

Impact assessment report

Project name: Digital Community Schools and Women Prosper Solar Programme

Apple India

March 2026



Contents

Acknowledgements	3
1. Executive summary	4
2. Introduction	6
3. About the study	13
4. Key findings	17
Women Prosper Solar Programme	17
Digital Community Schools Programme	25
5. Recommendations	36
6. Case studies	38
7. Annexures	45
a. Abbreviations used	45
List of Tables	45
List of Figures	46
b. Caveats	47

Acknowledgements

The study has been conducted by Grant Thornton Bharat LLP (“Grant Thornton” or “GT”) appointed by Apple India for the Digital Community School Programme (DCS) and Women Proser Solar Programme.

We would like to thank Apple India and EMPBindi International Association for their continued support and assistance in carrying out the study. We are also grateful to the students, teachers, parents, Solar Sakhis, Solar Engineers, solar product customers, DCS staff, and other stakeholders who interacted with us during the study.

1. Executive summary

Apple India in collaboration with EMPBindi International Association, has launched two flagship initiatives- the **Digital Community Schools (DCS)** and the **Women Prosper Solar programme**. The DCS initiative supports disadvantaged children aged 6- 14 in remote rural areas by providing access to digital learning. Its model combines strong community participation, a structured and professionally designed curriculum, and customised workshops that build essential skills such as digital literacy, gender awareness, and basic health practices. With iPads and trained educators, the programme delivers personalised learning and closely tracks each child's progress.

The **Women Prosper Solar programme** equips young and middle-aged women in remote regions to become **Solar Engineers and Solar Sakhis**. Through intensive training, five months for engineers and three months for Sakhis participants learn to install, maintain, and troubleshoot solar systems. A dedicated Mini-Grid component further helps women set up micro-enterprises and strengthens village-level self-reliance by promoting solar-powered solutions in place of traditional grid electricity. Engineers working under the Mini-Grid model also undergo an additional month of specialised training.

To assess the impact of these initiatives, Apple India engaged Grant Thornton Bharat LLP to conduct an evaluation across Rajasthan, Assam, and Himachal Pradesh for the DCS programme, and across Rajasthan, Assam, and Jharkhand for the Women Prosper Solar programme. The study aimed to capture the experiences and perspectives of direct beneficiaries and key stakeholders and followed the OECD-DAC evaluation criteria. The key findings are summarised below.

Relevance-

Digital Community Schools

The DCS responds to acute educational, digital, and social gaps faced by migrant, low-income, and socially excluded children by providing safe, structured, technology-enabled learning spaces in communities where parents work long hours and formal schooling access is limited or uneven.

Women Prosper Solar Programme

The programme directly addresses the dual challenge of gender-based livelihood barriers and rural energy poverty by equipping women with technical and entrepreneurial skills while delivering decentralised solar solutions to communities that have long lacked reliable electricity.

Effectiveness-

Digital Community Schools

Interactive sessions, iPad-integrated learning, Social-Emotional Learning, and strong teacher support have led to 90%+ regular attendance, 99% self-reported improvement in reading, writing, and speaking, and high levels of digital

Women Prosper Solar Programme

Training rapidly translates into practice, with women demonstrating strong technical capability, increased income, improved confidence, and visible leadership across states, while solar-powered micro-enterprises report >25% increases in

capability including story creation, app use, and presentations. production and regular operating hours enabled by 10+ hours of reliable power.

Efficiency-

Digital Community Schools

Shared devices, small-group rotation, trained teachers, and robust record-keeping enable high learning gains within short sessions; 100% of students report comfort using iPads and 98% say DCS has increased their interest in studies, showing optimal use of time, technology, and training inputs.

Women Prosper Solar Programme

Standardised training, quick skill uptake, minimal follow-up servicing, and highly productive local cadres (Sakhis reaching 20-30 households within months) demonstrate optimal use of resources and strong returns on technical, financial, and human-capital investments.

Coherence-

Digital Community Schools

The programme strongly aligns with NEP 2020 priorities and SDG 4 by expanding access for underserved learners, integrating technology into foundational literacy, and strengthening teacher capacity in line with national goals for equitable, high-quality education.

Women Prosper Solar Programme

The programme aligns strongly with SDGs 5, 7, 8, and 13 by combining clean-energy access with women's economic empowerment, local green job creation, and climate-aligned decentralised energy solutions.

Impact-

Digital Community Schools

DCS has significantly enhanced learner engagement, digital readiness, and academic confidence, with 86% rating the programme 5/5; VEC activation has strengthened community ownership, reduced discrimination-linked dropout risks, and improved hygiene, safety, and education follow-through.

Women Prosper Solar Programme

The programme is shifting household welfare, community norms, and enterprise productivity providing first-time energy access in long-dark habitations, improving safety and study time, boosting women's income and status, and enabling enterprises to scale, hire more workers, and enter new markets.

Sustainability-

Digital Community Schools

Sustainability is ensured through systematic re-enrolment support, attendance monitoring, strong VEC partnerships, and integration of life-skills learning; by linking children back to formal schools and building long-term digital and foundational skills, DCS ensures benefits that continue beyond the centre.

Women Prosper Solar Programme

Sustainability is reinforced through local technical capacity, Rural Electronic Workshops, IVR support, replicable training models, strong household-level financial benefit, and clear enterprise growth intent; only modest support in market access and infrastructure is needed for long-term continuity and scale.

2. Introduction

a. Background and context

Digital Community Schools programme

The implementation of the Right to Education Act (RTE), 2009 led to the establishment of basic government school infrastructure across numerous villages and remote regions of the country. While this expansion significantly improved access to schooling, concerns remain regarding the quality of education delivered in many of these remote-area schools.

Findings from the Annual Status of Education Report (ASER) 2022, a nationwide household survey in rural India, highlight these challenges. The report indicates that the basic reading abilities of children in Classes I–VIII have fallen to levels last seen before 2012, underscoring the need for renewed efforts to strengthen foundational learning.

In this context, the National Education Policy (NEP) 2020 offers a forward-looking framework for educational transformation, emphasizing inclusivity, flexibility, and holistic development. The Digital Community Schools (DCS) programme aligns closely with this vision. It promotes a well-rounded learning experience by integrating co-curricular activities, enabling flexible mediums of instruction particularly in the child's mother tongue and embedding technology-enabled learning tools.

Using digital resources such as iPads, interactive educational content, and community-driven activities like art and craft, social engagement, and poem recitation, the DCS programme seeks to enrich the learning environment beyond traditional academics. These approaches support the NEP's objective of ensuring equitable, high-quality education that transcends social, economic, and geographical barriers.

By combining technology, community engagement, and learner-centric pedagogy, the DCS programme advances the broader goals set forth in NEP 2020 ensuring that every child, regardless of their background, has access to a holistic, empowering, and future-ready educational experience.

Women Prosper Solar programme

Women worldwide remain an underutilized resource with the potential to expand renewable energy access, influence social behaviours, and manage essential community infrastructure. Their leadership can strengthen disaster resilience and create conditions that improve children's learning, enhance health and sanitation, and support economic growth in marginalized communities.

In many rural areas, even electrified households receive fewer than 12 hours of power a day. During evenings when lighting is most essential nearly half of these households get less than three hours of supply. This disproportionately affects women, who often rely on kerosene for kitchen lighting, increasing both their workload and exposure to health risks.

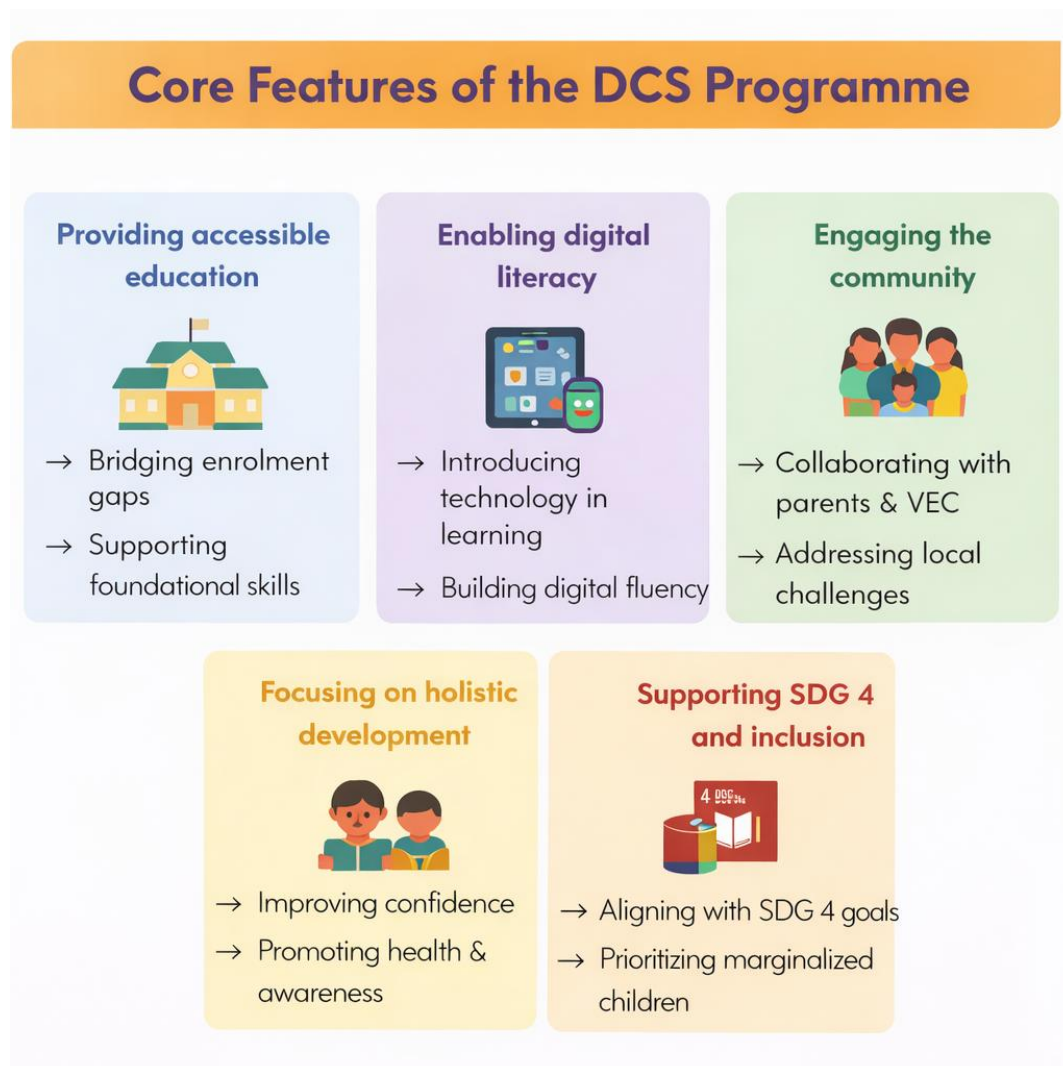
b. About the programme

Digital Community Schools Programme

The **Digital Community School (DCS)** programme is a community-led education model designed to bridge learning gaps in last-mile and remote geographies by making quality, technology-enabled learning accessible to children who struggle to reach formal schools. Through iPads, solar-powered digital infrastructure, a holistic curriculum integrating foundational literacy, numeracy, sustainability, and digital skills, DCS nurtures confident, future-ready learners while strengthening teacher capacity and community ownership. With its focus on regular assessments, community engagement, and pathways to formal schooling, the programme transforms local learning ecosystems and empowers children with aspirations, agency, and leadership for sustainable community development.

