the Figure 248: Process of Receiving Education Grant Education Grant was primarily provided to them by friends or family (84%), the Army through the respective Sainik Boards or otherwise (15%) or from online sources such as the official website, and search engines (1%). 60% of the respondents believed that the Education Grant was easily accessible to them as seen in Figure 248.
- The straightforward process of availing the grant, further motivated students to achieve their future career aspirations, as shown in Figure 249. They rated the



Education Grant a 4 (out of 5) in terms of its impact on their ability to pursue education.¹⁶⁴

 Additionally, the Education Grant was instrumental in helping families manage immediate expenses, given the lack of schemes available for NOK of deceased Army personnel. Many of the respondents (75%) indicated that, without this support, they would have needed to seek additional funding from the Army. The next most likely option would have been to seek funding from their educational institution (62%) as depicted in Figure 250.¹⁶⁵

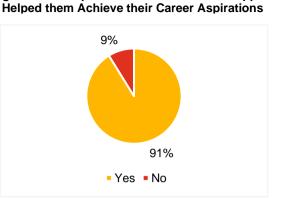
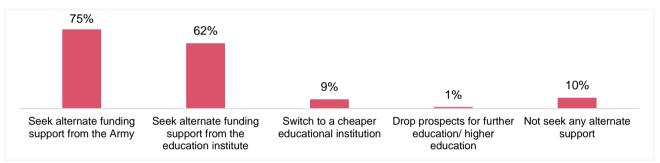


Figure 249: Respondents on whether the Support

Figure 250: Alternative Routes Mentioned by Respondents if not for the Education Grant



90% stated that the Education Grant was beneficial to them, however, they also suggested that there was scope for improvement in the disbursement process outlined by Rehabilitation and Welfare Section, Directorate of Indian Army Veterans, Ministry of Defence. Some respondents experienced delays in receiving the Education grant, which created anxiety during the payment of the tuition fee due to lack of immediate funds. 49% agreed that the grant was transferred to their respective amounts only after 3 months of filling out the application, while for the remaining respondents, the funds were transferred within three months. Team



I am convinced that this support has been invaluable for my children's education. Although the grant does not cover the full cost, it has significantly alleviated our financial burden. We were determined to educate our children regardless, but this assistance makes us feel valued and supported. The grant was recommended to me by a member of the military, who promptly provided the necessary paperwork, making the process seamless. Required documentation included my child's academic results and my banking details. This support has also motivated my children to excel in their studies.

As narrated by a beneficiary of Education Grant during Quantitative Survey

26.4.IRECS Analysis

Basis the interactions with the key stakeholders and desk review, the impact of the project was also assessed on the IRECS framework parameters. The IRECS analysis summary has been presented in below table:

Parameter	Assessment from Study
Inclusiveness	 The project aims to bridge the financial gap for the children and widows of soldiers who have suffered fatal physical casualties across Army ranks.
	• The Education Grant amounts, catering to both boys and girls, were determined based on the level of education , varying from INR 10,000 for students in classes I-VIII to INR 50,000 for those pursuing professional courses.

Table 46: IRECS Analysis

 $^{^{\}rm 164}$ Rating on a scale of 1 to 5, with 1 being the lowest and 5 being the highest.

¹⁶⁵ Multiple choice question. Hence total will add up to more than 100%.

Parameter	Assessment from Study
Relevance	 The lack of support schemes for families of physical casualties in the Indian Army. There is a need for immediate financial assistance due to the cessation of the soldiers' pay. The financial gap created, before the family's pension begins leads to the families of deceased soldiers having to face severe hardships during that period. 88% of the respondents stated that the deceased was the primary earning member of the family. The lack of Education Grants can hinder the aspirations of these families.
Effectiveness	• A significant number of respondents stated that the financial assistance helped them cover immediate expenses like funeral rights and other ceremonies.
	• Almost all the respondents (90%) mentioned that the support helped them achieve their educational objectives and 87% stated that it motivated them to perform better academically.
	• 84% of the respondents believe that the Education Grant has reduced the financial on their families and 78% mentioning the importance of the fund in supporting their educational goals.
	• The families also felt a sense of continued support and belonging from the Army following the loss of a loved one. Additionally, the Army facilitated the smooth processing of funds ensuring that the support is timely and effective.
Convergence	• The Rehabilitation and Welfare Section, Integrated Headquarters of the Ministry of Defence has benefited from the support of the Infosys Foundation to disburse financial aid to Army Personnel. Hence, this project aligns with the government's efforts to enhance the quality of support provided to families of soldiers who suffered fatal physical casualties.
Sustainability	• Although over half (54%) of the respondents were satisfied with the support received, 58% indicated that the fund covered less than 25% of their education fees, leading to almost all respondents requesting for an increase in the future, taking into consideration the rate of inflation in the education sector as well.

26.5. Alignment to the Infosys Limited's CSR policy and the UN SDGs



The project is aligned with Infosys Limited's CSR policy which includes healthcare as one of the key CSR focus areas for Infosys Limited. The project is also aligned with Sustainable Development Goal¹⁶⁶:



SDG 4 "Quality Education" focuses on ensuring inclusive and equitable education to all. The fund provided under this project provides children and dependents of fallen soldiers access to quality education, reducing financial barriers and promoting equity.

SDG 5 "Gender Equality" ensures equal opportunity, empowering women and girls. The fund supports the immediate needs of widows of martyrs, reducing financial burden and provides daughters with quality education, empowering them to reach their goals.

¹⁶⁶ Source: <u>https://sdgs.un.org/goals</u> Price Waterhouse Chartered Accountants LLP **SDG 8 "Decent Work and Economic Growth"** ensures that these families have access to education and skill development. By investing in the education and career prospects of martyrs' families, the project contributes to inclusive economic growth and long-term prosperity for these families.

SDG 10 "Reduced Inequalities" aims to promote equal opportunities within countries. By providing this fund, the project aligns with this goal by offering financial support to families who may face socio-economic challenges due to the loss of a breadwinner. The fund reduces disparities in opportunities, empowering the next of kin to achieve economic independence and a better quality of life.

26.6.Study Limitation

• Sensitive Nature of the Project: Due to the sensitive nature of the project, which involved providing Ex-Gratia support, the scope for direct interactions with beneficiaries was limited. This restriction was necessary to respect the privacy and emotional state of the individuals involved, as well as to maintain confidentiality regarding the support they received. Consequently, the ability to gather in-depth qualitative data through interviews or detailed surveys was constrained, potentially affecting the richness and comprehensiveness of the insights obtained from the beneficiaries' experiences and feedback.

26.7. Case Stories

Following case stories have been gathered through our discussions with the project stakeholders during our field visit:

Case Story 1: From Grief to Hope through Financial Support

Shweta*, An army canteen worker in Amritsar, living with her own family and two children, recalls the hardships she faced after losing her husband, who was the primary earner and a role model for her children. Following his death, she encountered significant obstacles, including being forced to leave her in-laws' home with her children. Her daughter, who was very young and attached to her father, went into depression, requiring immediate treatment. Initially unaware of any grants from the Army, she remembers receiving support from the Army unit to set up a bank account, where funds were soon deposited.

The immediate financial assistance was pivotal for Shweta, enabling her to address her daughter's health needs and enrol her in school. The funds also allowed her to conduct funeral rites and other ceremonies at home, as her in-laws lacked the resources to do so. The Ex-Gratia grant alleviated both financial and emotional stress. The timely support from the Army was a blessing for her family, and the frequent visits from Army personnel made her feel a sense of love and belonging. This support was crucial in covering immediate expenses and helping her family settle into a new environment before the pension commenced. She remains forever grateful for the love and support from the Army, which enabled her to invest in her children's needs, sustain her household, and provide stability and hope during a challenging time.

Case Story 2: Determined for a Better Future

Neelam*, a resilient widow from Kota, Rajasthan, faced the daunting challenge of raising her two children alone after the loss of her husband. Despite the emotional turmoil, Neelam's determination to provide a better future for her children led her to relocate from her village to the city for their education. The ex-gratia grant, facilitated by the Army, provided timely financial assistance to support the same.

While the grant was not sufficient to cover all her needs, it alleviated some financial burdens, enabling her to manage household expenses till the time her husband's pension kicked in. Emotionally, Neelam leaned on her immediate family, finding strength in their support. She stated how the support from the Rehabilitation Welfare Section, even with the welfare scheme for education of her children, has been of great help. Neetu's story is a testament to her unwavering spirit and the importance of community and family support in overcoming life's challenges. Her journey underscores the need for continuous financial security for families of fallen heroes, inspiring others to advocate for more comprehensive support systems.

*Name changed.



27.1. About the Project



In India, the employment rate for women is substantially lower than that for men, as indicated by recent data from the Periodic Labour Force Survey (PLFS) Annual Report (July 2023 – June 2024)¹⁶⁷. This disparity not only limits women's economic potential but also hinders the national growth and development. Addressing this issue is essential for poverty alleviation and achieving gender equality. Placement-linked skill development programmes have proven to be effective in economically and socially empowering women. By equipping women with the essential skills and facilitating their workforce entry, these programmes significantly contribute to gender and economic empowerment.

