Impact Assessment of
Rallis Ujjwal Bhavishya Yojana (RUBY) program

In Akola (Shivar) & Ratnagiri (Lote) Districts in Maharashtra

of

RALLIS INDIA LIMITED
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Executive Summary

The Rallis RUBY Impact Assessment Report highlights initiatives addressing critical educational and vocational challenges in rural Maharashtra. The region faces deficits in foundational learning, particularly in English, Science, and Math, exacerbated by the COVID-19 pandemic, which disrupted education.

The Rallis Ujjwala Bhavishya Yojana (RUBY) initiative tackled learning gaps in middle school education, focusing on student engagement and comprehension in English, Science, and Math. Key components included activity-based science learning, leveraging local languages in the English Literacy Program, and addressing math skills deficits through interactive tools like the First in Math app.Over three years (2021–2024), RUBY reached over **3,000 students**.

Impact Highlights

Educational Outcomes:

- Reading proficiency in the English Literacy Program improved from **22.4% to 59.1%**.
- Student participation in science exhibitions rose from **194 to 322** in three years.
- Math app usage increased by **48%** from 22-23 to 23-24, reflecting higher student engagement.

Recommendations

Despite significant achievements, challenges remain in assessment rigor and alignment with market demands. The report suggests enhancing evaluation tools and diversifying training programs to sustain long-term impact.

The RUBY programs have effectively improved educational outcomes, marking a vital step towards addressing socio-economic challenges in the intervention villages. Continuous evaluation and adaptation will ensure their sustained success.

1. Introduction

1.1 Background

The Status of Middle-Standard Education in India

The Annual Status of Education Report (ASER) 2022 provides a comprehensive overview of middle-standard education in India, highlighting a significant increase in universal enrollment, with 98.4% of children aged 6-14 enrolled in schools in 2022. However, it also reveals that many children lack foundational reading, writing, and arithmetic skills. This trend is particularly pronounced in Science, Maths, and English, with many students struggling to comprehend basic concepts.[1]

State Level: Maharashtra

Maharashtra, one of India's most developed states, has significantly improved education quality, with high enrollment rates compared to the national average. However, challenges persist, especially in rural areas and underprivileged communities. ASER 2022 highlights disparities between urban and rural areas, such as access to resources, the impact of COVID-19 on learning levels, and differences in Literacy and Numeracy.

District Level: Akola and Ratnagiri

- **Akola:** Akola district, located in the Vidarbha region of Maharashtra, faces several challenges in middle-standard education. ASER 2022 indicates that while enrollment rates are high, foundational learning remains a concern. Factors such as teacher quality, infrastructure, and socioeconomic disparities contribute to these challenges.
- **Ratnagiri:** Ratnagiri district on the Konkan coast also faces similar issues. Geographical isolation, language barriers, and a lack of quality educational resources hinder students' progress in Science, Maths, and English.

The National Education Policy (NEP) 2020 emphasizes experiential learning, critical thinking, and skill-based education to improve the quality of lower and middle-standard education.

[1] ASER 2022

However, implementing these reforms is challenging in rural areas due to infrastructure deficits, teacher shortages, and resistance to change in traditional teaching practices.

1.2 Project Introduction:

Improving the quality of middle-standard education and aligning it with employment opportunities are crucial for India's socio-economic development. Bridging the gaps in Science, Maths, and English literacy, especially in rural districts like Akola and Ratnagiri, requires a multi-pronged approach involving infrastructure investment, teacher training, and curriculum reforms. On the employment front, expanding skill development initiatives, reducing the digital divide, and promoting entrepreneurship are crucial to ensuring sustainable livelihoods for rural youth.

To comprehensively tackle the challenges of low educational attainment has worked with Basic Activity Center for Science and Solar Education (BASSE), LeapForWord, and First in Math, as part of their Corporate Social Responsibility (CSR) initiatives, by launching the below program:

1.2.1 Rallis Ujjwala Bhavishya Yojana (RUBY):

Under the RUBY initiative, Rallis India focused on improving the learning outcomes of students in the English, Science and Math subjects:

1. **Activity-Based Science Learning**: In partnership with the Basic Activity Centre for Science and Solar Education (BASSE), this program emphasized hands-on, experimental learning for students from Grades 6 to 8. Over three years (2021-24), the initiative improved comprehension of scientific concepts through interactive experiments and science exhibitions. 929 Students from 8 Schools gained confidence in scientific inquiry, fostering aspirations for careers in STEM fields.
2. **English Literacy Program (ELP)**: In collaboration with LeapForWord (LFW), the program addressed English language barriers in regional schools, ensuring professional education access. It introduced a pedagogy independent of English-speaking teachers, using local languages for instruction. The program was implemented across these eight schools, improving reading, comprehension, and sentence-structuring skills among 3186 Grades 4 to 7 students.
3. **Foundational Numeracy**: The Rallis India, in partnership with the First in Math (FIM) program (2022–2024), focused on improving foundational numeracy and math achievement in these schools, reaching 802 students of Grade 6 to 8. It aimed at addressing learning gaps caused by COVID-19 school closures and supports teachers and students with interactive, scalable, and motivational tools.

2. Research Methodology

Upon the successful completion of RUBY for the last three Financial Years from 2021-24, benefitting rural students, and Rallis India has entrusted NuSocia, an impact advisory firm to undertake the impact assessment study to understand the effectiveness of the program and to learn from the research findings to come up with better projects in the future.

2.1. Objectives of the study

2.1.1 To understand the impact of the project on beneficiaries
2.1.2 To assess the project implementation and its effectiveness
2.1.3 To provide recommendations for scale-up/replication

2.2. Research Framework

The study combined Qualitative and Quantitative research based on appreciative inquiry. It used the globally renowned OCED-DAC 'REECIS' (Relevance, Effectiveness, Efficiency, Impact, Coherence, and Sustainability) framework[2] to assess the program's impact on educational initiatives and a Lifecycle Framework for the skilling initiatives covering the integral aspects of Mobilization, Enrollment, Training, Gainful engagement, and Post gainful Engagement.

Fig 1: OECD-DAC REECIS Framework

2 Evaluation Criteria - OECD

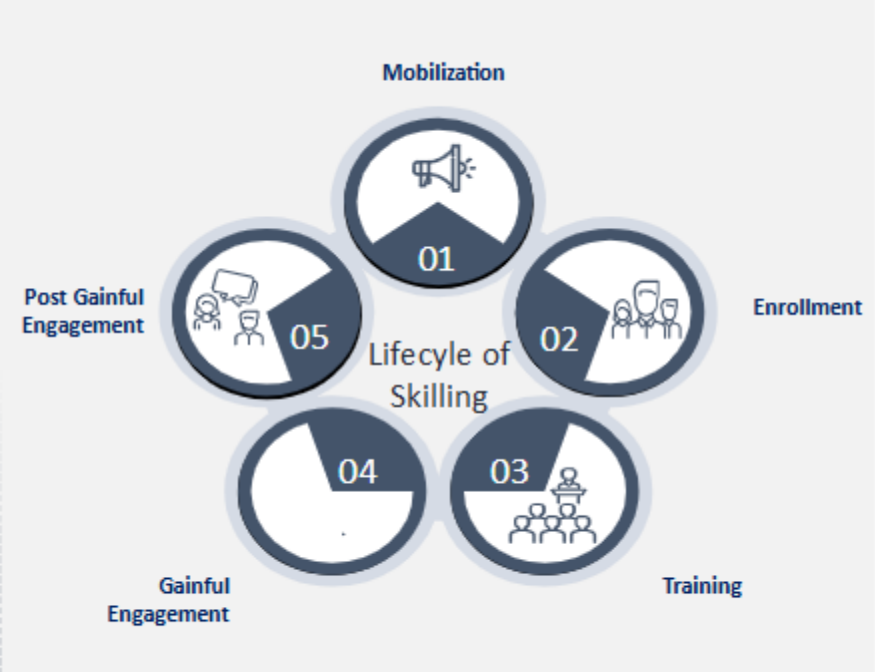

Fig 2: Lifecycle framework for skilling programs

2.3. Sampling

The projects have benefitted over 4915 students and the community teachers directly and indirectly benefitted the NGO's team members and other stakeholders involved with the project. To understand the project's impact and get an unbiased representation of the beneficiaries, the research team used Stratified sampling[3] quantitative inquiry and Purposive and Convenience sampling methods for the qualitative investigation to select the respondents for the primary research.