The DCS programme operated in 6 states in FY 2024-25: Rajasthan, Himachal Pradesh, Assam, Odisha, Uttar Pradesh, and Manipur.

Figure 1: Features of the programme



Objectives of DCS

Figure 2: Objectives of DCS



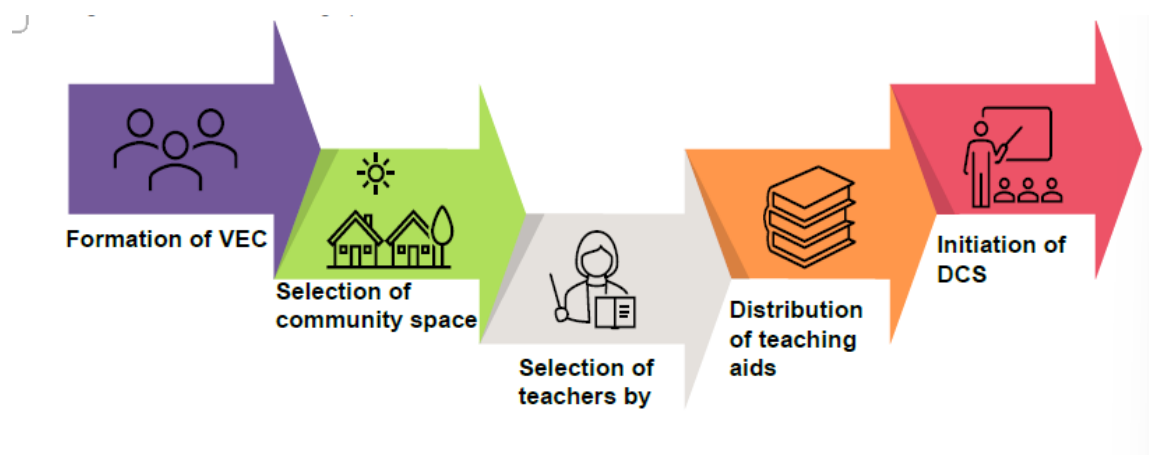
Key outputs achieved in the year 2024 - 25

Table 1: Key outputs (DCS)

Indicators	No. of students
No. of students enrolled in DCS	606
No. of teachers and education workers	39

Process of setting up DCS

Figure 3: Process of setting up a DCS



Women Prosper Solar Programme

The Women Prosper Solar Programme is a comprehensive clean-energy and women-centric development initiative that operates across diverse rural regions of India. Built on the principle that empowering women leads to stronger households and more resilient communities, the programme blends renewable-energy access with skills training, enterprise development, and digital inclusion. Its work is structured around three complementary components: **the Women Prosper Initiative, Rural Industries and Micro-Enterprise Support, and the Solar Community Model**, each addressing critical barriers faced by rural women in participating meaningfully in the energy and enterprise ecosystem.

At the heart of the programme is a strong focus on capacity building. **Women are trained as solar engineers, solar sakhis, and small-enterprise owners**, enabling them to take on technical roles, run energy-based microbusinesses, and support last-mile distribution of solar products. Training covers a wide range of areas including solar system **installation and maintenance, sales and marketing, digital literacy, and financial inclusion**. Recent programme cycles have resulted in the successful training of women across multiple states including Assam, Jharkhand, Rajasthan, Kashmir, and Bihar, with **30 women certified as Solar Engineers and 40 trained as Solar Sakhis**. These efforts are complemented by digital tools such as the Sakhi App, which supports credit assessment, customer profiling, and transaction tracking.

Alongside women's enterprise development, the programme expands **reliable energy access in rural areas through solar mini-grids, Solar Home Lighting Systems, and Rural Electronic Workshops (REWs)**. Mini-grids installed in Maharashtra, Rajasthan, Madhya Pradesh, and Jharkhand are powering **food processing units, textile centres, and manufacturing enterprises**, helping them reduce downtime, improve operational efficiency, and minimise energy-related losses. The establishment of REWs in areas such as Kashmir and Jharkhand ensures localised repair services, routine maintenance, and community-level technical support strengthening the long-term sustainability of solar installations.

Together, these interventions foster a holistic ecosystem in which rural women drive clean-energy adoption, local enterprises benefit from uninterrupted power, and households gain access to reliable lighting and basic appliances. Beyond immediate energy access, the programme contributes to significant social and economic outcomes, spanning livelihood security, financial inclusion, gender empowerment, and environmental sustainability. Its integrated approach aligns closely with 14 of the 17 UN Sustainable Development Goals, positioning it as a scalable model for women-led community development.

Figure 4: Programme model (Women Prosper Solar Programme)



Key outputs achieved in the year 2024-25

Table 2: Key Outputs Women Prosper Solar Programme

Indicators	No. of beneficiaries
Women trained as Solar Engineers	30
Women trained as Solar Sakhis	40
Households electrified	Installation of 75W Solar Home Lighting Systems completed in Kashmir & Bihar number
Rural enterprises supported through solar mini grid	3 (Saheli Millet Cookies Unit & Sangini Utpadan Kendra in Rajasthan & Craste Manufacturing in Madhya Pradesh.

c. Theory of change

This section covers the theory of change used for both the programmes - Digital Community School Programme and Women Prosper Solar Programme.

Table 3: Theory of Change

Programme	Resources	Activities	Output	Outcome	Impact
Digital Community School Programme	- Ideas - Funds - Human Capital - iPads - Teaching and learning materials and tools	- Formation of Village Education Committee (VEC) - Selection of DCS and teachers in the village - Routine classes for children - Capacity building of master trainers (teacher) - Parental engagement sessions - Sessions on overall well-being of children and parents	- Students enrolled in DCS - Parents reached out - Students using iPads - Creative workshops conducted - Sessions with parents, community	- Improved interest and academic performance of students - Enhanced retention of students and attendance - Better access to holistic learning in villages - Enhanced engagement and support of parents	Enhanced access to quality education for children between the age group 6-14 in villages through community participation

Programme	Resources	Activities	Output	Outcome	Impact
Women Prosper Solar Programme	• Ideas • Funds • Human capital • Existing infrastructure of EMPBindi International Association	• Training of solar Engineers and Sakhis • Capacity building of on digital tools and finance	• Solar Engineers and Sakhis trained • Households reached out • Solar products sold	• Improved entrepreneurial capacities of women • Enhanced source of alternative livelihood • Improved community ownership • Increased usage of products run by solar energy	• Increased income of rural women entrepreneurs by promoting solar products through community ownership model

3. About the study

Grant Thornton Bharat LLP¹ was appointed by Apple India to conduct an impact assessment study of Digital Community School programme and the Women Prosper Solar programme.

To conduct the assessment, a Theory of change approach and OECD DAC Framework was used basis which key areas of enquiry were developed for each stakeholder group to obtain a holistic understanding of the programme results. The study was executed by interviewing the beneficiaries of the programme to gauge an overall understanding of the outcomes and impact.

The assessment included discussions with stakeholders to document their perception and feedback on the programme. The key objectives of the assessment:

- To assess the impact of the school support programme
- To gather feedback of the stakeholders and beneficiaries on the programme

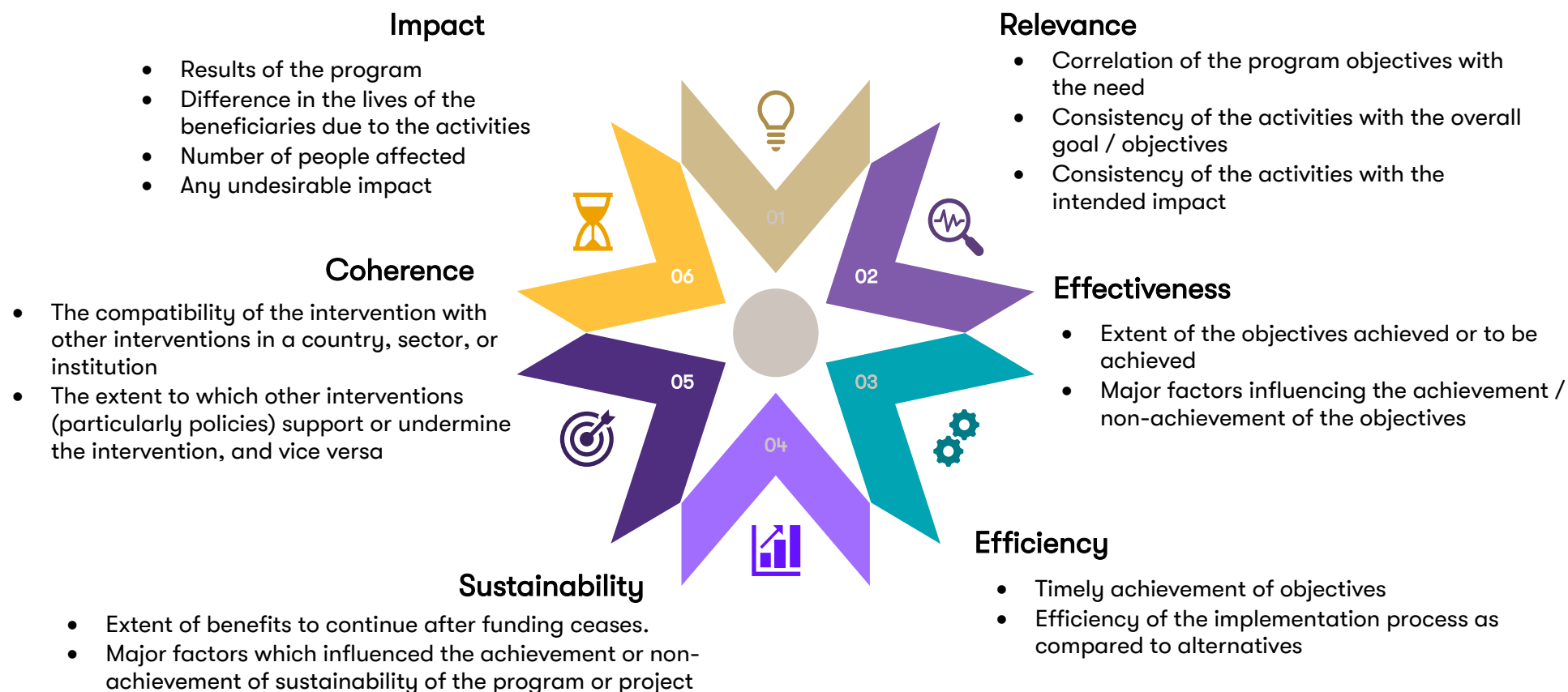
The study aimed to understand the overall process of the programme through analysis of the data collected and further corroborating it with inferences from stakeholder discussions.