In response to this pressing need, Infosys BPM Limited, together with EdgeVerve Systems Limited, implemented the "Women in Tech Programme" as an initiative under their CSR efforts through Infosys Foundation. This programme is designed to provide young women (aged 18 and above) a range of technology-related and non-technology-related courses, thereby boosting their employability across various sectors. Through comprehensive training, counselling, and placement assistance, this programme aimed to empower women by bridging the gender gap in the tech industry and beyond. Below Figure provides an overview of project specifics:

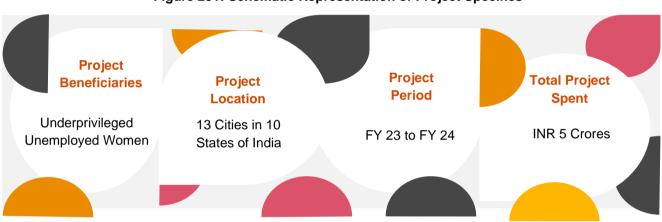


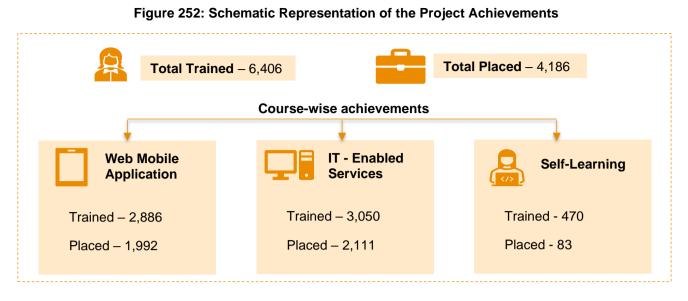
Figure 251: Schematic Representation of Project Specifics

Implemented by Nirmaan Organisation, the 'Women in Tech' Programme offered **training in various domains** (Table 47) **to enhance employability of women from underprivileged background**:

Sr. No.	Type of Training	Eligibility Criteria	Duration of Training
1.	Web Mobile Applications (WMA)	Minimum requirement of 12 th pass, with preference given to graduates	• 300 hours
2.	Information Technology Enabled Services (ITES)	Minimum 10 th pass	180 hours (option 1)300 hours (option 2)
3.	Self Learning- Various coding languages (such as Java, HTML etc.) as per the interest of the candidates	Minimum requirement of 12th pass, with preference given to graduates	• 150 hours

 167
 https://www.mospi.gov.in/sites/default/files/press
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 Price Waterhouse Chartered Accountants LLP
 Impact Assessment Report



Source: Project document received from the implementing partner

27.2. Method of Impact Assessment



The impact assessment study leveraged an **integrated and cohesive approach** to assess the social impact transpired since project's implementation. A **kick-off meeting** was held with Infosys Foundation and the **Nirmaan Organisation** to understand the nature of support for this project and align on the requirements for starting the assessment exercise.

Following the meeting, PW received following project documents:

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- Memorandum of Understanding (MoU) and its addendum signed with Nirmaan Organisation containing project details
- Project Closure Report highlighting activities and output indicators
- List of Project beneficiaries

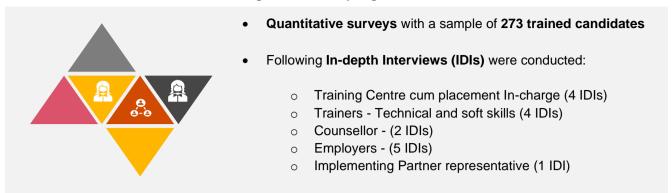
PW team then began the **project's desk review** based on the information collected during the kick-off meeting and from the project documents. This helped our team in **designing the assessment framework** and **finalising the key stakeholders** for the interactions.

A mixed method, incorporating both quantitative and qualitative methods, was employed to evaluate the project's impact owing to the nature of this project. The quantitative survey was conducted with women (beneficiaries) and was complemented by qualitative interactions with other key stakeholders of this project. This combination enabled in assessing subjective experiences and exploring in-depth perspectives of various stakeholders related to this project.

Based on the data shared by the Nirmaan Organization, it was noted that **6,406 women have been trained under the programme.** Hence, a sample size of 262 was estimated at 90% confidence level and 5% margin of error. To ensure the appropriate representation of the findings from all the locations in our sample, we have covered the sample size of 273.

Besides survey with beneficiaries, team engaged with other key project stakeholders of the programme to assess its holistic impact through qualitative interactions (Figure 253):

Figure 253: Sampling Plan



The responses collected from the stakeholders' interactions were analysed to arrive at detailed findings as depicted in next section.

27.3. Analysis and Findings

This section summarises the findings from the desk review and interactions:

27.3.1. Challenges Before the Project



Financial Barriers: Women were experiencing high unemployment rates, also revealed in the quantitative survey where only 14% of the respondents were being employed before the project. This was largely because they were unable to afford professional skill development training. Women from economically disadvantaged backgrounds were lacking the financial means to pursue such opportunities.

Gender Inequities: Societal and cultural biases were hindering women's participation in the workforce and were limiting their career advancement. Many women were unable to enroll in professional courses or take up jobs because their families were not permitting it. There was a pressing need to counsel families alongside the candidates to address these barriers.

Information Gaps: Women from underserved communities were facing challenges due to a lack of awareness about available skill development programmes, particularly those offered at no cost. They were unaware of the potential career opportunities that could arise from completing these courses.

27.3.2. Summary of the Impact Created

1. Beneficiary Profile

This section presents the key findings related to beneficiary profile, derived from quantitative interactions conducted with project beneficiaries (n=273), to assess the impact of this project.

Age Group and Education Background of the Respondents:



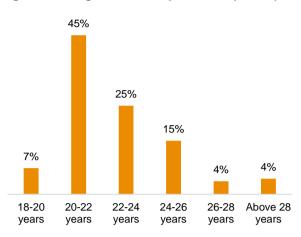
• The respondents are aged between 18 to 28 years, adhering to the eligibility criteria for the training. Notably, **70% are within the age group of 20-24 years** (Figure 254).

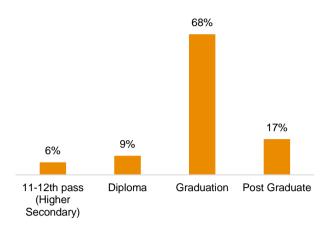


• A majority of the respondents (68%) indicated that a bachelor's degree was the highest level of formal education, followed by 17% reporting postgraduate degree and 9% with a diploma (Figure 255).

Figure 254: Age of the Respondents (n=273)

Figure 255: Education Profile of the Respondents (n=273)





Socio-Economic Status of the Respondents:

- The average household income of INR 15,001- 25,000 per month was the most commonly reported (33%), while 26% indicated a monthly income between INR 10,001-15,000 (Figure 256).
- This indicates the potential for economic impact through such skill development interventions, given that
 majority of respondents come from the lower-income households. Further, it was important to enhance
 the skills of these respondents to improve their employability, potentially raising the income levels of
 these participants post-training.

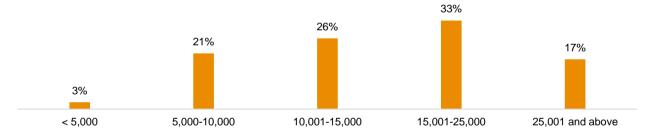
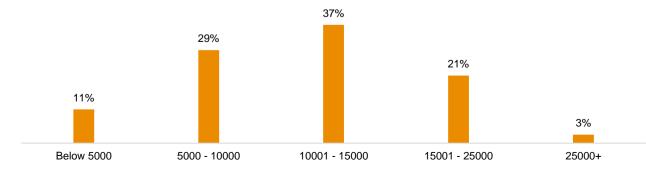


Figure 256: Average Monthly Income of the Households (n=273)

Employment Status of the Respondents before Undergoing Training:

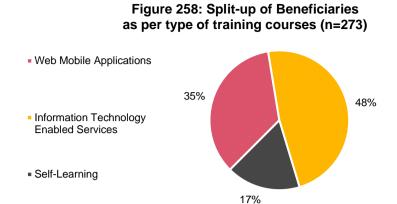
- Prior to enrolling in the training, only 14% of the respondents (n=273) were employed or involved in income-generating activities, whereas 86% were unemployed or not engaged in any such activities. The high proportion of respondents without prior employment underscores the project's potential to enhance employability and income levels through skill development initiatives.
- Among the employed respondents (n=38), 37% respondents reported their individual monthly income ranging from INR 10,001- 15,000 (Figure 257).

Figure 257: Monthly Income of Candidates Employed before the Training (n=38)



Training Courses and Location of the Respondents:

 Almost half (48%) of respondents participated in the ITES course, with 35% enrolled in the WMA training course and 17% engaged in Self-learning course. This indicates a high concentration of interest in the ITES and WMA courses, suggesting a demand for these skill sets.



• The sample size was evenly distributed across 13 training

centres, reflecting the proportion of the candidates trained per location. Bengaluru (Karnataka) exhibited the highest representation at 16%, followed by Hyderabad (Telangana) at 15%, and Chennai (Tamil Nadu) at 14%.

2. Charting Academic Paths of Women:

- The project incorporated pre-enrolment counselling sessions, where prospective candidates received guidance on course specifics and their alignment with career aspirations.
- Counsellors engaged with candidates to identify and mitigate their apprehensions and challenges
 regarding joining the programme, ensuring a supportive and informed entry into the training
 programme.
- ~90% (n=273) of the respondents (i.e., 245 respondents) reported attending the counselling sessions (0.5- 1 hour) prior to commencing the training.
- 99% of respondents (n=245) mentioned that the counselling sessions influenced their decision to enrol in the training, as their concerns were effectively addressed.
- According to 86% (n=245) of the respondents, the counselling clarified the **programme's benefits and outcomes**. A few counsellors echoed this in a qualitative discussion, stating "we aim to understand the student's educational and family background, and assist them in recognising the industrial relevance of these courses for securing employment".

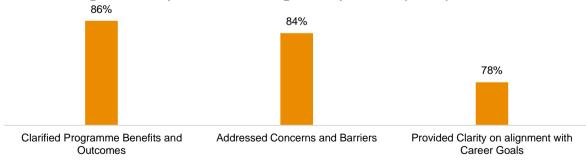


Figure 259: Impact of Counselling on Respondents (n=245)

Multiple choice question, and total may not add upto 100%

• Overall, **77% of the respondents (n=245) termed counselling sessions as very effective** in preparing them to join the training course and addressing individual needs.

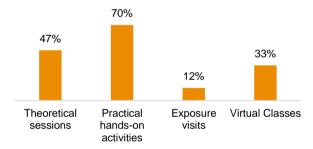
We offer counselling to families as needed, encouraging them permit their daughters to attend the training programme. On one occasion, we persuaded a family whose in-laws were initially reluctant to allow their daughter to participate. By discussing the matter with her husband and mother-in-law, we successfully convinced them to support for her enrolment. Consequently, she secured employment at Cognizant after completing the course.