Education Sampling:

Stakeholders	Qualitative Research (Purposive Sampling)		
	Key Informant Interviews		Focus Group Discussion
Direct Beneficiaries (Education)			6 (3 each from Akola & Lote)
Trainers/Instructors	6 (2 each from Science,		

[3] **Stratified sampling** has been used to identify the survey & KII participants with different course type and year of training as strata.

(Education)	Maths & English)		
Community Teachers	4		
BASSE team	1		
LEAP FOR WoRD team	1		
Rallis India team	2		
Total	**14**		**6**

Table 1: Education Sampling

2.4. Data Collection

2.4.1 Desk research: Desk research was conducted with the help of annual project reports, assessment reports, and other documents provided by implementation partners and the donor, along with open resources available on the Internet.
2.4.2 Key Informant Interviews: In-depth interviews with the help of an interview guide consisting of open-ended questions were conducted with Beneficiaries, Trainers, Implementation Partners, and the Donor to understand the project's effectiveness.
2.4.3 Focus Group Discussions (FGDs): Beneficiaries were selected through convenience sampling and were formed as groups. They were asked open-ended questions to understand the project objectives and their impact on them.

A detailed set of questions asked for each group of respondents can be found in Annexure.

3. Findings

The study utilized distinct sets of questions to evaluate the effectiveness of each program individually, considering the differing objectives of RUBY. RUBY was focused on enhancing learning outcomes.

3.1 Rallis Ujjwala Bhavishya Yojana (RUBY)

To address the learning gaps in language, science, and math subjects of students in Akola and Lote (Ratnagiri) locations where Rallis has its factories, the project collaborated with three expert implementation partners to address issues with each subject through experiential learning. The project intervened in 8 Schools (5 in Akola and 3 in Lote) over the three years starting from 2021-22.

Sr. No	Implementation Partner	Subject and Classes	Students		
			2021-22	2022-23	2023-24
1	BASSE	Science	298	319	312
2	LFW	English	1162	1087	937
3	FIM	Math	NA	382	418
		Total	1460	1788	1667

Table 2: Number of students year on year across subjects

3.1.1 Project Implementation:

To understand the on-ground implementation and to see the project's impact, the study interacted with the beneficiary students, community teachers, and the representatives of the implementation partners.

Science Intervention Program - BASSE

The Science Intervention Program by BASSE was initiated to enhance students' understanding and interest in science through hands-on experimentation in the selected schools, addressing the need for more active participation in traditional science education in rural India.

A preliminary survey assessed the academic foundation of 25 selected students from grades 6 to 8. Based on the survey results, students were categorized, and a complementary curriculum was designed, diverging from the standard school curriculum.

The program spanned three years (2021-22 to 2023-24), focusing on activity-based learning. Each year building upon the previous year's learnings, the first year tried to spark curiosity, second year focused on enhancing observation skills, while the third year engaged in encouraging independent project execution. A total of ten experiments were conducted in each session, and each phase had 10 such sessions ranging 2 hours each in duration, and these sessions culminated in a science exhibition at the end of the year, where students demonstrated their experiments.

"Science education in the region was primarily theoretical, with limited emphasis on hands-on learning. Schools lacked laboratory facilities and resources for conducting even basic experiments. The intervention addressed these gaps by introducing accessible, practical experiments that made science tangible and relatable. Additionally, the lack of teacher training in experiential teaching further underscored the need for such a program." - Trainer & Founder, BASSE.

The topics included Simple Experiments, Measurement - I, Separation Methods, Force, Pressure, Heat, Light, Air & Water, Magnets, Measurement - II, Surface Tension, Acid & Base, Volume, Density, Microscope, and Life Process. The trainer and the founder of BASSE travel to a select school in a day and conduct on average three sessions of 2 hours each day in that school, and move to a nearby school to repeat the same.

"The program aligns well with the local curriculum by focusing on foundational science concepts already part of the syllabus, such as forces, molecular interactions, and basic physics principles. Adjustments were made to emphasize practical learning. These modifications ensured the program complemented existing lessons while making them more engaging and impactful." - Founder, BASSE.

The primary beneficiaries were students in grades 6 to 8 who were trained by the BASSE team on the above topics through offline demonstrations within the school, complementing the existing curriculum taught by the teachers.

English Literacy Program - LFW:

The Leap For Word English Literacy Program (ELP) was developed to address the significant gap in English proficiency among students in regional language government schools, which hindered their access to higher education opportunities. The program began with teacher training

sessions that focused on equipping educators with the necessary skills to teach English effectively without requiring them to be fluent in the language.

"The major challenge in Akola and Lote is the lack of English awareness among second to fifth-grade students. They primarily use vernacular languages like Marathi or Hindi and struggle with basic English reading, even in higher grades like fifth and sixth. We introduced software that helps students recognize words through phonetics to address this. We developed a curriculum using an error algorithm that connects vernacular languages with English learning, enabling students to learn English through their native language." - Leap For Word, Maharashtra state co-ordinator.

The ELP was structured into four levels: Elementary Reading, Advanced Reading, Elementary Comprehension, and Advanced Comprehension. The intervention included baseline, midline, and end-line assessments to track student progress. Monthly review meetings with teachers ensured continuous improvement, while competitive events like the Word Power Championship motivated student engagement.

The community teachers (Hired from the community to teach English to the students) were trained for 4-5 hours on each level by the LFW team at the start of the annual year. They were provided textbooks with an exact curriculum per the prescribed levels and used the software tools developed by LFW to teach students from grades 4-7. The classes were conducted 30-45 minutes per grade by the community teachers who attended the schools for a few hours as per the planning done along with the school administration.

It was observed that the English literacy program was not aligned with the school curriculum directly, unlike the science curriculum, and it focused on improving students reading and writing in English through the four levels, which would indirectly help improve the student's regular school curriculum.

Foundational Numeracy, and Math - FIM:

The Foundational Numeracy, and Math project was launched in response to the significant learning gaps in mathematics that emerged due to school closures during the COVID-19 pandemic. The project aimed to measure and address the individual loss in math skills among students without adding extra burdens on teachers.

The project began with a collaboration between Rallis India and First In Math in 2022-23, focusing on empowering teachers with resources and training to support students of varying skill levels and socio-demographic backgrounds. An emphasis was placed on enjoyable training methods for teachers to enhance their skills on the job.

The implementation involved several key strategies:

- Hands-On Training: Teachers received experiential training at the initiation to utilize the First In Math app effectively to upskill themselves, and the FIM team supported teachers and the students with the technical issues and conducted refresher sessions when needed.

- Flexible Practice: Students can practice math skills anytime and on any device, at school or at home.

- Regular Monitoring: Monthly virtual meetings allowed for progress monitoring and adaptation of teaching methods based on student performance.

The foundational numeracy initiative engaged with students from grades 6-8 from the eight selected schools, where the students were registered to the FIM app. Upon registration, the students and teachers were trained to use the app and find topics aligned with the curriculum.

"Currently, we cater to students in grades 6-8. Grade 6 and 7 students start with elementary and then progress to intermediate and advanced levels. While our modules are aligned with the curriculum, they are not mapped word-for-word. Math concepts remain consistent across different boards, whether government, CBSE, or IGCSE. However, we tailor the difficulty level to match the needs of each school." - First in Math representative.

The program addressed speed, accuracy, mental math, and foundational numeracy. The key focus was mastering the basics—addition, subtraction, multiplication, and division of whole numbers, fractions, decimals, and integers.