¹ Grant Thornton Bharat LLP or GTBL is a member of Grant Thornton International Ltd. The firm is at the forefront of helping reshape the values in our profession. We are helping shape various industry ecosystems through our work across Assurance, Tax, Risk, Transactions, Technology and Consulting, and are going beyond to shape a more Vibrant Bharat. Our ESG practice constitutes of a dedicated team working to support efforts towards sustainable development. Our team understands the common challenges, and provides tailor-made solutions leveraging on our knowledge, experience, and enthusiasm.

a. Assessment approach

The assessment study was designed using the OECD DAC principles as highlighted below.

Figure 5: OECD DAC Framework



b. Methodology

The assessment methodology was divided into three phases, as detailed below-

Phase 1

- Understand programme context, objectives, and approach.
- Understand various key stakeholders and output expectations.
- Draw Stakeholder-cum-Indicator map, study tools and execution plan.

Phase 2

- Review study model basis pilot run findings and make relevant modifications for next level execution.
- Conduct onsite and virtual discussions with individuals and groups.
- Hold talks with relevant stakeholders for anecdotes.

Phase 3

- Collate information collected from all sources and conduct sample analysis.
- On verifying sample analysis, conduct detailed analysis.
- Prepare draft narrative report, discuss report findings, obtain relevant inputs for final report.
- Prepare and issue final report.

c. Data collection

Stakeholder-specific tools were designed to guide all primary interactions. For the DCS component, teachers, parents, project team and VEC members were engaged through in-depth interviews (IDIs) and structured quantitative surveys. Similarly, for the Women Prosper Solar Programme, Solar Sakhis, Solar Engineers, micro-enterprise owners, project tea, and customers were consulted using the same mixed-methods approach. The discussions covered a defined set of enquiry areas tailored to each stakeholder group.

Qualitative coverage

Table 4: Qualitative coverage

Programme	Beneficiaries	States
Women Prosper Solar Programme	Solar Sakhi	Assam
	Solar engineers	Jharkhand
	Household electrification customer	Assam
	Micro-enterprise owner	Rajasthan
	Project team	Assam, Rajasthan & Himachal Pradesh
Digital Community	DCS students	Assam, Rajasthan & Himachal Pradesh
	DCS Teachers	Assam & Himachal Pradesh

School Programme	Village Education Committee	Rajasthan & Himachal Pradesh
	Parents	Himachal Pradesh
	Project team	Assam, Rajasthan & Himachal Pradesh

Quantitative coverage

Table 5: Quantitative coverage

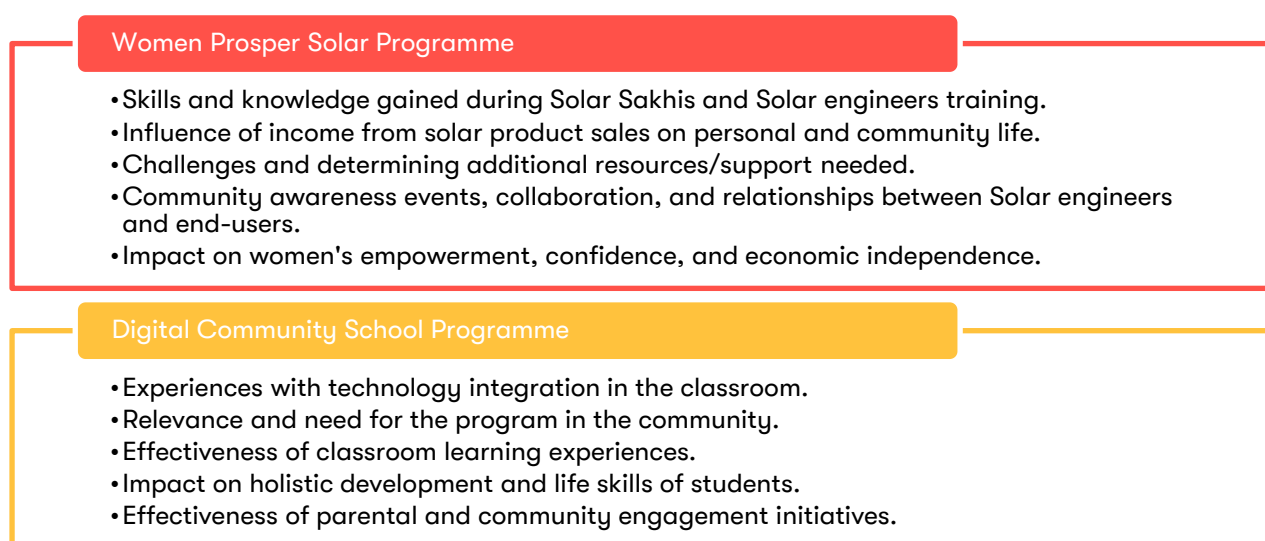
Programme	Beneficiaries	States	Planned	Achieved
Women Prosper Solar Programme	Solar Sakhis	Assam	8	3*
	Solar engineers	Jharkhand	5	3*
	Rural micro-enterprises	Rajasthan	2	2
Digital Community School Programme	DCS students	Assam, Rajasthan & Himachal Pradesh	84	86
	DCS Teachers	Assam & Himachal Pradesh	Up to 5	7

*Jharkhand: Out of the 05 Solar Engineers planned for coverage, only 03 could be interviewed. 01 engineer was away in Nagaland for a training assignment during the data-collection period, and another did not report to the scheduled interview despite communication by the project team.

*Assam: Although 08 Solar Sakhis were initially planned, only 03 could be covered. Several Sakhis had travelled to their ancestral homes due to Bihu festivities and were unavailable in the field. In addition, the on-ground coordination was affected due to a medical emergency in the on-ground team.

d. Key areas of enquiry

Figure 6: Key areas of enquiry



4. Key findings

This section covers the key findings of the impact assessment study carried out for both the programmes.

Women Prosper Solar Programme

The Women Prosper Solar Programme was reviewed across Assam (Golaghat), Jharkhand (Latehar), and Rajasthan (Jaipur), where micro-enterprise owners, solar sakhis, solar engineers, and customers benefiting from household electrification were interviewed. The following section assesses the programme's performance against the OECD-DAC evaluation criteria.

Relevance

Women's Empowerment Needs & Community energy gaps

The programme is deeply relevant because it responds directly to the intersecting challenges faced by women and rural communities who continue to live with **unreliable electricity supply, limited livelihood options, and persistent gender-based barriers**. In many of the programme locations, women bear the greatest burden of energy poverty, managing households without lighting, supporting children's studies with inadequate alternatives, and working within economies where opportunities for skilled, sustainable employment are scarce.

Training women and powering underserved communities, the programme hits both local energy needs and global climate gender priorities.

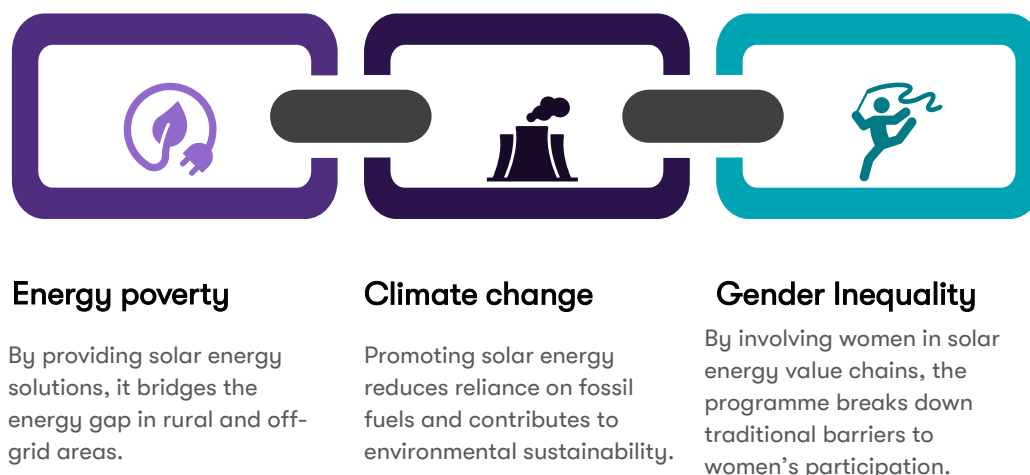
By equipping women with technical training, digital skills, and pathways into entrepreneurship and service delivery, the programme creates meaningful entry points into the renewable-energy sector, an area previously inaccessible to most rural women. At the same time, the introduction of **decentralised solar solutions addresses long-standing community energy deficits**, particularly in habitations that have waited years for electricity or where earlier systems have stopped functioning.

This dual focus on women's agency and community energy access ensures that households, enterprises, and institutions benefit from cleaner, more affordable, and more reliable power, while also contributing to broader climate and development priorities. In doing so, **the initiative fills critical gaps that neither conventional grid expansion nor existing livelihood schemes have been able to resolve, making it highly responsive to local needs and global imperatives alike.**

Contribution to Global Challenges

The programme addresses multiple interconnected global challenges:

Figure 7: Contribution to global challenges



The programme is essential because it tackles urgent local energy gaps while simultaneously addressing global challenges: reducing energy poverty, advancing climate goals through clean solar power, and promoting gender equality by placing women at the centre of renewable-energy value chains.

Effectiveness

Empowering women through skills, income, and progression

The programme's training translates into practical capability and early income streams. **Assam Sakhis rated training effectiveness at 4-5/5 across technical, digital, and sales areas and requested refresher/advanced modules evidence of both uptake and demand for progression.** Monthly earnings reported range ₹1,000–₹5,000, with >50%

Monthly earnings reported range ₹1,000 - ₹5,000, with >50% of income coming from solar work.

of income coming from solar work; **women channel these earnings toward household needs, education, and savings, demonstrating meaningful household-level impact** within months of engagement. In Latehar, the cohort describes similar role execution (sales, maintenance, demonstrations), reinforcing replicability across geographies.