As narrated by a Counsellor of the Tarnaka, Hyderabad Centre

3 Practical Pedagogical Approaches for Effective Skill Building

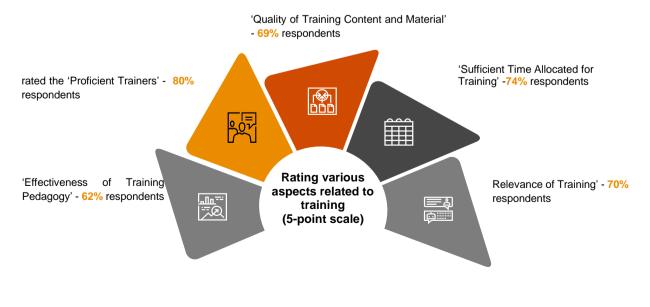
- The training centres had employed separate, experienced trainers for each of the three courses, • ensuring daily sessions were conducted for each batch. 82% (n=273) respondents confirmed that classes were held daily for their respective courses throughout the project period.
- The course curriculum is communicated to candidates during orientation sessions. The curriculum for WMA training included languages like CSS, Java, SQL. ITES covered training on software such as MS Word, Excel, PowerPoint etc. while Self-Learning focused on self-paced online courses in coding languages such as Java, SQL, HTML.¹⁶⁸
- During interactions with trainers, it was noted that they employ various techniques to engage • candidates and simplify complex concepts. The trainer highlighted the emphasis on practical components, providing candidates with an hour Figure 260: Distribution of Teaching Techniques of hands-on experience each day.
- When probed about techniques employed during the training, 70% (n=273) of respondents confirmed the use of Practical Hands-on activities (Figure 260).
- Respondents assessed various facets of the training programme. Most rated components were Trainers, Training Content and Materials, and Training Relevance at 4 or higher on a 5point scale, 5 being the highest (Figure 261).

used during the Training (n=273)



Multiple choice question, and total may not add upto 100%

Figure 261: Percentage of Respondent Rating Various Training Components Above 4 or Higher on a Scale of Five (n=273)



¹⁶⁸ As per documents shared by Nirmaan Organisation Price Waterhouse Chartered Accountants LLP

4. Ensured skill proficiency through assessment and certification

The course structure entailed multiple online and offline assessments at different stages to strengthen and solidify candidates' understanding. Assessments were conducted weekly, monthly and at the end of the course, as mentioned by trainers during qualitative interactions.



68% (n=273) of the respondents i.e. 185 respondents confirmed the final course assessment, with 96% (n=185) i.e. 177 respondents passing it.



Furthermore, **88% (n=177)** of the respondents **received certification for passing the assessment and completing** the course.



69% (n=185) of the respondents found these assessments very effective in evaluating their skills and knowledge.

Our programme's practical components extend beyond lectures, incorporating a hands-on approach to assessments. We conduct viva examinations and practical tests in our computer

"

As narrated by an ITES trainer from Chennai-Tamil Nadu Centre

5. Foster Employment through Placements Post Training Completion

 One of the main features of the WIT Programme was the support offered to candidates for job placement after completing their training. Each centre was equipped with a Placement Manager dedicated to facilitating a smooth placement process for every student.

labs, enabling candidates to tackle problems in a real-world scenario.

Additionally, participants received training in soft skills, including interview preparation and workplace readiness. This was provided by a dedicated soft skills trainer at each centre to better equip them for the placement process.

- Only 29% (n=273) successfully secured employment post-training. This highlights that the programme's effectiveness in securing employment for its participants is moderate. From the qualitative interactions with the candidate, we gauged following reasons for low placements:
 - The skills taught in training programme do not align with the actual needs of the industry and even after getting interview opportunities in the companies, they were not offered any job.
 - There was a lack of strong partnership with industries and employers by the implementing partner and they struggled to get good organizations for placements.
 - Many job opportunities were available away from their city and they had to relocate for joining these jobs but due financial constraints or family restrictions they could not relocate for job.
- Of placed, 56% (n=78) reported working in the IT sector, while 44% (n=78) were employed in non-IT sector jobs. This indicates that the skills acquired through the programme have broader applicability beyond just IT roles.
- Furthermore, **60% (n=78) of respondents reported working in a different position from the one they initially secured.** From the qualitative interactions with various project stakeholders, team noted that:
 - This is due to a mismatch between the skills taught in the programme and the specific needs of the job market, necessitating role changes.
 - Another reason was the dynamic job market where some of the respondents frequently shifted roles to better match their skills or aspirations.

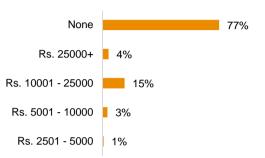
"

New hires undergo an initial training period of 3-4-day to understand their responsibilities and continue learning on-the-job. On average, candidates remain with us for about a year. We recruit 70-80 candidates from Nirmaan each year, with 50-55% leaving within the first year.

- Regarding monthly income from current job, 15% (n=273) of respondents reported earning between INR 10,001-25,000. A significant 77% (n=273) of respondents were not employed, thus earning no income (Figure 262).
- In an interaction with trainers, it was revealed that some candidates use skills and experience from IT roles temporarily, while preparing for government exams. These candidates often leave IT positions shortly, thereafter, considering them a fallback option if they decide to return to the sector.

As narrated by an Employer

Figure 262 : Distribution of Monthly Income from Current Job (n=273)



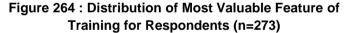
When asked whether they believed they could have secured a job without the training programme, 73% of respondents (n=273) felt they could not have done so. This highlights the participants' confidence in the programme's value in enhancing their skills and employability (Figure 263).

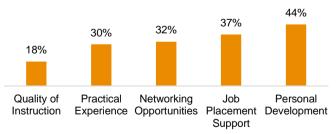
94%	Improvement in Knowledge and Skills in IT sector
85%	Improvement in Employability Skill
73%	Required this training to secure a job

Figure 263: Improvement in Skills (n=273)

6. Empower Professional and Personal Growth

 The integration of self-learning courses and a focus on soft skills during placements has fostered personal growth among respondents. A few trainers mentioned that candidates engaged more actively in soft skills training once they felt comfortable, subsequently noting improvements in their communication skills and confidence.





- 25% (n=273) reported that the training Multiple choice question, and total may not add upto 100%
 programme had a significant impact on their personal development, whereas 64% (n=273) noted a moderate impact.
- When asked to identify the most valuable aspect of the training programme, 44% (n=273) respondents indicated personal development, while 37% valued job placement support (Figure 264).



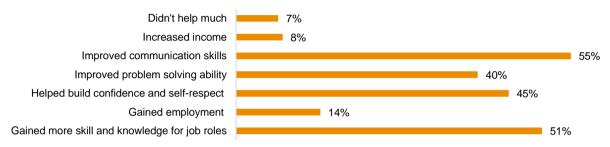
During the course, candidates undergo regular training in communication skills and participate in mock interviews. This consistent practice is designed to improve their comfort and proficiency in speaking. By the end of programme, most candidates report increased selfconfidence and enhanced communication abilities.

As narrated by a Counsellor of the Indore, Madhya Pradesh Centre

7. Impact of Training on Communication and Career Skills

• The respondents were surveyed to evaluate the overall impact of the training programme. Analysis revealed that 55% of participants (n=273) felt that the training improved their communication skills. Additionally, 51% reported gaining skills and knowledge relevant to their job roles. Furthermore, 45% noted positive growth in confidence and self-respect. These findings are illustrated in Figure 265.

Figure 265: Effect of Training on Respondents (n=273)



Multiple choice question, and total may not add upto 100%

These parameters were evaluated based on their importance to the respondents and the training's effectiveness in meeting these expectations. All parameters were deemed important by the candidates, and their expectations were met, except for the parameter relating to increased income.

Figure 266: Importance and Expectation-match Rating of Changes Observed by Respondents Post Training (n=273)

Changes observed by the respondents	Importance of the change to the respondent	How effectively the training met the expectations of respondent
Gained more skill and knowledge for job roles	97% of the respondents rated it 2 or higher (3 being very important)	89% of the respondents rated it 2 or higher (3 being expectations totally met)
Gained employment	81% of the respondents rated it 2 or higher (3 being very important)	67% of the respondents rated it 2 or higher (3 being expectations totally met)
Helped build confidence and self-respect	95% of the respondents rated it 2 or higher (3 being very important)	95% of the respondents rated it 2 or higher (3 being expectations totally met)
Improved problem-solving ability	94% of the respondents rated it 2 or higher (3 being very important)	93% of the respondents rated it 2 or higher (3 being expectations totally met)
Improved communication skills	95% of the respondents rated it 2 or higher (3 being very important)	97% of the respondents rated it 2 or higher (3 being expectations totally met)
Increased income	48% of the respondents rated it 2 or higher (3 being very important)	40% of the respondents rated it 2 or higher (3 being expectations totally met)

- Among the 273 respondents, 48% considered an increase in income important, while only 40% felt this
 increased income expectation is fulfilled by the training. Figure 267 illustrates the importance and
 expectation alignment.
- When asked about challenges during the programme, 68% reported none. However, 17% believed the course duration was too short and suggested extensions. Additional challenges are shown in Figure 267.
- For programme improvements, 70% recommended enhanced placement support, and 24% called for better facilities at the centres such as improved furniture, and computer & accessories. Further suggestions are detailed in Figure 268.

Figure 267: Challenges Faced by the Respondents during the Training (n=273)



Figure 268: Improvements Suggested by the Respondents for the Training Programme (n=273)



Multiple choice question, and total may not add upto 100%

27.4. IRECS Analysis

Basis the interactions with the key stakeholders and desk review, the impact of the project is also assessed on the IRECS framework parameters. The IRECS analysis summary has been presented in below table:

Table 48: IRECS Analysis

Parameter	Assessment from Study
Inclusiveness	• The project has trained 6,406 female candidates and its reach spans 13 training centres across 9 states.
	• The initiative specifically targets families from low socio-economic backgrounds in various states, with 82% of respondents reporting a monthly household income of INR 25,000 or less.
	• The project worked towards the empowerment of women, addressing the gender disparity in workforce participation.
Relevance	 The training taught market-oriented skills (web and mobile applications, office administration) to graduate women from underprivileged and economically weaker sections seeking upskilling opportunities to enhance employability. Practical sessions were part of lectures and assessments in line with industry trends so that the candidates can get the real-world experience and learn industry relevant skills.
Effectiveness	 84% (n=273) of respondents believe that the training has enhanced their employability skills.