"We provide ample practice opportunities through modules like Just the Facts. This module is a formative test where students solve 100 math problems in five minutes. It is designed to be stress-free; students are not penalized for mistakes but are encouraged to learn from them. For example, if a student initially solves 30 problems correctly out of 50, they are motivated to challenge themselves to do better in subsequent attempts. This fearless practice helps build their confidence and skills." - First in Math representative.

It was observed that the class teachers also played a significant role. The teachers used FIM to supplement classroom lessons, and once they completed a topic, they encouraged students to practice related modules on the platform, which helped reinforce learning.

Students were categorized as Scholars or Mathematicians based on the number of problems they solved, with their progress displayed on a school-level leaderboard. Additionally, both students and teachers had the opportunity to compete on the national leaderboard of FIM, gaining recognition for their overall performance and the total problems solved.

3.1.2 Impact:

Impact on Students

Increased Confidence and Skills:

Students have reported a notable increase in confidence when applying their newly acquired skills. One student mentioned, "*This program has helped us build a strong foundation in Science, Math, and English. It has boosted our confidence, improved our understanding, and made learning enjoyable.*" This sentiment echoed throughout the students interviewed, with many expressing joy in their academic progress, particularly in math and science.

"Earlier, these subjects felt like enemies to us, especially Math, Science, and English. However, through this program, our fear has disappeared, and we are now enjoying learning these subjects." - Student FGD, Blue Lotus Convent School.

Practical Applications of Learning:

Many students have begun to conduct independent science projects at home. One student explained centrifugal force to their younger sibling using a homemade spinning toy. Such initiatives indicate that the program inspired students to explore science independently and apply their learning in practical contexts.

"Earlier, these subjects felt like the toughest to handle. However, the way Yavalkar Sir teaches us has made all the difference. The methods are engaging and practical, involving projects that connect directly to real-life applications. For example, the solar cooker experiment helped us understand the concepts better and showed us how to apply them in everyday life. This approach has made learning more enjoyable and relevant to our academic needs." - Students FGD, Blue Lotus Convent School.

"The concepts and methods taught in the program are much easier to understand and integrate into our regular academic requirements. The language used is simple and clear, making learning more effective compared to how we were taught earlier. This has greatly impacted our understanding and application of the subjects." - Student FGD, Shivar ZPHS.

The practical learning approach imbibed across all three subject interventions was lauded for the engaging content and more straightforward language compared to the regular curriculum.

Improved Academic Performance:

Improving the learning outcomes of the students in the intervention schools across all three subjects was the objective of RUBY, and the improvements in learning have been observed as below:

a. **Science Intervention:** The study found that students could perform the experiments independently. At the end of the year, a science experiment exhibition was organized, showcasing the experiments conducted throughout the year. During the exhibition, students demonstrated their experiments, explained the process, and discussed their observations. This activity enhanced their confidence and increased their engagement with the subject in the classroom.

"We feel much more confident in using the skills we've learned, especially through exhibitions and practical activities. We now believe we can apply what we've learned effectively in real-life situations and class assignments, as we've gained both knowledge and experience." - Students FGD, ZPHS Shivar.

Sr. No.	**Year**	**No. of Exhibits Done**	**No. of students participated**
1	2021 - 22	86	194
2	2022 - 23	169	338
3	2023 - 24.	182	322

Table 3: Exhibitions conducted by students year on year

Over the years, it's observed that the students' interest in Science education and enrollment to Science studies have grown due to the improved interest generated through the science experiments.

"Almost half the students are interested in studying further in the science stream now'" - Community Teacher.

The BASSE team conducted pre and post tests across the 8 intervening schools every year to measure student's previous analytical skills related to the science subject, and their understanding of the same concepts after the intervention with a focus on identifying student's ability to observe, and apply their knowledge in the science topics. The below are the test results from the academic year of 23-24.

Component	**Pre-Test Average**	**Post-Test Average**
Previous Knowledge	45	77
Methodology	74	82
Application	77	88

Creativity	51	77
Interest	85	91
Scientific Relation	0	51
Observation	2	40
Measurement	20	57

Table 4: Results of Pre and Post Test conducted by BASSE

From the results of the pre and post surveys**,** it could be inferred that the student's scientific relation, and observation were non-existent before the intervention in FY 23-24 and that they have seen exponential growth by the end of the year.

However, the study's results are challenging to evaluate conclusively year-on-year due to limitations in the test design, and unavailability of comparable metric. For instance, each skill was assessed using only one question, with a total of 10 questions covering 10 different skills. Some questions, such as "Do you like Science?" were overly simplistic. Despite using the same set of pre- and post-test questions in FY 22-23 and FY 23-24, the performance in skills like scientific relation, observation, and measurement remained notably low in FY 23-24. This suggests either a limited impact of the project on students or insufficient rigor in the test design, as previously noted.

b. English Literacy Intervention: The English Literacy Program (ELP) implemented in schools across Akola and Lote had significantly improved students' reading and spelling abilities from the baseline to the end-line assessments. The data collected highlights the progress made in various aspects of English literacy, including reading simple and moderate words, spelling capabilities, and comprehension levels.

Overview of Baseline to End-line Findings

1. Reading Proficiency: The percentage of students able to read simple words increased from 22.4% to 59.1%, reading proficiency for moderate words rose from 3.9% to 46%, and reading moderate words with tails substantially improved from 8.5% to 48.5%.

2. Spelling Skills: Spelling proficiency for simple words improved from 0% at baseline to 34.1% at end-line, while moderate words showed minimal improvement, increasing from 0% to 2.5%, and moderate words with tails remained unchanged at 0%.

Category	**Baseline (%)**	**End-line (%)**	**Improvement (%)**

Reading Simple Words	22.4	59.1	36.7
Reading Moderate Words	3.9	46	42.1
Reading Moderate Words with Tails	8.5	48.5	40
Spelling Simple Words	0	34.1	34.1
Spelling Moderate Words	0	2.5	2.5
Spelling Moderate Words with Tails	0	0	0

Table 5: Baseline to End-line results by Leap For Word

3. Grade-wise Performance: For Grade 4, average scores increased from 30% at baseline to 55% at end-line, while in Grade 5, scores rose from 34% to 58%, demonstrating effective intervention strategies; similarly, grade 6 saw an improvement of 10%, and Grade 7 say an improvement of 14% from baseline to end-line.

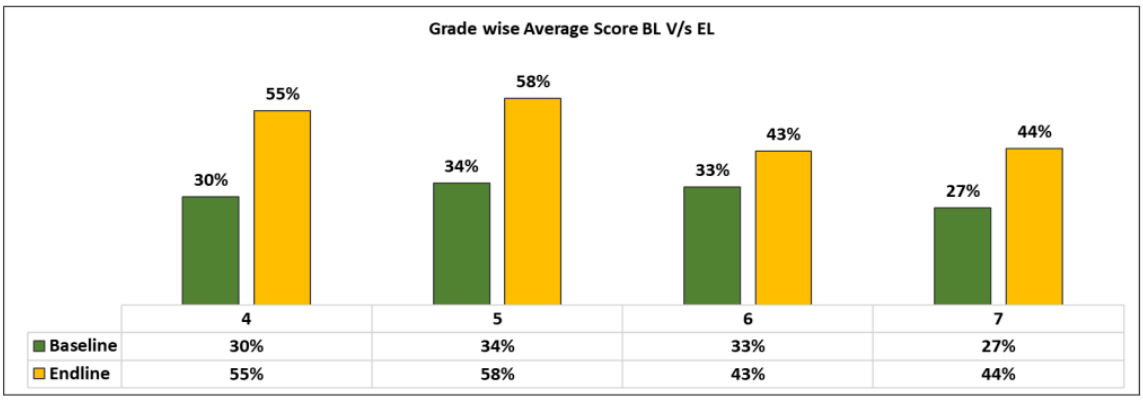

Chart 1: Grade-wise differences between Baseline and End-line studies for Language

In addition to the change in scores between the start of the project in 2021-22 to 23-24, the teachers and parents of the beneficiaries also identified visible changes in the student's reading abilities and participation in classroom discussions.

