Impact Assessment of

Holistic Rural Development Program (HRDP)

in Meghalaya

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HDFC BANK PARIVARTAN
A step towards sustainable progress

CMSR Consultants
fostering sustainable partnerships

Acronyms

BEO	Block Education Officer
BALA	Building as a Learning Aid
CAPI	Computer-Assisted Personal Interviews
CDPO	Child Development Project Officer
CGI	Corrugated Galvanized Iron
FGD	Focus Group Discussion
Fig	Farmer Interest Group
H&H	Health and Hygiene
HRDP	Holistic Rural Development Program
IDI	In-depth Interview
KII	Key Informant Interviews
KVK	Krishi Vigyan Kendra
MIS	Management Information System
NGO	Non-Governmental Organization
NRM	Natural Resource Management
OECD	Organization for Economic Co-operation and Development
PoE	Promotion of Education
SDLE	Skill Development Livelihood Enhancement
SEO	School Education Officer
SHG	Self Help Group
SMC	School Management Committees
VDC	Village Development Committee
WASH	Water, Sanitation, and Hygiene

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EXECUTIVE SUMMARY

A. Background of the project

The **Holistic Rural Development Program (HRDP)** is a flagship CSR initiative by HDFC Bank Parivarthan aimed at promoting sustainable and holistic development in rural areas across the country. This programme was implemented for a period of three years (2020-2023) in 13 villages in Pynursla block of East Khasi Hills district of Meghalaya, where interventions were introduced to tackle community-specific challenges.

The interventions aimed at addressing four primary objectives:

- **Objective 1** – Improve natural and community resources and infrastructure
- **Objective 2** – Enhance livelihood opportunities in farm, off-farm, and other allied sectors
- **Objective 3** – Develop rural entrepreneurs and promote villages as production units for urban areas
- **Objective 4** – Build villages as eco-spot centres and tourist destinations

The project was implemented under four key thematic areas namely, Natural Resource Management (NRM), Skill Development and Livelihood Enhancement (SDLE), Health and Hygiene (H&H), and Promotion of Education. A brief description of the activities undertaken in each of these thematic areas has been shared below:

- **Natural Resource Management (NRM):** Under NRM, infrastructure for irrigation (rainwater-harvesting and water supply system) were provided to ensure a steady water supply for crops. Clean energy sources (solar street lights and solar home light) were an innovative and eco-friendly intervention to improve safety and security in the communities, especially impacting women and children. While irrigation systems boosted agricultural productivity and water conservation, solar lighting enhanced energy efficiency, reduced environmental impact, and improved community infrastructure.
- **Skill Development & Livelihood Enhancement (SDLE):** Through farm management, SHG development, enterprise development, and youth skilling, the project tried to empower individuals to improve their productivity, diversify income streams, and achieve economic independence. These interventions built resilience, fostered innovation, and contributed to sustainable community development.
- **Healthcare & Hygiene (H&H)**: Interventions such as water management (drinking) intended to ensure access to safe and clean drinking water, leading to improved health of community members. Water storage systems also reduced the time and effort spent by communities, especially women, to fetch water for their regular needs. Under health initiatives, awareness campaigns on nutrition and WASH, vaccination and awareness building for livestock, and health camps were conducted. The overall reason for conducting health initiatives such as awareness campaigns on nutrition and WASH, vaccination programs, and health camps for livestock was to enhance community health, well-being, and resilience.
- **Promotion of Education (PoE)**: The Promotion of Education initiatives enhanced school infrastructure to make learning more accessible, engaging, and enjoyable. By addressing essential needs like library, science lab, technology in classrooms, visual learning aids, recreational facilities (sports material), drinking water facility, SMC strengthening, etc., these

interventions created a well-rounded environment that encouraged student retention, participation, and academic excellence.

These broad thematic areas were implemented by AROH, the implementing partner for this project. CMSR Consultants was hired by HDFC Bank Parivarthan to conduct the impact assessment of the project 1.5 years after the completion of the project.

B. Methodology

The impact assessment was conducted using mixed methods, with qualitative surveys conducted at the household, group, and community level, and qualitative tools adopted across the four thematic areas. The quantitative component included a CAPI survey of 229 beneficiaries, ensuring a 95% confidence level and a 5% margin of error, with an additional allowance of 10-15% for non-responses. For qualitative insights, focus group discussions were held with farmers, in-depth interviews were conducted with principals and school teachers, and an observational checklist was used to assess Anganwadi and school interventions, such as renovation of floor tiles in Anganwadi, renovation of library, science lab, learning aids (smart classrooms & BALA painting) and WASH facilities (construction of toilets).

The sample for this study was drawn from a list of intervention households and groups provided by the HDFC team, and proportionately distributed across key intervention components such as water management - irrigation (NRM), clean energy (NRM), farm management (SDLE), enterprise development (SDLE), youth skilling (SDLE), water management - drinking water (H&H), and health camps (H&H). A stratified sampling approach was used, categorising beneficiaries by household, group, and community. Based on the total number of beneficiaries (194), proportions were calculated for each beneficiary type—households (50.9%), groups (23.4%), and communities (25.7%)—and a sample size of **229** beneficiaries was allocated accordingly. Additionally, schools and Anganwadis were selected under the PoE focus area, with the criteria emphasising areas with diverse and comprehensive interventions to capture varied feedback.

The assessment was guided by a modified OECD analytical framework, covering the criteria of Relevance, Coherence, Efficiency, Effectiveness, Impact, Sustainability, and Branding. These criteria facilitated a nuanced evaluation of the HRDP, focusing on its alignment with community needs, implementation efficiency, transformative outcomes, resource integration, long-term benefits, and scalability. A rating matrix was employed to quantify success across these dimensions, enabling a structured assessment and providing actionable insights for future programme enhancements.

In order to ensure a comprehensive and effective impact assessment, the following steps were adopted over the course of the study:

C. Tool development

The HDFC Bank team developed initial standardized questionnaires for each focus area and activity, which were refined by the CMSR team to align with project-specific interventions. Additionally, the study team created new qualitative tools, including FGDs and IDIs, to gather insights based on OECD parameters.

D. Data collection

The training program spanned two days. The first one and a half days were dedicated to classroom-based learning and the remaining half-day was allocated to field visits for mock calls. This structure

ensured a balanced approach to both theoretical understanding and practical experience. A total of four enumerators and one supervisor from Meghalaya participated in the orientation. Additionally, a mix of locally hired researchers and in-house researchers attended the qualitative data collection. The data collection process employed CAPI on tablets or mobile devices for structured surveys. Qualitative interviews were audio-recorded to facilitate accurate transcription and analysis.

E. Data analysis

The data analysis plan provided a structured framework for collecting, processing, and synthesizing evidence to address research questions. A scoring matrix, incorporating weighted qualitative and quantitative variables, evaluated the project's performance across key components based on OECD-DAC parameters.

F. Demographics

- The majority of respondents in the quantitative survey (69%) were female, while a smaller proportion of the respondents (31%) were male.
- The highest percentage of respondents (30%) were aged 18-30, followed by 41-60 (28%) and 31-40 (25%). The smallest group was 60+ years (17%), indicating a lower proportion of elderly individuals.
- The education profile reveals that 34% of respondents were literate but had not completed primary education, followed by 26% who had completed either primary or upper primary education. Secondary education attainment remained low, with 12% having completed Class 10 and 7% having reached Class 12. Access to higher education was notably limited, with only 10% being graduates and a mere 0.7% having attained a postgraduate degree. Illiteracy stood at 11%**.**
- A vast majority of the population (99%) belonged to the Scheduled Tribes category. While only a small proportion belonged to General Category (1%) and Other Backward Class (0.5%).
- The primary occupation data highlighted that a significant portion (26%) of the respondents relied on daily wage labourers. Agriculture remained a crucial occupation, with almost 25% of the respondents engaged in farming. While 17% were involved in labour activities, a notable 12% participated in livestock farming. Almost 10% of the respondents were engaged in poultry farming. Small businesses such as salons, vegetable stands, tea shops, and grocery stores were reported by a mere 4% of the respondents, while 8% were employed in government or private sector services.

G. Key Findings

	Natural Resource Management (NRM)	Skill Development Livelihood Enhancement (SDLE)	Health and Hygiene (H&H)	Promotion of Education (PoE)	Overall
Relevance	In terms of relevance, NRM scored **4.2**, reflecting a good relevance. **Beneficiary Need Alignment (4.2)** and **Local Context Alignment (4.5)** indicated that the interventions such as check dam, rainwater harvesting systems, solar street lights and solar home lights were relevant to address beneficiary needs. However, the **quality of the design** scored **3.8** because in Siatbakon, the water supply system, which included a solar-powered water pump and a check dam, were not functioning. Also, in most of the villages, some solar streetlights had stopped functioning or a few posts were uprooted by heavy winds, highlighting the need for sturdier installations.	The overall relevance scored **3.9**, highlighting moderate relevance. The score of **4.1** for **beneficiary need alignment** and **3.9** for **local context alignment** demonstrated that interventions like the youth skilling program were highly aligned with beneficiary needs. Both farm management, SHG and enterprise development were also well aligned. A score of **3.4** was assigned to the **quality of design.** It received an average score due to notable challenges such as the goatery enterprise being hindered as the goats provided were unsuitable for the mountainous regions and could not survive. Similarly, orchid cultivation faced setbacks due to the lack of durable polyhouse	H&H scored **4.0**, indicating good alignment of the interventions. **Beneficiary need alignment (3.8)** and **local context alignment (4.2)** scores reflected the intervention's sensitivity to economic and environmental conditions. The health camps were highly relevant as they provided accessible medical services, directly addressing the cultural reluctance toward hospital visits. Additionally, construction of water tanks eliminated the dependency of the villagers on a distant water source. The **quality of design** for the water management intervention scored a strong **4.2** because the construction of the storage tank and platform in the villages brought immediate benefits to villagers.	The score of **3.8** for relevance indicated that the interventions such as smart classrooms, BALA painting, renovation of school building were relevant. Due to misalignment of some interventions, **needs of the beneficiary (3.5)** and **local context (3.0)** couldn't receive a full score. For instance, wash basins in some Anganwadi centers and schools remained unused despite being designed to be child-friendly, due to the lack of a reliable water supply. **Quality of design (3.5)** received a moderate score because the smart boards installed in some villages could not be utilized effectively due to the absence of proper internet facilities and access to electricity.	The overall relevance score of **4.0 out of 5** demonstrates a strong alignment between HDFC Bank's CSR interventions and the needs of beneficiaries across sectors such as NRM, SDLE, H&H, and Education. In NRM, check dam construction and rainwater harvesting systems helped alleviate acute water scarcity. In SDLE, youth skilling initiatives, particularly training in masonry and mobile repairing, were highly relevant in regions with high unemployment and poverty. Drinking water tanks were critical, because households experienced water shortage for 10-15 days each month, particularly during winter season. In schools, all the interventions were relevant. A teacher in Wahkhen UP

		materials, which failed under heavy rains and strong winds.	However, the overall quality of design was 3.8, given that the health camps were one-off events with no follow-ups.		and Secondary school, stated that, ***"We are happy and more confident now, as our students can gain proper knowledge and be at par with other school children across the states, learning and understanding their subjects through digital innovations".***
Coherence	The overall coherence score of **4.5** reflected strong **internal coherence (5.0)** with AROH's vision of supporting marginalised communities. E**xternal coherence (4.0),** acknowledged that while some streetlights had already been provided by the government or panchayat, significant gaps remained. The project sought to bridge these gaps, complementing government efforts to enhance living conditions in the villages.	The coherence score of **4.4** and **internal coherence** score of **5** demonstrate strong alignment with AROH's vision and approach, as well as HDFC's holistic rural development programme. **External coherence (3.8)** demonstrated that HDFC partnered with government departments such as the Horticulture Department, NABARD, and Krishi Vigyan Kendra to provide training and farm inputs. However, in other categories, there was a potential to partner with government bodies for greater reach.	Coherence scored **4.5**, with **internal coherence** at **5.0** due to AROH Foundation's alignment with HDFC's Holistic Rural Development Program, focusing to develop human capital, natural resources, and infrastructure in underdeveloped villages. **External coherence** scored **4.0**, reflecting effective collaboration with government, including health camps under the National Health Mission.	Coherence overall scored **5.0,** with **internal coherence** scoring **5.0** and external coherence scoring **3.0**. The high score of internal coherence highlights AROH Foundation's strong alignment with its vision of empowering marginalized communities. The project's focus on smart classrooms, BALA paintings, and sports materials aligned well with HDFC's Holistic Rural Development Program. While external coherence indicated moderate collaboration with entities like the BEO, Education Department, and CDPO for school and Anganwadi initiatives.	The project demonstrated strong overall coherence, achieving a combined score of **4.3** out of 5. This underscores a well-integrated approach that ensured alignment with both internal and external mandates.

Efficiency	Overall efficiency scored **4.4,** which indicated that the efficiency of the intervention was good. **Timeliness** scored **5.0,** showcasing the timely construction of the interventions. **Quality of services** received a high score of **4.5**. This was due to the durability of solar street lights and water structures. **Operational efficiency** received a moderate score of **3.5**. **Project design** scored **4.5** as baseline study was completed across 10 villages. The process of involving community leaders, such as the Headman and VDC members to identify and select appropriate sites for interventions like rainwater harvesting structures and check dams further enhanced efficiency.	Efficiency scored **4.1,** reflecting a good level of resource utilization, highlighting strengths in **timeliness (4.3)** and **quality of service (3.7)**. **Operational efficiency** scored **3.6**. The **project design** received an outstanding score of **4.5** out of 5, reflecting its strong foundation. This high score was attributed to the thorough needs assessment and baseline study conducted in all project villages, ensuring that interventions were tailored to community needs.	The overall combined score for health and hygiene was **4.4**, indicated a strong level of efficiency. **Timeliness**, received a score of **5.0** from the quantitative survey because the drinking water interventions and the health camps were implemented largely within the expected timeframe. **The quality of services** scored **4.0**, indicating strong level of service delivery. During focus-group-discussion, participants mentioned that they did not face any issues with the water structures created. To facilitate efficient implementation, VDCs were formed in each village. These committees operated voluntarily, holding monthly meetings to oversee interventions and manage maintenance and repairs. Therefore, **operational efficiency** received a high score of **4.5**. The overall **project design and M&E** scored **4.0,** indicating strong efficiency in design.	The combined score of **3.3** revealed that the interventions were moderately efficient. **Timeliness** scored **3.0.** Heavy rainfall in Meghalaya from May to September delayed implementation plans. The **quality of services** received a score of **4.0.** Both BALA paintings and smart classrooms were widely recognised as effective tools for engaging students. According to a teacher from Myllat, ***"Instead of spending more time and effort to make the students understand about a certain topic on a subject, we can just show them through the smart boards with minimal explanation".*** **Operational efficiency** was rated at **3.0,** reflecting moderately successful considerations of project risks and adequate resource utilisation. Due to some gaps, like absence of proper internet connectivity and shortage of water in the school toilets, **project**	The combined efficiency score of **4.1 out of 5** reflects strong intervention efficiency across the project components, though some challenges persist. In NRM, timely execution was evident. Functional water structures in Myllat and Langkawet provided reliable water supply, though technical failures persisted. Entrepreneurship initiatives (including broom-making and piggery enterprises) yielded efficient outcomes by leveraging traditional skills. However, challenges such as poor-quality polyhouse materials and unsuitable goat breeds for mountainous regions reduced operational efficiency. In **H&H,** special health camps for pregnant women also helped to address maternal health needs. This proved to be a necessary support. Discussion with teachers and principals revealed that inadequate internet connectivity hampered the

				design scored an average score of **3.0.**	efficiency of the smart classroom.
Effectiveness	The NRM initiative achieved a combined good score of **4.2**. **Short-term results** scored **4.2** and **reach** received a score of **5.0** which indicated that all targets like solar streetlights and revival of rainwater harvesting structures and check dams to create additional water sources were successfully achieved. The **influencing factors** indicator received an average score of **3.5** due to potential delays in procurement and maintenance, as the vendor for the solar streetlights was based in Delhi. **Differential results** scored **4.5**, while **adaptation over time** score of **2.5.**	Effectiveness reflected above-average success of the intervention with a score of **3.9. Interim results** of the project scored **3.7.** For instance, the agriculture equipment supports in the form of providing land preparation related equipment & crop protection-sprayer, etc. were very effective for the beneficiaries. However, the vegetable cultivation through polyhouse support remained ineffective after some time as the polyhouse materials were not durable and hence could not withstand high winds and rains. **Reach** of the intervention received a perfect score of **5.0.** The score for **influencing factors** stands at **3.5**, reflecting notable effectiveness of the interventions in achieving their goals. For entrepreneurship activities such as piggery and broom making, key enabling factors	The combined weighted score for health and hygiene is **4.2. Interim results** received a score of **5.0.** A majority of respondents (81%) expressed satisfaction with the health camps. **Reach** scored a perfect **5.0,** while **influencing factors** received a moderate score of **3.2,** and **differential results** scored **4.0.** The **adaptation over time** received an average **score of 2.5.** The health camps were one-time events, with no follow-up camps, awareness-building initiatives, or additional activities to ensure sustained improvements in community health.	Effectiveness received a combined score of **3.7** which indicated a notable project effectiveness. **Interim results** received a score of **3.5.** BALA paintings and smart classroom emerged as a transformative tool, turning classrooms into visually stimulating learning environment. **Reach** received a score of **5.0. Influencing factors** scored **2.5** due to a mix of enablers and disablers. Positive enablers included the proactive involvement of teachers and the well-received introduction of interactive learning tools. However, a disabler was that the training to use the smart classroom was limited as some of the teaching staff did not have the necessary guidance or knowledge to operate the smart TV. The **differential results** score of **4.0** was given due to the programme's ability to provide adequate needs-	The combined score of **4.0** highlighted a good level of effectiveness in the project implementation. The NRM intervention, which included solar streetlights and the revival of water harvesting structures, proved highly effective. Under SDLE, farm initiatives like agricultural equipment and vermicomposting showed positive results, however, the high winds damaged polyhouses and CGI sheets, impacting its sustainability. Moreover, poultry farming was also affected due to the weather conditions. Under H&H, drinking water facilities were well-planned with community involvement. However, health camps had high satisfaction but lacked follow-up, limiting long-term health improvements. In Education, the implementation of BALA paintings and smart classrooms transformed learning environments, However, inadequate training for teachers on