Improved social status and leadership

Women engaged as Solar Sakhis report clear gains in confidence, social standing, and decision-making roles. In Assam, newly onboarded Sakhis (≈5 months) are already leading community demos and resolving product issues; **they rated their performance and confidence at 4-5/5**, and one explicitly aims to become a trainer, signalling leadership aspirations and peer influence. Typical **awareness meetings draw 20-50 attendees, indicating visible community platforms for women to speak and lead.**

Increasing energy access

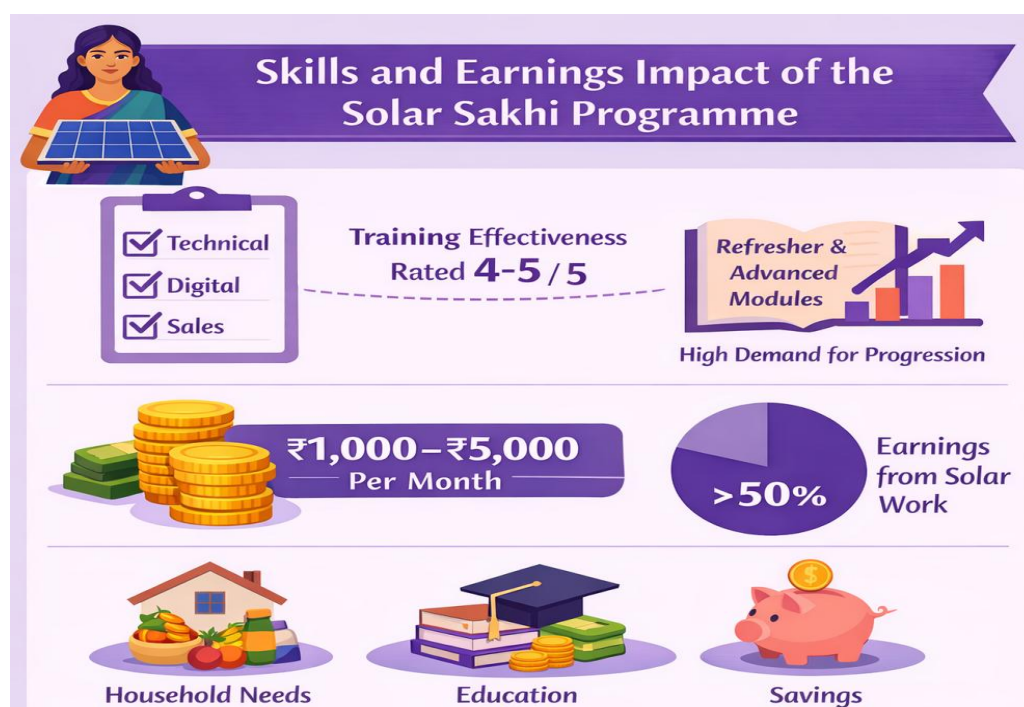
For rural micro-enterprise sites in Rajasthan, dependable solar power has materially improved operating conditions. Both Saheli Millet Cookies (Jobner) and Sangini Utpadan Kendra (Jaipur) report 10+ hours/day of reliable electricity and rare/almost-never disruptions, with >25% production increases and more than 25 working days/month- concrete markers of effectiveness for productivity and uptime. One unit notes the ability to accept larger orders on time post-solar, while both plan to expand capacity, diversify products, hire more workers, and enter new markets, linking energy reliability to near-term growth intent.

10+ hours/day of stable electricity and almost no disruptions, driving a production increase of over 25%.

Supporting community development & service continuity

At the community level, Sakhis are providing consistent last-mile service: in Assam, self-reported households served within the first five months range from <20 to ~25–30, alongside 3 to >5 awareness events, showing steady outreach and basic after-sales support emerging close to where people live. These engagements matter particularly in habitations that have faced long-term electricity deficits; case narratives from Assam describe villages with non-functional older panels and families who could not study or move safely after dark until small solar solutions and lamps were introduced via the Sakhi network.

Figure 8: Impact of programme



The field observation highlights the effectiveness of the programme in (i) elevating women's social standing and leadership, (ii) converting training into early income and strong

progression intent, (iii) delivering reliable energy that boosts enterprise productivity, and (iv) establishing a local service presence that responds to persistent energy gaps: outcomes evidenced across Assam, Jharkhand, and Rajasthan.

Efficiency

Skill Development

The programme demonstrates strong efficiency in how training inputs are translated into field-ready competencies. **Women in Assam and Latehar applied their training almost immediately, handling product demonstrations, installations, and basic troubleshooting within months of onboarding.** Their consistent ability to manage similar responsibilities across states (sales, customer engagement, coordination with technical teams) shows that the curriculum is delivered in a way that minimises learning lag and quickly converts trainees into functioning service providers. This accelerated uptake reflects efficient use of training time, standardised content, and hands-on pedagogy that works equally well in different rural contexts.

Resource Allocation

The programme's resource deployment: whether in equipment, training materials, or technical support, yields disproportionately high returns.

Solar-powered enterprises in Rajasthan operate with **rare to almost-never** disruptions and gain access to **10+ hours of reliable power,**

demonstrating that the technical solutions

installed are functioning efficiently with minimal follow-up servicing. The ability of enterprises to maintain consistent production schedules, accept larger orders, and work more than **25 days per month** without additional energy-related investments shows that resources are optimally allocated and effectively utilised.

Running 25+ days a month with no extra energy spend proves enterprises are using resources optimally.

Efficient use of human resource

A key marker of efficiency is how quickly community-level cadres become productive.

Assam **Sakhis reached 20-30 households and conducted multiple awareness activities in their first five months,** while the Latehar cohort sustained similar engagement over a year,

indicating that the programme achieves

meaningful coverage with a relatively small number of trained women. This efficient leveraging of local human resources reduces the need for extensive staff deployment, lowers operational costs, and strengthens last-mile continuity.

Assam Sakhis proved rapid efficiency, engaging 20- 30 households and leading awareness activities within five months.

The programme operates efficiently by rapidly converting training into practical skills and productive outreach, enabling women to deliver installations, demonstrations, and services within months. Its optimised use of solar systems, human resources, and training inputs ensures high returns such as reliable enterprise power and strong last-mile coverage with minimal follow-up costs.

Coherence

The programme is highly coherent with the SDGs, particularly SDG 7, SDG 5, SDG 8, and SDG 13. It fosters a holistic approach to development, combining energy access with gender equality, economic empowerment, and environmental sustainability.

- **SDG 7 (Affordable and Clean Energy):** The programme increases access to clean, renewable energy by training women to install and maintain solar energy systems, which directly contributes to SDG 7's goal of providing affordable, reliable, sustainable, and modern energy for all.

- **SDG 5 (Gender Equality):** As mentioned earlier, the programme promotes gender equality by equipping women with technical skills and empowering them to take on leadership roles in the renewable energy sector.

- **SDG 8 (Decent Work and Economic Growth):** The programme promotes economic empowerment and job creation by creating opportunities for women to start businesses in the solar energy sector, contributing to SDG 8's goal of promoting inclusive and sustainable economic growth, employment, and decent work for all.

- **SDG 13 (Climate Action):** By focusing on solar energy, the programme also contributes to climate action by promoting clean energy alternatives that reduce dependence on fossil fuels, mitigate climate change, and promote environmental sustainability.

Figure 9: Alignment with SDGs



The programme demonstrates strong efficiency by rapidly translating training into practical field performance while optimising technical and human resources to deliver high outreach and reliable energy solutions with minimal follow-up costs.

Impact

The programme is visibly shifting norms and lived realities across sites by **converting women's solar roles into community standing, income gains, and tangible improvements in daily life**. In Assam's river-island belts (Majuli), case narratives describe households that had gone years without working electricity now using small **solar solutions for safer movement after dark** and basic study time, changes community members explicitly attribute to the support and follow-up provided by newly trained Solar Sakhis (e.g., Priyanka assisting neighbours to maintain their panels and distributing lamps to elders).

These Sakhis also report channelling their early earnings toward essentials household needs, children's education, and savings signalling a direct, near-term welfare effect at home alongside rising confidence and visibility in public spaces. Impact is equally pronounced on the productive-use side: **in Rajasthan, women-employing units powered by programme-supported solar report reliable, long-duration supply** with rare to almost-never disruptions, enabling on-time delivery of larger orders, month-long production regularity, and self-reported revenue improvements outcomes that have led both enterprises to plan expansion in capacity, product lines, hiring, and new markets, thereby multiplying local jobs and demand for women's technical roles.

From Majuli to Rajasthan, trained Solar Sakhis are driving change, powering 20-30 households, enabling month-long production regularity, and helping enterprises expand with near-zero supply disruptions.

Finally, the Latehar cohort's replication of sales, basic maintenance, and demonstrations shows that the programme is seeding a durable local service layer beyond a single geography an institutional impact that anchors continuity of benefits where formal supply chains are thin.

Figure 10: Women Empowerment through the programme



The programme has generated meaningful impact by improving household well-being, strengthening women's incomes and public roles, boosting enterprise productivity through reliable solar power, and establishing a locally driven service ecosystem across multiple states.

Sustainability

Financial viability at the last mile (household & enterprise)

Early incomes earned by Solar Sakhis in Assam (≈₹1,000–₹5,000/month) are already covering priority household expenditures, food, children's education, and savings and, for two Sakhis, constitute >50% of total monthly income. **This pattern indicates that solar-linked earnings are not incidental; they are embedded in household economies, strengthening the likelihood that women will stay active in sales, servicing, and demonstrations as a continuing livelihood stream.**

On the productive-use side, women-employing units in Rajasthan report reliable power, this signals that solar power systems underpin a viable business model with intent to expand capacity, diversify products, hire workers, and enter new markets. Growth intent anchored in dependable energy access improves the commercial sustainability of these enterprises.

Women earning ₹1,000-₹5,000/month, enterprises expanding on reliable solar, and REWs sustaining 25+ villages show a programme with durable, system-wide momentum.

Local technical capacity & maintenance ecosystems

Sustainability hinges on whether systems can be kept working locally. Your implementation notes show Sakhis and Solar Engineers delivering routine repairs, troubleshooting, and demonstrations in Assam and Latehar, functions that reduce dependency on distant technicians and reinforce community-level service continuity.

At the system level, the programme has set up **Rural Electronic Workshops (REWs); equipped hubs for repairs, parts inventory, diagnostics, and warranty support**; now operating in **Kashmir (serving 12 villages)** and **Jharkhand (supporting 15 villages across 3 districts)**. This localised maintenance architecture, coupled with an IVR (Interactive Voice Response) helpline and remote monitoring, reduces downtime and institutionalises preventive maintenance core ingredients for long-term technical sustainability.

Mini-grid operation & maintenance protocols documented in Jharkhand (regular visits, panel cleaning, testing, documentation) further codify practices that preserve performance and compliance over time.

Institutional anchoring & replication across geographies

Replication is a strong proxy for sustainability. The Latehar cohort mirrors Assam's role execution sales, maintenance, demonstrations showing that core processes and pedagogy transfer well across contexts without heavy redesign.

On the public-sector side, the programme advanced energy solutions for Community Health Centers in Rajasthan shortlisting facilities and obtaining NHM approval for mini-grid implementations. Even where installations were pending in the reporting window, formal endorsement from the National Health Mission provides an institutional pathway for durable adoption in essential services.

User demand and progression pathways

Sakhis in Assam explicitly request refresher and advanced technical training and, in some cases, aspire to become trainers. Such progression sustains the talent base and reduces overreliance on external experts.

Risk checks and mitigations linked to sustainability

- Market exposure & enterprise growth: Two Rajasthan units identify continued needs for market access and select infrastructure; these are manageable, non-technical risks and can be mitigated through targeted market linkages and phased upgrades, without undermining core energy reliability.
- Service coverage continuity: Early household reach (~20-30 Households within five months) plus repeated awareness events suggest renewed demand; sustaining cadence through REWs, IVR support, and refresher training guards against drop-off in service quality at scale.

Minor market risks, strong local service systems, and fast early reach make the programme structurally sustainable.