Parameter	Assessment from Study
	• The project has demonstrated effectiveness in enhancing knowledge and skills within the IT sector , as evidenced by 94% (n=273) of respondents affirming such improvements. Furthermore, 89% (n=273) of respondents rated the training at least a 2 out of 3, indicating that their expectations were fully met regarding the acquisition of skills and knowledge pertinent to job roles.
	• The project has demonstrated effectiveness in enhancing the soft skills and communication abilities of the trainees. A significant 97% (n=273) of candidates rated the training as a 2 or higher out of 3 in communication skills indicating that expectations were fully met.
	• 29% (n=273) of participants have confirmed to successfully obtained employment following the completion of their training within the project. This points toward a need to enhance job placement support and ensure that training is closely aligned with market demands, potentially increasing the employment rate.
	 15% (n=273) of respondents reported earning a monthly income in the range of INR 10,001-25,000 from their current employment.
Convergence	• The project aligns with the Indian government's Skill India Mission by focusing on imparting market-oriented skills to graduate women from underprivileged and economically weaker sections.
	• The project has formally collaborated with IT companies as hiring partners, facilitating the delivery of placement offers to participants.
Sustainability	• The focus on skilling the graduate women have a capability to stimulate economic growth, reduce poverty and foster some independence for these women in the long run. This is evident from the fact that 84% (n=273) of the respondents have reported improvement in their employability skills.
	• The sustainability of the project is also reinforced by several key factors, including the establishment of effective partnerships and the provision of comprehensive skill training. Its alignment with the increasing demand for jobs in the IT sector further augments its long-term viability.

27.5. Alignment to the Infosys's CSR policy and the UN SDGs



The project is aligned with respective CSR policy of Infosys BPM Limited and EdgeVerve Systems Limited which includes Education as one of the key CSR focus areas. The project is also aligned with the following Sustainable Development Goal (SDGs)¹⁶⁹:



SDG-4 aims to ensure inclusive and equitable quality education, whilst promoting lifelong learning opportunities for all. The project through its targeted skilling initiatives, the programme has successfully enhanced the knowledge and skills of graduate women from underprivileged and economically weaker sections.

¹⁶⁹ Source: <u>https://sdgs.un.org/goals</u> Price Waterhouse Chartered Accountants LLP **SDG-5** aims to achieve gender equality and empower all women and girls. The project specifically targeted unemployed graduate women from economically disadvantaged backgrounds, aiming to equip them with industry-relevant skills to enhance their employability and empower them towards greater self-reliance.

SDG-8 pertains to **promoting sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.** The project endeavours to facilitate employment for trained women, thereby enabling them to achieve productive and decent work. This initiative ultimately aims to contribute to sustained economic growth by empowering women through enhanced employability and economic participation.

27.6. Study Limitation

• The team did not encounter any limitation during the impact assessment study.

27.7. Case Stories

Following case stories have been gathered through discussions held with the project stakeholders:

Case Story 1: Empowering Dreams: From Trainee to Entrepreneur

In Kerala, Aadhya's* journey from a trainee in the Women in Technology (WIT) Programme to a successful entrepreneur exemplifies the transformative power of skill development and government initiatives. At 33, Aadhya harnessed the IT-enabled services (ITES) skills she acquired through WIT and began her career at a Common Service Centre (CSC), gaining valuable expertise over 6-7 months.

Inspired by the Government of Kerala's Akshaya Centre initiative, which aims to bridge the digital divide, Aadhya's entrepreneurial spirit was ignited. She established her own Akshaya Centre, providing essential digital services and IT solutions to her community, thus addressing a critical local need and symbolizing the empowerment of women through entrepreneurship.

Aadhya's story highlights how targeted skill training and supportive initiatives like Akshaya Centres can unlock opportunities and foster economic independence. Today, she inspires other women to pursue their dreams and embrace self-employment, demonstrating that with the right skills and determination, aspirations can become reality.

Case Story 2: Breaking Barriers: Sneha's Journey to Success

In Navi Mumbai, Sneha's* story is a powerful testament to perseverance and the impact of supportive guidance. Coming from a financially challenged background, Sneha faced numerous obstacles in her pursuit of education and career growth.

Initially hesitant about joining the Women in Technology (WIT) programme for IT-enabled services (ITES), Sneha was encouraged by counsellors who recognized her potential. Through insightful conversations, they helped her see how the WIT programme could be a stepping stone to a brighter future.

With renewed determination, Sneha embraced the programme, developing both technical skills and the confidence needed to succeed professionally. Her dedication paid off when she secured a position at Bajaj Auto, bringing financial stability to her family.

Sneha's journey from uncertainty to success is a beacon of hope, demonstrating that with the right support and resilience, one can overcome barriers and achieve their dreams.

*Name changed

Project 25: Aarohan Social Innovation Awards

Price Waterhouse Chartered Accountants LLP

28.1. About the Project

Social innovation awards in India are essential as they act as a catalyst for promoting and sustaining innovative approaches to the country's numerous social challenges. These awards acknowledge and reward individuals and organisations that are leading impactful social initiatives, encouraging them to continue and broaden their efforts. By recognising their contributions, these awards not only validate the dedication of social innovators but also inspire others to partake in similar endeavours. The visibility and awareness generated by these awards highlight crucial social issues and the inventive strategies employed to tackle them, thus encouraging broader societal engagement in addressing these challenges.

Recognizing the importance, Infosys Limited has launched the "Aarohan Social Innovation Awards" which provides a platform to encourage and reward individuals, teams, and NGOs creating unique technology-based solutions. These innovations have the potential to significantly impact the underprivileged across India on a large scale. After successfully completing its first three editions, Infosys Foundation will be institutionalising the fourth edition in FY 26. In the previous edition (FY 24), 2,400 entries were received, resulting in three main winners and five jury special winners. The total prize pool was INR 2 crore, with each main winner receiving INR 50 lakh and each jury special winner receiving INR 10 lakh. The event also achieved a campaign reach of 260 million, along with nearly 500,000 engagements.¹⁷⁰ Below Figure provides an overview of the project specifics:

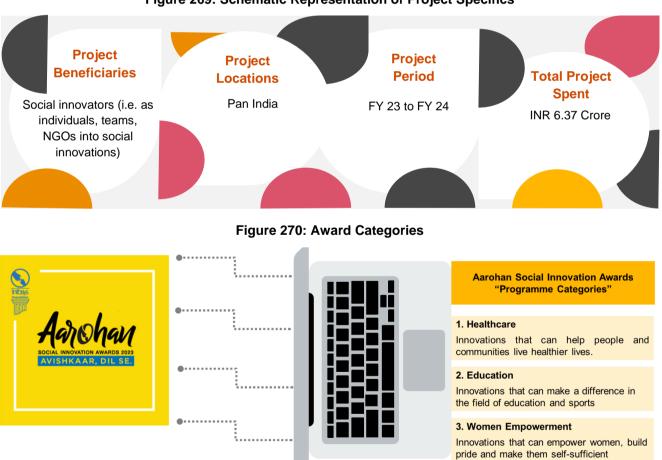


Figure 269: Schematic Representation of Project Specifics

Below Figure provides an overview of judging criteria to evaluate the entries received under the Aarohan Social Innovation Awards¹⁷¹:





Under this project, the CSR funding of INR 50 Lakhs was provided to three social innovations in FY 23 to 24 (top three award winners). Hence, team has considered the previous edition to assess the impact created by following innovations on the lives of various stakeholders in discussion with the programme team of Infosys¹⁷²:

- a. One House One Toilet (OHOT) and Sustainable Sanitation Model: The OHOT & Comprehensive Sustainable Sanitation project by Shelter Associates (SA) aims to enhance hygiene and sanitation in the Sathe Nagar slum of Thane and four slum areas in Belapur, Navi Mumbai. The project focuses on constructing individual toilets to reduce reliance on overcrowded community facilities, promoting Menstrual Health Management (MHM) to improve women's health practices, and collaborating with government officials to improve access to public utilities and services.
- **b. nLite 360:** Developed by Heamac Healthcare Pvt. Ltd., nLite 360 is an advanced, portable, standalone, and battery-powered smart phototherapy device that provides customised treatment for severe and dynamic jaundice conditions in newborn babies.
- **c.** Smart Vision Glasses: These are AI-enriched assistive devices to help people with visual disabilities, to identify objects and people, gauge distance, and read books in Indian regional languages. The product has been developed by SHG technologies Pvt. Ltd.

28.2. Method of Impact Assessment

The impact assessment study employed a **consultative and cohesive approach** to evaluate the project's social impact. To begin the assessment process, a **kick-off meeting was held with programme team from Infosys Foundation** followed by a **briefing calls with three award winners from FY 24.** These meetings offered the research team with **relevant insights into the support provided in this project.**

PW received the following project documents:

- Process document describing the process of institutionalising the Awards
- Impact Analysis Reports highlighting the impact created by various grant holders
- Project Documents received from Top 3 winners with insights on their innovation/ project

Accordingly, PW team commenced a **desk review** of the project documents which **facilitated the design of the assessment framework and the identification of key stakeholders** for interactions.

¹⁷¹ Infosys Foundation - Aarohan Social Innovation Awards website

¹⁷² Project documents shared by Infosys team

Price Waterhouse Chartered Accountants LLP

A mixed research methodology involving both qualitative and quantitative data collection tools was employed to assess the impact of this project. Given the nature of CSR project, qualitative approach was deployed which was instrumental in evaluating the comprehensive perceived benefits, impact and in-depth insights into the perspectives of those involved in the project.