		included the traditional practice of these activities within the community. The score of **3.9** for **differential results** indicated a notable alignment with beneficiary needs. The score for **adaptation over time** is **2.4**, because the interventions did not undergo suitable adjustments over the course of the implementation. For instance, vermicomposting was discontinued after heavy rains washed away the CGI sheets, with no efforts made to restart the activity.		based interventions to schools. **Adaptation over time** scored **3.0**, reflecting moderate adaptability. Given the challenges with internet connectivity in the villages, teachers in some schools had shown remarkable resilience and innovation**.**	using smart classrooms and insufficient water supply for toilets in certain schools impacted the overall score.
Impact	The impact indicator scored **4.2 out of 5,** reflecting a good score. **Significance** received a high score of **4.5,** while transformational **change** received a good score of **4.0**. Solar streetlights provided the community with improved safety and convenience, allowing villagers to move around freely during the night. Also, the construction of the check dam and rainwater harvesting	The overall impact score of **3.2** reflected the average outcomes of the intervention. The score of **3.1** was given to **significance**. The **3.5** score for **transformational change** showed moderate impact. This score was given largely due to the noticeable shift in women's confidence and engagement after they started their enterprises. The score of **3.0** for **unintended change**	The overall score of **3.6** indicated moderate impact of the interventions. The villagers had access to a regular clean water supply due to the water structures created, which enabled them to maintain a cleaner and healthier environment. Moreover, 53% of the respondents reported a 'significant improvement' in their health. Therefore, **significance** scored **3.0.** The score of **4.2** for **transformational change**	Impact received a combined score of **3.9,** which indicated significant success of the intervention. The interventions implemented in schools significantly improved the attendance of the students, therefore **significance** and **transformational change** received high scores of **4.0** each**. Unintended change** scored **3.5** because the school staff observed several unplanned but positive	Impact received an overall score of **3.8**, indicating moderate positive change for beneficiaries. The introduction of solar energy solutions, including home lights and streetlights, lowered electricity bills and enhanced quality of life by ensuring safety, especially for women. SDLE interventions, particularly in SHG development, empowered women through capacity-building, micro-

	structures were able to significantly improve the water availability. **Unintended change**[1] scored **3.5** as the solar home lights also led to a noticeable reduction in electricity bills, providing financial relief to households.	reflected that there were no positive or negative unintended change due to the intervention.	highlighted that overall, the intervention enhanced their quality of life, promoting better health, well-being, and socio-economic stability. **Unintended change** received a good score of **4.0,** because the improved access to water not only reduced physical strain, but also saved time, allowing women to focus on other productive activities such as farming, entrepreneurship activities, and household tasks.	outcomes, such as better interaction between students and teachers, and knowledge sharing.	enterprise development, and access to loans. Under H&H, the availability of clean water transformed daily routines, alleviating physical strain and contributing to better health outcomes. Education interventions such as BALA painting and smart classroom led to significant improvements in student attendance, engagement, and overall educational quality.
Sustainability	The sustainability score of **4.1** highlighted the potential for the interventions to be sustained well beyond the project. **Potential for continuity** received an overall high score of **4.1**, as indicated by the continued use of solar home lights, streetlights (where applicable), and water management systems. The score of **4.0** for **project design, strategy, and**	The combined score for sustainability stood at **3.3,** reflecting average sustainability, with **potential for continuity** at **3.2** and **sustainability in project design and strategy** at **3.4.** This indicated the presence of some mechanisms for long-term sustainability. For instance, broom making is a sustainable enterprise due to its roots as a traditional occupation, the abundance	With regard to sustainability, the overall Health and Hygiene score of **3.6** demonstrating average-performance of the intervention. VDC appointed a community member for upkeep in the absence of HDFC or AROH, reinforcing the sustainability of the initiative. Therefore, **potential for continuity** received a high score of **4.1. Sustainability in project**	The overall score of sustainability **(3.8)**, indicated moderate sustainability of the interventions. **Potential for continuity** scored **4.0**. The interventions aligned well with the academic needs of the schools, increasing the likelihood of continued usage. The **project's design and strategy** scored **3.5**. It couldn't receive a full score due to shortage of water in	The overall sustainability score for the project is **3.7,** indicating moderate sustainability of the interventions. While mechanisms were established to ensure continuity, challenges like crop failures in orchid cultivation and issues with vermicomposting infrastructure hampered long-term sustainability. Additionally, interventions

[1] Unintended changes have been rated as the following: 1-2 for negative unintended change, 3 for no change, 4-5 for positive unintended change

	sustainability reflected the presence of well-defined mechanisms such as the proactiveness of the Head man and VDC to ensure sustainability.	of raw materials, and the skill training provided to enhance the practice.	**design and strategy** scored **3.0 out of 5,** depicting an average performance of the health and hygiene activities. No systems were put in place for follow up or repeat health camps.	the toilets and absence of training programmes for teachers to use smart classrooms, limiting the project's capacity to sustain its outcomes independently over time.	like furniture and toys in Anganwadi centers continued to make a lasting impact while challenges such as poor internet connectivity and reliance on mobile devices for smart classrooms could hinder long-term usage.
Branding	The project has garnered an impressive combined score of **5.0** for branding in water management (irrigation), clean energy, and overall natural resource management (NRM). A key driver behind this success is the strategic placement of HDFC's name on water structures and placards attached to streetlights, ensuring clear public association with the brand. This high visibility reinforces the project's credibility and effectively strengthens its brand presence.	The lack of presence of HDFC boards outside the enterprise and other initiatives led to SDLE scoring a low **2.8.**	The overall branding score was **4.5** out of 5, indicating strong visibility of the interventions. The water tanks displayed prominent branding for HDFC Bank, highlighting the attribution given to the intervention.	The score of **5.0** for branding indicates that HDFC Bank's interventions have achieved exceptional visibility in the schools through effective use of visual branding tools, such as boards and wall paintings.	The branding analysis shows strong visibility across sectors, contributing to a positive perception of HDFC Bank's interventions. A score of **4.6** reflected the effective placement of banners and boards in key village locations, driving high visibility. Water management structures, clean energy initiatives, drinking water tanks and wall paintings fostered a strong sense of partnership between the HDFC Bank and the community.

H. Learnings and Recommendations

- The water management interventions, particularly the construction of storage tanks, have significantly improved access to drinking water and alleviated water scarcity, enhancing the quality of life in villages. Community involvement in maintenance has ensured sustainability; however, some villages were left out. Expanding rainwater harvesting systems is recommended to address these gaps.
- Health camps successfully addressed maternal health issues and built trust in healthcare services but lacked continuity due to them being one-time events. Sustained health interventions, including regular health camps, mobile clinics, and collaborations with local healthcare providers, are recommended to ensure long-term health improvements and community ownership.
- Mushroom cultivation has shown promising economic opportunities due to its low investment requirements and growing demand, supporting sustainable livelihoods. Vermicomposting sustainability can be improved by providing durable coverings, training on compost storage, and creating market linkages with potential buyers. Poultry farming faces seasonal challenges, especially in winter and the rainy season, which can be mitigated by subsidized heating solutions, financial assistance, and strengthened veterinary support. The goatery initiative requires the distribution of mountain-suited breeds, feasibility studies, comprehensive training, and improved veterinary services for better survival rates and livelihoods.
- Orchid cultivation can benefit from stronger irrigation infrastructure, upgraded polyhouse designs, and financial support to mitigate the long growing period. Intercropping with short-duration crops and introducing resilient orchid varieties are also suggested.
- Smart classrooms faced issues such as insufficient teacher training and poor internet connectivity. Targeted teacher training and infrastructure improvements, including reliable internet connections and pre-loaded educational content, will ensure better utilization of resources. Renovated washrooms in schools remained non-functional due to water shortages. Pre-assessments, storage tanks, and rainwater harvesting are essential for water connectivity. Security concerns can be addressed by installing fencing, storage solutions, and adequate lighting, involving local authorities and community stakeholders.
- To enhance project effectiveness, a few other recommendations include sourcing products locally to ensure easier operation and maintenance, and adaptation to local weather risks. Weather conditions should be considered during planning to avoid delays, especially during the monsoon season. Strengthening School Management Committees (SMCs) is critical for better O&M in schools. In successful interventions, HDFC is encouraged to adopt a phased approach to continue projects in the same geography, building on lessons learned for holistic rural development. Active participation from primary stakeholders and Village Development Committees (VDCs) is essential for effective troubleshooting and maintenance. Additionally, leveraging traditional community practices, such as broom-making, has proven successful in upskilling members and increasing incomes.

CHAPTER I: BACKGROUND

1.1 Introduction

Meghalaya is a North-Eastern state in India that faces significant barriers in achieving sustainable economic growth and improved living standards, primarily because of the state's rugged terrain, characterized by steep hills and deep valleys. This presents a significant hurdle to infrastructure development, making it difficult and expensive to build roads, bridges, and power lines, essential for connecting 6,800 remote habitations and fostering economic activity (Government of Meghalaya, 2023). Furthermore, Meghalaya's geographical location, being landlocked and distant from major markets, limits access to crucial economic opportunities and increases transportation costs, thus requiring innovative and targeted solutions to bridge the gap and ensure equitable economic growth in Meghalaya.

Agricultural practices and climate adaptation

In Meghalaya, rural livelihoods are heavily dependent on agriculture, particularly small-scale farming. The state's agricultural sector faces challenges such as low productivity, reliance on rain-fed irrigation, and vulnerability to climate change impacts, including unpredictable rainfall patterns and soil erosion. Research suggests that introducing climate-smart agriculture can improve food security by increasing crop yields and reducing the risks posed by environmental stressors (Lipper et al., 2014). Hence, improving agricultural practices through capacity building and introducing climate-resilient techniques is crucial for the region, directly contributing to increased food security and livelihood stability for rural families in the region.

Food security is a pressing concern in Meghalaya as there is a gap or deficit in the calorie intake by 313.59 kcal per person per day, with only 62.33% households being sufficient in the food intake (Nongbri et al., 2021). This is particularly true among marginalized tribes who rely heavily on subsistence farming.

Agricultural and agri-based social enterprises

The concept of social enterprises and micro-enterprises has proven to be an effective strategy for improving rural incomes and creating employment opportunities in remote areas. Studies have shown that rural entrepreneurship can offer viable alternatives to subsistence farming, especially in the face of diminishing agricultural yields (Fan et al., 2013). The promotion of non-agriculture-based micro-enterprises is therefore highly relevant, as it provides communities with alternative income sources and fosters economic diversification. Through establishing and scaling micro-enterprises, local entrepreneurs could be empowered and contribute to economic resilience, reducing dependence on traditional farming, which is often seasonal and low-yielding in Meghalaya.

The state’s unique agro-climatic conditions pose challenges to food production, and the integration of climate-resilient practices is crucial for addressing these vulnerabilities. In addition to promoting sustainable farming, future interventions could seek to support rural communities by linking them to Farmer Producer Organizations (FPOs) and Self-Help Groups (SHGs). Research in India, as highlighted by several case studies in India, shows that FPOs play a vital role in linking farmers to better market opportunities, reducing exploitation by middlemen, and improving the bargaining power of producers (Gummagolmath et al., 2022). The formation of FPOs in Meghalaya can strengthen the agricultural value chain and provides farmers with access to financial and technical support, enhancing both income security and market access.

School infrastructure and quality education

Infrastructure development in rural Meghalaya is a critical challenge, particularly given the state's hilly terrain and frequent natural disasters such as floods and landslides. Poor infrastructure often limits access to basic services such as healthcare, education, and markets. A study that assessed 16 major states in India found that investment in rural infrastructure, such as improving road connectivity, water and sanitation facilities, and energy access is essential for fostering socio-economic development in the region (Ghosh, 2017). By enhancing local capacities, fostering sustainable agricultural practices, and improving infrastructure, interventions can have the potential to drive meaningful, long-term development in the region, improving the quality of life for marginalized families in Meghalaya.

1.2 Project Context

HDFC launched the Holistic Rural Development Program (HRDP) with a vision to drive sustainable, community-led development across 13 villages in East Khasi Hills district of Meghalaya. This initiative, undertaken in partnership with AROH Foundation, aimed to promote rural empowerment through four primary objectives:

Objective 1 – Improve natural and community resources and infrastructure

Objective 2 – Enhance livelihood opportunities in farm, off-farm, and other allied sectors

Objective 3 – Develop rural entrepreneurs and promote villages as production units for urban areas

Objective 4 – Build villages as eco-spot centres and tourist destinations

Through these objectives, HDFC's HRDP strived to create a sustainable model for rural development that could serve as a blueprint for future initiatives. These outcomes were addressed through four broad thematic areas namely, natural resource management, skill development and livelihood enhancement, health and hygiene and, the promotion of education.

While these four thematic areas are addressed across HRDP projects, specific interventions undertaken for each of the areas depend on the local needs and context. For example, interventions that would be relevant to Meghalaya would defer from those undertaken in Madhya Pradesh and Chhattisgarh due to varying socio-economic, cultural, geographical and environmental needs and contexts.

In Meghalaya, therefore, the following activities were undertaken in each of the broad thematic areas:

Natural Resource Management (NRM)	Skill Development and Livelihood Enhancement (SDLE)	Health and Hygiene (H&H)	Promotion of Education (PoE)
Water management (Irrigation) – a. Rainwater harvesting b. Water supply system	*Farm management* – a. Vermicomposting b. Farmer training centre c. Village Development Committees (VDC) d. Polyhouse for flowers e. Arecanut production	*Water management (Drinking water)* – a. Community drinking water tanks	a. BALA (Building as a Learning Aid) Painting b. Furniture c. Smart classrooms d. Science lab e. Library f. Sports material g. Teaching and Learning material

<table>
<tr><td></td><td>f. Creation of Farmer Interest Groups (FIG)</td><td></td><td rowspan="3">h. Rainwater harvesting
i. Drinking water
j. Toilets
k. SMC strengthening
l. Kitchen garden
m. Handwashing unit
n. First aid box
o. Computer lab
p. Renovation of Anganwadi</td></tr>
<tr><td rowspan="2">Clean energy –
a. Solar street lights
b. Solar lights (Household)</td><td>Enterprise development –
a. Goat rearing
b. Bee keeping
c. Broom making
d. Pig farming
e. Poultry farming
f. Spice grinding
g. Orchid cultivation
h. Handicrafts</td><td rowspan="2">Health camps-
a. Improved health facilities
b. Awareness campaigns – nutrition and WASH
c. Vaccination and awareness building for livestock
d. Health camps</td></tr>
<tr><td>Youth skilling
a. Training on driving skills, with licence
b. Masonry
c. Mobile repairing</td></tr>
</table>

It should be noted that not all interventions were implemented in all the villages; for example, while solar street lights were installed in all the 13 villages, specific enterprises were established only in select villages.

CHAPTER II: IMPACT ASSESSMENT STUDY

2.1 Study Objectives

The impact assessment covered the HRDP project implemented by AROH Foundation in Meghalaya, focusing on their performance over 3 years (2020-2023). The assessment, led by CMSR Consultants, sought to provide an in-depth evaluation of the effectiveness of interventions supported by HDFC Bank CSR across targeted rural communities.

This study aimed to measure both short-term and long-term impacts across core thematic areas, including Natural Resource Management, Skill Development & Livelihood Enhancement, Promotion of Education, and Healthcare & Hygiene.

The specific objectives were as follows:

1. To evaluate the effectiveness of HRDP interventions in achieving their intended outcomes across all thematic areas.
2. To assess the extent of changes experienced by beneficiaries, including improved resource access, income enhancement, and skill development.
3. To analyze and compare the effectiveness of project approaches across various regions and implementation partners.
4. To conduct a theme-wise evaluation of the impacts and present an integrated perspective on the project's contribution to the overarching goals of Parivartan.
5. To identify critical insights and lessons learned to inform future project design and implementation, ensuring continuous improvement and alignment with community needs.

2.2 Methodology

Study design

The study employed a mixed-methods approach, integrating quantitative and qualitative data collection and analysis to comprehensively evaluate the project's outcomes across its thematic intervention areas. The design was grounded in the project's objective hierarchy, indicator framework, and evaluation framework.

Quantitative data collection: A structured individual respondent survey was conducted with 239 respondents. These were proportionately distributed across thematic areas such as Natural Resource Management (NRM), Skill Development and Livelihood Enhancement (SDLE), and Health and Hygiene (H&H) from all intervention villages. The actual sample size estimated was 210, determined at a 95% confidence level and a 5% margin of error, with an additional 10-15% considered for non-responses. However, the achieved sample was 239, exceeding the number estimated originally.

Qualitative Data Collection: The qualitative component of the study included the following:

- ***Focus Group Discussions (FGDs):*** Conducted among beneficiary groups engaged in specific interventions such as water management (irrigation), clean energy, farm management, and enterprise development to gain detailed insights into their experiences. FGDs with children or SMC members could not be organized in any of the sampled schools, as due to the winter vacation, all schools were closed. As a result, only interviews with school principals or teachers were conducted.
- ***In-Depth Interviews (IDIs):*** Conducted with school principals/teachers from selected schools and Anganwadi workers from selected Anganwadi centers under the PoE focus area.

Additional interviews with the implementing NGO team (AROH Foundation) to explore the implementation process, challenges encountered, and other intervention-related aspects were undertaken.

- ***Observational Analysis:*** Observations were carried out in selected schools using an observation checklist. Key elements evaluated included BALA (Building as Learning Aid) paintings, smart lab setups, WASH (Water, Sanitation, and Hygiene) facilities, and dustbin installations, focusing on condition, functionality, and usage.

Evaluation Framework

Project outcome and impact-level indicators provided by HDFC served as the basis for assessing the project's impact. The evaluation adopted a modified version of the OECD evaluation criteria, contextualized to the project's objectives. The criteria included relevance, coherence, efficiency, effectiveness, impact, sustainability, and branding. Each main criterion was divided into sub-indicators, measured through quantitative and qualitative methods as outlined below:

OECD Indicator	Sub-indicators	Method
Relevance	Beneficiary need alignment	Quantitative
	Local context alignment	Qualitative
	Quality of design	Qualitative
Coherence	Internal	Qualitative
	External	Qualitative
Efficiency	Timeliness	Quantitative
	Quality of Services Provided	Quantitative
	Operational Efficiency	Qualitative
	Project design	Qualitative
Effectiveness	Interim Results (Output and short-term results)	Quantitative
	Reach (Target v/s Achievements)	Qualitative
	Influencing Factors (Enablers & Disablers)	Qualitative
	Differential Results (Need Assessment)	Qualitative
	Adaptation over time	Qualitative
Impact	Significance (Outcome)	Quantitative
	Transformational change	Qualitative
	Unintended change	Qualitative
Sustainability	Potential for Continuity	Quantitative
	Sustainability in project design and strategy	Qualitative
Branding	Visibility (visible/word of mouth)	Qualitative

Sampling Procedure

The sample was drawn from the sampling frame of listed intervention households, groups, and respondents provided by the HDFC team. Using this list, the sample was proportionately distributed across each intervention component. These included water management (irrigation) and clean energy under the NRM focus area, farm management, SHG development, and enterprise development under the SDLE focus area, as well as water management (drinking) and health camps under the H&H focus area. A stratified sampling approach was adopted, further stratifying the sample by beneficiary type: household, group, and community.