Based on the data and field observation, the programme exhibits strong sustainability prospects: women's solar work is financially meaningful at household level; enterprises show energy-anchored commercial resilience; local maintenance capacity is institutionalised through REW = Rural Electronic Workshop+ IVR = Interactive Voice Response+ RMON = Remote Monitoring (Systems); and roles, training, and service processes are replicable across states and can progress to trainer-led models. With modest, targeted support on market access and infrastructure, these gains are likely to endure and scale.

Digital Community Schools Programme

The Digital Community Schools (DCS) Programme was reviewed across Assam (Hathikuli), Himachal Pradesh (Rakhghansot), and Rajasthan (Kishangarh), where centre staff, Village Education Committee members, parents, and children were interviewed. The following section presents the programme's performance against OECD-DAC parameters.

The respondent profile (DCS students) for the quantitative survey (n=86) shows that most learners are in primary grades (Grade I-V: 71%), with a small early-years cohort (Nursery: 2%) and a notable 12% who are currently out of school. Learners in Grade VI-VIII form 9%, while those in Grade IX-X (5%) and Grade XI-XII (1%). The age profile is similarly concentrated, with 71% between 10-15 years, 19% aged 6-9, 6% below 5, and 5% above 16. Additionally, 64% respondents were female and 36% men.

Relevance

Community profile

The communities served by the Digital Community Schools (DCS) programme are characterised by socio-economic vulnerability, limited educational exposure, and restricted access to digital opportunities. Field interactions across Himachal Pradesh, Rajasthan, and Assam reveal that most families rely on informal, low-wage occupations such as daily labour, small-scale selling, agricultural work, and domestic services. These income sources are unstable, often leaving households with minimal financial security. Parents commonly leave for work by early morning and return only in the evening, resulting in children spending long hours unsupervised and without academic support. The parental education usually ends between Class 5 and Class 10, further limiting their ability to assist or guide children academically.

Figure 11: Relevance of the programme



In several locations, particularly Nalagarh in Himachal Pradesh, children belong to migrant Bengali labour communities who have moved in search of work. Many of these children previously faced discrimination in government schools, including being served separately during meals, being excluded by local peers, or being treated differently because of caste or community identity. Such experiences led to **demotivation and school dropout**, making a bridge-learning environment like DCS especially relevant. For families working long hours in factories, construction, or daily-wage jobs, the centre offers a **safe, structured space close**

to home, which is something parents are unable to provide due to demanding work schedules.

Additionally, **many children are unable to secure admission in formal schools due to documentation gaps**, such as missing Aadhaar cards or birth certificates. DCS becomes the only reliable learning avenue for these children while families navigate administrative barriers. Teachers and partner organisations frequently support parents in understanding documentation processes and help children transition back into formal schooling whenever possible.

For children facing discrimination, documentation barriers, and parents working long hours, DCS becomes the only reliable pathway to learning and digital exposure.

Despite these challenges, communities express a strong aspiration for better educational outcomes. The presence of DCS centres has become transformative for children who were out of school, irregular, or significantly behind academically. Learners receive foundational literacy and numeracy support, along with structured digital exposure that would otherwise be inaccessible. For many children, DCS represents their **first meaningful interaction with technology**, allowing them to explore educational content, search for information, and engage in creative tasks such as storytelling, presentations, and digital activities.

In contexts like Assam, where device availability is limited, teachers rotate iPads across multi-level groups to ensure equitable access, underscoring both the **scarcity of digital resources and the programme's role in bridging this divide**. Through these efforts, DCS not only strengthens academic progress but also builds confidence, creativity, and digital literacy, capabilities that broaden children's horizons and reinforce the programme's deep relevance to the communities it serves.

The DCS programme is highly relevant for children from migrant, low-income, and socially excluded communities who face barriers such as discrimination in government schools and lack of documentation for admission. With parents working long hours in informal jobs, DCS provides a safe, structured learning space close to home and often the child's first exposure to digital tools. By addressing gaps in access, safety, and foundational learning, DCS meets an urgent educational need for children who would otherwise remain underserved.

Effectiveness

Impact on classroom practices and learning

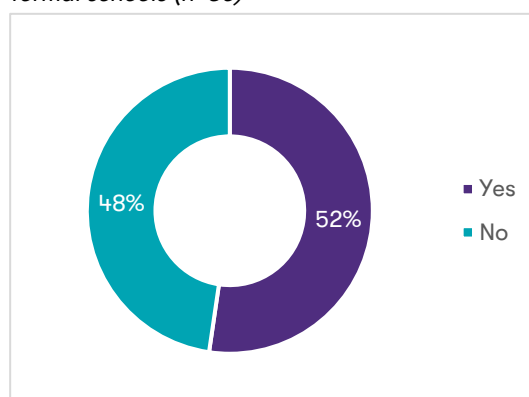
Classrooms at DCS centres now feel active, purposeful, and technology-enabled. Short, highly interactive sessions, demonstration, guided practice, ensure that children interact with content, peers, and devices rather than passively copying from the board. Teachers use iPads and a curated set of learning apps to differentiate by level, rotate small groups for hands-on time, and embed quick checks for understanding. As a result, learners are participating more, speaking more, and creating more from short stories and presentations to app-based explorations that consolidate foundational skills. Social- Emotional Learning

routines are interleaved through the day, keeping classes supportive, safe, and motivating for diverse ability groups.

Academic improvement

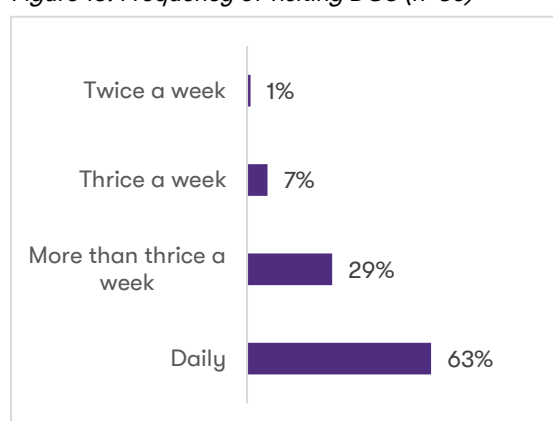
The children who attend the Digital Community School come from diverse situations. **About half of them also go to a government or private school (52%), while the other half (48%) are not enrolled anywhere.** This shows that DCS is an important support system for children who face challenges like missing documents, family movement, or financial difficulties that make school enrolment hard.

Figure 12: Students at DCS who are enrolled in formal schools (n=86)



Attendance at DCS is very regular, 63% come daily and 29% more than thrice a week, meaning **~9 in 10 learners visit at least four days weekly, indicating strong routine.** This level of consistency helps them stay connected to learning and build strong study habits. Almost all students **99% say that DCS has helped them improve their reading, writing, and speaking skills.** This shows that the teaching methods and learning activities used at the centre are really working for them and making a visible difference in their confidence and abilities.

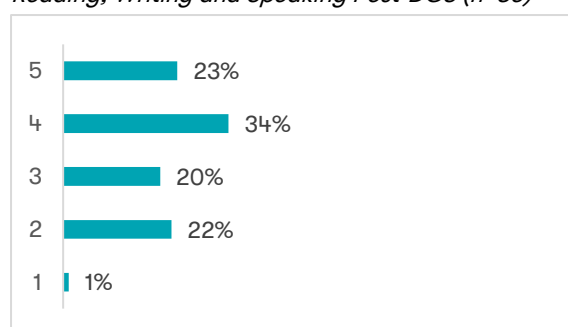
Figure 13: Frequency of visiting DCS (n=86)



Classroom practices are clearly reflected in how learners perceive their own progress, as captured through their self-ratings on a 1-5 scale (with 5 indicating the highest improvement).

A large majority of students now rate their reading, writing, and speaking proficiency in the 3 to 5 range, with 34% placing themselves at level 4 and 23% at the highest level 5, signalling growing confidence and competence. Only 1% still see themselves at the lowest level, indicating that very few learners continue to struggle significantly. This strong upward shift in self-perception aligns closely with the broader academic improvements observed across the centres.

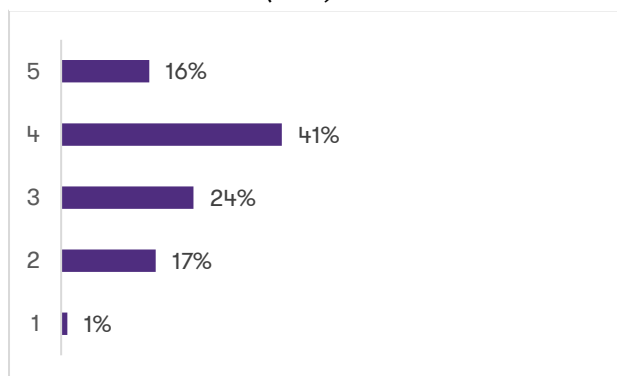
Figure 14: Learners' Self-Rated Proficiency in Reading, Writing and Speaking Post-DCS (n=86)



Subject-wise improvement post-DCS (learner self-ratings)

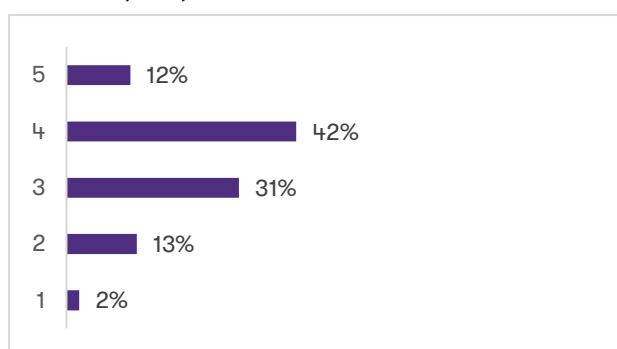
Learners' perceptions in Maths are tilted toward higher proficiency bands, with 41% rating themselves at 4 and 16% at 5, while another 24% sit at 3; only 18% cluster in the lower levels (1-2, including 1% at 1). This upward pattern mirrors classroom routines where teachers rotate small groups, use iPads and quick checks to consolidate basics, and run short, focused sessions that prioritise practice.

Figure 15: Learners' Self-Rated Proficiency in Mathematics Post-DCS (n=86)



English shows a similarly strong trajectory, with 42% of students placing themselves at 4, 12% at 5, and 31% at 3, leaving just 15% in the 1-2 range (2% at 1). These gains are consistent with the centers' emphasis on speaking, presentations on projector, and story-creation on iPads, which has boosted expressive confidence and made language learning more participatory. Parents and VEC members also report that children now communicate more confidently and present themselves better, shifts reinforced by Social-Emotional Learning routines and regular parent engagement at the centres.