A teacher from Akola remarked, "*The improvements in our students' reading skills are evident; they are more confident and eager to participate in class discussions*."

A parent noted, "*I can see my child reading more at home; the program has sparked a love for learning English.*"

c. **Math Intervention:** The FIM app had about 382 students registered from the eight schools in 22-23 and 418 students registered from 6 schools in 23-24, of which 255 and 294 students accessed the app and used it to solve math problems.

22-23			23-24		
School Name	**Students**	**Math Problems Solved**	**School Name**	**Students**	**Math Problems Solved**
ZPPS School, Mathwadi	28	114,177	ZPPS School, Mathwadi	39	132,393
Sadguru Kadsiddheshwar Vidyalay, Gunade	89	394,203	Sadguru Kadsiddheshwar Vidyalay, Gunade	186	863,319
Z P School, Shivar, Akola	32	233,334	Z P School, Shivar, Akola	64	505,230
Blue Lotus Convent, Shivni, Akola	23	385,395	Blue Lotus Convent, Shivni, Akola	40	704,970
Z P School, Kumbhari, Akola	43	13,500	Z P School, Kumbhari, Akola	72	56,907
ZPPS School, Ghanekhunt, No.2	26	110,943	ZPPS School, Ghanekhunt, No.2	17	15,210
Z P School, Malkapur, Akola	23	12,678			
Z P School, Shivni, Akola	67	59,394			
ZPPS School, Lotemal	51	10,698			
	382	**1,334,322**		**418**	**2,278,029**

Table 6: School wise breakup of number of math problems solved year on year

In year 1, on average, the students solved 5233 questions/student, which went up to 7749 questions with a 48% increase in usage per student by 2023-24. This signifies the improved usage of the app and usage of free time by the students. However, the study couldn't verify if this improved the students' learning outcomes in the regular classrooms and curriculum.

Impact on Teachers - Enhanced Teaching Practices:

Teachers have benefitted from training and resources that have improved their confidence and effectiveness in engaging students. One teacher noted that "*keeping a strong connection with the community helps a lot*," suggesting that community involvement enhances educational practices. Moreover, regular feedback sessions and training have fostered an environment where teachers can share best practices and learn from each other.

"The program encouraged me to try new teaching techniques and experiment with hands-on activities. It also improved my ability to communicate effectively in English, which has inspired students to use the language more confidently." *- Teacher, Akola.*

The community teachers shared that the interventions helped improve their vocabulary and reading skills, while the digital resources made it easier for them to practice and teach newly learned concepts to students. Creating communication platforms, such as WhatsApp groups for teachers, further facilitated ongoing support and feedback sharing. This collaborative approach has been instrumental in addressing challenges and enhancing teaching methodologies.

Impact on Community - Community Engagement:

Regular parent-teacher meetings have allowed for community feedback, which is crucial for program improvement. Parents have expressed satisfaction with the changes they observe in their children's academic abilities, indicating strong community support for the initiatives.

"Now, because of this initiative parents are showing readiness to send their daughters to English medium school and allow them to continue their school. A girl from a very poor family, living in a tin house, was initially set to be enrolled in the Marathi medium. However, she excelled in English and insisted on being enrolled in the Semi-English medium, convincing her parents with her strong performance." - Community Teacher, Lote.

The educational activities across the three subjects, implemented by different partners, effectively enhanced students' curiosity for learning and reduced the fear associated with Math, Science, and English. However, the RUBY program faced several limitations. The lack of integration with the regular class curriculum required additional class time, adding to the students' workload. There was also an absence of comprehensive tests to evaluate learning improvements across the three initiatives. Reliance on a single trainer for science experiments, limited access to digital devices for math practice, and dependence on a community teacher for English instruction instead of promoting self-learning through learning labs further constrained the program's overall impact.

4. Analysis

The observations and findings through primary research of the RUBY has been analyzed on the OECD-DAC global framework REECIS as below:

4.1 Relevance:

The first criterion in the REECIS framework, Relevance, evaluates how well an intervention's goals and structure align with the needs, policies, and priorities of the beneficiaries, the global community, the country, and partner institutions. It also considers the intervention's adaptability to evolving circumstances to ensure its continued relevance.

In Akola and Lote, the educational landscape faces significant challenges, including inadequate infrastructure, limited access to quality education, and socio-economic barriers. Many schools lack essential facilities such as libraries and laboratories, restricting students' learning opportunities. The program addressed these gaps by providing quality learning resources for Math, Science, and English and deploying skilled educators for each subject. Students in local schools, particularly those struggling with these subjects, often opted out of STEM fields. To counter this trend, the program focused on improving learning outcomes in these critical areas.

By focusing on these dual objectives—enhancing STEM learning outcomes - the project aligned with local needs while also supporting national and international priorities. Specifically, the initiative contributed to the Sustainable Development Goals (SDGs):

- **Quality Education (SDG 4):** Enhancing access to quality education in English, Math, and Science for marginalized students.
- **Reduced Inequalities (SDG 10):** Bridging socio-economic gaps through targeted interventions.

Through these efforts, the program promoted lifelong learning and economic resilience. However, to enhance its impact, there is a need to refine the implementation methodology for educational initiatives to better align with evolving market demands, at least for those with relevant education to pursue advanced courses.

4.2 Effectiveness:

The second criterion of the framework analyzes the effectiveness of the intervention, the extent to which the intervention achieved its objectives, and the results.

The objective of the project was to improve student’s interest in the respective subjects and overcome the fear of learning through educational initiatives, while bringing women out of their

homes and creating economic opportunities for women and youth locally through the skilling center. Both of these have been achieved to an extent as the beneficiaries of both the projects expressed satisfaction, and recommended the projects to their peers.

The RUBY program achieved progress in improving students' interest and participation in STEM and English learning. For instance:

- Science: Increased engagement through hands-on experiments and exhibitions, with 437 individual exhibitions by students showing strong engagement.
- English: Enhanced literacy rates with significant improvement in reading proficiency from 22.4% to 59.1% for simple words, with a minimal improvement in spelling proficiency, and the biggest improvements at grade level seen in Grade 4 at 15% from 30 - 55%, while other grades also seen an improvement of 10 - 14% across grades.
- Math: A rise in app usage from 13.34 lakh problems solved in FY 22-23 to 22.7 lakh problems solved in FY 23-24 reflect an improved student engagement, and increased usage by the students.

However, testing methodologies lacked rigor and comparability between baseline and endline assessments, and also no tests were done to observe the students improvement in their regular course work due to these initiatives, limiting the ability to conclusively attribute improvements to the interventions.

Across this program, there has been a notable achievement in the objectives, leading to effectiveness of the program towards the intended beneficiaries.

4.3 Efficiency:

The third criterion of the framework analyzes the efficiency of the intervention, The extent to which the intervention delivers, or is likely to deliver, results in an economical and timely way.

The program demonstrated efficiency through its strategic implementation within budget constraints. Regular follow-ups during monthly meetings allow for real-time adjustments based on student performance and engagement levels. The focus on utilizing existing community resources—such as local schools and teacher networks—maximizes impact while minimizing costs.

Over three years, the RUBY program invested ₹69.31 lakh, reaching 4,915 students through its Science, Literacy, and Math interventions. This translated to a cost-effective average investment of ₹1,392 per beneficiary over the three-year period, resulting in improved interest in science learning and removal of fear on these subjects.

RUBY	FY	Funds utilized (Rs)	No. of Beneficiaries	Per Beneficiary Cost (Rs)
1	21-22	1445325	1460	990
2	22-23	2570276	1788	1438
3	23-24	2916104	1667	1749
	Total	**69,31,705**	**4,915**	**1,392**

Table 7 : Per beneficiary cost of RUBY

4.4 Impact:

The fourth criterion of the framework analyzes the Impact of the intervention, The extent to which the intervention has generated or is expected to generate significant positive or negative, intended or unintended, higher-level impacts.