To select beneficiaries, the total number of beneficiaries per intervention type was calculated, aggregating the numbers across households, groups, and communities. This provided a comprehensive total for each beneficiary type. For instance, in Meghalaya, the beneficiary breakdown was as follows:

Households	Groups	Communities
194	**89**	**98**
Beneficiaries	beneficiaries	beneficiaries

This resulted in a total beneficiary count of N = 194 + 89 + 98 = 381. Using this total, the proportion of each beneficiary type was calculated:

Households	Groups	Communities
50.9%	**23.4%**	**25.7%**

Given the estimated sample size of 210 beneficiaries, these proportions were applied to allocate the sample size across the three beneficiary types:

Households	Groups	Communities
107	**49**	**54**

Next, these proportions were applied to the required sample sizes for each type (107 for households, 49 for groups, and 54 for communities) to allocate the sample size proportionally across activity categories. For example, Clean Energy under NRM accounted for 57.7% of the household beneficiaries, therefore 57.7% of 107 (approximately 62) was allocated to this activity category. Similarly, for groups and communities, proportions were calculated based on their total beneficiaries (89 for groups and 98 for communities) and applied to their respective required sample sizes (49 for groups and 54 for communities). The resulting sample sizes were rounded to the nearest whole number, ensuring they summed to the total required sample size for each beneficiary type. By following this approach, it was ensured that the sample sizes for each beneficiary type (households, groups, and communities) were distributed proportionally across activity categories.

Once the sample size was determined for each focus area, activity category and beneficiary type, the sample was randomly distributed across the villages where the interventions were implemented.

For the selection of schools under the PoE focus area, a total of 9 schools and anganwadis were selected. Selection criteria included areas with the maximum and most diverse nature of interventions to ensure comprehensive coverage and capture feedback on the varied interventions.

The following table presents a detailed summary of the qualitative and quantitative samples achieved during the study:

Method	Respondent group	Focus area				Overall sample	Type of tool
		NRM	SDLE	H&H	PoE		
Quantitative	Individual beneficiaries (farmers and community members)	90	96	43	-	229*	Structured survey
Qualitative	Community		2	5	1	8	FGD

	School Principals/ teachers/ Anganwadi workers				9	9	IDI
	NGO partner					1	FGD
Additionally, an observation checklist was utilized in each selected school to assess the quality of services, their current conditions, and utilization status.							

Note:

1. *The actual number achieved was 229 for the quantitative surveys, over the proposed 210.*
2. *Due to the winter vacation, all schools were closed. As a result, only interviews with school principals or teachers were conducted. FGDs with children or SMC members could not be organized in any of the sampled schools.*

2.3 Study Processes

A. **Rollout meeting and desk study:** Initial discussions were conducted with the HDFC team to conceptualize and understand key aspects of the project's design and implementation. These discussions were followed by a rapid literature review to examine the project's concept and planning. The review utilized various project-related documents, including the project proposal, annual reports, evaluation parameters, intervention snapshots, MIS data, and other relevant materials.

B. **Development and finalisation of study tools:** Leveraging the OECD parameters, the HDFC Bank team developed and shared the first draft of standardized questionnaires tailored to each focus area and activity. These questionnaires were reviewed and suitably modified by the CMSR team to align them with the specific interventions and nuances of the project. Additionally, the study team designed fresh qualitative tools, such as FGDs and IDIs, to capture qualitative insights in line with the OECD parameters. The revised questionnaires and newly developed qualitative tools incorporated feedback from the HDFC team and were subsequently translated into Khasi.

C. **Development of data collection software, testing and finalization:** The finalized bilingual questionnaire was provided to the CAPI (Computer-Assisted Personal Interviewing) developer to create the data collection software for use on tablets and mobile devices. Field testing of the CAPI questionnaire was conducted during the enumerator training sessions. Based on feedback, the questionnaires were further refined, and the application was finalized for survey deployment.

D. **Field work procedure – training, data collection & quality assurance:** A two-day training session was organized for the field teams to orient them to the study's objectives and familiarize them with the project and survey questionnaires. The training took place on December 9th and 10th, 2024, in East Khasi Hills district. The first one and a half days of the training focused on theoretical aspects, followed by mock field calls on the second day and a debriefing session. A total of five enumerators and one supervisor participated in the orientation. Additionally, a mix of locally hired researchers and in-house researchers attended the qualitative data collection.

The data collection process employed CAPI on tablets or mobile devices for structured surveys. Qualitative interviews were audio-recorded to facilitate accurate transcription and analysis. Each team completed data collection within an estimated three-week period, including training days, off days, and local holidays, to minimize disruptions to field operations while maintaining high data quality. Prior to collecting any qualitative or quantitative data, including audio recordings, informed consent was

obtained from all respondents. Coordination between investigators and supervisors occurred daily to conduct quality checks and provide continuous guidance to enumerators. Data quality compliance was ensured through Range Checks, Consistency Checks, and Validation Checks integrated into the CAPI software.

2.4 Data Analysis

The data analysis plan established a structured framework for collecting, processing, and synthesizing evidence to address the research questions effectively. A detailed scoring matrix accompanied the assessment, capturing project's performance across key components to ensure a systematic evaluation of the HRDP's impact. The matrix incorporated weighted qualitative and quantitative variables, evaluated against OECD-DAC parameters.

Quantitative data, collected using tools like Survey CTO, includes Likert-scale questions (typically ranging from 1 to 5) to assess variables such as alignment with beneficiary needs (relevance) timeliness (efficiency) and so on. The analysis employed univariate techniques, measures of central tendency (e.g., mean), and aggregated scoring constructs derived from participant responses.

For qualitative data, stakeholder-specific insights from methods such as IDIs and FGDs were aligned with evaluation questions. These insights were converted into ratings on a standardized 5-point scale, guided by rubrics designed for indicators such as alignment with the local context (relevance), coherence (internal and external), operational efficiency, and project design (efficiency) and so on.

Qualitative and quantitative scores were integrated using predefined weights, resulting in combined scores for each parameter. A composite project score was then calculated as a weighted sum of parameter scores. This ensured a comprehensive evaluation framework that balances statistical rigor with contextual insights.

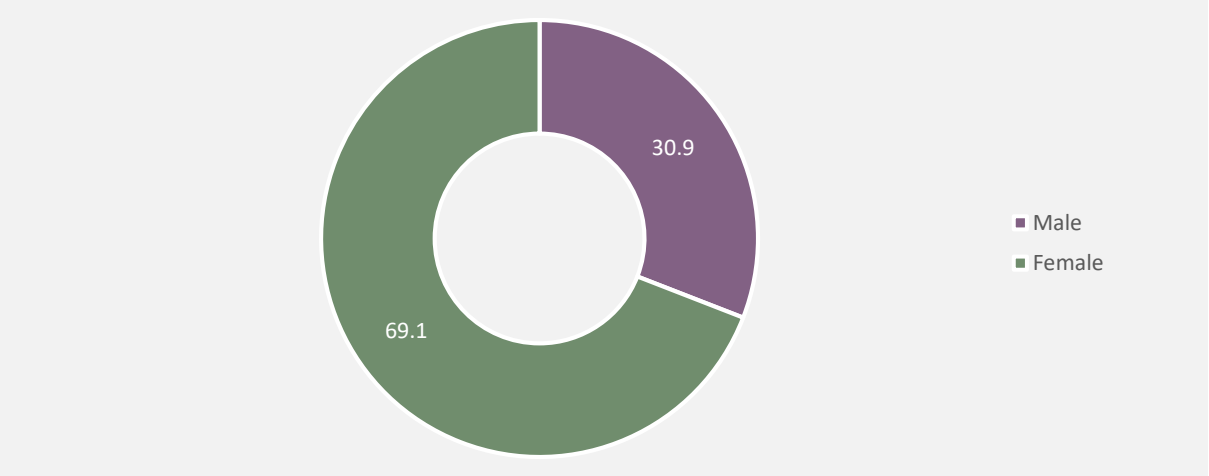
CHAPTER III: DEMOGRAPHICS

Understanding the demographic profile of the community is crucial for ensuring that interventions are relevant, impactful, and sustainable. This section provides an overview of key demographic characteristics, including disaggregation based on gender, age distribution, literacy levels, and occupational patterns, to offer a broader context for the interventions implemented.

3.1 Gender

The female population made up a significantly larger portion (69%) compared to males (31%). Higher proportion of females was largely due to the types of interventions undertaken in the project, emphasising microenterprises and SHG development as key activities.

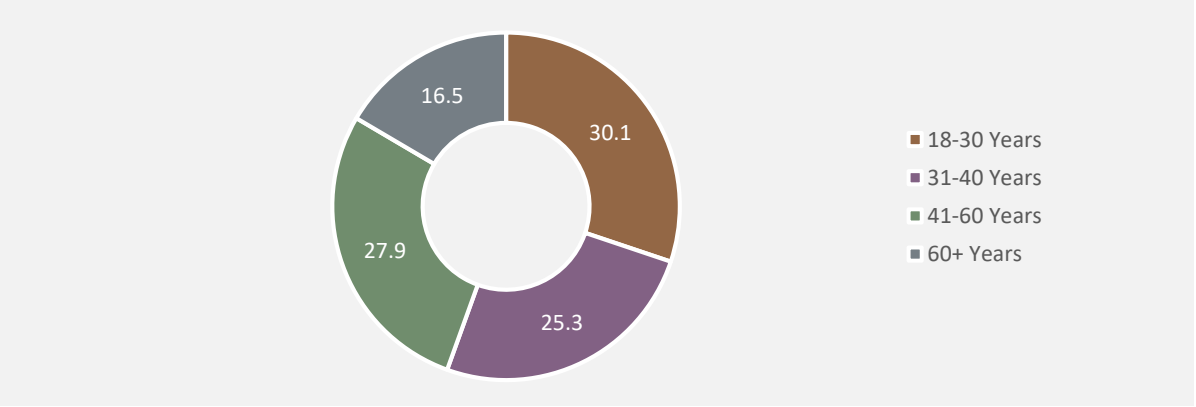
Fig 1: *Gender-wise Percentage Distribution of Respondents*



3.2 Age-group

The age distribution of the respondents revealed that the highest percentage (30%) belonged to the 18-30 age group, followed by 41-60 years (28%) and 31-40 years (25%). The smallest age group was 60+ years (17%), reflecting a lower proportion of elderly individuals. Given that 55% of the respondents were between the ages of 18 and 40, the surveys were able to effectively capture the impact of interventions such as youth skilling and enterprise development that focused on this demographic group.

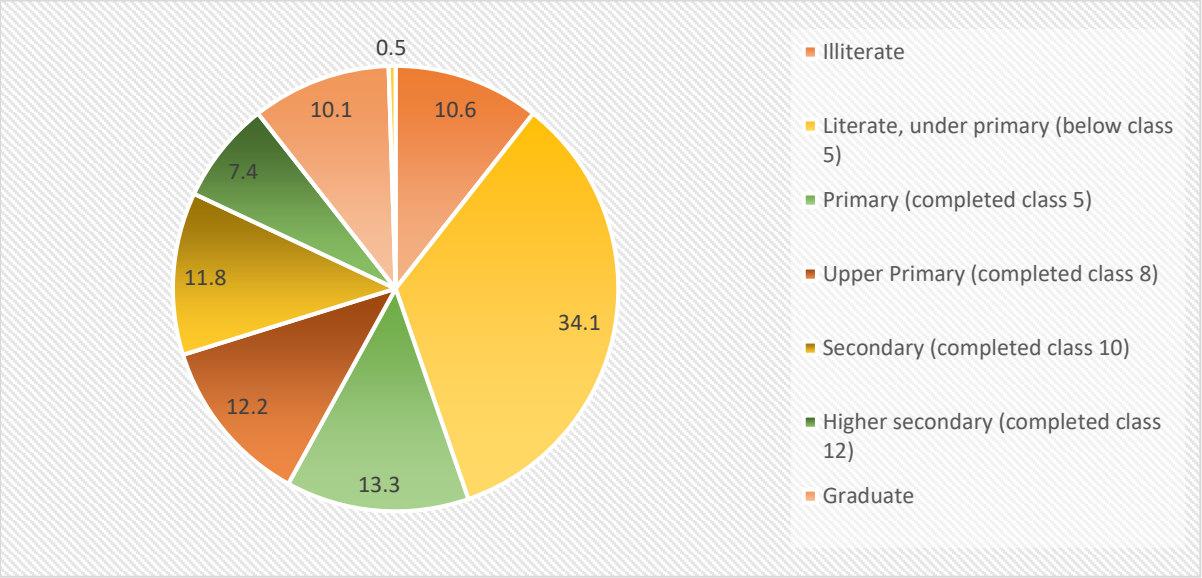
Fig 2: *Age-wise Percentage Distribution of Respondents*



3.3 Educational Status

The education data revealed that the largest proportion of respondents (34%) were literate but had not completed primary education. Nearly 26% had completed primary and upper primary education. Only 7% had completed higher secondary education, while 10% were graduates, and postgraduates formed a very small group (0.5%), indicating limited access to higher education, inadequate infrastructure, or societal barriers. Illiteracy was reported by 11%.

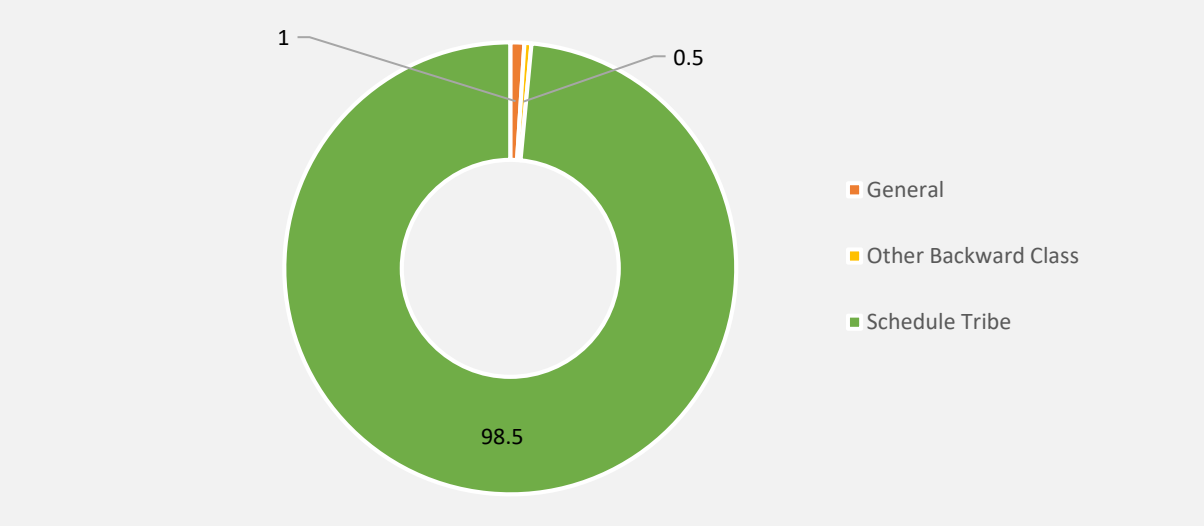
Fig 3: *Percentage Distribution of Respondents by Educational Status*



3.4 Social Category

Nearly 99% of the sampled population belonged to the Scheduled Tribes category, while the representation of the General Category and Other Backward Classes was minimal.

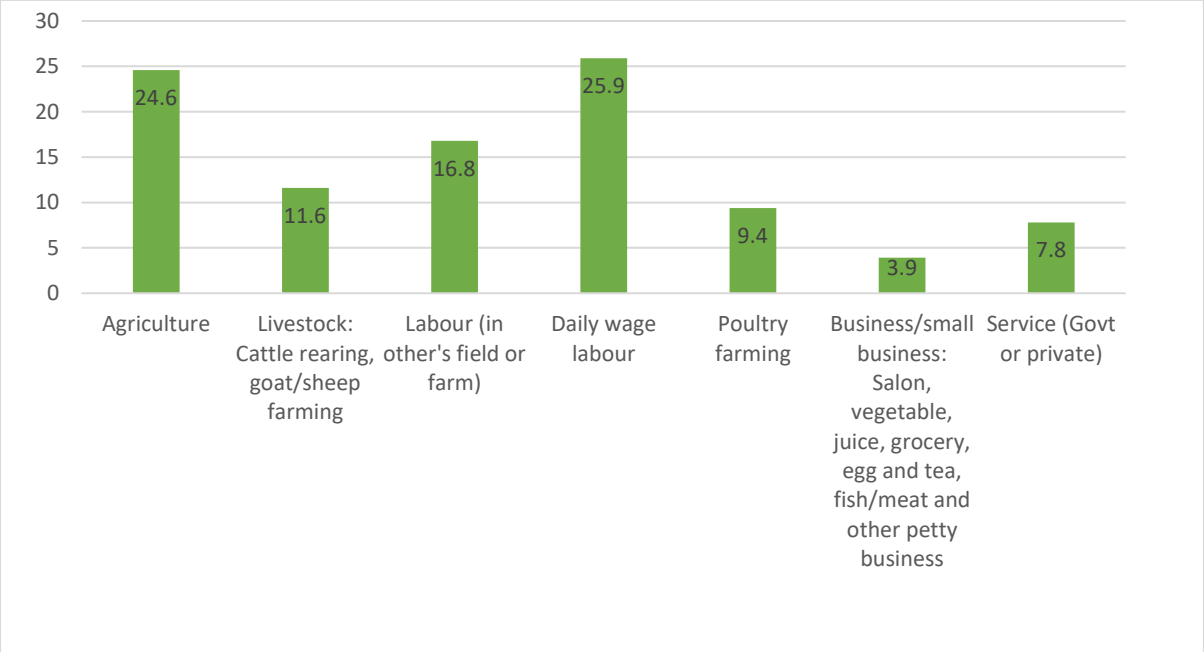
Fig 4: *Percentage Distribution of Respondents by Caste Category*



3.5 Occupational Status

The primary occupation data highlighted that a significant portion (26%) of the respondents relied on daily wage labour. Agriculture remained a crucial occupation, with almost 25% of the respondents engaged in farming. While 17% were involved in labour activities, a notable 12% participated in livestock farming. Almost 10% of the respondents were engaged in poultry farming. Small businesses such as salons, vegetable stands, tea shops, and grocery stores were reported by a mere 4% of the respondents, while 8% were employed in government or private sector services.