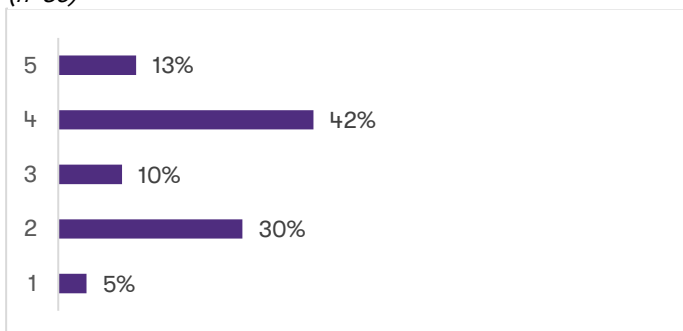
Figure 16: Learners' Self-Rated Proficiency in English Post-DCS (n=86)



During the visit to the DCS, it was noted that every student kept their own learning folder, using it to write short stories in English and paste corresponding pictures, an approach that supported both creativity and language development.

Science presents a mixed picture: while **42% rate themselves at 4 and 13% at 5,** a notable 35% remain in the lower bands (30% at 2, 5% at 1). During the interaction with DCS staff, it was noted that learners respond well to hands-on demonstrations and digital exploration, which has already strengthened their curiosity and engagement. As many children are still building foundational vocabulary and conceptual understanding, particularly those who were previously out of school continued scaffolding will further accelerate their progress.

Figure 17: Learners' Self-Rated Proficiency in Science Post-DCS (n=86)

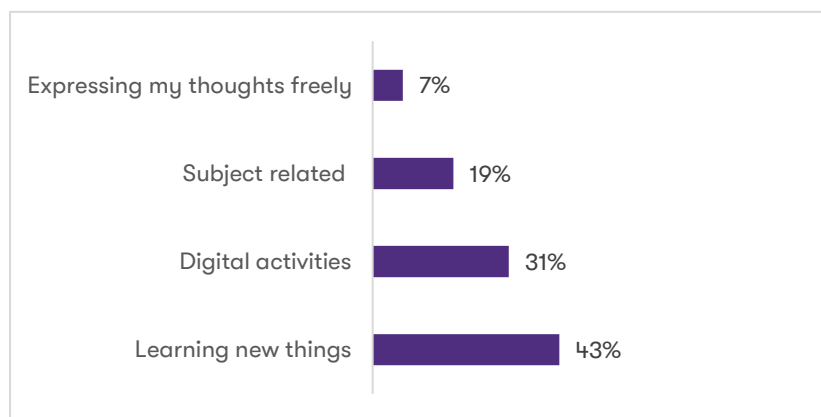


Expanding the use of experiment-based mini-labs can help more learners confidently move from levels 2- 3 into the higher proficiency bands with respect to this subject.

Addressing the digital divide

Students' engagement with the Digital Community School (DCS) reflects a strong preference for active, exploratory learning. When asked about their favourite part of attending DCS, most learners pointed to **"learning new things" (43%)** and **"digital activities" (31%)**, underscoring how the blend of hands-on tasks, iPad-based exploration, and guided digital lessons has become a meaningful draw for them. Subject-related sessions (19%) and opportunities for self-expression (7%) add depth to their learning experience by creating space for voice, creativity, and practice.

Figure 18: Favourite part about attending DCS (n=86)



Digital capability is emerging as a strong area: **45% of learners say they can write a story on an iPad, 23% can use educational apps, and 10% each can search online or make presentations.** These are not merely signs of device access, they indicate a shift from consumption to creation, a key marker of digital empowerment. Frequency data further show that more than half of the learners use digital devices for homework or projects at least sometimes (15% always, 10% often, 29% sometimes), though there is room to strengthen regularity.

Figure 19: Functions that students can use in an iPad (n=86)

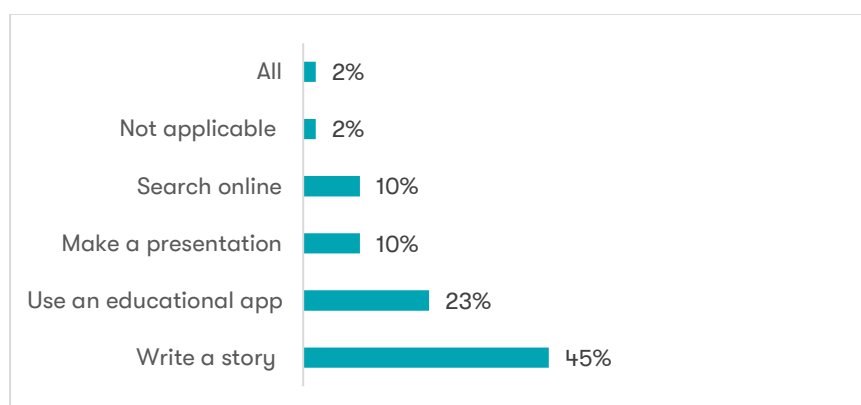


Figure 20: Components of the programme



Overall, data and field observation together highlight a clear narrative: DCS is successfully bridging the digital divide by giving learners meaningful digital access, opportunities to build practical skills, and a safe space to create, explore, and express themselves using technology.

The DCS programme has significantly improved classroom practices, making sessions more interactive, purposeful, and technology-enabled. With learners engaging actively through demonstrations, group work, and digital tools. Attendance is strong, nearly 09 in 10 students visit at least four times a week and 99% report improvement in reading, writing, and speaking. Learners' self-ratings also reflect steady progress across Maths, English, and Science, with most placing themselves in the higher proficiency bands. Digital engagement is strong: students create stories, presentations, and explore educational content independently using iPads. Together, these outcomes show that DCS is highly effective in boosting academic skills, confidence, and digital readiness while providing an inclusive and motivating learning environment.

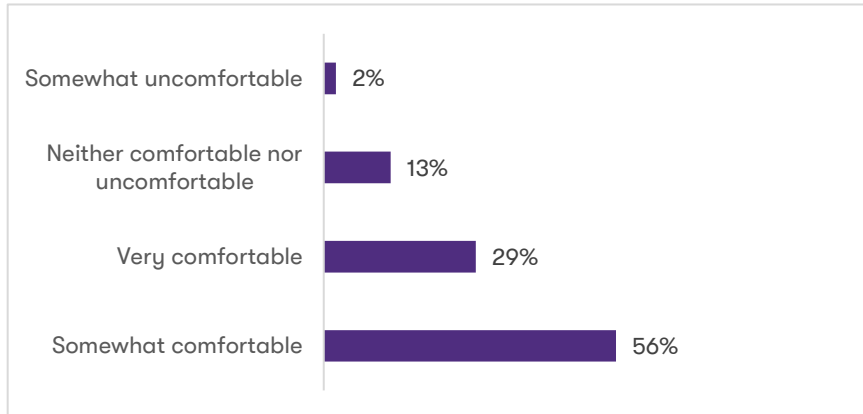
Efficiency

The DCS model demonstrates strong efficiency in converting limited time and shared resources into high-quality learning touchpoints.

Nearly all learners report heightened motivation, **98% say DCS has increased their interest in studies.**

Universal device know-how (100% know how to use an iPad) and **high user comfort levels where 56% somewhat comfortable; 29% very comfortable in using digital technology**, only 2% report being somewhat uncomfortable, and 13% are neutral.

Figure 21: Students' comfort level with using digital technology for learning (n=86)



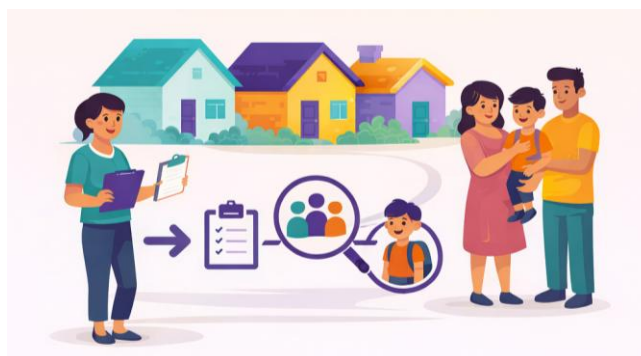
The data suggests that device deployment and teacher training are functioning efficiently, with **most students able to begin digital tasks with minimal hand-holding**, allowing short sessions to remain focused on learning rather than troubleshooting. This is reinforced by the classroom climate **80% of learners describe their teachers as “very supportive” and the remaining 20% as “supportive,”** indicating that training is translating into strong instructional relationships.

It was also observed that the DCS staff maintains an individual record file for each student where all assessments are documented, both in hardcopy and digitally, ensuring smooth tracking and timely instructional adjustments. Together, these elements show that DCS is deploying its training, time, and technology resources with strong efficiency, maximising productive learning moments per session and ensuring that every device in rotation delivers real instructional value.

Figure 22: Components involved in capacity building of teachers at DCS



Figure 23: Process of enrolment at DCS



DCS enrollment across remote areas

DCS teachers and field staff conduct household visits to gather data on children and use this information from structured surveys to determine which students are suitable for enrolment in the Digital Community Schools programme.

The DCS model demonstrates strong efficiency, converting limited time and shared resources into high-quality learning interactions. 98% of students report increased interest in studies, supported by 100% iPad know-how and high digital comfort levels. Efficient device use and rigorous teacher training allow learners to start tasks with minimal guidance, while 80% “very supportive” teacher ratings reflect strong instructional relationships. Consistent record-keeping maintained both digitally and in hardcopy ensures timely tracking and targeted support, maximising productive learning moments across sessions.

Coherence

Alignment with National Education Policy (NEP) 2020

India’s National Education Policy (NEP) 2020 outlines a forward-looking vision for transforming the education system by strengthening equity, improving quality, integrating technology, building skills, and empowering teachers. Aligning a school-support programme with NEP priorities ensures that its interventions remain relevant, targeted, and sustainable, while contributing meaningfully to national goals for educational excellence.

Figure 24: NEP’s area of focus and programme’s alignment

NEP’s area of focus	Programme alignment
Expanding access for underserved learners	Ensures that children from marginalised communities receive equitable opportunities to participate in high-quality education.
Technology-enabled learning and teacher development	Provides digital tools such as iPads and tablets, strengthening digital literacy, enhancing instruction, and broadening access to educational content, also supporting progress toward SDG 4: Quality Education.

The programme aligns strongly with NEP 2020 by expanding access for marginalised learners and promoting equitable, high-quality education. Its integration of digital tools, teacher development, and technology-enabled learning directly supports NEP priorities and advances national commitments such as SDG 4: Quality Education. This alignment ensures the programme remains relevant, future-ready, and anchored in India’s broader education reform goals.

Impact

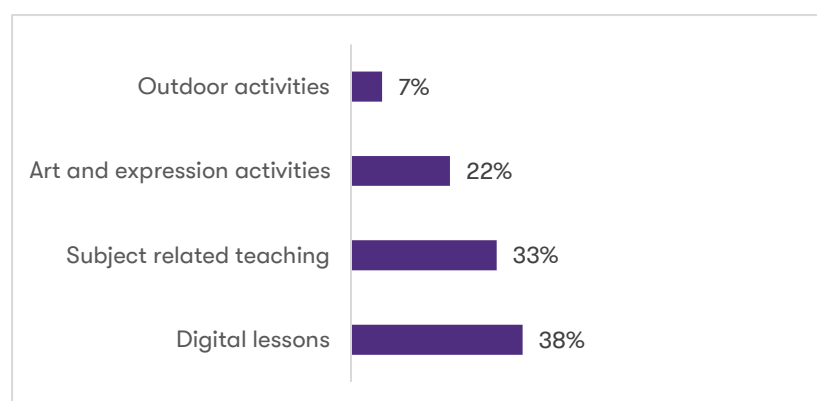
Learner Experience & Engagement

When asked about the most enjoyable part of attending DCS, students showed a strong preference for digital lessons (38%) and subject-related teaching (33%). They also expressed interest in art and expression activities (22%), while outdoor activities (7%) were

the least preferred. This pattern highlights a clear inclination toward tech-enabled and classroom-based learning, supported by creative outlets.