The educational and livelihood initiatives in Akola and Lote made significant strides in addressing foundational gaps in learning and employability. Under the RUBY, over 3,000 students from 8 schools benefited from targeted interventions in Science, Math, and English. The English Literacy Program demonstrated measurable progress, with simple word reading proficiency improving from 22.4% to 59.1% and moderate word reading increasing from 3.9% to 46%. The math initiative achieved a 48% increase in app usage over two years, reflecting growing student engagement. Science interventions fostered curiosity through hands-on experiments, culminating in annual exhibitions, with participation rising from 194 in year 1 to to 322 students in year 3. These efforts contributed to boosting students' interest and confidence, particularly in STEM fields, aligning with national priorities like the NEP 2020.

In addition to improved learning outcomes, students demonstrated increased confidence in engaging with their subjects and applying their knowledge to practical, everyday situations. Teachers reported enhancements in their teaching practices, while increased parental involvement in students' education was also observed.

Despite these achievements, RUBY lacks rigor in assessment tools, such as simplistic and inconsistent baseline and endline tests, undermining the ability to measure true progress. While engagement increased, the absence of direct tracking of academic performance—particularly in Science and Math—makes it difficult to attribute improvements solely to the interventions. Similarly, the math initiative’s reliance on app usage metrics rather than curriculum-aligned outcomes limits its educational relevance.

To enhance the impact, the educational initiative should integrate robust assessment frameworks, align interventions more closely with school curricula, and explore digital tools for scalability.

4.5 Coherence:

Coherence, the fifth criterion of the framework, examines how well the intervention aligns with other local and national initiatives.

The program effectively complements national efforts like the NEP 2020, which prioritizes STEM education and logical thinking as critical components of workforce development. By incorporating innovative teaching methods consistent with these policies, the initiative ensures alignment with broader educational goals.

However, several gaps in coherence remain. In education, the absence of coordination between the three implementation partners led to unstandardized teaching practices. Furthermore, the educational initiatives were conducted in addition to the standard curriculum, increasing the burden on both students and teachers. Integrating these activities into the curriculum could have reduced this strain and created a more cohesive learning experience.

4.6 Sustainability:

The sixth and final criterion of the framework assessed the sustainability of the program's benefits over time.

Operational sustainability was evident through ongoing support for students and educators, bolstered by strong community and parental involvement. Parents expressed satisfaction with their children's progress and actively engaged in school initiatives. Regular teacher training and refresher courses ensured educators remained motivated and equipped, while the individual initiatives addressed gaps in English proficiency and scientific understanding, enhancing academic performance. Feedback mechanisms from students, teachers, and parents enabled timely program adjustments to meet evolving community needs.

However, challenges to sustainability were identified.Reliance on external agencies for teacher training and resource provision raises concerns about long-term resilience if partnerships or funding declined. Thus, raising the need to build the capacities of existing teachers over multiple interventions eating into the limited school time.

Overall, while the program demonstrated promising sustainability through strong community support, teacher capacity building, and curriculum relevance, addressing challenges such as resource dependence and maintaining innovation will be critical. Continuous engagement with beneficiaries and proactive adjustments are essential to preserving the program's long-term impact.

5. Recommendations

5.1 Education

From speaking to the various beneficiaries and after observing the project initiatives happening over the last three years, the study recommends the below suggestions to improve the educational project outcomes.

1. Infrastructure Improvement: The interventions schools lacked essential infrastructure such as, digital libraries and laboratories, hindering effective learning. Programs like *Pratham's* intervention through digital tools and remedial learning materials have helped bridge this gap. The *Government of India's Samagra Shiksha Abhiyan* emphasizes improving school infrastructure, including building libraries, science labs, and classrooms, to foster a supportive learning environment. For instance, in Tamil Nadu, establishing digital classrooms has enhanced access to quality education for rural students, dramatically improving learning outcomes (UNESCO, 2019). [4]

Also, the schools can be encouraged and helped for applying to Atal Tinkering Labs (ATLs), which is an initiative under the Atal Innovation Mission by the Government of India to foster a culture of innovation and creativity among school students. These labs are equipped with state-of-the-art tools and equipment such as 3D printers, robotics kits, IoT devices, and more, enabling students from Classes 6 to 12 to explore, learn, and develop innovative solutions to real-world challenges. Government schools, along with government-aided and private schools, can apply for setting up an ATL by responding to periodic calls for applications announced by the NITI Aayog. Schools that meet the eligibility criteria receive a grant-in-aid of up to ₹20 lakh over five years to establish and operate the lab.

Thus, it will be beneficial to focus on establishing the required digital infrastructure and science labs for implementation of improved learning methods, where the teachers are equipped to utilize these labs as part of their curriculum, increasing engagement of students and reducing rote learning.

2. Teacher Capacity Building: Teachers often face challenges with unfavourable student-teacher ratios, insufficient training, and limited time for interactive teaching. Initiatives like the *Teacher Professional Development Programs* in Karnataka, supported by organizations like the *Akshara Foundation*, have introduced regular teacher training sessions focusing on activity-based and inclusive learning methods. These programs provide opportunities for peer learning and practical strategies to handle large classrooms effectively. *Teach for India* has also

[4] https://unesdoc.unesco.org/ark:/48223/pf0000260604

successfully demonstrated how continuous mentoring and exposure to innovative teaching techniques can empower educators.

Thus, a focus on building capacities of existing school teachers will take away the need to involve additional teachers, and the school teachers can integrate the regular and remedial teaching as part of their curriculum, instead of allotting special time.

3. Introduction of Language Labs: Language proficiency, especially in English, remains a barrier for the students in Akola and Lote transitioning from vernacular mediums. In Andhra Pradesh, *English Language Labs* have digital software to help rural students develop language skills through interactive and personalized learning methods. This approach will take away the need for additional community teachers, and the existing class teachers can facilitate the lab time as part of their regular course work.

4. Community and Parental Involvement: Limited parental involvement, often due to their lack of formal education, impacts student motivation. Initiatives like *Palenque LSNA's Parent Mentor Program*[5] in the U.S. empower parents to participate as classroom assistants and build their capacity to support children's education. Similarly, *Village Education Committees (VECs)* in India have played a key role in driving school accountability by involving parents and local leaders in decision-making and monitoring school activities. Programs such as *Pratham's community engagement workshops* help sensitize parents to the importance of education and equip them to support their children effectively.

The RUBY program could include a component to engage and sensitize parents and community leaders, fostering their involvement in organizing resources and promoting accountability. This would help improve attendance and positively influence students' overall progress.

5. Personalized Adaptive Learning: Once the infrastructure and teacher capacity-building programs are in place, leveraging proven ed-tech solutions can significantly enhance student learning outcomes across multiple subjects. Organizations like Educational Initiatives (EI) offer innovative tools such as the Mindspark[6] adaptive learning software, which has successfully improved educational outcomes, particularly in underserved communities.

Mindspark, a personalized, data-driven learning platform, has been implemented through CSR programs like P&G Shiksha across India. It reduces the need for multiple implementation partners and streamlines monitoring and evaluation processes for learning outcomes. For example, P&G Shiksha's Digital Remedial Learning Program[7], in partnership with EI, has

[5] https://thoughtexchange.com/blog/community-involvement-in-schools/
[6] Educational Initiatives: Mindspark Impact.

[7] HRNXT: P&G India's Digital Remedial Learning Program

impacted over 75,000 students across hundreds of schools, including 20,000 students from tribal communities. This program bridges foundational learning gaps through customized content tailored to individual student needs, resulting in improved retention and performance in subjects like mathematics and science. The scalability and replicability of this model make it an ideal solution for integrating technology-driven interventions within resource-limited educational systems.