Fig 5: *Percentage Distribution of Respondents by Primary Occupation*



CHAPTER IV: KEY RESULTS AND INSIGHTS ON 'NATURAL RESOURCE MANAGEMENT'

This chapter shares the insights and findings that emerged from the qualitative and quantitative research conducted on the interventions related to natural resource management. Based on the sampling, the focus areas within natural resource management were identified as water management (irrigation) and solar lighting. These two primary interventions were spread across the project villages, with varied results.

The findings from the study has been presented under the adapted OECD indicators, i.e., relevance, coherence, efficiency, effectiveness, impact, sustainability, and branding.

4.1 Relevance

The overall relevance score of **4.2 out of 5** indicates a strong alignment between HDFC Bank's interventions and the beneficiaries' needs. This score is derived from three primary indicators:

Beneficiary Need Alignment received a score of **4.2**, demonstrating that the interventions were able to strongly address the specific needs of the beneficiaries. Majority of the respondents (59%) categorized the support as "Essential," while 36% deemed it as "High Priority" in fulfilling their needs and priorities. In terms of support adequacy, **51%** of respondents rated the support as "Extremely Adequate" concerning quantity and fulfilment of requirements, while 43**%** felt that the support was "Slightly Adequate".

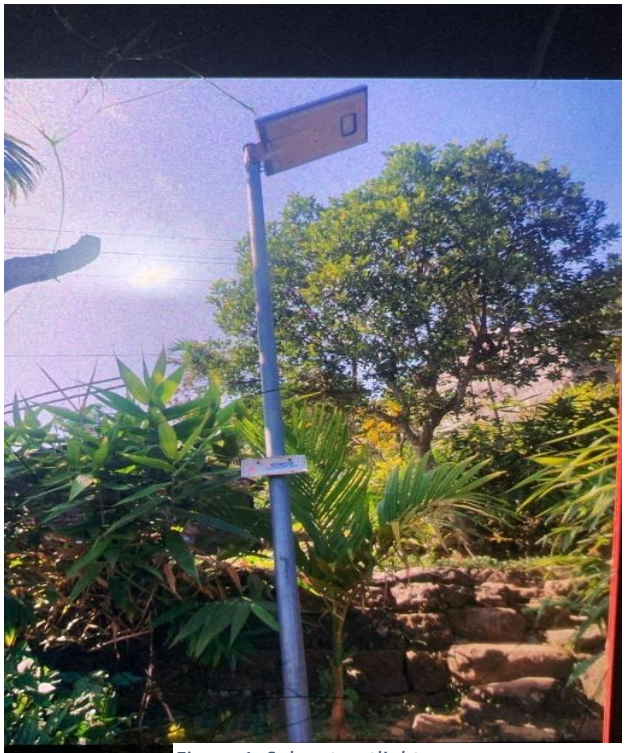


Figure 1: Solar streetlight

Local Context Alignment scored a high **4.5**, reflecting a strong consideration of the local environment and circumstances in the intervention design. The construction of check dams and rainwater harvesting systems addressed the acute water scarcity in the sample areas, serving as essential irrigation solutions. Similarly, the installation of solar streetlights and solar home lights under the clean energy component proved highly relevant. FGD participants mentioned that their villages faced challenges due to irregular electricity, making it difficult for residents to carry out tasks after dark. Solar-powered streetlights mitigated this issue effectively, especially during frequent power outages caused by heavy rains. These interventions not only enhanced safety and convenience, but also reduced electricity bills. According to FGD participants from Langkawet, ***"We struggled with water scarcity and lacked clean water for household use and irrigation. Thanks to HDFC Bank's support, the check dam now provides year-round water for washing, cooking and irrigating crops. This has transformed our lives, and we are deeply grateful for this invaluable resource."***

Quality of Design was given a slightly lower score of **3.7**, because in Siatbakon, a solar-powered water pump that was provided was procured from Delhi, making it difficult to access the vendor locally for repair and maintenance. Also, in most of the villages some solar streetlights were uprooted by heavy winds, highlighting the need for sturdier installations.

Table 1: *'Relevance' Scores for the NRM Initiative*

Indicators	Water management-irrigation	Clean energy	NRM (Overall)
Beneficiary need alignment	4	4.5	4.2
Local context alignment	4.5	4.5	4.5
Quality of design	3.5	4	3.7
Combine weightage score	**4.1**	**4.4**	**4.2**

4.2 Coherence

The coherence score of **4.5 out of 5** reflects a strong alignment both internally and externally. **Internal coherence**, with a perfect score of **5**, highlights how well the project aligned with AROH Foundation' vision and its commitment to supporting marginalized communities. The proposed interventions aligned closely with the thematic areas outlined in HDFC's HRDP.

External coherence, scoring **4.0**, acknowledged that while some streetlights had already been provided by the government or panchayat, significant gaps remained. The project sought to bridge these gaps, complementing government efforts to enhance living conditions in the villages. No overlaps, duplications, or contradictions with services provided by other organizations in the target area were reported.

Table 2: *'Coherence' Scores for the NRM Initiative*

Indicators	Water management-irrigation	Clean energy	NRM (Overall)
Internal	5	5	5.0
External	4	4	4.0
Combine weightage score	**4.5**	**4.5**	**4.5**

4.3 Efficiency

The combined efficiency score of **4.4 out of 5** reflects a strong alignment in the implementation of NRM and clean energy interventions. **Timeliness** scored **5.0** because maximum respondents (99%) stated that the implementation was done in a timely manner.

The **quality of services** scored **4.3** as the quantitative survey revealed that while 57% respondents expressed that they were 'very satisfied' with the quality of water resource structures and clean energy interventions, 40% were 'satisfied' with the interventions. None of the respondents were 'dissatisfied'

with the interventions related to both water structures or clean energy. It falls short of achieving a full score because of certain challenges like some of the streetlight poles were uprooted due to heavy winds or the non-functionality of a check dam.

The overall **operational efficiency** scored **3.5** out of 5, indicating a moderately good level of efficiency. The water structures in Myllat and Langkawet, were functioning effectively, providing reliable water supply to the villages. Langkawet benefited from a rainwater harvesting structure and a groundwater collection tank, while Myllat utilized river water stored in an overhead tank for distribution. The project's construction activities apart from meeting the goals also generated local employment opportunities to the villagers, which helped in creating both immediate and long-term benefits for the community. However, the water system in Saitbakon, which included a solar-powered pump and a check dam, was non-functional despite multiple repair attempts. Persistent issues with the motor and solar panel hindered its operation, lowering the overall efficiency score.

Figure 2: Non-functional check dam in Siabakan village

Also, if the solar streetlights malfunction, repairs could also be delayed since the vendors responsible for maintenance are based in Delhi. Interactions with the beneficiaries revealed that no groups were formed for the upkeep and maintenance of the streetlights, leaving the responsibility solely with the VDC.

The **project design** scored **4.5** as the project was able to achieve significant milestones such as establishing clear objectives and targets early in its implementation. A baseline survey, completed across 10 villages within the first year, provided a strong foundation for informed decision-making. The process of involving community leaders, such as the Headman and VDC members, to identify and select appropriate sites for interventions like rainwater harvesting structures and check dams further enhanced efficiency.

Table 3: *'Efficiency' Scores for the NRM Initiative*

Indicators	Water management-irrigation	Clean energy	NRM (Overall)
Timeliness	5.0	5.0	5.0
Quality of services provided	4.2	4.5	4.3
Operational Efficiency	3.5	3.5	3.5
Project design	4.5	4.5	4.5
Combine weightage score	**4.4**	**4.5**	**4.4**

4.4 Effectiveness

The overall effectiveness of the NRM initiative was rated a high score of **4.2**. The **reach score of 5.0** indicates that all targets like solar streetlights and revival of rainwater harvesting structures and check dams to create water sources were successfully achieved.

The performance on parameters such as **differential results** received a high score of **4.5**, attributed to a thorough baseline survey conducted across the sample villages to identify the beneficiaries' needs and priorities. Following the baseline and needs assessment, specific gaps were identified in few sample villages, including the need for solar streetlights and lack of water availability in the village for irrigation, washing, and bathing. As a result, plans were developed to construct or revive check dams and rainwater harvesting structures to address the issue of water scarcity. For instance, FGD participants in Langkawet revealed, ***"The check dam, built in 2022, has transformed our lives. It provides year-round water for washing, bathing, and household use and water for irrigation, saving us time and effort. We connect a pipe from the dam to our fields to water the crops. It benefits not just individual households but our entire village, maintaining a steady water level in all seasons. We are truly grateful for this life-changing resource."***

Adaptation over time received a lower score of **2.5**, as no changes or adjustments were made to the interventions during the project; the initial plans were followed without modification. Once the solar streetlights were deployed, no modifications were introduced to address emerging issues like the poles being uprooted by heavy winds. For instance, in Laitmynrieng, only 10 out of the 25 solar lights provided were operational, primarily due to the posts being uprooted by heavy winds and rains. Likewise, the water supply system in Saitbakon comprising a solar-powered water pump and a check dam provided by HDFC, was non-functional during the field team's visit. Although technicians were called to address the issue, it was learnt that despite repairs, they were unable to fix the issue.

Figure 3: Water structure

Influencing factors scored a **3.5** due to potential delays in procurement and maintenance, as the vendor for the solar streetlights was based in Delhi. Additionally, a few solar streetlight poles were uprooted by strong winds, an issue that could have been mitigated by using sturdier materials, given the area's susceptibility to such weather conditions. Despite these challenges, the VDC, along with the headman, played an active role in the planning, implementation, and monitoring processes, contributing significantly to the overall effectiveness of the interventions.

When asked about the current condition of the water structures and clean energy systems, 48% of respondents stated that they are 'fully functional', 25% reported them as 'moderately functional', 11% noted they are 'minimally functional', and 14% indicated that they 'exist but are not functional'. Respondents who mentioned that they 'exist but are not functional' were further asked about the

reasons. Half of them attributed this to difficulties in maintenance, while the remaining felt that the intervention was not useful.

Table 4: *'Effectiveness' Scores for the NRM Initiative*

Indicators	Water management-irrigation	Clean energy	NRM (Overall)
Interim Results (Output and short-term results)	4	4.5	4.2
Reach (Target v/s Achievements)	5	5	5.0
Influencing Factors (Enablers & Disablers)	3.5	3.5	3.5
Differential Results (Need Assessment)	4.5	4.5	4.5
Adaptation over time	2.5	2.5	2.5
Combine weightage score	**4.1**	**4.2**	**4.2**

4.5 Impact

The overall impact score for NRM stands at **4.2**, indicating a strong impact due to the NRM related interventions.

Significance scored a high **4.5**, reflecting the positive outcomes that the NRM intervention had in Meghalaya. Survey data highlighted the benefits of adopting clean energy solutions, such as solar home lights. The intervention's impact was evident, with the majority of respondents (64%) reporting a reduction in their electricity bills. Nearly 43% of respondents mentioned an improved quality of life, while 42% noted a reduction in reliance on traditional lighting sources. Slightly more than one-third of respondents also observed improved lighting conditions for studying and reduced health risks from kerosene smoke. Most respondents (93%) also believed that the installation of solar streetlights improved safety and well-being in their community.

The construction of the check dam and rain water harvesting structures were able to significantly improve the water availability and quality, addressing the challenges that the beneficiaries previously faced. Before the intervention, they struggled with limited water availability and lacked access to water for irrigation and household tasks. Moreover, a significant amount of time was previously spent collecting water from distant locations. With the construction of the water structures, this time has been redirected toward more productive activities. According to the focus group participants from Langkawet, "***After the dam has been constructed, we now have a consistent water supply throughout the year, making it much easier to collect and store water. This has freed up time for other household activities, as we no longer spend most of our day fetching water from various sources. The check dam has not only benefited individual households but also the entire village, as the water level remains stable regardless of the season, ensuring a reliable supply for everyone".*** These insights justify the high score of **4** for **transformational change.**

The qualitative discussion also indicated that the installation of solar streetlights had a positive impact on the village, addressing a crucial need for reliable nighttime lighting. These lights provided the community with improved safety and convenience, allowing villagers, especially women, to move around freely during the night. The solar streetlights greatly enhanced the quality of life, offering

greater security and making it easier for residents to carry out evening activities particularly because it gets dark quite early in these regions. The solar home lights proved especially useful during frequent power cuts caused by heavy rains, ensuring that residents had a reliable source of light during outages. Participants in the discussion in Laitmynrieng stated, ***"The major benefit of the solar home lights has been the reduction in our electricity bills, which decreased from a monthly charge of Rs. 270 to around Rs. 120 after we started using the solar home lights."*** These qualitative insights reflect the score of **3.5** given to **unintended change**.

Table 5: *'Impact' Scores for the NRM Initiative*

Indicators	Water management-irrigation	Clean energy	NRM (Overall)
Significance (Outcome)	4.2	4.8	4.5
Transformational change	4	4	4.0
Unintended change[2]	3	4	3.5
Combine weightage score	**3.9**	**4.4**	**4.2**

4.6 Sustainability

The combined score for sustainability is **4.1**, reflecting well-defined mechanisms for long-term impact. The **potential for continuity** scored **4.1,** indicating that there was a strong potential for continuity of the interventions under NRM through adaptive strategies and local resource mobilisation. The survey results revealed that 43% of respondents believed excellent measures had been implemented for the smooth functioning of the clean energy sources while 24% considered the measures adequate. Among those who rated the measures as excellent or adequate, nearly 85% attributed the creation of the sustainability mechanism to HDFC Bank.

The score of **4** out of 5 for **sustainability in project design and strategy** reflects the presence of well-defined mechanisms to ensure sustainability. Qualitative insights revealed that the maintenance of solar streetlights was managed by the VDC. After the warranty period expired, the VDC was responsible for addressing functionality issues by coordinating with AROH staff, who then liaise with the original vendor for maintenance or repairs. However, it did not receive a full score due to several streetlights being non-functional at the time of the study team's visit, highlighting gaps in the implementation of the maintenance mechanism.

Similarly, the sustainability of the check dams and rainwater harvesting structures was strengthened by the community's active participation in their maintenance. Focus groups with beneficiaries highlighted that regular cleaning was carried out as needed, along with designated days for this purpose. The responsibility for the upkeep was shared collectively by the community members, rather than being solely assigned to the VDC members, nurturing a sense of ownership. Moreover, a dedicated committee was appointed to oversee the maintenance of the dams. However, in Saitbakon, the check dam faced challenges due to functional issues. Although the VDC replaced a malfunctioning solar panel with the vendor's support, a new issue with the motor had arisen. The VDC was actively

[2] Unintended changes have been scored as the following: 1-2 are negative unintended changes, 3 is neutral with no negative or positive unintended change, and 4-5 are positive unintended changes.

engaging with the vendor to arrange a motor replacement and were optimistic that the issue would be resolved soon.

Table 6: *'Sustainability' Scores for the NRM Initiative*

Indicators	Water management- irrigation	Clean energy	NRM (Overall)
Potential for Continuity	3.9	4.2	4.1
Sustainability in project design and strategy	4	4	4.0
Combine weightage score	**4.0**	**4.1**	**4.1**

4.7 Branding

The project garnered an impressive score of **5** for branding in water management (irrigation), clean energy, and overall natural resource management (NRM). A key driver behind this success was the strategic placement of HDFC's name on water structures and placards attached to streetlights, ensuring clear public association with the brand. This high visibility reinforced the project's credibility and effectively strengthened its brand presence.

Table 7: *'Branding' Scores for the NRM Initiative*

Indicators	Weightage score		
	Water management- irrigation	Clean energy	NRM (Overall)
Visibility/word of mouth	5	5	5
Combine weightage score	**5**	**5**	**5**

4.8 Composite Score (NRM)

The composite score of **4.3** places the NRM intervention in the "Good" category, indicating reasonable performance across key parameters. The project demonstrated adequate alignment with beneficiary needs and local context, with strengths in areas like coherence and branding. However, there were significant areas for improvement, particularly in sustainability and effectiveness, which limited its ability to achieve long-term and transformational outcomes.

Table 8: *Overall 'Composite Score' for the NRM Initiative*

OECD parameters	Combined weighted score	Weighed score for Final Project Score
Relevance	**4.2**	**0.6**
Coherence	**4.5**	**0.5**
Efficiency	**4.4**	**0.7**
Effectiveness	**4.2**	**0.8**

Impact	**4.2**	**1.0**
Sustainability	**4.1**	**0.4**
Branding	**5**	**0.3**
Total Project Score		**4.3**

Composite score calculation for NRM** = 15% * Relevance weighted score + 10% * Coherence weighted score + 15% * Efficiency weighted score + 20% * Effectiveness weighted score + 25% * Impact weighted score + 10% Sustainability weighted score + 5% * Branding weighted score **i.e., (15*4.2)+(10% * 4.5)+(15% * 4.4)+(20% *4.2)+(25% * 4.2)+(10% *4.1)+(5% * 5.0) = 4.3

Case Study 1: Impact of HDFC Bank's Check Dam in Langkawet Village

Langkawet Village faced persistent water scarcity, posing significant challenges for hygiene, household needs, and agricultural sustainability. The lack of a dependable water source disrupted daily activities, forcing villagers to spend long hours collecting water and impeding their ability to focus on income-generating and productive tasks. In 2022, as part of HDFC Bank's Holistic Rural Development Program (HRDP), the village was selected for the construction of a check dam under a Rain Water Harvesting project. The intervention marked a turning point for the community, significantly improving access to water and creating long-term positive impacts.

Transformative Impact on Daily Life and Livelihoods: The introduction of the check dam has provided a year-round, reliable water source, revolutionizing water availability for multiple purposes, including:

- ***Household Usage:** Villagers now have a dependable water supply for drinking, cooking, cleaning, and bathing, significantly reducing the daily burden of water collection.*
- ***Agricultural Sustainability:** The consistent availability of water for irrigation has boosted agricultural productivity. Farmers have connected pipes from the dam to their fields and kitchen gardens, leading to increased crop yields and enhanced food security for the community.*
- ***Economic and Social Benefits:** With better agricultural yields and reduced time spent fetching water, villagers have been able to focus on other essential activities, contributing to improved household incomes and well-being.*

Enhanced Community Ownership and Sustainability: To ensure the long-term maintenance of the dam, a dedicated committee has been formed, involving representatives from the Village Development Committee (VDC) and the broader community. Regular cleaning sessions are conducted both as needed and on designated special days, fostering a strong sense of collective responsibility and ownership.

Voices from the Community

"The construction of the check dam has alleviated our challenges, ensuring ample water for various needs and improving our quality of life in Langkawet Village. This intervention came at a crucial time, and its impact is felt daily. We are deeply grateful to HDFC Bank for this essential support." **– FGD Participants, Langkawet**

The construction of the check dam has not only addressed immediate water-related challenges but has also contributed to long-term resilience, improved livelihoods, and a strengthened sense of community ownership. This impactful intervention continues to transform lives in Langkawet Village, exemplifying the success of HDFC Bank's HRDP initiatives.