Key stakeholders were identified and tailored research tools were developed to capture comprehensive insights of the project. A snapshot of the research design is as follows:



- 1 In-depth interview (IDI) with each of the 3 winners
- IDIs were also conducted with various stakeholders associated with top 3 innovations:
 - 2 IDIs with visually challenged beneficiaries and 1 IDI with doctor for Smart Vision Glasses
 - 4 IDIs with healthcare workers at Niloufer Hospital for nLite 360
 - 2 Focused Group Discussions (FGD) with beneficiary community, 2 IDIs with volunteers, 1 IDI with Municipal officer for OHOT and Comprehensive Sustainable Sanitation
- 1 IDI with the Infosys Foundation Programme team

28.3.Analysis and Findings

This section summarises the findings from the desk review and interactions:

28.3.1. Challenges Before the Project

Team noted the following key challenges prior to the implementation of the project / innovations:

a) OHOT & Comprehensive Sustainable Sanitation

- Overcrowded sanitation facilities: In the Sathe Nagar slum (Mankhurd, Mumbai), the local community
 faced severe overcrowding in sanitation facilities, with an average of 55 individuals sharing a single
 toilet seat. This situation not only led to long wait times and inconvenience but also heightened the risk
 of spreading water-borne diseases. The lack of adequate sanitation facilities was a significant public
 health concern, necessitating the construction of private toilets to alleviate the burden on community
 toilets and improve hygiene standards.
- Menstrual Health Management (MHM) Challenges: Before the project, there was a lack of awareness
 and resources for proper menstrual health management in the community. Many women relied on
 traditional methods, such as cloth, which were not hygienic or effective. This challenge was compounded
 by cultural taboos and a lack of education on menstrual health, leading to poor practices and health
 issues. Addressing this required community engagement and education to promote better MHM practices
 and introduce sustainable alternatives like menstrual cups.

b) nLite 360

- Integration of existing phototherapy units into clinical workflows: Existing phototherapy units were cumbersome and required significant setup time, disrupting clinical workflows and causing considerable procedural delays. Healthcare providers mentioned that they needed a device that could be quickly and easily integrated into their daily operations without causing delays or requiring extensive training.
- **Power Dependency and Portability of existing units:** The treatment of newborns' jaundice is hampered by power outages as the phototherapy units are electrically powered. Further, the traditional phototherapy units are not portable. This becomes a challenge, especially when the child needs feeding.

c) Smart Vision Glass

- Limited Mobility and Independence for Visually Impaired Individuals: Visually impaired individuals struggled with mobility and independence due to the lack of effective assistive technology. Navigating their environment safely was a daily challenge, limiting their ability to perform routine tasks and engage in social activities. This lack of independence affected their quality of life and restricted their participation in educational and professional opportunities.
- Barriers to Information Access: Accessing information, especially in multiple languages, was a significant barrier for visually impaired individuals. Without suitable technology, they were unable to read books, articles, or documents, which limited their educational and cultural engagement. This challenge underscored the need for a device that could provide multilingual support and enhance their ability to access a wide range of information.

28.3.2. Summary of the Impact Created

This section provides an overview of the impact of these three innovations based on our interactions with relevant project stakeholders and reports received.

I. OHOT & Comprehensive Sustainable Sanitation – Shelter Associates

Enhanced Hygiene through Toilet construction facilitation

- The project has successfully addressed the sanitation needs of 115 families residing in the Sathe Nagar slum within the Lokmanya Savarkar Nagar ward in Thane by facilitating the construction of private toilets.
- Team noted that this initiative has effectively alleviated the burden on community toilets, benefiting approximately 500 individuals. Prior to this intervention, a study conducted by Shelter Associates revealed that, on average, 55 individuals were reliant on a single toilet seat, highlighting the area's susceptibility to water-borne disease (such as cholera, typhoid, and dysentery) outbreaks.



- In the 1st phase in Thane, community engagement strategies have played a crucial role in the project's success. Activities such as Corner Meetings, Maze Games, and MHM workshops, along with the Snake and Ladders game, have been pivotal in shifting community attitudes towards health and hygiene. These efforts have led to a noticeable decline in the practice of open defecation in the area.
- Furthermore, the project has contributed to improved menstrual health management practices, as evidenced by at least 44 women transitioning from using cloth or menstrual pads to menstrual cups. This positive shift underscores the project's comprehensive approach to enhancing overall health and hygiene within the community.
- The 2nd phase of the project catered specifically to 4 slum areas within Belapur (Navi Mumbai). A total of **208 community meetings with 1,946 adolescent girls and women were organised within these areas** to provide tailored training sessions on MHM. The **trainings and orientation sessions have been instrumental in 78% of the menstruating women in these areas adopting menstrual cups.**



"

I have educated community members on how to use Plus Codes in Google Maps and explained the benefits of this system. With Plus Codes, they can now receive parcels and utility bills, such as their water and electricity bills, directly at their doorsteps. Previously, deliveries were not reaching them, but the adoption of Plus Codes has resolved this issue. Additionally, community members have also gained access to a water connection.

As narrated by a Community Volunteer during the field visit

Collaboration with the Government officials to link the region with public utilities

The project, supported by Infosys Foundation through this Award, also facilitated dialogue with the Government officials to connect the residents in Belapur with public utilities. The Shelter Associates team advocated with the officials for:

A. Household taps – The area did not feature household water connections due to documentation issues. This resulted in large amounts of water being wasted from public taps. The team coordinated with the Government officials to get the approval from the concerned department for the provision of household taps in the houses which has an individual toilet. The implementation of this activity is still under process and has the potential to reduce the wastage of water to a minimum.

- B. Efficient Waste Management system Waste collection has been challenging in the region due to the inaccessibility of municipal vehicles, forcing residents to use roadside collection points. This often leads to missed collections and improper waste disposal in open spaces, posing health risks. To address this, a strategic initiative was launched in collaboration with the Municipal Corporation, hiring workers for door-to-door waste collection. This approach not only mitigates health hazards but also enhances community sanitation and waste management efficiency, fostering a healthier and more sustainable environment.
- C. Integration of Plus Codes with Government Utilities To resolve issues stemming from unclear addresses that impeded deliveries, visitor access, and administrative services, Shelter Associates conducted a GIS-based survey to accurately map residences and generate Plus Codes, navigable on Google Maps. This initiative, endorsed by the Municipal Corporation, aims to integrate Plus Codes into water bills, enhancing officials' ability to locate homes efficiently. As the water department revamps its billing system, Shelter Associates has cross-verified data with the department and submitted it to the Urban Local Body. Plus Codes and QR code stickers have been placed on each household, with residents educated on their use. This effort significantly improves service accessibility and operational efficiency, positively impacting residents' quality of life.



The introduction of eco-friendly menstrual hygiene products has proven to be highly beneficial for the community. Women now experience a sense of ease when outside, as they no longer worry about changing products frequently. This shift has significantly reduced waste and improved overall hygiene in the area.

- As narrated by a Women Beneficiary during the field visit

II. nLite 360 - Heamac

Improved Clinical Effectiveness

- The nLite device has shown significant effectiveness in reducing bilirubin levels in newborns as mentioned by healthcare workers at Niloufer Hospital. This is supported by consistent blood report results and real-time bilirubin monitoring, which indicate a marked decrease in bilirubin levels compared to other treatment devices.
- The device has been instrumental in getting more than 500 newborn babies treated across 30+ healthcare centres in Telangana and Andhra Pradesh, ensuring safer and more effective jaundice treatment and management.
- The device contributes to a shorter duration of treatment, which not only accelerates the recovery process for newborns but also reduces the length of hospital stays. This efficiency is particularly

Figure 274: nLite 360 device



beneficial in serious cases, where quick intervention is crucial. Overall, the device has been able to **make the treatment process efficient by at least 30%-50%.**

Seamless Integration into Clinical Workflow

- During the interactions with the Doctors at Niloufer Hospital, team noted that the device is designed to
 integrate smoothly into existing clinical workflows, requiring only about 5 to 10 minutes for setup. This
 quick setup time ensures that there is minimal disruption to the daily operations of the healthcare
 facility.
- It is an easy to operate device, provided that the staff is well-trained in setting the required intensity levels. This ease of use allows healthcare providers to focus more on patient care rather than device management.

Comprehensive Training and Support

- Heamac provides comprehensive training during the installation of the device, ensuring that both doctors and nursing staff are well-versed in its operation. This training is crucial for maintaining the device's effectiveness and safety.
- In addition to initial training, manuals are provided for ongoing reference, and further training sessions are conducted as needed. This ensures that all staff members are up to date with the latest operational protocols.

"

The Heamac team has been supportive throughout the installation process. Their representatives have also been providing us with necessary guidance and support whenever required. After an initial briefing at the time of the setup, we were also provided with manuals to refer to in case we face any challenges while operating or setting up the device.

- As narrated by a Nursing staff at Niloufer Hospital during the field visit

Overall Feedback and Impact Areas

- The device is **portable with its batteries capable of being solar powered.** This is an advantage over the traditional phototherapy unit which operates as a fixed unit and is electrically powered. Furthermore, the device **can be installed in rural and remote areas as well where there might be issues pertaining to frequent power outages or less power back-up.**
- Healthcare providers have expressed high levels of satisfaction with the device's performance, noting its effectiveness in treating jaundice, especially in severe cases. This satisfaction is reflected in their strong recommendations for its use in other healthcare settings.

• Further, the device is comparable to the existing traditional versions of phototherapy units in terms of costs to the healthcare units. The high-end model effectively reduces the cost to the healthcare units, due to reduced dependency on multiple machines to achieve similar treatment outcomes.



As a healthcare professional, I highly recommend the nLite 360 device for rural areas where power outages are common. Its solar-powered capability ensures continuous operation, making it a reliable choice for improving healthcare delivery in remote settings. With nLite 360, we can provide consistent and effective treatments, regardless of the local infrastructure challenges.