By consolidating implementation efforts into singular, proven ed-tech partners, schools can optimize academic time, enhance teacher support, and accelerate student progress, particularly in regions facing systemic educational challenges. The technology also facilitates real-time data collection, enabling administrators and policymakers to track learning improvements effectively.

6. Closure

The impact assessment report for the Rallis India initiatives under the RUBY offers a thorough evaluation of the educational efforts aimed at enhancing learning outcomes of school students.

The RUBY initiative specifically targets educational gaps in English, Science, and Math for middle school students in rural Maharashtra, particularly in Akola and Lote, Ratnagiri. Key initiatives within this program include Activity-Based Science Learning, which engages students from Grades 6 to 8 through hands-on experiments in collaboration with the BASSE. Additionally, the English Literacy Program, developed in partnership with LFW, addresses language barriers by employing local language for instruction, thereby enhancing reading and comprehension skills among 3,186 students from Grades 4 to 7. Furthermore, the Foundational Numeracy initiative supported by FIM focuses on improving math skills among 802 students in Grades 6 to 8, effectively addressing learning gaps exacerbated by the COVID-19 pandemic.

Educational outcomes showed substantial improvements in student engagement and academic performance; for instance, reading proficiency in simple words increased from 22.4% to 59.1%, while participation in science exhibitions grew from 194 to 322 students over three years.This program also contributed to increased confidence among participants—students displayed greater enthusiasm for STEM subjects.

The educational programs maintained impressive completion rates and encouraged active participation in hands-on learning activities. Moreover, increased parental involvement in education and enhanced teaching practices were notable outcomes resulting from these initiatives.

Despite these successes, several areas for improvement were identified. The need for more rigorous assessment tools was highlighted; simplistic testing methods limited the ability to measure true progress effectively.

In conclusion, the RUBY initiative have made remarkable strides in improving educational outcomes and empowering teachers. While the achievements are commendable, implementing the recommended improvements will further enhance program effectiveness. Continuous evaluation and adaptation are crucial to ensuring that these initiatives remain responsive to evolving community needs and contribute meaningfully to the socio-economic development of rural Maharashtra.

Annexures

Annexure A : Primary Research tool for RUBY program

1. Beneficiaries KII

Sr. No	Questions for KII_Beneficiaries	Probe
1	Tell us about yourself - name, age, family background, educational qualifications	
2	Do you have access to any social entitlement documentation, such as a ration card, ID, or other government-provided benefits?	
3	How many earning members do you have in your family? How would you describe your family's primary sources of income?	
4	How has this program influenced students' academic progress or performance in Math, Science, and English?	
5	What educational challenges or gaps exist in the local region that this program addresses?	
6	Are the concepts and methods taught in the program easily integrated into your regular academic requirements?	
7	In what ways has the program helped students build skills that are relevant to their academic and personal development?	
8	To what extent has the program influenced your confidence or enjoyment in learning these subjects?	
9	How did any sessions or meeting help you understand what you would learn in this program?	
10	How has this program helped you in understanding and	

	conducting experiments?	
11	How easy was it for you to enroll in this program? Do you know any friends or classmates who enrolled but decided not to continue? If so, why do you think they left?	
12	How are the program's classes or activities conducted (in-person, online, group activities, etc.)? How long have you been participating in the program, and how do you feel about the program's schedule or timing?	
13	How well do you feel you perform in quizzes or English comprehension activities compared to before?	
14	How often do teachers or instructors check in with you about your progress in the program? Do you receive any feedback on what you're doing well or areas where you could improve?	
15	How have your teachers, school administrators, or parents supported you during the program?	
16	How confident are you in using the skills you've learned, such as through exhibitions or practical activities? How would you rate your own ability to apply what you've learned in real-life situations or class assignments?	
17	How do the lessons in this program fit with what you learn in regular school classes for science and English?	*program's approach to science and language learning is similar or different to your usual school lessons*
18	How does this program connect with other programs or activities you know about?	
19	In what ways do you feel your science knowledge and English skills have improved since joining the program?	*specific areas in science or English where you feel much stronger than before*
20	Has this program made you more interested in studying science or English after school? Are you considering a future job or college studies related to science or English because of the program?	
21	How confident do you feel explaining science/Maths concepts to others? Do you feel more comfortable speaking or writing in English after participating in this program?	
22	Have you started any science/Maths projects on your own since joining the program? Do you find yourself using English more often outside of	

	school (at home, with friends, etc.)?	
23	How do you think this program will impact your education or learning in the future?	
24	Do your teachers continue to support or guide you in program topics outside the program sessions?	
25	How supportive are your parents or community members about you continuing in this program?	
26	What changes would you like to see in the program to make it more effective for you?	*any challenges you face in the program*
27	What kind of support have you received from the program since completing the main training sessions?	

2. Community teachers KII

S.No	Questions	Probe
1	Name, Tell us about your educational background and your relevant work experience. How long have you been working as a community teacher, and what are your responsibilities in your current role?	
2	What changes you have observed in you and students after completing the program?	
3	In your opinion, why is this educational intervention needed in the current geographic area, and what unique challenges or benefits does it address?	
4	How well does this program align with the local curriculum, and what adjustments, if any, are needed to ensure compatibility?	
5	How relevant do you feel this program is to the students' needs, both academically and personally?	
6	How would you describe students' interest levels in science and English before the program, and how have you seen these change as a result of the program?	
7	How did you come to know about this program &how effective were they in encouraging teacher participation?	
8	What teaching methods and instructional aids you used for effectively delivering the core concepts of Math, English, and Science to students? How has the RUBY program influenced teachers' skills in experimentation and English comprehension, particularly in applying these skills in the classroom?	

9	What was the enrollment process for teachers in the program, and what factors have influenced the dropout rate, if any?	
10	What educational modes were used in the program, and how long did each intervention last?	
11	How has teachers' participation in the RUBY program impacted student engagement and performance, particularly in meeting BASSE's experimental milestones and performance in LFW quizzes?	
12	To what extent do you believe the RUBY program has achieved its objective of improving teachers' vocabulary and reading ability through digital media?	
13	How was the progress of teachers monitored throughout the program, and what indicators were used to track their development?	
14	What feedback mechanisms were in place to support teachers regularly, and how is the long-term impact of the RUBY program on teachers' vocabulary and reading skills measured?	
15	How has the RUBY program influenced teachers' confidence in applying their skills in vocabulary and reading comprehension, both in their teaching and in engaging with students?	
16	How does resource allocation and session duration impact student outcomes and the rate of progress? Have you observed any changes in class participation or attendance over time? If so, what factors do you think contributed to these changes?	
17	How does the program align with STEM and language policies or standards?	
18	How does the program collaborate with other science and language programs, and what benefits have resulted from these collaborations?	
19	How have you observed students' science and English competencies change over time as a result of the program?	
20	Have any students shown interest in pursuing further education in STEM or English? If so, what percentage do you estimate?	
21	How has the program impacted students' and your confidence in expressing scientific ideas and using English in and outside the classroom?	
22	Have you seen students initiate independent science projects or use English in settings outside school? Please share relevent example	
23	How do you think this intervention has influenced students' interest in and readiness for future educational opportunities?	
24	How do you engage with program team after the initial training ends?	
25	have you observed any support which you or program team have received from the community and parents for the program's ongoing activities, and how does it affect students' participation?	
26	What areas of the program could be improved to better meet the needs of students and the community?	
27	How feasible is it for school teachers to integrate the program's approaches and materials into their regular teaching practices?	

28	What types of support are available to you and students after they complete training, and how effective is it in helping them continue applying their skills?	
29	How has support from external agencies contributed to teacher capacity building in this intervention, and what impact has it had on program success?	