CHAPTER V: KEY RESULTS AND INSIGHTS ON 'SKILL DEVELOPMENT AND LIVELIHOOD ENHANCEMENT (SDLE)'

5.1 Relevance

The relevance score **of 3.9 out of 5** indicates a significant alignment of the interventions with identified needs. Among the dimensions assessed, local context alignment scored the highest at 4.1, reflecting a strong correlation with local priorities. This was followed by beneficiary need alignment, which scored 3.9 (notable), and quality of design, which scored 3.4 and categorized as 'moderate'.

The **beneficiary need alignment** score of **3.9** was calculated as the average of responses to two key questions: the importance of the support provided by HDFC Bank and its adequacy. The data revealed that a significant proportion of respondents (37%) found the support to be 'highly important,' and 47% considered it 'fairly important'. Another 12% stated that the support was 'important'. In terms of adequacy, 62% of respondents rated the support as 'optimal' and 28% viewed it as 'extremely sufficient,' and 6% considered the support as 'just sufficient'.

The **local context alignment** scored **4.1**, indicating a strong alignment of the interventions with the needs and priorities of the beneficiaries. In youth skilling, the alignment with the local context was outstanding scoring **4.5**. This high score of providing skill training in areas with high unemployment and poverty rates was extremely relevant considering the fact that most of the youth lack suitable opportunities. By offering training in masonry and mobile repairing, the intervention enhanced employment opportunities for these youths.

Figure 4: Women engaged in broom making activity

Likewise, both farm management, SHG (Self-Help Group) development, and entrepreneurship scored **4.0** (strong alignment). Under farm management, the provision of agricultural equipment, such as land preparation tools and sprayers, proved highly relevant to farmers' needs. Similarly, the support for polyhouse structures was significant, enabling beneficiaries to cultivate off-season vegetables and grow seedlings or saplings for sale through enhanced crop yield and quality. Similarly, the revival of SHGs was a crucial intervention in addressing the identified gaps following the baseline and needs assessment, particularly the need for women's economic empowerment. Many SHGs formed under government initiatives had become non-functional due to a lack of regular engagement, capacity-building opportunities, and financial resources. By revitalizing these groups, conducting regular capacity-building sessions, scheduling monthly meetings, and guiding them toward establishing micro-enterprises tailored to local needs, the intervention directly enhanced women's economic agency.

Enterprises like piggery and broom making and handicrafts were sensitive to the economic and environmental conditions, as women in these areas were already engaged in broom making and piggery, and the additional support provided by HDFC, including training and piggery sheds, significantly improved their earnings.

The **Quality of Design** indicator assesses whether the intervention was technically, organizationally, and financially feasible while addressing the root causes of the problems. The score for quality of design is **3.4**, reflecting a moderate alignment of the interventions with the intended goals. Farm management received a lower score of **2.5**, as beneficiaries faced challenges in vegetable cultivation as the polyhouse materials were not durable and were unable to withstand heavy rains and strong winds. In contrast, enterprises were rated higher, at **3.8** (notable), as initiatives such as broom making, basket making, piggery, and beekeeping proved feasible. However, some enterprises faced notable challenges. For instance, the goatery enterprise was hindered as the goats provided were unsuitable for the mountainous regions and could not survive. Similarly, orchid cultivation faced setbacks due to the lack of durable polyhouse materials, which failed under heavy rains and strong winds. Although the goatery enterprise yielded short-term gains, it failed to address root issues such as disease management, which women were not adequately trained to handle. A similar issue occurred with poultry rearing, as the provided poultry sheds lacked adequate provisions for light and warmth. This deficiency contributed to higher mortality rates among the poultry.

Table 9: *'Relevance' Scores for the SDLE Initiative*

Indicators	Farm management	SHG development	Youth skilling	Enterprise	SDLE (Overall)
Beneficiary need alignment	4.1	3.9	3.5	4.1	3.9
Local context alignment	4.0	4.0	4.5	4.0	4.1
Quality of design	2.5	3.5	4	3.5	3.4
Combine weightage score	**3.8**	**3.9**	**3.9**	**4.0**	**3.9**

5.2 Coherence

The coherence score of **4.4 out of 5** reflects both internal and external coherence.

The **internal coherence** score of **5** highlights the strong alignment with both AROH Foundation's vision and approach, as well as HDFC's Holistic Rural Development Programme. The project's objectives were closely aligned with AROH Foundation's mission to uplift marginalized communities through integrated development. Furthermore, the intervention adhered to the thematic areas outlined in HDFC's programme. Activities such as farm management and entrepreneurship skilling were seamlessly integrated, ensuring consistency with the broader institutional mandates and objectives of both organizations.

The **external coherence** score of **3.8** highlights effective collaboration with government initiatives. HDFC partnered with government departments such as the Horticulture Department, NABARD, and Krishi Vigyan Kendra to provide training and farm inputs. HDFC, through its partner NGO, organized training sessions on crop diversification and crop-specific packages of practices, working closely with KVK Khandwa to integrate new techniques into traditional farming practices. KVK facilitated soil testing for farmers. Orientation sessions on natural farming was conducted by the Horticulture Department, encouraging farmers to utilize government schemes. Similarly, all the SHGs that were strengthened and transitioned into entrepreneurial ventures were originally NRLM-promoted SHGs. SHG members

received training on bank linkages and government schemes, and several were facilitated with loans to support their initiatives.

Table 10: *'Coherence' Scores for the SDLE Initiative*

Indicators	Farm Management	SHG development	Youth skilling	Entrepreneurship	SDLE (Overall)
Internal	5.0	5.0	5.0	5.0	5.0
External	4.0	4.0	3.0	4.0	3.8
Combine weightage score	**4.5**	**4.5**	**4.0**	**4.5**	**4.4**

5.3 Efficiency

The combined weightage score of **4.1 out of 5** reflects a strong level of resource utilization. A **timeliness** score of **4.3** further indicated that the interventions were executed promptly, closely aligning with beneficiary expectations. Survey responses revealed that 93% of respondents felt the interventions were conducted on time, with only 4% reporting minor delays. Discussions with the AROH team revealed that a challenge faced is the heavy rainfall in Meghalaya from May to September, which often delays implementation plans in the region. As a result, most activities are usually scheduled between November and April to ensure smoother execution. In the case of this project, initial plans were to construct the piggery sheds between April and July. However, due to heavy rainfall, the work was delayed and got completed in October - November.

A majority (64%) of survey respondents rated the interventions as 'very good', while 30% rated them as 'good', leading to a commendable **service quality** score of **3.7**. On a positive note, the interventions were guided by clear objectives and targets, with the revival of Self-Help Groups (SHGs) demonstrating a highly efficient and impactful approach. The strengthening of SHGs, along with farm management activities and newly introduced enterprises, proved beneficial to the community. However, there were some challenges. In farm management, the quality of polyhouses for vegetable cultivation was subpar and could not withstand strong winds. Similarly, in entrepreneurship initiatives such as orchid cultivation, the durability of polyhouse materials was inadequate. In the poultry enterprise, while sheds were provided, the lack of lighting and warmth resulted in high mortality rates, particularly in the extreme cold conditions of the region.

Figure 5: Poultry sheet

Operational efficiency received a notable score of **3.6**, reflecting the validity of the implementation approach. Entrepreneurship was scored higher at **4.0** due to the thoughtful integration of traditional skills, with enhanced support systems especially in the case of piggery and broom making enterprise.

Women who traditionally made brooms were provided with skill training to further refine their abilities. Moreover, a dedicated unit equipped with essential tools for broomstick production was established in the village of Nongmadan Shadsngi. The headman, along with members of the VDC, not only facilitated the setup of the unit, but also identified and assigned a responsible person to oversee repairs and maintenance. According to an FGD participant from Nongmadan Shadsngi ***"We have been making brooms for a very long time, as our mothers and grandmothers were also involved in this activity. However, the training provided to us by AROH has enhanced our skills, and now we are able to earn a higher income for our brooms compared to earlier".***

Likewise, the efficiency in the pig rearing enterprise was evident as it built on the community's existing traditional knowledge. People in the area were already familiar with pig rearing, and the support provided by AROH Foundation, including the construction of piggery sheds, enhanced their capacity to succeed in this livelihood. However, the goat rearing enterprise faced challenges as the goat breed provided was unsuitable for mountainous regions, contributing to the high mortality rate. Beneficiaries also pointed out that they did not have access to medicines to treat diseases.

The **project design** received an outstanding score of **4.5** out of 5, reflecting its strong foundation. This high score is attributed to the thorough need assessment and baseline studies conducted in all project villages, ensuring that interventions were tailored to community needs. Additionally, the inclusion of a robust feedback mechanism, where the VDC is held accountable and responsible for overseeing all interventions, further strengthened the project's design and execution.

Table 11: *'Efficiency' Scores for the SDLE Initiative*

Indicators	Farm Management	SHG development	Youth skilling	Entrepreneurship	SDLE (Overall)
Timeliness	4.9	4.3	4.0	4.3	4.4
Quality of Services Provided	3.9	3.2	3.9	4.0	3.7
Operational Efficiency	3.0	3.5	4.0	4.0	3.6
Project design	4.5	4.5	4.5	4.5	4.5
Combine weightage score	**4.1**	**3.9**	**4.0**	**4.2**	**4.1**

5.4 Effectiveness

The combined weightage score for effectiveness is **3.9**, reflecting a notable success while also identifying improvement areas. The quantitative survey showed a score of **3.7** for **interim project results**. In farm management, 56% of assets were reported as 'fully functional and frequently used', while 21% were 'fully functional and sometimes used', indicating a positive impact on 77% of beneficiaries. In entrepreneurship, 70% of assets were either 'fully functional and frequently used' or 'sometimes used', but 23% of respondents reported that their assets were either 'not functional' or of 'average performance'. Respondents who reported that the assets were non-functional cited two main reasons: nearly 60% stated that maintaining the assets was difficult, while the remaining 40% felt that the interventions were not useful.

A few interventions showed promising initial results but faced challenges in maintaining long-term sustainability. The score for interim results in farm management and entrepreneurship is **3.5**, revealing moderate effectiveness in achieving short-term outputs. For instance, the agriculture equipment support in the form of providing land preparation related equipment and crop protection-sprayer, etc. was very effective for the beneficiaries. However, the vegetable cultivation through polyhouse support remained ineffective after some time as the poly house materials was not durable and hence could not withstand high winds and rains, resulting in low yields. Similarly, beneficiaries practiced vermicomposting for a year and applied it to their farms, resulting in improved yields. Before adopting vermicomposting, they had relied on chicken droppings as manure, which was less effective. However, heavy rains washed away the CGI sheet coverings, leading them to discontinue the activity.

The **reach** of the interventions received a perfect score of **5.0**, indicating that the projects effectively met their targets during the implementation phase. This rating was derived from the reporting data provided by HDFC.

The score for **influencing factors** stands at **3.5**, reflecting notable effectiveness of the interventions in achieving their goals. For entrepreneurship activities such as piggery and broom making, key enabling factors included the traditional practice of these activities within the community. With minimal interventions like skill training in broom making and the provision of piggery sheds, participants were able to generate higher incomes. However, challenges were significant for activities such as poultry rearing, orchid cultivation, and vegetable farming due to adverse weather conditions. Strong winds damaged polyhouses and shade nets, disrupting farming activities, while cold temperatures during the winter and rainy seasons created difficulties for poultry farming, leading to reduced effectiveness of these initiatives.

Figure 6: Orchid cultivation

The score for **differential results** is **3.9**, reflecting a notable alignment with beneficiary needs. Youth skilling received a score of **4.0**, owing to the thorough needs assessment conducted to identify the skills most beneficial to the youth. Training in masonry and mobile repair proved to be highly effective, as masonry is in high demand in these areas. Youth who might have otherwise worked as labourers were trained in these trades, enabling them to secure local employment. Similarly, support provided in the form of agricultural implements was highly beneficial, as most beneficiaries are farmers, making this intervention well-suited to their needs. However, entrepreneurship scored slightly lower at **3.5** due to challenges faced in activities such as vermicomposting and leaf plate making. These initiatives were discontinued when CGI sheets were blown away by winds and the leaf plate-making machine stopped functioning, highlighting areas for improvement in the durability and maintenance of resources provided.

The score for **adaptation over time** is **2.4**, because the interventions did not undergo suitable adjustments over the course of the implementation. For instance, vermicomposting was discontinued

after heavy rains washed away the CGI sheets, with no efforts made to restart the activity. Similarly, the leaf plate-making initiative ceased once the machine stopped functioning, as no attempts were made to repair it. In the case of orchid cultivation, some beneficiaries tried to adapt by growing orchids in shaded areas and *verandas* after the shade nets were destroyed. However, despite these efforts, the orchids were severely damaged, highlighting the need for proactive measures and ongoing support to adapt interventions to changing circumstances.

Table 12: *'Effectiveness' Scores for the SDLE Initiative*

Indicators	Farm Management	SHG development	Youth skilling	Entrepreneurship	SDLE (Overall)
Interim Results (Output and short-term results)	3.5	4.2	3.5	3.5	3.7
Reach (Target v/s Achievements)	5.0	5.0	5.0	5.0	5.0
Influencing Factors (Enablers & Disablers)	3.0	4.0	4.0	3.0	3.5
Differential Results (Need Assessment)	4.0	4.0	4.0	3.5	3.9
Adaptation over time	2.5	2.5	2.5	2.0	2.4
Combine weightage score	**3.8**	**4.2**	**4.0**	**3.6**	**3.9**

5.5 Impact

The combined weightage score for impact is **3.2** (moderate), with the highest weightage attributed to **transformational change (3.5), followed by project outcomes (3.1) and unintended change (3.0)**.

The significance (outcome) score for SHG development stood at **3.9** (notable), farm management stood at **3.7** (notable), entrepreneurship at **3.0** (moderate), and youth skilling at **2.0**. Higher score for SHG development is due to its role in empowering women through the strengthening and revival of defunct SHGs. The intervention included capacity-building sessions, monthly meetings, and support for establishing locally tailored micro-enterprises, directly enhancing women's economic agency. AROH's facilitation of access to NRLM loans further ensured the financial sustainability of these groups and provided them with the resources needed for long-term growth and stability. In case of farm management, the respondents who were surveyed agreed that they had easy and quick access to farm inputs, increased knowledge of modern farming techniques and good practices, were able to cultivate more land and grow more crops in a year, increased knowledge on modern farming techniques and best practices, reduced input costs, better yield, and higher incomes.

Entrepreneurship scored lower because of the discontinuation of enterprises such as leaf plate making, vermicomposting and orchid cultivation due to various challenges. However, several enterprises such as piggery, bee keeping, handicrafts, and broom making had a significant impact on the income of the beneficiaries. In Tangmang village, women trained in basket making shared that they were able to sell each basket for INR 150.

Likewise, in Mawlam and Wahkhen, the beekeeping training and provision of bee boxes, colonies, and protective gear had a positive impact on women SHG members, enabling them to engage in a sustainable livelihood enterprise. They expressed satisfaction with the initiative and highlighted its potential for economic empowerment. Although, they pointed out that this year's honey production was lower due to a shortage of bees, which affected overall yields. Despite this challenge, they continued to sell honey at INR 800 per bottle, indicating a profitable market opportunity that can be further enhanced if production constraints are addressed.

Figure 3: Bee-keeping in Mawlam village

Transformational change scored **3.5**, largely due to the noticeable shift in women's confidence and engagement after they started their enterprises. Initially shy and hesitant to interact with the AROH team, awareness programs and early interventions helped them gradually open up. Over time, they became proactive, shared their needs, and actively sought help when facing issues with their products or assets, demonstrating significant personal and collective growth. Similarly, youth skilling enabled many young individuals to take up roles as masons or mobile repair technicians, resulting in improved incomes.

The score for **unintended change** stood at **3.0**, as the intervention provided women with income-generating activities during the summer when they would otherwise be confined to their homes and unable to work in the fields due to the rains. This initiative helped women to utilise their time effectively and also empowered them by offering them opportunities to develop new skills, contribute to their households' income, and promote sustainability within their communities.

Table 13: *'Impact' Scores for the SDLE Initiative*

Indicators	Farm Management	SHG development	Youth skilling	Entrepreneurship	SDLE (Overall)
Significance (Outcome)	3.7	3.9	2.0	3.0	3.1
Transformational change	2.5	4.0	3.5	4.0	3.5
Unintended change	3.0	3.0	3.0	3.0	3.0
Combine weightage score	**3.2**	**3.7**	**2.7**	**3.3**	**3.2**

Case Study 2: **Empowering women through broom making**

The women of Nongmadan Shadsngi village, nestled amidst an abundance of natural resources, have long been engaged in traditional broom-making. While the raw materials were readily available, their efforts were hindered by challenges such as limited market connectivity and a lack of advanced skills, which kept their income potential restricted. Recognizing these hurdles, AROH Foundation stepped in to transform this traditional craft into a sustainable livelihood. A dedicated broom-making unit was established in the village, and members of local SHGs were provided with comprehensive training in both broom production and marketing techniques. The impact was transformative. SHG members reported a significant boost in their incomes, with wholesale brooms fetching INR 90 each and retail sales reaching up to INR 150. Marketing avenues also expanded, with brooms being sold through two primary channels: directly in the **Peninsula** market and via dealers who visit the villages to purchase them. The intervention didn't just address income generation, but also turned seasonal challenges into opportunities. During the summer months, when heavy rains prevent agricultural work, the women channel their time into broom making, ensuring a steady source of income even during adverse weather conditions.

5.6 Sustainability

The overall combined weightage score for sustainability is **3.3**, reflecting a moderate success in ensuring that the results and benefits of the interventions could be maintained over time, with some reliance on external support. While there was noticeable progress, certain challenges still needed to be addressed to fully secure the sustainability of the interventions.

The total **potential for continuity** score from the quantitative survey is **3.2**, reflecting respondents' perceptions of their ability to sustain interventions independently after HDFC Bank's support concluded. Over half of the respondents (53%) acknowledged that HDFC Bank, in collaboration with AROH Foundation, had established effective mechanisms to ensure continuity. Additionally, 19% reported having created their own sustainability mechanisms, while only 3% felt that no mechanisms were in place.