Overall satisfaction is extremely high, with 86% of learners rating their experience as 5 out of 5, indicating that the programme's blend of digital instruction and structured academics resonates strongly with them.

Figure 25: What learners' at DCS enjoy the most (n=86)



Digital aspirations and future readiness

All learners say they want to learn more about computers and technology after coming to DCS, and all believe digital skills will help them reach their future goals. This shows that DCS is creating **real, future-focused motivation**, not just short-term excitement. In the centres, students regularly use iPads to **write stories, search online for schoolwork, and use learning apps**, turning interest into practical skills. Together, this means DCS is closing today's access gap and building strong, long-term digital pathways for education and careers.

Interactive learning environment

DCS supports local teachers through a strong training programme that helps them build the skills they may not have had earlier. The ongoing training includes both online and in-person sessions, focusing on classroom culture, teaching methods, and subject knowledge. Every month, teachers attend online sessions, two of which cover Foundational Literacy and Numeracy (FLN) and the sustainability curriculum, along with face-to-face training during monitoring visits. This steady support has helped teachers become more confident and capable, leading to better classroom management, clearer lesson delivery, and a stronger understanding of key concepts.

Community empowerment

The Digital Community Schools (DCS) initiative empowers local communities by activating **Village Education Committees (VECs)** as a bridge between the centre, government schools, the panchayat, and families. In sites like **Kishangarh, Rajasthan**, VECs have **8-10 active members** with regular participation of 8-10 attendees per meeting, helping resolve practical issues (e.g., mobilising to build a functional toilet at the centre) and reinforcing hygiene habits such as handwashing among children. In **Nalagarh, Himachal Pradesh**, the VEC has **12-13 active members** and meets twice a month; discussions focus on school toilets and

hygiene infrastructure, awareness of relevant government schemes for SC/ST/OBC families, and advocacy for continued education and career counselling, important in a context previously marked by caste divisions and early marriage norms. Together, these regularly convening VECs sustain smooth DCS operations, build trust, and strengthen community ownership, contributing to safer, more supportive learning environments and better educational follow-through for children.

Overall, the programme has had a significant impact. Students who previously faced disadvantages in accessing quality education due to socio-economic barriers are now highly engaged in learning, with strong preferences for digital lessons and subject-based activities, and 86% rating their experience at DCS 5/5. All learners express a strong desire to build further digital skills and believe technology will support their future goals, demonstrating high levels of digital readiness. Ongoing teacher training continues to strengthen classroom delivery, while active Village Education Committees (VECs) enhance community ownership and ensure supportive, well-functioning learning environments across centres.

Sustainability

Integration into formal education

The DCS programme builds sustainability by closely linking its work with the formal education system. The team regularly tracks children's attendance to identify those who are at risk of dropping out or attending irregularly. When this happens, staff members work together with Village Education Committee (VEC) members to meet families, understand the reasons, and help children return to learning. **The programme also supports students in enrolling or re-enrolling in government schools, ensuring they do not lose access to formal education and can continue their studies smoothly.**

Introduction to classroom learning: In Digital Community Schools (DCS), each session is carefully designed to last 40-45 minutes, helping children adapt to a classroom culture and develop their attention span.

Beyond academics, **DCS introduces children to important life-skills content such as climate change, health and hygiene, and water and electricity conservation**, helping them develop awareness that extends beyond the classroom. By strengthening attendance, supporting school admissions, and building essential skills, the programme creates long-term continuity in learning and supports children well beyond their time at the centre.

Figure 26: Education beyond subject knowledge is imparted at DCS



The DCS model is sustainable because it actively links children back to the formal school system, monitors attendance, and works with families and VECs to prevent dropouts. Its focus on essential life skills, like hygiene, climate awareness, and resource conservation, adds long-term value beyond academics. Together, these practices create a programme that continues to benefit children even after they transition back to formal schooling.

5. Recommendations

The Digital Community School Programme has proven to be a transformative initiative in improving education access, quality, and equity, particularly in underserved and remote communities. By integrating technology into the learning process, the programme has enhanced student engagement, teacher effectiveness.

The programme's focus on digital literacy, interactive learning, and inclusive education has bridged critical gaps in education infrastructure, empowering students to overcome traditional barriers to quality education. Additionally, its emphasis on teacher training, community participation, and tailored curricula has fostered an integrated approach to learning, ensuring long-term impact.

Whereas The Women Prosper Solar Programme demonstrates a strong and lasting contribution to community well-being by expanding reliable energy access, strengthening women's roles in local service delivery, and enabling rural enterprises to function more consistently. Through a model that builds local technical capacity, supports women's livelihoods, and establishes community-level repair and maintenance systems, the initiative has created a foundation for long-term adoption and meaningful use of clean energy. It leaves behind not just improved electricity access, but a more confident, skilled, and empowered network of women and community institutions capable of sustaining the transition to solar solutions.

Table 6: Recommendations

Programme	Areas of improvement and recommendation
Digital Community Schools Programme	Access to Clean Water and Hygienic Sanitation Enhancing access to clean water and hygienic sanitation facilities at the DCS is essential for protecting students' health and well-being. Current gaps, such as limited availability of safe drinking water and inadequate toilet facilities, pose risks to safety, comfort, and learning outcomes. Establishing a reliable clean water supply and constructing or renovating hygienic, gender-segregated toilets will help ensure a healthy, dignified, and supportive learning environment for all students.
	Reliable and Continuous Electricity Supply Limited and inconsistent electricity supply in remote areas disrupts continuous learning and restricts the use of digital tools. Implementing a reliable electricity supply along with power backup systems (such as solar panels, generators, or inverters) will ensure uninterrupted learning and strengthen digital education initiatives.
	Safe and Secure Indoor Learning Space The Assam centre currently operates in an open tea garden space that, while accessible to the community, is also shared with local youth for recreational activities. This arrangement poses challenges related to safety, privacy, and the protection of learning materials, as charts and TLMs must be set up and taken down daily. Although children demonstrate strong commitment by bringing their own mats,

	establishing a secure indoor learning space with basic furniture would significantly enhance comfort, continuity, and the overall learning environment.
	Programme Sustainability and Community Trust Families rely heavily on the DCS due to limited access to private tuition, making programme stability essential for the community. Enhancing sustainability efforts will help strengthen trust and offer parents greater reassurance about continued academic support for their children. Additionally, while the intervention is now in its final year, some newly enrolled learners are only in their first year of exposure, introducing a simple bridging mechanism for late joiners will ensure they can catch up and benefit fully from the programme’s learning pathways.
Women Prosper Solar Programme	Regular Refresher Trainings for Solar Sakhis and Engineers Many Solar Sakhis and Engineers shared that they sometimes struggle to remember all parts of their training after a few months. Introducing regular refresher sessions would help them stay confident and updated, strengthen their technical skills, and keep them aware of new developments in solar technology. This simple step would make their work easier and support the long-term success of the programme.
	Fund Release Planning and Training Calendar Stability In Assam, training planned for Apr-Jun 2024-25 shifted to Jul-Aug 2025 due to delays in fund release, which compressed the schedule and created knock-on planning issues. Starting the year with an upfront or staggered fund release and a small operational float for field teams and block a quarterly backup training window in the calendar may be considered. This will protect timelines, cut rescheduling costs, and keep trainee cohorts on track even if a funding tranche arrives late. When training dates are pushed or classroom sessions are delayed, many trainees lost momentum and found it harder to stay engaged, especially during busy months when farming, migration, or caregiving take priority. Sharing short pre-training materials: like quick videos, safety tips, product overviews, or simple digital tasks through WhatsApp or the Sakhi App, along with small, supervised field activities, can keep trainees active and confident so they start the in-person sessions better prepared and without losing interest.

6. Case studies

Digital Community Schools Programme

Rajasthan - Students

Jamna is an 11-year-old girl from a poor community in Kishangarh. She always wanted to study but had very few learning resources. After joining the Digital Community School (DCS), she started getting support in Maths, Hindi, English, and Science. She also began using an iPad and discovered she enjoys writing stories. With help from DCS, she got admission into a government higher secondary school. She still visits the center whenever she can because it gives her confidence and helps her learn better.



Mahendra, also 11, struggled with very low learning levels. After joining DCS, he worked hard for three years with regular support from teachers. His basics improved, and he became confident. DCS helped him get admission into a government higher secondary school. Mahendra dreams of becoming a soldier, and the support he receives at DCS motivates him to follow this dream.



Himachal Pradesh - Students

Harpreet, 11, studies in Class 5 at a government school in Nalagarh. She has always been sincere but had limited access to good learning tools. After joining DCS, she learned using iPads and improved in Maths, Hindi, English, and Science. She also uses apps to search for information. Her confidence has grown, and she now enjoys public speaking and dance. She dreams of becoming a singer.



Khushi, a Class 4 student, was out of school earlier because she did not have the required documents for admission. She started visiting DCS after hearing about it from a friend. DCS teachers noticed her interest and helped her learn the basics. They also supported her family in getting her documents and enrolling her in school. Khushi enjoys digital activities, dancing, and school exposure trips. DCS helped her start her education journey.



Himachal Pradesh - DCS teachers

During the discussion with the Digital Community School (DCS) teaching staff, it was clear that the center is run by two highly committed teachers who manage multiple learning levels with care and structure. Seema Devi, the language teacher, supports students up to Class 8, while Shobhita teaches Mathematics and EVS; together they handle four learning levels based on initial assessments. Classes run from 4:00 to 6:00 pm, following the EMPBindi International Association's curriculum and integrating Social Emotional Learning. Digital learning is strongly encouraged through ten iPads and a projector, helping students build concepts rather than just complete homework. Teachers have seen steady improvement in Hindi, English, motivation, and hygiene practices, though Mathematics still requires extra support. They also guide students preparing for open school exams. Despite progress, challenges such as learning gaps when students enter formal schools, low community awareness about education, and financial instability persist. Monthly trainings, sustainable learning materials, scholarships, and regular assessments help address these issues. Overall, both teachers play a vital role in creating a supportive and effective learning environment at the DCS.



Himachal Pradesh - On-ground team (Sutra Foundation)

The partner organisation working with EMPBindi International

Association has a long and trusted relationship with the community and plays an important role in supporting the Digital Community School (DCS). According to Acting Director Nirmal Chander, the partnership has strengthened over the years, while Reema, the Associate Project Coordinator, explained that the center was set up in this location because of the high student population and strong community need. The organisation also leads regular community



awareness activities on education, family planning, women's rights, and prevention of child marriage, encouraging families to prioritize schooling for both girls and boys. They believe that with the right support, children in the area can make strong academic progress.