3. Trainer/ instructor KII

S.No	Questions	Probe
1	Name, Tell us about your educational background and your relevant work experience. How long have you been working at this training center, and what are your responsibilities in your current role?	
2	Can you provide a brief overview the beneficiaries socio-economic background?	
3	In your opinion, why is this educational intervention needed in the current geographic area, and what unique challenges or benefits does it address?	
4	What was the students' level of familiarity with the required core concepts before the intervention? Were there any specific core concepts they found particularly challenging?	
5	What skills or knowledge do you believe beneficiaries should gain from this intervention? Are you familiar with how the courses have been selected and finalized for the training program?	
6	What criteria do you use to select beneficiaries, and how do you ensure inclusivity?	
7	How would you describe students' interest levels in science and English before they joined the program?	
8	What strategies do you think are effective in motivating students to join the training programs?	
9	How do you assess students' skill development in experimentation and English comprehension?	
10	What steps are involved in the counseling and enrollment process for beneficiaries? What is the current dropout rate, and what factors contribute to beneficiaries dropping out?	
11	What modes of education are used in the program(online/offline), and how long do interventions typically last?	

12	How do students progress through BASSE's experimental milestones? How is the performance of students in LFW quizzes and English comprehension?	
13	What outcomes do you consider to assess if the project objectives are being met based on the outputs?	
14	What methods have you employed to monitor the progress of each student, and how often is their progress reviewed?	
15	What systems are in place to provide regular feedback to students, and how do you measure the long-term impact?	
16	How do you assess students' confidence in applying skills, including their exhibition and assessment scores, and their self-assessment on skills and knowledge application?	
17	How does resource allocation and session duration impact student outcomes and the rate of progress?	
18	What is the student-teacher ratio, and how does it impact the quality of learning and engagement? Have you observed any changes in class participation or attendance over time? If so, what factors do you think contributed to these changes?	
19	What is the completion rate for planned experiments and quizzes, and what factors influence this rate?	
20	What method do you follow for the project-level monitoring at different levels, and how often are these monitoring activities performed?	
21	How does the program align with STEM and language policies or standards?	
22	How does the program collaborate with other science and language programs, and what benefits have resulted from these collaborations?	
23	Do you think there is an increase in science,english or any other subject competency, If yes then, how have you observed changes in students' science and English competency over time?	
24	What percentage of students from your program go on to pursue further education in STEM or English-related fields?	
25	How has the program impacted students' confidence in expressing scientific ideas and using English?	
26	Have you seen students initiating independent science projects or using English in contexts outside school? Can you share examples?	
27	In your view, what impact has the intervention had on students' interest or preparedness for future educational opportunities?	
28	In what ways you enage with your students after the initial training period ends?	
29	How much support do you receive from the community and parents for ongoing program activities, and how does this support impact student participation?	

30	What areas of the program do you feel could be improved, and how would these changes enhance student outcomes?	
31	How feasible is it for school teachers to adapt the intervention practices in their regular teaching? What challenges, if any, do they face?	
32	What kind of support is available to beneficiaries after training, and how effective is it in helping them apply what they have learned?	
33	How have external agencies contributed to capacity building for teachers involved in the intervention, and what impact has this support had on the program's success?	

4. Rallis Team KII

S.No	Questions	Probe
1	Name: Designation: Can you tell us about yourself? For how long have you been associated with the Rallis India? What is your role in the program?	
2	What was the primary reason for implementing this educational intervention in the selected geography? How does this program align with the socio-economic needs and educational gaps of students in this area? Was a preliminary assessment conducted to evaluate students' interests in science and English before the program's start? What were the findings?	*relevance of the program's content in terms of addressing student needs*
3	Is the curriculum compatible with local education board? Were any modifications made to align it with local needs?	
4	Could you describe the process used to monitor students' progress through program milestones, such as experimental achievements and English comprehension quizzes?	
5	How supportive have teachers, administrators, and parents been toward the program? Have there been any challenges in gaining their support?	
6	What systems are in place for collecting regular feedback from students, teachers, and parents to track long-term impact?	
7	How confident are students in applying the skills they have acquired? Are there assessments or self-evaluations that reflect their growth in scientific thinking and English proficiency?	

8	How many internal and external staff members are involved, and how is their engagement managed? What was the selection process for the deployment of the staff members?	
9	How is budget utilization tracked, and what procedures are in place for budget management? Could you outline the project's monitoring and reporting procedures across its various phases (mobilisation, students training etc)?	
10	Are there any collaborations with other science or language programs to enhance the effectiveness of the intervention? If yes, how has this helped the program? If no, are there any plans of the collaborations?	
11	Have there been any observed changes in students' confidence to express scientific ideas and use English?	
12	What impact do you believe this intervention will have on students' future education?	
13	Based on your experience, what areas of the program could be improved to make it more effective?	
14	What are some good practices identified during the program, and are there any plans for future?	
15	What was the rationale behind selecting different implementation partners for each subject, and how did this choice impact the ease or difficulty of actual program implementation?	

5. LeapForward Team KII

Sr. No	Questions	Probes
	Name	
	Age	
	Caste	
	Education	
	Roles and Responsibilities	
1	What were the primary challenges identified in the project geography that highlighted the need for this intervention, particularly in English and science education?	

2	How was the enrollment process designed to ensure participation? Have any trends or insights emerged regarding dropout rates?	
3	How does the program align with the existing local curriculum? Have there been any challenges or necessary adjustments for smoother integration?	
4	Which program components have proven most beneficial in addressing specific student needs?	such as English comprehension, sentence structuring, or science experiments
5	What changes have you observed in students' interest levels in science and English before and after the program? How do students perceive these subjects now?	
6	What specific skills have students gained, particularly in experimentation and English comprehension? Are there examples of how these skills have been demonstrated?	
7	How many mobilization meetings were held to engage local stakeholders? What were some key takeaways from community and school responses?	
8	Could you describe the teaching methods, resources, and materials used in this program? How long did each phase of the intervention last, and what adjustments, if any, were made?	
9	How do students progress through program milestones, particularly in experimental learning and English comprehension? What strategies have been most effective in maintaining their engagement?	
10	What systems are in place to monitor the progress of beneficiaries, and how frequently is this tracked? What measures are used to assess milestone achievements?	
11	What types of support do teachers, administrators, and parents provide to assist students in the program? Are there examples of particularly effective forms of support?	
12	What mechanisms are in place for gathering regular feedback from students, teachers, and parents? How is the program's long-term impact tracked over time?	
13	Have you noticed an increase in students' confidence when applying their newly acquired skills? Can you provide examples of practical applications?	

14	How did the program's actual budget utilization compare to initial projections? Were resources and session times effectively allocated, and what impact did this have on outcomes?	
15	What has the student-teacher ratio been, and how has it affected teaching and learning outcomes?	
16	Were all planned experiments and quizzes completed by students? If any were left unfinished, what were the reasons?	
17	How does the program align with current STEM and language education policies or standards? Have there been any challenges in this regard?	
18	How has the program impacted students' competencies in science and English? Are there indicators of students pursuing further education or showing increased interest in STEM and English?	
19	Based on the program's outcomes and current observations, what areas for improvement have you identified? Are there suggestions from teachers, parents, or students that could guide future iterations?	

6. BSSE Team KII

Sr. No	Questions	Probe
1	What trends have emerged in the educational or career paths of past program participants? Are more students pursuing studies in STEM fields?	
2	What specific challenges or gaps in science education were identified in this region that made the intervention necessary?	
3	How does the Science Intervention Program align with the local curriculum? Were any adjustments made to better integrate it?	
4	Which aspects of the program have been most beneficial for addressing student needs, such as skills in experimentation, critical thinking, or subject comprehension?	
5	How did students' interest levels in science and English change before and after the program? Are there specific subjects or activities they are now more engaged with?	
6	How many mobilization meetings were conducted to raise awareness and involve the community? What was the community's response?	