During the focus groups, beneficiaries mentioned that orchid cultivation was unsuccessful as the seeds failed to survive and also due to inadequate water for irrigation. Apart from these concerns, they pointed out that the shade nets were not durable, as it could not withstand heavy rains and strong winds. Despite these challenges, the participants expressed a willingness to resume orchid cultivation if they were supported with better irrigation facilities and more robust polyhouse structures, such as those with iron frames. According to an FGD participant from Laitmynrieng, ***"one of the main hurdles is the lengthy growing period, which can take several years before the orchids mature enough to become a reliable source of income. In addition to the time factor, orchid farming requires careful management throughout the growing process as orchids are delicate and demand specific environmental conditions and care".***

In the case of vermicomposting, beneficiaries expressed a strong intention to continue the activity, as they were satisfied with the training provided. After practicing it for a year, heavy rains caused the CGI sheet coverings to wash away, leading to the discontinuation of the activity. Despite this setback, beneficiaries reported that the compost had improved farm yields compared to the less effective chicken droppings they had used previously. They requested better quality CGI sheet coverings that could withstand heavy rains and strong winds, to ensure the sustainability and continuation of their vermicomposting practices.

The **sustainability score for project design and strategy** was **3.4**, indicating the presence of some mechanisms for long-term sustainability. To some extent, the project design and strategy emphasized

building the capacity of individuals and institutions, strengthening systems, and nurturing an enabling environment to sustain the interventions' impact over time. For instance, piggery was a successful enterprise as pigs can be reared all year round, and can be sold twice a year. The region also has easy access to pig feed, making it sustainable. Moreover, people in the area already had some traditional knowledge of pig rearing, and the support from AROH Foundation, which provided piggery sheds, enhanced their ability to succeed in this livelihood. Similarly, broom making was a sustainable enterprise due to its roots as a traditional occupation, the abundance of raw materials, and the skill training provided to enhance the practice.

Some enterprises like poultry could sustain if targeted support was provided, such as assistance with providing affordable heating solutions or energy-efficient lighting, especially for poor households.

Table 14: *'Sustainability' Scores for the SDLE Initiative*

Indicators	Farm Management	SHG development	Youth skilling	Entrepreneurship	SDLE (Overall)
Potential for Continuity	2.9	2.9	4.0	3.1	3.2
Sustainability in project design and strategy	2.5	3.5	4.0	3.5	3.4
Combine weightage score	**2.7**	**3.1**	**4.0**	**3.2**	**3.3**

5.7 Branding

HDFC's presence was visible throughout the project interventions, as reflected in the score of **3.9**. Placards and boards displaying HDFC's name were prominently placed in all project villages, ensuring clear brand recognition.

Table 15: *'Branding' Scores for the SDLE Initiative*

Indicators	Farm Management	SHG development	Youth skilling	Entrepreneurship	SDLE (Overall)
Visibility/word of mouth	3.5	4.0	4.0	4.0	3.9
Combine weightage score	**3.5**	**4.0**	**4.0**	**4.0**	**3.9**

5.8 Composite Score

The composite score of 3.7 categorizes the SDLE intervention as "Moderate," reflecting satisfactory overall performance across key parameters. Key highlights include a strong coherence score (4.4), reflecting effective alignment with other interventions, policies, and strategies. Efficiency (4.1) and relevance (3.9) also fall in the proficient range, indicating acceptable resource utilisation and responsiveness to stakeholder needs. However, the effectiveness (3.9) and impact (3.2) scores reveal limitations in achieving consistent results and deeper, long-lasting changes. The sustainability score (3.3) reflects moderate potential of the interventions to sustain.

Table 16: *Overall 'Composite Score' for the SDLE Initiative*

OECD parameters	Combined weighted score	Weighed score for Final Project Score
Relevance	**3.9**	0.6
Coherence	**4.4**	0.4
Efficiency	**4.1**	0.6
Effectiveness	**3.9**	0.7
Impact	**3.2**	1.0
Sustainability	**3.3**	0.3
Branding	**3.9**	0.1
Total Project Score		**3.7**

****Composite Score (SDLE) =** 15% * Relevance weighted score + 10% * Coherence weighted score + 15% * Efficiency weighted score + 20% * Effectiveness weighted score + 25% * Impact weighted score + 10% Sustainability weighted score + 5% * Branding weighted score **i.*e., (15* 3.9) +(10% * 4.4) +(15% * 4.1) +(20% * 3.9) +(25% * 3.2) +(10% * 3.3)+(5% * 3.9) = 3.7***

CHAPTER VI: KEY RESULTS AND INSIGHTS ON "HEALTH AND HYGIENE"

The health and hygiene interventions aimed at improving the overall health of the community through multiple interventions such as health camps, drinking water facilities, and solid waste management. The activities had varying degrees of success, with the drinking water infrastructure being more effective and impactful than the health camps. This chapter delves into the indicator specific findings, with scoring based on the quantitative surveys and the qualitative insights.

6.1 Relevance

The overall score for **relevance** is **4.0**, indicating that the interventions demonstrated a strong alignment with the community's pressing needs.

The **beneficiaries' needs alignment** received a score of **3.8** out of 5. More than half of the respondents (52%) considered HDFC's support for health and hygiene interventions as 'essential' or a' high priority', while 45% rated it as a 'medium priority'. Only 2% felt it was 'not a priority'. Regarding adequacy, 60% of respondents found the support 'sufficient', 24% considered it 'fairly adequate', and 14% rated it as 'extremely adequate'.

Local context alignment received a strong score of **4.2**, reflecting the intervention's sensitivity to economic and environmental conditions. The health camps were highly relevant as they provided accessible medical services, directly addressing the cultural reluctance toward hospital visits. In these regions, home deliveries were common due to a lack of trust in institutional healthcare. By offering dedicated health camps for pregnant women, the intervention played a crucial role in improving maternal health outcomes and promoting trust in professional medical care. Water management (drinking) received an outstanding score of **4.5**, as the construction of storage tanks directly addressed villagers' immediate needs. Previously, they relied on a distant government community tap, requiring a 20-minute round trip to fetch water in containers. Water scarcity was a persistent challenge, particularly during winter, with households experiencing shortages for 10-15 days each month. Given that water access was a fundamental necessity, the intervention successfully met the expectations of beneficiaries, leading to significant improvements in community health and living conditions.

The **quality of design** for the water management intervention scored a strong **4.5** because the construction of the storage tank and platform in the villages brought immediate benefits to villagers as they now have convenient access to drinking water, significantly reducing the time and effort previously required. The intervention effectively resolved the previously persistent water scarcity, ensuring reliable access to drinking water for the community. In village Nongmadan Shadsngi, the storage tank significantly solved the drinking water needs and improved the quality of life for more than 50 households in the village. Health camps scored a solid **4**, bringing the overall quality of design score to **4.2**.

Table 17: *'Relevance' Scores for the Health and Hygiene Initiative*

Indicators	Weightage score		
	Water Management – Drinking	Health Camps	H&H (Overall)
Beneficiary need alignment	4	3.5	3.7
Local context alignment	4.5	4	4.2

Quality of design	4.5	4	4.2
Combine weightage score	**4.2**	**3.7**	**4.0**

6.2 Coherence

The combined weightage score for **coherence** is **4.5**, with **internal coherence** scoring a strong **5** due to AROH Foundation's vision and approach to develop human capital, natural resources and infrastructure in poor and backward villages to bring about the socio-economic transformation that strongly aligned with HDFC's Holistic Rural Development Program. External coherence received a score of **4.0** since the project effectively collaborated with government entities, such as organizing health camps in partnership with support of officials and specialist doctors in National Health Mission.

Table 18: *'Coherence' Scores for the Health and Hygiene Initiative*

Indicators	Weightage score		
	Water Management – Drinking	Health Camps	H&H (Overall)
Internal	5	5	5.00
External	4	4	4.00
Combine weightage score	**4.5**	**4.5**	**4.5**

6.3 Efficiency

The efficiency indicator evaluated the project's performance in terms of the timely delivery of services, the quality of services provided, operational efficiency, and the alignment of project design with intended outcomes. The overall combined score for health and hygiene was **4.4**, which indicated a strong level of efficiency.

The intervention showed strong **timeliness**, with a score of **5.0** from the quantitative survey. The drinking water interventions and the health camps were implemented largely within the expected timeframe, and the planned activities were executed efficiently.

For both water management (drinking) and health camps, **the quality of services** is scored **4.0**, indicating strong level of service delivery. The storage tanks that were constructed in the villages were functioning well at the time of the study team's field visit. Even during the focus groups, participants mentioned that they did not face any issues with the water structures created.

Operational efficiency for both health camps and water management (drinking) is rated **4.5.** The implementation approach of organising health camps was valid and realistic as the health awareness and access were significant challenges in the community. The villagers were usually laidback about addressing health issues and are reluctant to visit hospitals, even when necessary. Home deliveries were common in these regions. Organising health camps which included general health check-ups, monitoring of blood pressure and sugar levels, and provision of basic medicines were therefore critical. Special health camps for pregnant women also helped to address maternal health needs. This proved to be a necessary support. Likewise, the water management intervention addressed a critical issue of water scarcity. Water scarcity was a persistent issue in the villages, particularly during winter months.

After the construction of the storage tank, the issue of water scarcity was resolved. To facilitate efficient implementation, VDCs were formed in each village. These committees operated voluntarily, holding monthly meetings to oversee interventions and manage maintenance and repairs.

The overall **project design and M&E** score of **4.0** indicates strong efficiency in design. The project had clear targets and a detailed baseline and needs assessment were conducted in the project villages and the interventions were planned on the basis of the assessment.

Table 19: *'Efficiency' Scores for the Health and Hygiene Initiative*

Indicators	Weightage score		
	Water Management – Drinking	Health Camps	H&H (Overall)
Timeliness	5	5	5
Quality of Services Provided	4	4	4
Operational Efficiency	4.5	4.5	4.5
Project design	4	4	4
Combine weightage score	**4.4**	**4.4**	**4.4**

6.4 Effectiveness

The combined weighted score for health and hygiene under effectiveness is **4.2.** The overall **interim results,** including outputs and short-term outcomes, received a perfect score of **5.0**. A majority of respondents (81%) expressed satisfaction with the health camps, while 10% were 'very satisfied'. Another 9% reported being 'somewhat satisfied'.

The overall **influencing factors** scored **3.2**. **Differential results** scored **4.5 out of 5** in water management (drinking) as the intervention ensured an inclusive approach in design and implementation. A baseline survey was successfully completed in all villages during the first year. To ensure effective implementation, VDCs were established in each project village. The process began with the AROH team presenting the proposal for the construction of storage tanks and drinking water structures to the Headman and VDC members. The required water posts were identified, and the AROH team, along with VDC members, conducted a site survey to determine the appropriate water source. The assessment ensured the source was suitable for drinking, washing, and other uses. The team also identified an optimal location for the storage tank to maximize water distribution to households. Following this, the Headman organized a village meeting to raise awareness about the project and encourage community cooperation to expedite the process. The overall score for differential results is **4**, with health camps receiving a **3.5**.

The **adaptation over time** received an average score of **2.5** across activities. The health camps were one-time events, with no follow-up camps, awareness-building initiatives, or additional activities to ensure sustained improvements in community health.

The **reach** (target vs. achievement) score of **5.0** for water management (drinking) and health and hygiene reflects that all the targeted villages were covered.

Table 20: *'Effectiveness' Scores for the Health and Hygiene Initiative*

Indicators	Weightage score		
	Water Management – Drinking	Health Camps	H&H (Overall)
Interim Results (Output and short-term results)	5	5	5
Reach (Target v/s Achievements)	5	5	5
Influencing Factors (Enablers & Disablers)	4	2.5	3.2
Differential Results (Need Assessment)	4.5	3.5	4
Adaptation over time	3	2	2.5
Combine weightage score	**4.5**	**3.9**	**4.2**

6.5 Impact

The **impact** of the interventions in water management and health camps was assessed using key indicators such as significance (outcome), transformational change, and unintended change, with a combined weightage score of **3.6** overall for health and hygiene.

The health and hygiene interventions received a **significance score** of **3** in the quantitative survey. More than half of the respondents reported a 'significant improvement' in their health following the health camps, while 47% noted 'some improvement'. Moreover, all respondents stated that the health camps enhanced their understanding of early detection of health issues. The villagers have access to a regular supply of clean and proper water due to the water structures created, which improved the village and enabled them to maintain a cleaner and healthier environment.

The water management (drinking) interventions contributed **to transformative changes** in the community, resulting in the score of **4.0.** Improved access to water alleviated the physical and mental strain on women and children, who were typically responsible for water collection. The drinking water interventions significantly improved the lives of villagers by providing convenient and reliable access to water. Previously, they had to walk long distances to fetch water from a distant government tap, a physically exhausting and time-consuming task, particularly for families with young children or elderly members. The construction of the storage tank transformed daily routines by ensuring easy access to water within the community. Overall, the intervention enhanced their quality of life, promoting better health, well-being, and socio-economic stability. The health camps organized had a meaningful impact on the community, addressing critical challenges related to health awareness and access. Special health camps for pregnant women also helped address maternal health needs, promoting greater trust in healthcare services and overall well-being in the community.

Unintended changes received a score of **4.0** for health and hygiene, as villagers who were previously reluctant to seek medical care or visit hospitals became more willing to do so after the health camps were organized, significantly improving health awareness. Easy access to water not only reduced physical strain but also saved valuable time, allowing women to focus on other productive activities such as farming, entrepreneurship activities and household tasks.

Table 21: *'Impact' Scores for the Health and Hygiene Initiative*

Indicators	Weightage score		
	Water Management – Drinking	Health Camps	H&H (Overall)
Significance (Outcome)	2	3.9	3
Transformational change	4	4.5	4.2
Unintended change[3]	4	4	4
Combine weightage score	**3**	**4.1**	**3.6**

Case Study 3: Transforming Lives Through Access to Drinking Water in Nongmadan Shadsngi

In 2020, HDFC Bank and the AROH Foundation collaboratively addressed the long-standing water crisis in the village of Nongmadan Shadsngi by constructing a water storage tank and platform. Before this intervention, residents endured a 20-minute round trip to fetch water from a distant government community tap. Water scarcity was particularly severe during the winter, with households facing shortages for 10 to 15 days each month.

The project was initiated through extensive consultations between AROH Foundation, the village Headman, and the Village Development Committee (VDC). These discussions identified the required number of water posts and a viable natural water source. A site survey was conducted to assess the quality of the water source, identify optimal locations for water posts, and determine the most effective spot for the storage tank to ensure widespread access. The Headman, with VDC members, organized community meetings to inform villagers and mobilize their cooperation for project implementation.

Immediate and Lasting Impact

The intervention dramatically transformed life for the 50+ households in the village:

- ***Improved Water Access:*** *The new storage tank ensures a reliable and convenient water supply, significantly reducing the time and physical effort previously required to fetch water.*
- ***Enhanced Quality of Life:*** *With uninterrupted access to clean water, families now have more time for productive and household activities, positively impacting their daily lives.*
- ***Reduced Water Scarcity:*** *The frequency of water shortages during winter has dropped from 10-15 days per month to just 1-2 days per year.*
- ***Community Ownership:*** *The Headman and VDC members have taken charge of maintenance and repairs, ensuring the long-term sustainability of the system.*

"The water scarcity during winter has significantly reduced to just 1-2 days a year, compared to the earlier 10-15 days per month." **— FGD Participants, Nongmadan Shadsngi**

6.6 Sustainability

The overall **Health and Hygiene** score of **3.6** reflects the intervention's notable performance in terms of sustainability.

On the **potential for continuity** of the interventions, water management for drinking scored **4.2** out of 5, indicating strong prospects for ongoing benefits. A proper mechanism was put in place to ensure

[3] Unintended changes have been scored as the following: 1-2 are negative unintended changes, 3 is no unintended change, 4-5 are positive unintended changes.

the maintenance and repair of community drinking water structures. A community member was appointed by the VDC who was responsible for upkeep in the absence of HDFC or AROH Foundation, reinforcing the sustainability of the initiative. Health camps received a score of **3.9** for effectively addressing critical challenges related to health awareness and access. In particular, camps for pregnant women had a meaningful impact on maternal health. Given their success, health camps had a strong potential for replication. This led to a combined score of **4.1** for the potential for continuity of the health and hygiene interventions.

Sustainability in project design and strategy scored **3.0 out of 5,** depicting an average performance of the health and hygiene activities. In case of water management (drinking), the programme design, strategy and programme management included the sustainability aspect, resulting in a score of **4.0**. A dedicated committee was appointed to regularly monitor and maintain the water structures, strengthening long-term sustainability and community ownership. Focus groups revealed that maintaining the water structures was a shared responsibility, extending beyond the VDC members. It was the duty of the villagers to ensure the well-being of the water structure. As pointed out by an FGD participant from Nongmadan Shadsngi, ***"the maintenance of the storage tank is a collective responsibility as everyone in the village is involved in ensuring its upkeep".***

Health camps had no scope for sustainability within the project design, with no mechanisms being put in place for the local community to partner with government departments for follow up or additional camps. No systems were put in place for follow up or repeat health camps, leading to the score of **2.0**.

Table 22: *'Sustainability' Scores for the Health and Hygiene Initiative*

Indicators	Weightage score		
	Water Management – Drinking	Health Camps	H&H (Overall)
Potential for Continuity	4.2	3.9	4.1
Sustainability in project design and strategy	4.0	2.0	3.0
Combine weightage score	**4.1**	**3.1**	3.6

6.7 Branding

The overall branding score is **4.5** out of 5, indicating strong visibility of the interventions. The water tanks displayed prominent branding for HDFC Bank, highlighting the attribution given to the intervention.

Table 23: *'Branding' Scores for the Health and Hygiene Initiative*

Indicators	Weightage score		
	Water Management – Drinking	Health Camps	H&H (Overall)
Visibility/word of mouth	5	4	4.5
Combine weightage score	**5**	**4**	**4.5**

6.8 Composite Score (H&H)

The Composite Score of **4.0** categorizes the Health and Hygiene intervention as a "Good" intervention. This score is based on an evaluation of seven OECD parameters. The highest-weighted parameters

(Coherence, Branding, Efficiency, Effectiveness, and Relevance) scored relatively well, while Impact and Sustainability received moderate scores.

Table 24: *'Composite' scores for the Health and Hygiene Initiative*

OECD parameters	Combined weighted score	Weighed score for Final Project Score
Relevance	**4.0**	0.6
Coherence	**4.5**	0.5
Efficiency	**4.4**	0.6
Effectiveness	**4.2**	0.8
Impact	**3.6**	0.9
Sustainability	**3.6**	0.4
Branding	**4.5**	0.2
Total Project Score		**4.0**

Composite score calculation for Health and Hygiene = 15% * Relevance weighted score + 10% * Coherence weighted score + 15% * Efficiency weighted score + 20% * Effectiveness weighted score + 25% * Impact weighted score + 10% Sustainability weighted score + 5% * Branding weighted score **i*.e., (15%* 4.0) +(10%* 4.5) +(15%* 4.4) +(20%* 4.2) +(25%* 3.6) +(10%* 3.6) +(5%* 4.5) = 4.0***

CHAPTER VII: KEY RESULTS AND INSIGHTS ON "PROMOTION OF EDUCATION"

Interventions in the project schools focused on the creation of smart classrooms, provision of WASH facilities and play materials such as swings, inclusion of furniture, and development of BALA paintings. These interventions were largely successful, with the exception of the WASH facilities. Specific insights from each of the indicators have been shared in this chapter.