As narrated by a doctor at Niloufer Hospital during the visit

III. Smart Vision Glass (SVG) – SHG Technologies Pvt. Ltd

Increased Independence and Confidence:

- Team noted that the Smart Vision Glasses have played a significant role in increasing the independence of visually impaired individuals. By incorporating features like object detection and obstacle recognition, this device allows users to navigate their surroundings more safely and confidently. This capability reduces their reliance on others for assistance, enabling them to perform daily tasks independently. For instance, users can identify obstacles within a 2-meter range, which helps them move around unfamiliar or crowded environments without constant guidance. This newfound ability to navigate independently contributes to a greater sense of autonomy and self-reliance.
- In addition to enhancing independence, the Smart Vision Glasses have also boosted the confidence of visually impaired users. The facial recognition and people identification features allow users



Figure 275: Smart Vision Glasses

to recognize acquaintances and engage more comfortably in social settings. This **reduces the anxiety associated with social interactions, as users can confidently identify and interact with people around them**. Furthermore, the device's reading mode and multilingual support expand access to information, allowing users to engage with diverse content and participate more actively in educational and social activities. These improvements in social and informational engagement contribute to a stronger sense of confidence and empowerment in their daily lives.

Enhanced Mobility and Safety:

- Enhanced mobility and safety are among the most significant benefits offered by the smart Vision glasses, especially for individuals with severe low vision. The device's object and obstacle detection capabilities have considerably improved users' ability to navigate crowded or unfamiliar environments by using the Walking Assistance. This feature, although not providing full navigation guidance, serves as a valuable tool for users to manoeuvre through daily plan, such as busy streets or crowded public areas.
- During our discussion with the smart vison glasses users, team noted that after the use of the glasses there has been an increased participation for social and community activities without the constant fear of stumbling or colliding with obstacles. This improvement in mobility not only enhances their quality of life but also contributes to a greater sense of independence and self-reliance.
- For students in academic background, the smart glasses also played a crucial role in enhancing the students' social life on campus. The Walking Assistance feature provided the student with the confidence to navigate the campus independently, reducing their reliance on others.

- The smart glasses' support for multiple languages has been a game-changer for user with severe low vision, significantly expanding their access to a wide range of information. By enabling users to interact with content in various languages, the device not only enhances linguistic accessibility but also opens up a broader spectrum of educational resources and cultural materials just by snapping at the content. This multilingual capability is particularly beneficial in diverse and multilingual communities where users might encounter information in different languages. Users can now read books, articles, and documents in languages that were previously beyond their reach, thereby broadening their horizons.
- Earlier, the stakeholder group like students faced considerable challenges in accessing course materials and participating in class activities due to their severe low vision. However, with the smart glasses, the students gained newfound independence in reading textbooks, handouts, and digital content, allowing them to keep pace with their peers. The Reading Mode feature, with its impressive accuracy, enabled the students to read and comprehend academic texts with greater ease, which is improving their ability to prepare for exams and contribute to classroom discussions.



I am a BA student and as part of our curriculum, we need to read a number of textbooks in each term. I have an impaired vision, which restricts my ability to read the text clearly. However, through the Smart Vision Glasses, not only I can read the books but also save the text to revise later.

As narrated by a beneficiary during interactions

Overall Satisfaction from the Users and Accessibility

- Smart Vision Glasses had been made accessible to a significant number of individuals, with approximately **7,000 beneficiaries having received the device.** In the previous year alone, around 6,000 people benefited from the glasses.
- The product was available in different models, with the lowest priced at INR 9,900 and the more advanced wireless model, which included bone conduction speakers, priced at INR 35,000. The organization focused on making the glasses accessible to those in need by partnering with Blind schools, the National Federation of the Blind, and other concerned associations. They also collaborated with donors and organizations like other CSR arms to provide the glasses to individuals who could not afford them. Overall, 100+ such partnerships have been done till date.
- During the qualitative discussions, the **overall satisfaction of the user with the Smart Vision Glasses is positive**, with **several features significantly enhancing their daily activities and independence**. The ability to read texts in multiple languages, detect objects and obstacles, and recognize faces, has notably improved their accessibility and social interactions.

IV. Overall Impact created by Aarohan Social Innovation Awards

Aarohan Social Innovation Awards provided the essential CSR funding support and recognition needed for these organizations to develop impactful solutions, driving community transformation and enhancing quality of life in a following manner:

- Improvement in Sanitation Facilities: CSR funding under this project enabled the construction of private toilets in the Sathe Nagar slum, significantly reducing overcrowding in communal sanitation facilities. These efforts have improved hygiene standards and mitigated public health risks associated with water-borne diseases, transforming daily life for community members.
- Enhanced Menstrual Health Management (MHM): Aarohan Social Innovation Awards funding supported community-driven education programmes to tackle menstrual health challenges, breaking cultural taboos and introducing sustainable alternatives like menstrual cups. Hence, this project has empowered women with knowledge and resources to adopt hygienic practices, fostering better health outcomes.

- Streamlined Clinical Workflows with nLite 360: The integration of innovative phototherapy units made possible by CSR funding provided under Aarohan Social Innovation Awards as this device has optimized clinical workflows, allowing healthcare providers to deliver effective jaundice treatment with minimal setup time or training. This solution reduced procedural delays, enhancing overall healthcare delivery.
- Increased Accessibility and Independence for the Visually Impaired: Development of the Smart Vision Glass, supported by the awards, provided visually impaired individuals with advanced assistive technology that greatly improved their mobility and independence. This empowerment has enabled them to participate more fully in educational and professional opportunities.
- Enhanced Information Access: Through the creation of multilingual and accessible formats, supported by Aarohan Social Innovation Awards, visually impaired individuals now have better access to a wide range of content. This initiative has broken down barriers to information, enriching their cultural and educational experiences.

28.4. IRECS Analysis

Basis the interactions with the key stakeholders and desk review, the impact of the project was also assessed on the IRECS framework parameters. The IRECS analysis summary has been presented in below table:

Parameter	Assessment from Study
Inclusiveness	• The projects successfully engaged a broad spectrum of beneficiaries by targeting diverse groups , such as families in slum areas, newborns requiring medical care, and visually impaired individuals. This approach ensured that a wide range of demographic needs were met, promoting equitable access to resources and services .
	• Comprehensive community engagement strategies were implemented, including interactive meetings and workshops. These efforts specifically aimed to include marginalized groups like adolescent girls and women, focusing on promoting menstrual health management and hygiene practices, thereby empowering these communities and encouraging their active participation.
	• Collaborations with various stakeholders, such as government officials, healthcare providers, and organizations supporting visually impaired individuals, were integral to the SVG project. These partnerships fostered a more inclusive approach to addressing community needs and challenges, ensuring that diverse perspectives and expertise were incorporated into project development and implementation.
Relevance	• The initiatives addressed critical issues such as sanitation, healthcare, and mobility for vulnerable populations, ensuring they were closely aligned with the immediate needs of these communities. By focusing on improving quality of life, the projects demonstrated a commitment to addressing the most pressing challenges faced by these groups.
	• Projects were meticulously tailored to local contexts, introducing practical solutions like household taps and efficient waste management systems. This relevance to specific challenges faced by communities in Thane and Belapur ensured that the interventions effectively addressed the unique circumstances and requirements of these areas.
	• The introduction of Smart Vision Glasses provided a pertinent technological solution for visually impaired individuals. By enhancing independence and confidence, the glasses directly addressed the barriers encountered in daily life, offering a meaningful improvement to the users' overall quality of life.

Table 49: IRECS Analysis

Parameter	Assessment from Study
Effectiveness	• The sanitation project effectively reduced reliance on community toilets through improved menstrual health management practices. This was evidenced by a decline in open defecation and increased adoption of menstrual cups, highlighting the project's success in promoting healthier and more sustainable hygiene practices.
	• The nLite 360 device demonstrated significant clinical effectiveness by reducing bilirubin levels in newborns. This medical innovation led to quicker recovery times and shorter hospital stays, providing a tangible improvement in healthcare outcomes for newborns and their families.
	• Smart Vision Glasses effectively increased independence and mobility for visually impaired users. Feedback from users indicated greater participation in social and community activities, showcasing the positive impact of this technology on enhancing their ability to engage with their surroundings.
Convergence	• The projects demonstrated convergence by uniting multiple stakeholders , such as government entities, healthcare providers, and NGOs, to collaboratively address community challenges. This collaborative approach ensured that various resources and expertise were leveraged to maximize the impact of the interventions.
	• Shelter Associates played a pivotal role in facilitating government collaboration for improved public utilities. This successful convergence of efforts led to enhanced infrastructure and service delivery, benefiting the community and creating more sustainable living conditions.
	• The integration of Smart Vision Glasses into educational settings, alongside partnerships with blind schools and associations, exemplified convergence. This approach expanded access to technology and educational resources for visually impaired individuals, fostering greater inclusivity and opportunity in educational environments.
Sustainability	• The initiatives placed a strong emphasis on sustainability by advocating for long- term solutions, such as household water taps and efficient waste management systems. These improvements promised lasting enhancements to community infrastructure, contributing to the overall resilience and sustainability of the communities served.
	• The nLite 360 device's portability and solar-powered capability ensured sustainable healthcare solutions, particularly in resource-limited settings prone to frequent power outages. This adaptability made the device a reliable option for providing critical healthcare services in challenging environments.
	• Smart Vision Glasses' support for multiple languages and ongoing partnerships with organizations and donors underscored efforts to maintain accessibility and affordability for visually impaired individuals. These initiatives highlighted a commitment to ensuring the long-term viability and widespread adoption of the technology to navigate independently, enhancing their inclusion in social and academic settings.

28.5. Alignment to the Infosys CSR policy and the UN SDGs



The project is aligned with respective CSR Policy of Infosys Limited which includes **Health and Empowerment of Women as one of the key CSR focus areas.** The project is also aligned with following Sustainable Development Goal (SDG)¹⁷³:



SDG-3 focuses on **ensuring healthy lives and promotes well-being for all at all ages.** The project aligns with SDG 3 by improving healthcare outcomes through innovative medical devices and enhancing sanitation and hygiene practices and providing better health management solutions.

SDG-5 emphasises on **gender equality and empowering all women and girls**. The project aligns with SDG 5 by empowering women through improved menstrual health management practices and increasing access to essential health services.