The team also highlighted common health issues in the community and helps families access healthcare and relevant government schemes such as Sukh Shiksha Yojana and the Mother Teresa Scheme. By combining educational support with health awareness, social guidance, and access to welfare benefits, the partner organisation strengthens the overall DCS ecosystem and ensures that children and families receive holistic support.

Himachal Pradesh - VEC (Village Education Committee)

During the interaction with the Village Education Committee (VEC), it was clear that the committee plays a key role in linking the government school, the community, the panchayat, and the Digital Community School (DCS). With regular meetings attended by active members, the VEC works to address local issues such as hygiene, school toilets, and low educational awareness. Members shared that earlier the community



struggled with caste divisions and limited understanding of health and education, but the presence of DCS and its digital learning tools has helped bring families together and improve children's focus, motivation, and learning. For many parents engaged in informal

work, DCS has become a safe and structured space for their children. The VEC continues to encourage parents to prioritize education, delay early marriage and child labor, and make use of relevant government schemes. Their combined efforts with DCS and the school system are gradually shifting mindsets and helping families envision a better future for their children.

Rajasthan – VEC (Village Education Committee)

The interaction with the Village Education Committee (VEC) showed that it plays an essential role in linking the government school, the community, the panchayat, and the Digital Community School (DCS). Members shared that before DCS, children lacked discipline and roamed around while parents worked, but now parents feel assured that their children are safe and learning. They also



observed major improvements in children's hygiene, dressing, and behaviour. Parents, who once undervalued education, now participate actively in meetings and are motivated after seeing children secure admission to government schools. The VEC has also helped improve facilities, such as building a functional toilet through community support. Overall, the committee agreed that DCS has positively changed attitudes toward education, health, and discipline, becoming a strong force for progress in the community.

Women Prosper Solar Programme

Solar Engineer - Jharkhand

Sunita Kumari, a 29-year-old Solar Engineer from a small village in Jharkhand, joined the programme two years ago after completing her technical training in solar installation and maintenance. Before this, her village received less than four hours of electricity a day, especially during evenings when households needed lighting the most. Through her work, Sunita now conducts regular maintenance checks, supports more than ten households each month, and resolves most technical issues



within a day—earning strong trust from the community. She recalls one instance where she repaired a failed inverter during an exam week, allowing students to study at night; since then, families often describe her as their “lifeline.” Her income from the programme has improved her family’s financial stability and allowed her to support her younger sibling’s education. Sunita says the experience has boosted her confidence and changed how people in the village view women in technical roles. She hopes to continue growing as an engineer and wants more young women to join the field.

Solar Engineer – Jharkhand

Rekha Devi, 34, has been associated with the Solar Engineer programme for over a year. Her village previously faced frequent outages, leaving households dependent on kerosene. After completing her training, Rekha now maintains solar systems across the village and nearby hamlets, conducting monthly routine checks for more than 15 households. She notes that the reliability of electricity has greatly improved, with most families now receiving up to 10 hours of solar power daily. One memorable moment was when she restored a malfunctioning battery system at a local shop, preventing the owner from losing his stock of perishable goods—an incident that strengthened community trust in solar energy. Rekha also leads awareness meetings on safe energy use and encourages women to take up technical training. Her increased earnings have helped her reduce household spending on kerosene and improved her family’s well-being. Rekha proudly says that being a Solar Engineer has given her both identity and independence, and she hopes the programme expands to more villages.

Assam - Solar Sakhi

At just 22, Priyanka has quietly transformed her life and her village through the Solar Sakhi program. After completing a 15-day training, she received a solar panel for her home bringing reliable light to a village that has never had electricity and where old government-installed panels had long stopped functioning. While managing her own studies in Dergaon and supporting her younger brother, she comes



from a family that depends on agriculture and struggles with annual floods along the Brahmaputra. Today, community members visit her for help with maintaining their solar panels, and her parents proudly see her as both the family's only earning member and a source of hope. Priyanka's journey is not just about gaining skills it is about bringing light, confidence, and new possibilities to herself and the people around her.

Assam - Solar Sakhi

Ruby returned to her hometown in Assam in 2017 with her young son and, despite limited resources, began rebuilding her life with help from her sister while her husband worked far away and could send money only once a month. After he lost his job during demonetization and eventually found work at NRL, Ruby took up a low-paid cleaning job at a local school so she could stay close to her son. Life without electricity was difficult, and evenings were spent cooking and



helping her child study by candlelight. When the Solar Sakhi training was first offered in Rajasthan, Ruby declined as she couldn't leave her family, but when the programme came to Jorhat, she eagerly joined and learned to operate solar panels. In 2026, after nine years of darkness, Ruby finally had electricity in her own home—a turning point that brought dignity, stability, and hope. Her journey reflects resilience, community support, and her determination to build a better future for her son and herself

Assam - Solar Community (Customer)

Dimbeshwar Borah, a 72-year-old farmer from a remote Brahmaputra hamlet, has lived his entire life without electricity, relying on dim earthen lamps after government-installed solar panels stopped working in 2023. With kerosene discontinued and candles difficult to access due to long river crossings, evenings remained dark, limiting children's studies and pushing many youths to migrate for work. Healthcare and basic services were equally distant, leaving the village isolated and underserved. In April 2025, Dimbeshwar bought a small solar panel that powered two lights and a fan, bringing immediate relief, and later received a solar lamp through Priyanka, a Solar Sakhi trainee, which now helps him move safely after dark. For him, this simple lamp has restored dignity and ease in daily life, symbolizing hope for a community long deprived of basic infrastructure and showing how grassroots solar initiatives can bring light where the grid has failed.



Rajasthan - Micro-enterprise

Sangini Utpadan Kendra, located in Nimera village of Jaipur district, is a women-led micro-enterprise that has been operating for the past 1–3 years and runs entirely on a standalone solar power system. With reliable electricity available for over 10 hours a day, the enterprise has seen a significant transformation: operating hours have increased noticeably, disruptions have become rare, and production has risen by more than 25%.



Working more than 25 days a month, the unit now earns over ₹20,000 monthly, with revenue increasing substantially after adopting solar energy. This growth has expanded employment to over six workers and contributes more than 75% of the household's income, supporting food expenses, children's education, healthcare, and business reinvestment. The owner maintains digital records, is highly comfortable using digital tools, and uses digital payment platforms for business operations. She rates reliable electricity and programme support as "5 out of 5" in importance and credits solar access for increased income, better behaviour change at work, and improved stability at home. With no major challenges remaining, she plans to expand significantly in the next two years enhancing production capacity, diversifying products, hiring more workers, and entering new markets. She notes that additional infrastructure support, market access, and need-based training will further strengthen the enterprise's growth and sustainability.

7. Annexures

a. Abbreviations used

DCS	Digital Community Schools
FLN	Foundational Literacy and Numeracy
GT	Grant Thornton Bharat LLP
IVR	Interactive Voice Response
NEP	National Education Policy
NRL	Numaligarh Refinery Limited
OECD-	Organisation for Economic Co-operation and Development – Development
DAC	Assistance Committee
PDS	Public Distribution System
REW	Rural Electronic Workshop
SDG	Sustainable Development Goals
SEL	Social Emotional Learning
VEC	Village Education Committee

List of Tables

Table 1: Key outputs (DCS)	8
Table 2: Key Outputs Women Prosper Solar Programme.....	10
Table 3: Theory of Change	11
Table 4: Qualitative coverage	15
Table 5: Quantitative coverage	16
Table 6: Recommendations.....	36

List of Figures

Figure 1: Features of the programme	7
Figure 2: Objectives of DCS	8
Figure 3: Process of setting up a DCS	8
Figure 4: Programme model (Women Prosper Solar Programme)	10
Figure 5: OECD DAC Framework	14
Figure 6: Key areas of enquiry	16
Figure 7: Contribution to global challenges	18
Figure 8: Impact of programme	19
Figure 9: Alignment with SDGs	21
Figure 10: Women Empowerment through the programme	22
Figure 11: Relevance of the programme	25
Figure 12: Students at DCS who are enrolled in formal schools (n=86)	27
Figure 13: Frequency of visiting DCS (n=86)	27
Figure 14: Learners' Self-Rated Proficiency in Reading, Writing and Speaking Post-DCS (n=86)	27
Figure 15: Learners' Self-Rated Proficiency in Mathematics Post-DCS (n=86)	28
Figure 16: Learners' Self-Rated Proficiency in English Post-DCS (n=86)	28
Figure 17: Learners' Self-Rated Proficiency in Science Post-DCS (n=86)	28
Figure 18: Favourite part about attending DCS (n=86)	29
Figure 19: Functions that students can use in an iPad (n=86)	29
Figure 20: Components of the programme	30
Figure 21: Students' comfort level with using digital technology for learning (n=86)	31
Figure 22: Components involved in capacity building of teachers at DCS	31
Figure 23: Process of enrolment at DCS	31
Figure 24: NEP's area of focus and programme's alignment	32
Figure 25: What learners' at DCS enjoy the most (n=86)	33
Figure 26: Education beyond subject knowledge is imparted at DCS	35

b. Caveats

- This report is with restrictive circulation and has been prepared exclusively for the client as part of the impact assessment of the Women Prosper Solar Programme and Digital Community School programme in Assam, Rajasthan, Himachal Pradesh and Jharkhand for Apple India. It should not be used, reproduced, or circulated for any other purpose, in whole or in part, without prior written consent if used or referred for any other inference / study as an input or reference document. Grant Thornton Bharat LLP would only give such consent after full consideration of circumstances.
- The information collected for this study is through field visits, meeting with various stakeholders, information shared by respondents and backend data provided by the client. We have relied on the information shared by these sources. The scope of work here does not constitute an audit or due diligence of the information shared; hence information received from the various sources was believed to be accurate.
- This report should not be considered as an expression of opinion on any form of assurance on the financial statements of or on its financials or other information. The recommendations provided as part of the assessment exercise may be implemented after an analysis of prioritization. The decision to implement the recommendations is the responsibility of the management of the client. Field visits were conducted in cognizance with the client. The implementing partner and field teams with prior acceptance on approach, methodology, coverage plan, survey, and tools.
- Owing to communication gap and the inherent human instinct to report everything as above-expectations and glitch-free, it was challenging to make interviewees understand the purpose of the survey and ensure that correct data was accordingly gathered.
- Grant Thornton Bharat LLP holds no responsibility on accuracy or sanctity, or authenticity of information provided by company or implementing partner or stakeholders covered or any other party involved, and results / references drawn basis the same. We shall not take responsibility for the consequences resulting from decisions based on information included in the report.
- This Report has been prepared, solely to address issues specific to the Client and may not have addressed issues of relevance to any other person or entity. Any person or entity that is not a party to our engagement letter with the Client shall have no right to enforce any of its terms against us.