7.1 Relevance

The combined weightage score for relevance, at 3.8, indicates a notable relevance with beneficiary needs and context. **Beneficiary needs alignment** scored **4.0**, indicating that the key interventions by HDFC were highly relevant, given the poor education levels and inadequate infrastructure in the village schools. All the interventions aligned well as they addressed the critical needs of the schools. Prior to the intervention, most of the school buildings were in dire condition, lacking basic necessities such as a washing basin, washrooms, and access to clean drinking water for students. Moreover, critical areas like the kitchen shed and storeroom, where food was prepared and stored, suffered from leakage during the rainy season. The renovation efforts successfully resolved these issues. Interactions with the teachers and principals revealed that the absence of digital resources such as smart classrooms delayed academic progress, leaving the students behind their peers in other regions. Hence, smart classrooms emerged as highly relevant in promoting an interactive and engaging learning environment. During the focus groups conducted in Wahkhen UP and Secondary school, teachers stated that, ***"We are happy and more confident now, as our students can gain proper knowledge and be at par with other school children across the states, learning and understanding their subjects through digital innovations".*** However, in some schools, although toilets were renovated, they were not used due to water shortages.

Figure 7: BALA Painting

Local context alignment scored **3.5** because, while most of the interventions such as the BALA paintings in primary schools, smart classrooms, furniture support, etc. were relevant to the local context, a few interventions failed to account for local realities. For instance, the smart boards installed in some villages could not be utilized effectively due to the absence of proper internet facilities and access to electricity. Similarly, wash basins in some Anganwadi centers and schools remained unused despite being designed to be child-friendly, due to the lack of a reliable water supply.

Quality of design received a score of **3.5,** making the education-related interventions moderately good. While the BALA paintings transformed the physical spaces of schools into visually stimulating environments, and encouraged curiosity in most schools, the smart classrooms' lack of internet connectivity diminished its full potential. Moreover, training on the use of the smart classrooms were

not given to all teachers limiting the potential of the intervention. The solutions adopted to address the WASH issues in schools and anganwadis failed to take into account the inadequate water supply.

***Table 25:** 'Relevance' scores for Promotion of Education*

Indicators	Weightage score
Beneficiary need alignment	4.0
Local context alignment	3.5
Quality of design	3.5
Combine weightage score	**3.8**

7.2 Coherence

The **internal coherence** indicator received an outstanding weightage score of **5.0**, showcasing a strong alignment with AROH Foundation's overarching vision of empowering marginalised communities. The project interventions reflected the organisation's inclusive development approach, emphasising education as a catalyst for social transformation, particularly among vulnerable groups such as children in underprivileged areas. Thematic priorities, such as improving access to quality education through smart classrooms, BALA paintings, and sports materials, were seamlessly integrated with HDFC's Holistic Rural Development Programme, which recognises education as a cornerstone for sustainable rural development.

The project scored **3.0** on **external coherence**, reflecting moderate collaboration with external entities. There was coordination with the BEO (Block Education Officer) and the Education Department for school and smart class initiatives, with the involvement of the SEO in school-related interventions. Additionally, collaboration with the CDPO was established for Anganwadi-related initiatives.

***Table 26:** 'Coherence' scores for Promotion of Education*

Indicators	Weightage score
Internal	5
External	3
Overall	**4**

7.3 Efficiency

The combined **efficiency** score of **3.3 out of 5** highlighted a moderate level of project implementation efficiency. Among the key parameters, **timeliness** achieved the score of **3.0, quality of services** scored **4.0** and **operational efficiency** scored **3.0**. **Project design** was rated **3.0,** reflecting its average performance.

The intervention scored **3.0** on **timeliness**. Heavy rainfall in Meghalaya from May to September delayed implementation plans. Initially, school renovations were scheduled between April and July but were postponed to October-November due to the extreme weather. Moreover, some schools lacked electricity, which posed a challenge to introducing the smart TV. Addressing this issue required extensive discussions with principals and community leaders to coordinate with the electricity

department. Resolving the power supply challenge delayed the installation and implementation process.

The **quality of services** provided received a score of **4.0**. Both BALA paintings and smart classrooms were widely recognised as effective tools for engaging students. Teachers from Myllat stated that since the introduction of the smart classroom, they observed that the process of teaching and learning had become easier. According to a teacher, ***"Instead of spending more time and effort to make the students understand about a certain topic on a subject, we can just show them through the smart boards with minimal explanation".*** However, the smart classrooms installed in Saitbakon could not be utilized effectively due to the absence of proper training for teachers. While the introduction of smart classrooms initially generated excitement and optimism, the lack of guidance on their usage became a major drawback. The teachers mentioned that they had not been able to integrate this technology into their lessons due to lack of training, limiting its intended impact. On the other hand, teachers from Wahkhen UP and Secondary School appreciated the books provided for the library, as students could now access and read a variety of books beyond their textbooks which had helped broaden their knowledge on various topics beyond the prescribed syllabus.

Operational efficiency was rated at **3.0**, reflecting moderately successful considerations of project risks and adequate resource utilisation. Positive feedback on BALA paintings, furniture, sports equipment, science laboratories and smart classrooms demonstrated effective deployment and regular usage. However, the score for operational efficiency was lowered, as some schools were unable to use the wash basins due to a lack of water connections. This suggests that the intervention could have been more effective if water connectivity had been considered during the planning and implementation stages. Likewise, interaction with the teachers and Principal of Myllat revealed that the school premises did not have proper fencing. The absence of it resulted in people entering the campus, posing a threat to the safety of students. Also, it was easy for intruders to enter, increasing the risk of theft of valuable resources such as smart boards, and other learning materials. Had the intervention accounted for security concerns, the overall efficiency of the project could have been significantly improved.

Figure 8: Wall Painting, LP School, Saitbakon

The **project design and M&E** score of **3** indicated moderate effectiveness. The process included preparing a list of school requirements with the help of teachers and principals. The AROH Foundation staff, along with the village headman, and VDC members, conducted a detailed survey of schools to understand the issues faced. Based on the assessment, suitable interventions were planned and implemented. However, there were some gaps like absence of proper internet connectivity, shortage of water in the school toilets which led to an average score of 3.0 for project design.

Table 27: 'Efficiency' scores for Promotion of Education

Indicators	Weightage score
Timeliness	3.0
Quality of Services Provided	4.0
Operational Efficiency	3.0
Project design	3.0
Combine weightage score	**3.3**

7.4 Effectiveness

The combined effectiveness score of **3.7 out of 5** highlights a notable level of project implementation effectiveness. Performance across key indicators demonstrated impactful interventions, though some areas required improvement for sustained success. The project's **interim results** reflected moderate success, with a score of **3.5**. BALA paintings emerged as a transformative tool, turning classrooms into visually stimulating learning environments. Similarly, smart classrooms significantly improved lesson delivery, enabling interactive sessions that encouraged concept-based learning.

During the FGD with teachers in village Laitmynrieng, a teacher stated, ***"The introduction of smart boards has been a great boon to our school. Since the smart boards come pre-installed with programs aligned with the syllabus, we now have valuable visual aids for teaching. As they say, 'a picture is worth a thousand words,' and with these tools, students can understand concepts better".*** Another teacher added, ***"students sometimes get bored listening to the teacher's lecture as it becomes monotonous. The smart boards have helped break this monotony, making learning more engaging and interactive".***

Teachers from Wahkhen UP and Secondary school were particularly happy with the teaching aids such as charts, models, and visual tools as they had enhanced the teaching-learning process. Teachers were of the opinion that they were now able to impart knowledge more effectively, and students were able to visualize concepts instead of relying on their imagination. ***"These aids have bridged communication gaps, particularly for topics that are difficult to translate into the local language. Due to the visual representation, students can comprehend and retain what is being taught".***

The education intervention achieved an outstanding **reach** score of **5.0**, meeting targets in terms of coverage and resource delivery. This score is based on the data shared by HDFC.

The score of **2.5** for i**nfluencing factors** reflected a mix of enablers and disablers impacting the project. Positive enablers included the proactive involvement of teachers and the well-received introduction of interactive learning tools. However, a disabler was that the training on how to use the smart classroom was not provided in some schools because of which some of the teaching staff did not have the necessary guidance or knowledge to operate the smart TV effectively. This approach created a significant gap, as the teachers remained unfamiliar with the functionalities of the smart classroom, further impeding its widespread utilisation and the overall objective of enhancing the learning environment. Another disabler was the effectiveness of toilets and wash basins that were renovated/constructed but compromised due to the unavailability of water. In some schools where water supply was inadequate or unreliable, these facilities were non-functional, rendering the intervention ineffective. The poor internet connectivity and power disruption due to heavy rains and winds, and limited community engagement through inactive SMCs were also disablers. Moreover, the

school renovations were planned for **April to July,** however, due to **extreme weather conditions,** the schedule was postponed to **October-November** to ensure safe and effective implementation.

The **differential results** score of **4.0** was given due to the programme's ability to provide adequate needs-based interventions to schools. A **baseline survey** was successfully conducted across **10 villages** during the first year and to ensure **efficient implementation**, local committees were constituted and **monthly meetings** conducted to oversee interventions. The **AROH Foundation staff**, along with the **village headman** and **VDC members**, conducted a thorough survey of the schools to identify the issues faced by the schools. Based on this assessment, **appropriate interventions** were carefully planned and implemented to address the specific needs of the schools. However, in the school located at Myllat, drinking water facilities were not provided and students usually drank from a public tap which posed a significant health risk to the students.

With a score of **3.0**, the programme showed average **adaptability over time**. Given the challenges with **internet connectivity** in the villages, teachers in some schools had shown remarkable **resilience and innovation.** They used available resources, such as **mobile internet**, to overcome connectivity issues and ensure the **smart classrooms** could function effectively. This creative approach allowed them to continue providing quality education despite infrastructure challenges. However, training on smart TV was not provided to some teachers. Also, there was limited adaptation in infrastructure projects, such as providing water connectivity in toilets and wash basins, which constrained the flexibility of the programme.

Table 28: *'Effectiveness' scores for Promotion of Education*

Indicators	Weightage score
Interim Results (Output and short-term results)	3.5
Reach (Target v/s Achievements)	5.0
Influencing Factors (Enablers & Disablers)	2.5
Differential Results (Need Assessment)	4.0
Adaptation over time	3.0
Combine weightage score	**3.7**

7.5 Impact

The impact indicator of the education intervention achieved a combined weightage score of **3.9 out of 5**, reflecting a notable impact across various dimensions. The intervention delivered meaningful outcomes and promoted **transformational** and **unintended positive changes**, benefiting the immediate community and the broader educational environment.

Significance scored **4.0**, because of the positive outcomes of the interventions**.** The interventions implemented in the school significantly enhanced the student attendance and enrolment, attentiveness in the classrooms, educational experience, and overall development. The Principal of the school in Myllat stated ***"We have also observed that there is an increase in the attendance of the students since the introduction of smart classroom. Teachers have told me that the students are more attentive in the class since the installation of the smart classrooms".*** Although the introduction of smart classrooms was able to revolutionise teaching by integrating technology into the learning process, several challenges limited their effective usage. The lack of adequate training for teachers left

them unable to fully utilise the technology. Also, teachers had to rely on their personal mobile data to operate the digital tools because of low internet connectivity, which constrained and limited the consistent use of smart classrooms.

Focus groups with teachers from Laitmynrieng revealed that they witnessed a change in the way students learnt since the introduction of library books. ***"Thanks to the HDFC Bank's intervention, we received a variety of books, including storybooks. These books have been very beneficial, sparking students' interest in reading and helping them explore topics beyond the syllabus".***

The BALA paintings enhanced the learning environment by creating visually stimulating and interactive spaces that fostered curiosity and creativity among students. The Anganwadi teacher from Nongmadan Shadsngi shared that the **BALA paintings** play a crucial role in engaging younger children. According to her, ***"the bright and colourful pictures grab their attention, making learning fun. Seeing these paintings every day helps them understand and remember things easily".***

The programme's ability to drive **transformational change** was rated at **4.0**, signifying its success in bringing about positive impacts. The introduction of smart classrooms brought a significant transformational change. Teachers across the sample schools believed that the smart classroom initiative ensured that students in village schools were keeping up with technological advancements, and were at par with other school children across the states.

The intervention of providing scientific instruments for the science laboratories had a positive impact on students' learning. Teachers mentioned that students were excited to apply their theoretical knowledge through experiments, which helped them gain a deeper understanding of the subject. They also reported that this exposure not only sparked students' interest in science, but also boosted their confidence in handling laboratory equipment. According to the Science teacher from Siatbakon, "***to demonstrate acidity levels, we now use litmus paper tests. Similarly, while teaching human anatomy, we can point out various organs and features using skeleton models or anatomical charts".***

The **unintended changes** brought about by the intervention were impactful, earning a score of **3.5**. The school staff observed several unplanned but positive outcomes, such as better interaction between students and teachers, and knowledge sharing.

Table 29: *'Impact' scores for Promotion of Education*

Indicators	Weightage score
Significance (Outcome)	4.0
Transformational change	4.0
Unintended change[4]	3.5
Combine weightage score	**3.9**

7.6 Sustainability

Overall **sustainability** scored **3.8 out of 5**, indicating that interventions were moderately sustainable. While the project established a strong foundation, some areas need further reinforcement to ensure a lasting impact.

[4] Unintended changes have been scored as the following: 1-2 are negative unintended changes, 3 is no unintended change, 4-5 are positive unintended changes.

Potential for continuity, scored a high **4.0**. Interventions like BALA paintings and smart classrooms became integral to daily teaching practices. Teachers demonstrated a willingness to adopt and innovate with these tools, ensuring their ongoing utilisation. Initially intended as a teaching aid for students, the smart TV became valuable tools for teachers, allowing them to use the screens for presentations and collaborative discussions by connecting their mobile devices. The interventions aligned well with the academic needs of the schools, increasing the likelihood of continued usage. However, challenges like poor internet connectivity and reliance on mobile devices for smart classrooms could hinder long-term usage without infrastructure improvements.

The **project's design and strategy** scored **3.5**, indicating moderate sustainable planning. The provision of resources like smart classrooms and BALA paintings demonstrated enduring effectiveness, remaining prominently visible and continuing to add value to the learning environment. In the Anganwadi centers, the furniture and toys provided as part of the initiative were still in regular use, highlighting their long-term impact in nurturing a child-friendly environment. However, gaps such as shortage of water in the toilets, revealed a lack of comprehensive planning to address maintenance and operational challenges. The absence of training programmes for teachers to use smart classrooms limited the project's capacity to sustain its outcomes independently over time.

Table 30: *'Sustainability' scores for Promotion of Education*

Indicators	Weightage score
Potential for Continuity	4.0
Sustainability in project design and strategy	3.5
Combine weightage score	**3.8**

7.7 Branding

The score of **5 out of 5** for branding indicates that HDFC Bank's interventions have achieved exceptional visibility in the schools through effective use of visual branding tools, such as boards and wall paintings.

Table 31: *'Branding' scores for Promotion of Education*

Indicators	Weightage score
Visibility/word of mouth	5
Combine weightage score	**5**

7.8 Composite Score

The composite score of **3.8** categorizes the "PoE" intervention as **"Notable"**, highlighting its alignment with beneficiary needs, adequate coherence, and efficient implementation. Key objectives were largely achieved, demonstrating moderate impact and sustainability mechanisms. Key highlights include a strong coherence score (4), reflecting effective alignment with other interventions, policies, and strategies. Efficiency (3.3) and relevance (3.8) also fall in the proficient range, indicating acceptable resource utilisation and responsiveness to the students' and teachers' needs. The effectiveness (3.7), impact (3.9), and sustainability (3.8) scores reveal the promotion of education to be the most successful intervention across the four thematic areas addressed. Several significant interventions

have sustained beyond the project, and the school has continued to make efforts to ensure their effectiveness.

Table 32: *'Composite' scores for Promotion of Education*

	Combined weighted score	Weighted score for Final Project Score
Relevance	**3.8**	0.6
Coherence	**4**	0.4
Efficiency	**3.3**	0.5
Effectiveness	**3.7**	0.7
Impact	**3.9**	0.9
Sustainability	**3.8**	0.4
Branding	**5**	0.3
Total Project Score		**3.8**

Composite score calculation for PoE = 15% * Relevance weighted score + 10% * Coherence weighted score + 15% * Efficiency weighted score + 20% * Effectiveness weighted score + 25% * Impact weighted score + 10% Sustainability weighted score + 5% * Branding weighted score **i*.e., (15% * 3.8) +(10% * 4.0) +(15% * 3.3) +(20% * 3.7) +(25% * 3.9) +(10% * 3.8) +(5% * 5) = 3.8***

CHAPTER VIII: OVERALL PROJECT PERFORMANCE

8.1 Relevance

The overall relevance score of **4.0 out of 5** demonstrates a strong alignment between HDFC Bank's CSR interventions and the needs of beneficiaries across sectors such as NRM, SDLE, H&H, and Education. The high scores for **beneficiary need alignment (4.1)** and **local context alignment (4.1)** reflect thoughtfully designed interventions tailored to local priorities. However, the **quality of design** scored moderately at **3.8**, indicating room for improvement in designing solutions.

The interventions effectively addressed critical community challenges while aligning with local priorities. In **NRM**, check dam construction and rainwater harvesting systems helped alleviate acute water scarcity, while solar-powered lighting mitigated issues related to unreliable electricity supply. FGD participants highlighted the significant improvements in their lives due to year-round water availability and enhanced safety after dark. Despite these achievements, challenges persisted regarding the durability of solar streetlights and maintenance of solar water pumps, which were procured from distant vendors.

In **SDLE**, youth skilling initiatives, particularly training in masonry and mobile repairing, were highly relevant in regions with high unemployment and poverty. Agricultural support, such as land preparation tools and polyhouse structures, proved beneficial for farmers. However, the durability of polyhouse materials and the suitability of livestock for mountainous regions presented challenges, underscoring the need for design improvements. Some enterprises, including goatery and poultry rearing, faced setbacks due to unsuitable breeds and inadequate infrastructure, highlighting the need for better planning and resource allocation.