SDG-9 focuses on **building resilient infrastructure, promoting inclusive and sustainable industrialization, and fostering innovation.** The project aligns with SDG 9 by promoting integration of innovative technologies into social causes, thereby promoting sustainable growth for underserved strata of the society.

SDG-10 focuses on **reducing inequality within and among countries.** The project caters to SDG 10 by delivering significant and enduring benefits to the most disadvantaged and marginalized groups in society through innovative social solutions.

28.6. Study Limitation

• **Non-availability of patients:** During the field visit to Niloufer Hospital, team were not able to meet the active patients. This lack of patient interaction restricted the team's ability to gather firsthand insights and feedback on the device's performance in a real-world clinical setting.

28.7. Case Stories

Following case stories have been gathered through discussions held with the project stakeholders during assessment. Names have been changed to maintain anonymity:

Case Story 1: Empowering Independence and Confidence in Academic and Social Life

A student named Alex*, who has visual impairments, experienced a significant improvement in their academic and social life after using Smart Vision Glasses. Previously, Alex faced challenges accessing textbooks, navigating the campus, and engaging socially, heavily relying on peers and assistive services, which sometimes hindered their independence.

With Smart Vision Glasses, Alex could independently read course materials and campus signage, boosting academic performance and class participation. The object detection feature enhanced their mobility, allowing them to safely and confidently navigate the busy college environment and attend events without constant assistance. Socially, the facial recognition feature eased interactions by helping identify classmates and professors, fostering stronger relationships and active participation in group activities. Although the emergency calling feature wasn't used, its availability provided additional security, enhancing Alex's overall sense of safety.

Overall, Smart Vision Glasses significantly empowered Alex, improving their independence, confidence, and daily college life.

Case Story 2: A Lifeline for New Mothers: A mother's experience with the nLite 360 Device

As a new mother recovering from a C-section, Noori^{*} faced numerous challenges during her baby's hospital stay. The physical strain of visiting the neonatal unit multiple times a day was taxing, compounded by the emotional stress of her baby's health condition.

The introduction of the nLite 360 device transformed the experience for Anjali and her baby. This innovative device allowed her baby to stay at her bedside, offering comfort and reassurance. Having her baby close by eased Anjali's anxiety and facilitated crucial early bonding, eliminating the need for frequent and exhausting trips to the neonatal unit. The nLite 360 also ensured that her baby didn't share a bed with other newborns, significantly reducing infection risks and providing a safer recovery environment. This peace of mind allowed Anjali to focus on her healing process.

Overall, the nLite 360 made a significant difference in their lives, addressing the healthcare needs of her baby while accommodating Anjali's post-surgical limitations. She was grateful for the support it provided during such a critical period.

Case Story 3: Empowering Change through Sanitation – A mother's Journey

Meera* faced daily sanitation challenges. As a mother of two adolescent girls, she worried about their health due to overcrowded, poorly maintained community toilets.

The introduction of a sanitation project marked a turning point. It aimed to improve facilities and promote menstrual health. Through workshops, Meera learned about hygiene and sustainable practices like menstrual cups. Initially sceptical, she soon valued the menstrual cup for reducing costs and waste.

The project also brought household taps and better waste management, enhancing living conditions and reducing reliance on community toilets. Inspired, Meera began organizing groups to discuss and promote sustainable practices.

Grateful for the project's impact, Meera stated, "We no longer worry about health risks, and I feel confident my daughters have better hygiene solutions." Her story highlights the power of community-driven initiatives in empowering marginalized groups with inclusive solutions.

*Name Changed

Project 26: Construction of Gorilla Enclosure at Sri Chamarajendra Zoological Gardens, Mysuru

29.1. About the Project

Safe animal enclosures are vital to the roles of zoos in conservation, education, and research. These enclosures protect animals against threats like habitat destruction and poaching. By replicating natural environments, they support breeding programmes crucial for maintaining genetic diversity and increasing the populations of endangered species. Furthermore, **these enclosures enrich educational experiences by enabling visitors to observe animals in authentic settings**, fostering connections with wildlife and inspiring conservation efforts. By prioritising animal welfare, these enclosures meet the physical and psychological needs of animals, adhering to the ethical standards of modern zoos. Ultimately, they form the foundation for preserving biodiversity and promoting conservation.

Infosys Foundation has undertaken a project to construct a gorilla enclosure at the Sri Chamarajendra Zoological Gardens as part of Infosys Limited's CSR initiatives. This project aims to prioritize animal welfare and support conservation and breeding efforts, thereby aligning with Infosys's commitment to wildlife conservation and CSR objectives. The project involved constructing an animal-friendly gorilla enclosure for the endangered Western Lowland Gorillas alongside a den, viewpoints, and fencing. The gorillas housed within the enclosure have been sourced from the Frankfurt Zoo in Germany. Below depicts the project specifics:

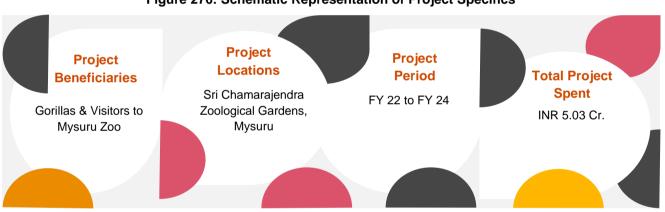


Figure 276: Schematic Representation of Project Specifics

Figure 277: Mysuru Zoo, Mysuru



Mysuru Zoo, officially known as Sri Chamarajendra Zoological Gardens, is a historic park **established in 1892** by Sri Chamarajendra Wodeyar Bahadur in Mysuru, Karnataka, India. Spanning 157 acres, which includes Karanji Lake, the zoo is renowned for its naturalistic enclosures that replicates animals' native habitats, thus promoting animal welfare and supporting breeding programmes. It is **home to over 1,450 specimens from 150 species** representing more than 25 countries, encompassing both exotic and indigenous animals such as big cats, primates, birds, and reptiles.

As a center for conservation, education, and research, Mysuru Zoo **prioritises animal welfare and sustainability**. It offers educational programmes and events that engage thousands of visitors annually. It participates in conservation breeding and **operates a 113-acre facility** dedicated to wildlife rescue and rehabilitation. Known for its lush greenery and eco-friendly practices, Mysuru Zoo is a leading tourist attraction and model for zoological conservation.¹⁷⁴

29.2. Method of Impact Assessment

The assessment employed a **collaborative and unified approach** to analyse the project's impact. The evaluation process **commenced with an initial kick-off meeting with Infosys Foundation, followed by a detailed discussion with the Director at Mysuru Zoo**. These discussions gave the research team with insights into the specific support provided by this project.

Following the initial calls, PW received the following project documents:



- Memorandum of Understanding (MoU) and Addendums to the MoU signed with Sri Chamarajendra Zoological Gardens consisting of the project operational details
- Handing over letter from Infosys Foundation detailing the project activities carried out during the implementation

Accordingly, PW team commenced a **desk review** of the project documents which **facilitated the design of the assessment framework and the identification of key stakeholders** for interactions.

The project impact was evaluated using a qualitative research approach. This method provided in-depth insights into the experiences and viewpoints of participants, while also considering the contextual elements affecting the project's impact. By applying this approach, this assessment delivered a comprehensive understanding of the project's success and identified possible areas for improvement.

Key stakeholders were identified, and customized research tools were developed to **ensure thorough and insightful data collection**. The team conducted **in-depth interviews (IDI)** with these stakeholders. Further, a feedback survey was administered to selected zoo visitors to assess their overall perceptions of the Zoo facilities. Below Figure provides an overview of sampling plan deployed for this assessment:



Figure 278: Sampling Plan

- Executive Director and Education Officer (Mysuru Zoo) at the Sri Chamarajendra Zoological Gardens (2 IDIs)
- Animal Keepers deployed at the Gorilla Enclosure within the Zoo (3 IDIs)
- General visitors to the Zoo (100 feedback structured surveys)

29.3. Analysis and Findings

This section summarises the findings from the desk review and interactions:

29.3.1. Challenges Before the Project

During the assessment, team noted following key challenges prior to the implementation of the project, which made a compelling case for the intervention:

 Meeting International Standards: The Executive Director highlighted that meeting international standards for gorilla welfare was a challenging task, demanding meticulous planning and innovative design strategies. The aim was to create a habitat that complied with the stringent animal welfare guidelines (as set forth by various organizations such as the Central Zoo Authority and World Association of Zoos and Aquariums) while catering to the complex physical and psychological needs of gorillas. Designing the Gorilla Enclosure for Public Engagement and Education: Re-establishing the gorilla population at the zoo necessitated a meticulously planned and multifaceted project, highlighting the importance of designing an enclosure that facilitates easy public viewing. This strategy was critical, as gorillas have the ability to captivate and engage visitors, thereby enhancing public interest and offering a distinctive platform for wildlife conservation education.

29.3.2. Summary of the Impact Created

4. Enhanced Animal Welfare and Living Conditions

- The Executive Director highlighted that the newly Figure 279: Gorilla Enclosure at Mysuru Zoo designed enclosure is larger than previous habitats, providing ample space for the gorillas to move freely and engage in activities that reflect their natural behaviours. At present, the enclosure accommodates 3 gorillas, with sufficient free space for each animal. The design incorporated various enrichment tools such as puzzle feeders and scent trails, which encourage exploration and cognitive engagement, helping to reduce stress and prevent boredom.
- As per the interactions with project stakeholders, since relocating to the new enclosure, the gorillas have demonstrated positive health indicators, including playfulness and social interactions. The absence of stress-related behaviours, such as pacing or repetitive actions, suggests that the gorillas are comfortable and acclimatised to their new environment. Animal Keepers have also added that they have observed these improvements, which, as mentioned by the staff, are supported by weekly health check-ups and daily observations.
- The enclosure features elements such as climbing structures, foliage, and other features that





replicate the gorillas' natural habitat. These features promote physical activities like climbing and foraging, and provide essential mental stimulation, crucial for the well-being of the gorillas. By engaging in behaviours, they would naturally exhibit in the wild, the gorillas benefit from a more naturalistic environment, contributing to their overall health and happiness.