Under the **H&H** domain, health camps provided accessible medical services, overcoming cultural reluctance toward hospital visits and improving maternal health outcomes. Water management interventions, such as constructing storage tanks, significantly reduced the time and effort needed to fetch water and improved living conditions. While the health camps were well-received, sustained follow-up services would enhance their long-term impact.

In **Education**, school infrastructure renovations addressed critical deficiencies, such as the lack of washrooms and clean drinking water. The introduction of smart classrooms was highly relevant in enhancing learning experiences. Teachers expressed satisfaction with the positive impact on students' academic progress. However, the absence of teacher training and unreliable internet connectivity limited the full potential of smart boards. The need for context-sensitive solutions was evident, as some facilities, such as wash basins, remained unused due to water shortages. BALA paintings transformed school spaces into engaging environments, and infrastructure improvements enhanced hygiene and learning conditions. However, limited teacher training and connectivity issues diminished the impact of smart classroom interventions.

Table 33: *'Relevance' scores for the project*

Indicators	Weightage score
Beneficiary need alignment	4.1
Local context alignment	4.1

Quality of design	3.8
Combine weightage score	**4.0**

8.2 Coherence

The project demonstrated strong overall coherence, achieving a combined score of **4.3 out of 5**. This score underscores a well-integrated approach that ensured alignment with both internal and external mandates.

The **internal coherence** highlights how effectively **t**he interventions aligned its interventions with the vision and objectives of AROH Foundation and HDFC Bank's Holistic Rural Development Programme (HRDP). Across sectors such as NRM, SDLE, H&H, and Education, the project consistently adhered to institutional priorities and thematic areas. For instance, NRM interventions addressed infrastructure gaps, such as the provision of streetlights, while complementing ongoing community development initiatives. SDLE activities were seamlessly integrated through entrepreneurship and farm management skilling, reinforcing alignment with HDFC's development framework and AROH Foundation's mission. Health & Hygiene interventions focused on human development through health camps, while Education initiatives emphasized inclusive development by promoting smart classrooms and interactive learning tools.

On the **external coherence front,** the project demonstrated moderate but effective collaboration with government departments and other stakeholders. In NRM, critical infrastructure gaps not addressed by existing government services were filled, improving village living conditions. SDLE interventions fostered collaboration with agencies like NABARD and Krishi Vigyan Kendra (KVK), facilitating soil testing, crop-specific training, and bank linkages for SHG members transitioning into entrepreneurial ventures. H&H interventions benefitted from partnerships with the National Health Mission for health camps. However, external collaboration for education-related initiatives was limited due to restricted stakeholder engagement beyond government coordination.

Table 34: *'Coherence' scores for the project*

Indicators	Weightage score
Internal	5.0
External	3.7
Combine weightage score	4.3

8.3 Efficiency

The combined efficiency score of **4.1 out of 5** reflects strong intervention efficiency across the project components, though some challenges persist. A well-structured implementation approach, timely service delivery, and resource optimization contributed positively to the outcomes. However, variations in project design effectiveness and operational challenges highlight the need for further refinement.

In **NRM**, timely execution was evident. Functional water structures in Myllat and Langkawet provided reliable water supply, though persistent technical failures and delayed solar streetlight repairs rendered systems in Siatbakon non-functional. Community involvement in site selection and

construction enhanced efficiency, but the absence of organized maintenance groups limited long-term sustainability.

In **SDLE**, heavy rainfall slightly delayed the construction of piggery sheds. Despite these setbacks, the revival of SHGs, integration of farm management activities, and entrepreneurship initiatives (including broom-making and piggery enterprises) yielded efficient outcomes by leveraging traditional skills. However, challenges such as poor-quality polyhouse materials and unsuitable goat breeds for mountainous regions reduced operational efficiency.

In **H&H**, timely delivery of drinking water infrastructure and health camps effectively addressed critical community challenges. Operational efficiency was particularly evident in health camps, which successfully tackled long-standing health awareness and access issues, especially concerning maternal health. Water management interventions alleviated persistent water scarcity, although the voluntary nature of VDC operations posed sustainability risks.

In **Education**, effective engagement through BALA paintings, smart classrooms, and library enhancements showed promise. However, heavy rainfall and delays in addressing electricity and water connectivity issues impacted overall timeliness. Inadequate internet connectivity further hampered efficiency. Nevertheless, the collaborative approach in assessing school needs and planning interventions demonstrated thoughtful project design, with room for improvement in addressing infrastructure gaps.

***Table 35:** 'Efficiency' scores for the project*

Indicators	Weightage score
Timeliness	4.3
Quality of Services Provided	4.1
Operational Efficiency	3.7
Project design	4.0
Combine weightage score	4.1

8.4 Effectiveness

The project's overall effectiveness scored **4.0**, indicating strong outcomes across interventions, with certain areas of notable success alongside some challenges.

The **NRM** intervention, which included solar streetlights and the revival of water harvesting structures, proved highly effective. A comprehensive baseline survey identified beneficiary needs, such as solar lighting and irrigation solutions. In Langkawet, for instance, the construction of a new check dam significantly impacted lives by providing year-round water for both household and agricultural use. However, the project did not sufficiently address emerging issues such as wind damage to solar streetlights and malfunctioning water systems. Notably, the active participation of the VDC and headman in planning and monitoring strengthened intervention effectiveness, despite technical and maintenance challenges.

Under **SDLE**, farm management initiatives, such as agricultural equipment and vermicomposting, yielded promising results. However, adverse weather conditions, particularly high winds, damaged polyhouses, affecting long-term sustainability. In entrepreneurship, projects like piggery and broom-making delivered positive outcomes, but some interventions, such as poultry farming, were impeded

by weather. The adaptation efforts were insufficient, as some initiatives were abandoned due to lack of maintenance or repairs, underscoring the need for ongoing support and flexibility in addressing challenges.

In **Health and Hygiene** interventions, especially drinking water facilities, were carefully planned with community involvement. However, health camps, despite high satisfaction, were one-time events with no follow-up, preventing full consolidation of health improvements.

In **Education**, the implementation of BALA paintings and smart classrooms transformed learning environments, receiving significant positive feedback from teachers. However, gaps in infrastructure and preparedness such as inadequate training for teachers on using smart classrooms and insufficient water supply for toilets in certain schools impacted long-term effectiveness. Adaptation over time was moderate, with teachers showing creative adaptation to challenges like poor internet connectivity, but lacking sufficient training and resources to fully implement the program.

Table 36: *'Effectiveness' scores for the project*

Indicators	Weightage score
Interim Results (Output and short-term results)	4.2
Reach (Target v/s Achievements)	5.0
Influencing Factors (Enablers & Disablers)	3.2
Differential Results (Need Assessment)	4.1
Adaptation over time	2.6
Combine weightage score	**4.0**

8.5 Impact

The overall impact of the project, with a combined weightage score of **3.8**, reflects substantial transformational change, positive project outcomes, and some unintended shifts that contributed to community development across various sectors.

NRM interventions, driven by the construction of check dams and water harvesting structures, tackled significant water scarcity issues, reducing time spent fetching water. The introduction of solar energy solutions, including home lights and streetlights, lowered electricity bills and enhanced quality of life by ensuring safety, especially for women. Transformational changes were evident in the shift to clean energy, improved health outcomes, and increased community engagement. Unintended changes, such as reduced health risks from kerosene smoke and improved study conditions, further contributed to the project's success.

SDLE interventions, particularly in SHG development, empowered women through capacity-building, micro-enterprise development, and access to loans. These interventions led to enhanced financial stability and personal growth, resulting in significant transformational changes, including increased confidence among women entrepreneurs. However, some entrepreneurship initiatives faced challenges, such as the discontinuation of leaf plate making and other enterprises, which diminished the overall impact. Youth skilling initiatives, while impactful in providing vocational skills, had limited scope and reach.

Under **H&H**, the availability of clean water transformed daily routines, alleviating physical strain and contributing to better health outcomes. Health camps, particularly those focused on maternal health, fostered increased awareness and trust in healthcare services. An unintended change was the

increased number of villagers seeking medical care, resulting in improved health-seeking behavior. The intervention's transformative impact was especially noticeable in reducing the burden of water collection for women and improving healthcare access.

Education interventions led to significant improvements in student attendance, engagement, and overall educational quality, thanks to the introduction of smart classrooms, library books, and scientific instruments. Despite challenges like inadequate teacher training and limited internet connectivity, the educational environment has transformed, particularly in fostering curiosity and enhancing student-teacher interactions. Unintended changes included improved collaboration between teachers and students, reflecting a positive shift in educational dynamics.

Table 37: *'Impact' scores for the project*

Indicators	Weightage score
Significance (Outcome)	3.7
Transformational change	3.9
Unintended change[5]	3.6
Combine weightage score	3.8

8.6 Sustainability

The overall sustainability score for the project is **3.7**, with a slightly higher **potential for continuity at 3.9**, indicating moderate success and the likelihood of lasting impacts, contingent on improvements in specific areas.

Under **NRM** interventions, beneficiaries were generally satisfied with the sustainability measures, particularly those related to water management systems. However, challenges such as non-functional streetlights and motor issues with check dams were noted, highlighting the need for better maintenance processes. Despite these challenges, the community's active role in maintaining these structures, such as cleaning check dams, fostered ownership and sustainability.

In **SDLE**, sustainability was partially reliant on external support. While mechanisms were established to ensure continuity, challenges like crop failures in orchid cultivation and issues with vermicomposting infrastructure hampered long-term sustainability. Nevertheless, beneficiaries expressed willingness to continue activities if provided with better resources. Piggery and broom-making were perceived as more sustainable due to local knowledge, existing infrastructure, and traditional practices, emphasizing the importance of leveraging local resources and expertise for sustainable livelihoods.

Health & Hygiene interventions, particularly water management systems, performed well in terms of continuity. The community's involvement in maintaining water structures, especially through a designated VDC member, reinforced their sustainability. Health camps, especially those targeting maternal health, were well-received but lacked sustainability mechanisms for follow-up activities.

In **Education**, the integration of smart classrooms and BALA (Building as Learning Aid) paintings became central to teaching practices, with both teachers and students adopting these tools. However, challenges such as poor internet connectivity and reliance on mobile devices for smart classrooms

[5] Unintended changes have been scored as the following: 1-2 are negative unintended changes, 3 is no unintended change, 4-5 are positive unintended changes.

could hinder long-term usage. Despite these hurdles, interventions like furniture and toys in Anganwadi centers continued to make a lasting impact, showcasing the potential for sustained positive outcomes. However, the lack of training for teachers to effectively use these tools may limit the full realization of the project's potential.

Table 38: *'Sustainability' scores for the project*

Indicators	Weightage score
Potential for Continuity	3.9
Sustainability in project design and strategy	3.5
Combine weightage score	**3.7**

8.7 Branding

The branding analysis shows strong visibility across sectors, contributing to a positive perception of HDFC Bank's interventions. A score of **4.6** reflects the effective placement of banners and boards in key village locations, driving high visibility.

In the **NRM** sector, strategic branding on water management structures and clean energy initiatives led to outstanding visibility, with HDFC's name prominently displayed on water infrastructure and streetlight placards, enhancing brand recognition and linking the bank's contribution to environmental impact. In **SDLE,** branding through placards and boards in project villages was visible but slightly less prominent than in NRM. Nevertheless, it reinforced HDFC's presence and promoted awareness of skills and livelihood interventions. For **H&H,** branding on water tanks and health infrastructure bolstered HDFC's image in improving local health and sanitation standards. In **Education,** the full branding score reflects excellent visibility in schools, where visual tools like boards and wall paintings fostered a strong sense of partnership between the bank and the educational community.

8.8 Composite Score

The composite score for the project, derived using adapted OECD criteria, is **4.0** indicating a **good overall performance**. This score reflects the Relevance, Coherence, Efficiency, Effectiveness and Branding contributed highly to the overall score, while Impact and Sustainability moderately contributed.

OECD parameters	Combined weighted score	Weighed score for Final Project Score
Relevance	4.0	0.6
Coherence	4.3	0.4
Efficiency	4.1	0.6
Effectiveness	4.0	0.8
Impact	3.8	1
Sustainability	3.7	0.4
Branding	4.6	0.2
Total Project Score		**4.0**

CHAPTER IX: LEARNINGS AND RECOMMENDATIONS

- **Success of Water Management Interventions:** The findings highlight the significant success of water management interventions, particularly the construction of storage tanks, which have led to improved access to drinking water, alleviated water scarcity, and enhanced the overall quality of life for villagers. These efforts closely align with community needs, as reflected in the high relevance and effectiveness scores. However, some villages were not included in the intervention. The water management system serves as a robust model for replication, with community involvement in maintenance ensuring its sustainability. To address the gap in the villages that were left out, it would be beneficial to consider building rainwater harvesting tanks where feasible.
- **Sustainability Challenges in Health Camps:** The health camps, while effective in addressing maternal health and promoting trust in healthcare services, lacked sustainability. The camps were one-time events with no follow-up, and the community's reluctance to seek institutional care remained a challenge. This gap in continuity highlights the need for a more sustained health intervention model. Recommendations include integrating follow-up health initiatives, such as regular health camps or mobile clinics, to maintain engagement and ensure long-term health improvements. Additionally, health camps should be designed to promote greater community ownership and collaboration with local healthcare providers to enhance sustainability.
- **Potential for Mushroom Cultivation as an Income Source:** Mushroom cultivation has a growing demand in the area and could be a valuable addition to the project. Given its popularity and relatively low investment requirements, it could be a promising opportunity for local farmers to diversify their income sources. Incorporating mushroom cultivation into the project could provide economic benefits, promote sustainable farming practices, and support the livelihoods of the community.
- **Ensuring the Sustainability of Vermicomposting:** To ensure the sustainability of vermicomposting, providing durable and weather-resistant coverings, such as reinforced CGI sheets or alternative protective structures, can help prevent damage caused by heavy rains. Training sessions should be organised to provide guidance on compost storage and protection against adverse weather conditions. Facilitating connections with potential buyers, such as local farmers, nurseries, or agricultural cooperatives, can create market opportunities and incentivize continued production. and the viability of vermicomposting as a long-term livelihood activity.
- **Targeted Solutions for Poultry Farming Challenges:** To address the challenges faced in poultry farming during the winter and rainy seasons, targeted interventions like subsidized heating solutions, energy-efficient lighting or low-cost heaters, should be provided, especially for economically weaker households. Access to microloans or financial assistance can enable households to invest in necessary equipment. Strengthening veterinary support and ensuring vaccination availability can go a long way in mitigating disease outbreaks and promote better care practices.
- **Improving the Goatery Initiative for Mountain Regions:** To improve the success of the goatery initiative, future interventions should focus on providing goat breeds suited to mountain regions to enhance their survival rate. Conducting a feasibility study before distribution can help identify resilient breeds better adapted to local climatic conditions. Additionally,

comprehensive training programs on goat rearing, disease prevention, and proper nutrition should be provided to SHG members. Ensuring access to veterinary services, essential medicines, and vaccinations will further support goat health and reduce mortality. Establishing a support system with regular monitoring and expert guidance will strengthen the sustainability of the initiative and improve livelihoods.

- **Strengthening Orchid Cultivation through Infrastructure and Financial Support:** To enhance the success of orchid cultivation, it is important to strengthen irrigation infrastructure and training on efficient water management. Upgrading polyhouse designs with durable, iron-framed structures and weather-resistant materials will help withstand adverse conditions. To mitigate the lengthy growing period of orchids, financial support, such as subsidies or low-interest loans, should be offered, along with the promotion of intercropping with short-duration crops for supplementary income. Introducing resilient orchid varieties and will further empower beneficiaries.
- **Teacher Training for Effective Smart Classroom Usage:** It was observed that the introduction of smart classrooms in some schools has not yet reached its full potential due to a lack of teacher training to use the smart TV. Many teachers lack the necessary skills to effectively integrate this technology into their teaching and pedagogy. Targeted training programs will be helpful to equip teachers with the knowledge and confidence to utilize smart classrooms effectively, ensuring these resources are fully leveraged to enhance the learning experience.
- **Addressing Connectivity Issues in Smart Classrooms:** It was observed that poor internet connectivity reduced the effectiveness of smart classrooms. To address this, the intervention should focus on ensuring reliable internet connectivity and improving network infrastructure by collaborating with service providers to enhance coverage in schools. Moreover, installing Wi-Fi routers with sufficient bandwidth, exploring low-cost data plans, and integrating offline digital learning resources can help mitigate connectivity issues. Backup solutions such as pre-loaded educational content on smart boards or local servers could also be considered to ensure uninterrupted access to learning materials. Implementing these measures will enhance the full potential of smart classrooms.
- **Addressing Non-Functional School Washrooms:** In some schools, the renovated washrooms remained non-functional due to water shortages. To ensure their effective use, future interventions should prioritize integrating essential infrastructure considerations, particularly water connectivity. Conducting pre-assessments and securing municipal connections, along with alternative solutions such as storage tanks and rainwater harvesting, can help maintain functionality. Additionally, addressing security concerns by constructing proper fencing, installing lockable storage for valuable resources, and engaging local authorities and community stakeholders will enhance school safety. Implementing adequate lighting and a community watch program can further deter unauthorized access and theft. By incorporating these measures into the planning and implementation stages, the project's overall effectiveness and sustainability can be improved.
- **Local Procurement:** Procurement of products should be done locally in order to enable easy O&M post project implementation. For example, in the case of the solar streetlights, the vendor was based in Delhi, making it difficult to fix any issues that might have emerged. Additionally, the quality of these products should take into account the local risks that might emerge, such as heavy rains and winds.
- **Continuing Interventions:** In cases where the interventions have been largely successful and the implementing agency has been proactive in completing the activities proposed, HDFC should explore continuing the intervention in the same geography through a phased approach.

Given that the aim of the HDFC project is holistic rural development, it is critical that the lessons learnt from the implementation of this phase are built upon for the next phase.

- **School O&M:** For efficient O&M in schools, it is crucial to strengthen the SMCs.
- **Weather Considerations:** Interventions should take into account the weather conditions during the planning phase. Several activities were delayed because they were initially planned in the monsoon months. Given that heavy monsoons are a regular feature of the region, this should be factored in during the planning and implementation processes to ensure reduced delays.
- **Stakeholder Participation:** The active participation of primary stakeholders and local decision-makers such as the VDC has been essential to ensuring the continued impact of the project intervention. Their participation has led to effective troubleshooting and maintenance of several interventions.
- **Enhancing Traditional Practices:** Leveraging existing practices and making them more effective and profitable has been a highlight, as witnessed in the case of broom making and piggery. Community members were already involved in the enterprise traditionally, but by upskilling through the project, they have been able to increase their income.

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