5. Visitor Engagement and Education

The reintroduction of gorillas, a popular attraction, has boosted the zoo's appeal, drawing more visitors and providing increased opportunities for public education on gorillas and conservation. The table below details the visitor footfalls over the 3 financial years:

Financial Year	FY 22-23	FY 23-24	FY 24-25
Footfall (in Lakhs)	33.97	39.51	35.25 (till February ¹⁷⁶)

Table 50: Year-wise visitor footfall in the Zoo premises¹⁷⁵

¹⁷⁵ Source: As reported by the Executive Director of Mysuru Zoo

¹⁷⁶ The visitor footfall for the FY 25 is being consolidated. Hence, above is an estimate of the footfall till the month of February as provided by Mysuru Zoo

- The above table indicates an increase in visitor footfall for the FY 24¹⁷⁷ compared to the previous FY. Furthermore, the anticipated footfall for FY 25 is expected to follow a similar upward trend. This increase in visitor footfall and engagement has also contributed to increased revenues for the Mysuru Zoo, which has, in turn, enhanced their ability to undertake further enhancements within the Zoo premises. The gate revenue at the Zoo has consequently increased from INR 3,057.44 Lakh in FY 22-23 to INR 3,630.22 Lakh in FY 23-24.¹⁷⁸ As per the Executive Director, one of the contributing factors to this increase in revenue is the introduction of the Gorilla enclosure.
- The Zoo has leveraged the new enclosure to enrich its educational offerings. Visitors have the opportunity to learn about gorilla behaviour, conservation efforts, and the importance of protecting endangered species through interactive displays and guided tours. These programmes aim to raise awareness and inspire action towards conservation.¹⁷⁹
- 6. Strategic Conservation and Breeding Potential
- By housing gorillas, the **zoo contributes to global conservation efforts for this endangered species**. The enclosure provides a **safe and supportive environment** that could potentially be used for breeding programmes, contributing to the long-term survival of gorillas in captivity and, by extension, in the wild.
- The success of the gorilla enclosure project serves as a blueprint for future initiatives aimed at improving habitats for other species within the zoo. This initiative aligns with the zoo's broader mission to promote biodiversity conservation and improve the living conditions of all its animal residents.
- The project has led to the initiation of Gorilla-specific training programmes/ workshops for zoo staff and keepers. As mentioned by the Education Officer, these workshops are organised at least once a year and moderated by wildlife experts from international zoos. The attendees include the dedicated 3 Gorilla-keepers and other ~350 staff members at the campus. These programmes focus on enhancing skills related to gorilla care, such as understanding their behaviour, health monitoring, and enrichment strategies, thereby improving the overall quality of care provided to the animals.

7. Operational Efficiency and Resource Allocation

- The design of the new enclosure has minimised the need for constant staff intervention, as it inherently supports the gorillas' requirements for enrichment and activity. Consequently, staff can now allocate their time more efficiently, concentrating on critical tasks such as health monitoring and enrichment planning.
- The Executive Director added that the project's successful implementation has boosted team morale, fostering a more collaborative and positive working environment. Staff members feel a sense of pride and accomplishment in contributing to a project that significantly enhances animal welfare and visitor engagement.
- The improved habitat design allows staff to spend more time in implementing enrichment activities and conducting comprehensive health checks. This commitment ensures that the gorillas remain healthy and engaged which further contributes to their well-being and the overall success of the enclosure.
- 8. Visitor Feedback

Price Waterhouse Chartered Accountants LLP

¹⁷⁷ The year during which the enclosure was handed over to the Zoo authorities

¹⁷⁸ Zoo Annual Reports FY 22-23 and FY 23-24

¹⁷⁹ On probing further, the related project stakeholders were unable to quantify the exact number of such programmes and does not maintain any documentation around this.

A survey¹⁸⁰ conducted with **100 visitors (n=100) visiting the Zoo found that all respondents had visited the Gorilla enclosure.** On probing further, team noted that:

- The gorilla enclosure is a popular attraction as mentioned by these respondents. Notably, **82% spent** over 10 minutes observing the gorillas, showing strong interest and engagement.
- Overall satisfaction was high, with 90% giving a rating of 4 out of 5. The ease of viewing the gorillas significantly contributed to this, with 89% rating this aspect 4 out of 5, indicating a welldesigned enclosure.
- The educational aspects also received positive feedback, with displays and signage rated 4 out of 5 by 90% of respondents, suggesting accessible and engaging information.
- Cleanliness and maintenance were rated between 3 to 5, with 81% giving a 3, indicating the area is generally well-maintained but could benefit from minor improvements.
- Compared to other zoo exhibits, the gorilla enclosure was noted as superior by all respondents, likely due to its excellent viewing experience and informative displays. Highlights include its engaging nature and easy navigation with clear information.

Figure 280: Displays and Signages at Mysuru Zoo



• Further, all respondents would recommend the gorilla enclosure to others, underlining the high satisfaction and positive impact. Overall, the data reflects an exhibit that excels in education, engagement, and visitor satisfaction.

29.4.IRECS Analysis

Basis the interactions with the key stakeholders and desk review, the impact of the project was also assessed on the IRECS framework parameters. The IRECS analysis summary has been presented in below table:

Parameter	Assessment from Study
Inclusiveness	• The project ensures that all visitors, regardless of their age, gender, social category, can access and enjoy the gorilla enclosure. This includes providing pathways and viewing platforms that are wheelchair accessible, allowing everyone to engage with the exhibit.
	• By attracting a diverse range of visitors (from school groups to international tourists) the project promotes inclusivity in environmental education, ensuring that people from various backgrounds can learn about gorilla conservation.
	• The educational content and displays consider diverse cultural perspectives, ensuring that conservation messages are respectful and inclusive of different values and beliefs, thereby fostering a broader understanding and appreciation of biodiversity.
Relevance	• The project aligns with global conservation priorities by focusing on an endangered species, highlighting the importance of protecting gorillas and their habitats as part of broader biodiversity efforts.

Table 51: IRECS Analysis

¹⁸⁰ 5-point scale, with 1 being lowest and 5 being highest Price Waterhouse Chartered Accountants LLP Impact Assessment Report

Parameter	Assessment from Study
	• By enhancing public knowledge about gorillas and their conservation, the project addresses a relevant need for increased awareness and understanding of the challenges faced by endangered species.
	• The project is relevant to local and global communities by connecting visitors with critical conservation issues, encouraging them to consider their roles in environmental stewardship and the protection of endangered species.
Effectiveness	• The increase in visitor footfall indicates the project's effectiveness in attracting and engaging the public, thereby fulfilling its educational and recreational objectives.
	• Further, the gorilla enclosure at the zoo is a highly popular attraction, with 100% of survey respondents visiting and 82% spending over 10 minutes observing. Visitors praised the enclosure for its excellent viewing experiences, educational displays, and overall satisfaction, with 90% giving a rating of 4 out of 5. While cleanliness could see minor improvements, all respondents would recommend the Zoo, highlighting its success in education, engagement, and visitor satisfaction.
Convergence	• The project is a result of collaboration between Zoo Authority of Karnataka, conservationists, and design experts, demonstrating convergence of expertise to achieve shared conservation goals. Team did not note any other partnership/ convergence due to the nature of this project.
Sustainability	• The project's focus on breeding potential and species conservation contributes to the long-term sustainability of gorilla populations, both in captivity and the wild.
	• The rise in visitor numbers and subsequent revenues (INR 3,057.44 Lakh in FY 22-23 to INR 3,630.22 Lakh in FY 23-24) suggest that the project effectively contributes to the financial sustainability of the zoo, enabling further conservation and enhancement initiatives
	• The naturalistic and resource-efficient design of the enclosure supports environmental sustainability by minimizing resource use while maximizing habitat quality for the animals.
	• By continually educating visitors about conservation and sustainable practices, the project fosters a culture of sustainability that extends beyond the zoo, encouraging broader societal shifts toward environmental responsibility.

29.5. Alignment to the Infosys's CSR policy and the UN SDGs



The project is aligned with the respective CSR Policy of Infosys Limited includes **Environmental Sustainability as one of the key CSR focus areas.** The project is also aligned with following Sustainable Development Goal (SDG)¹⁸¹:



SDG 15 focuses on safeguarding, **restoring, and promoting the sustainable use of terrestrial ecosystems**. The construction of the gorilla enclosure at the zoo supports conservation efforts by authorities to protect endangered species.

29.6.Study Limitations

The team did not note any study limitations under this assessment

¹⁸¹ Source: <u>https://sdgs.un.org/goals</u> Price Waterhouse Chartered Accountants LLP

29.7. Case Story

Following case story has been gathered through discussions held with the project stakeholders during field visit to Mysuru Zoo. Names of the respondents have been changed to maintain anonymity:

Case Story: A Day at Mysuru Zoo - An Educational Visit to the Gorilla Enclosure

Ananya* is a 16-year-old student from Bengaluru, who was visiting Mysuru Zoo with her family, ready to explore the various animal exhibits. As someone interested in wildlife, Ananya was particularly interested in seeing the primates including the gorillas which are a one of the new additions to the zoo.

Upon reaching the gorilla enclosure, Ananya observed the carefully designed environment that aimed to resemble the gorillas' natural habitat. The enclosure included trees, rocks, and other exhibits, which allowed the gorillas to engage in natural behaviours such as climbing and foraging.

As Ananya and her family walked through the viewing paths, they used the guiding signs along the way. These guides provided information about the gorillas, the challenges they face in the wild, and ongoing conservation efforts.

The visit provided Ananya with a clearer understanding of gorilla conservation. Seeing the gorillas and learning about their situation increased her interest in wildlife protection. The zoo's emphasis on animal welfare and education highlighted the importance of biodiversity conservation.

Ananya's visit to the Mysuru Zoo's gorilla enclosure enhanced her understanding of conservation and reinforced her interest in wildlife. The experience demonstrated how zoos can play a significant role in education and conservation by providing informative and engaging experiences. She aims to start a school project to inspire others to appreciate and protect biodiversity, contributing to a greater awareness of environmental issues.

*Name Changed

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