7	What specific skills in experimentation or English comprehension have students gained through the program? Could you provide examples of observed skill growth?	
8	What was the initial enrollment process like, and have there been any notable trends in dropout rates? What reasons are given by students who leave the program?	
9	What teaching methods and materials are used in the Science Intervention Program? What was the duration of each intervention phase?	
10	How do students progress through key experimental milestones and comprehension activities? What indicators or assessments demonstrate engagement and performance?	
11	What systems are in place for tracking student progress throughout the program? How frequently is progress evaluated and by whom?	
12	What forms of support do teachers, administrators, and parents provide to aid student participation and progress in the program?	
13	How is feedback gathered from students, teachers, and parents? What methods are used to assess the long-term impact on students?	
14	Has there been an increase in student confidence when applying skills in science or English? How is this confidence measured or observed	*through exhibitions, self-assessments*
15	How did the program's actual budget and resource usage compare to initial projections? Were session durations and resources effective in achieving desired outcomes?	
16	Were all planned experiments and quizzes completed as intended? If not, what were the main reasons for any incomplete components?	

Annexure B: About NuSocia

NuSocia (registered as IN2X Sustainability Advisors Pvt Ltd) is an impact advisory and research organization, founded in 2017 by a group of industry experts with nearly two decades of experience across various sectors of the social impact spectrum. Its mission is to strengthen the impact ecosystem through research, advisory, and training support. The organization was incubated at NSRCEL, Indian Institute of Management (IIM) Bangalore. NuSocia collaborates with Corporations, Governments, Foundations, and Nonprofits, helping them maximize, manage, measure, and communicate their social

impact. Clients choose NuSocia for its deep expertise and its ability to connect at the grassroots level, allowing for practical, tailored solutions that meet their specific needs.

Through its unique process, commitment to excellence, and vast experience, NuSocia has become one of the trusted social impact consulting partners for clients, delivering and supporting projects nationwide and working with key industry names. Specializing in Program Management, NuSocia offers services across the entire program lifecycle, including strategy, needs-gap assessments, program design, implementation, monitoring and evaluation, impact assessments, program and process documentation, communication, and more.

With a global consulting team, localized partnerships, and a workforce that is 65% female, NuSocia is composed of CSR professionals, management consultants, social sector experts, data scientists, and social researchers, all united by a passion for creating meaningful, people-centered ideas.

The core team consists of members from diverse professional and educational backgrounds, such as Agriculture, Public Health, Environmental Conservation, Solid Waste Management, Watershed Management, Gender, and Social Entrepreneurship, among others. Collectively, the team possesses functional knowledge of over 10 Indian languages. Led by a woman founder and leader, NuSocia is committed to fostering an inclusive and diverse environment, with a strong focus on equality, empowerment, and mutual respect.

Impact Assessment of Livelihood Training Centre

In Akola (Shivar) Districts in Maharashtra

of

RALLIS INDIA LIMITED
A TATA Enterprise

Prepared by

NuSocia
Impact. Evident.

December 2024

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Executive Summary

The Rallis LTC Impact Assessment Report highlights initiatives addressing vocational challenges in rural Maharashtra. The region faces limited employment opportunities that further perpetuate socio-economic challenges, particularly for women and youth.

The Livelihood and Skill Development Training Centre (LTC) equipped women and youth with market-relevant skills in 12 trades, such as sewing, beautician services, and computer applications, empowering beneficiaries economically. Over three years (2021–2024), LTC benefitted **1,520 individuals**.

Impact Highlights

Vocational Training Outcomes:

- Women earned between **₹2,000–₹8,000 monthly** through home-based businesses.
- Male participants reported **doubling** of income through additional work.

Recommendations

Despite significant achievements, challenges remain in assessment rigor and alignment with market demands. The report suggests enhancing evaluation tools and diversifying training programs to sustain long-term impact.

The LTC programs have effectively improved educational outcomes and empowered rural communities economically, marking a vital step towards addressing socio-economic challenges in the intervention villages. Continuous evaluation and adaptation will ensure their sustained success.

1. Introduction

1.1 Background

Employment Opportunities for Rural Youth

Rural youth in India face significant challenges in finding gainful employment. Limited skill development opportunities, lack of awareness about job opportunities, and a mismatch between the skills provided and industry demands contribute to high unemployment rates. For instance, only 2% of India's workforce receives formal training compared to higher rates in developed nations like Germany and South Korea. Additionally, rural youth often face mobility and accessibility issues, limiting their participation in skill development programs or accessing better jobs in urban centers.

Reports by Smile Foundation[1] highlight that unemployment among rural youth, particularly females, remains disproportionately high. Furthermore, rural areas lack sufficient infrastructure and industry linkages to support job creation and practical skill training, worsening the employment crisis.

To bridge these gaps, initiatives like the Skill India Mission and schemes like PMKVY aim to enhance vocational training for rural youth. However, awareness and outreach remain significant hurdles to their success in remote areas.

State Level: Maharashtra

Being an industrialized state, Maharashtra offers relatively more employment opportunities than other states. However, rural youth in Maharashtra, especially in districts like Akola, often need more skills and qualifications to access these opportunities.

District Level: Akola

- **Akola:** The Akola district primarily relies on agriculture and allied sectors for employment. Limited industrialization and a lack of skill development centers restrict employment opportunities for rural youth.

The challenges in quality education and the inability to find gainful employment are closely intertwined. The rural youth cannot compete for skilled jobs in urban areas or pursue higher education without adequate foundational education. This vicious cycle perpetuates poverty and underdevelopment in rural areas.

[1] Smile Foundation. 2023. *"Skill India and Opportunities for Rural Youth in India."*

The National Education Policy (NEP) 2020 emphasizes experiential learning, critical thinking, and skill-based education to improve the quality of lower and middle-standard education. However, implementing these reforms is challenging in rural areas due to infrastructure deficits, teacher shortages, and resistance to change in traditional teaching practices. With a growing youth population, India has a demographic advantage in skilling and employment, but this can only be leveraged if the youth are adequately skilled. The mismatch between educational outcomes and industry requirements remains a persistent issue.

1.2 Project Introduction:

Improving the quality of middle-standard education and aligning it with employment opportunities are crucial for India's socio-economic development. On the employment front, expanding skill development initiatives, reducing the digital divide, and promoting entrepreneurship are crucial to ensuring sustainable livelihoods for rural youth.

To comprehensively tackle the challenges of low educational attainment and limited employment opportunities, Rallis India, a Tata Chemicals subsidiary, has worked with Light of Life Trust (LOLT) as part of their Corporate Social Responsibility (CSR) initiatives, by launching the below program:

1.2.1 Livelihood & Skill Development Training Center (LTC):

The Livelihood & Skill Development Training Centre in Shivar, Akola district, Maharashtra, was a collaborative initiative by Rallis India Limited and the Light of Life Trust (LOLT). Established to empower rural underprivileged communities, especially women and youth, the project offered vocational training in diverse fields to enhance employability and promote self-reliance.

The program aimed to:

- Equip beneficiaries with specialized vocational skills for independent and dignified livelihoods.
- Develop entrepreneurship capabilities for initiating small-scale enterprises.
- Facilitate access to employment opportunities and improve the socio-economic conditions of rural families.

From 2021 to 2024, the center trained 1,520 beneficiaries, with 97% completing certifications in areas such as sewing and tailoring, computer applications (e.g., Tally, advanced Excel), bike and mobile repair, beautician skills, and short-term courses like jewelry-making and ceramic painting. This initiative focused on women, who constituted over 84% of the participants.

2. Research Methodology

Upon the successful completion of Livelihood and Skill Development Training Center programs for the last three Financial Years from 2021-24, benefitting rural youth, and women, Rallis India has entrusted NuSocia, an impact advisory firm to undertake the impact assessment study to understand the effectiveness of the program and to learn from the research findings to come up with better projects in the future.

2.1. Objectives of the study

2.1.1 To understand the impact of the project on beneficiaries
2.1.2 To assess the project implementation and its effectiveness
2.1.3 To provide recommendations for scale-up/replication

2.2. Research Framework

The study combined Qualitative and Quantitative research based on appreciative inquiry. It used the globally renowned OCED-DAC 'REECIS' (Relevance, Effectiveness, Efficiency, Impact, Coherence, and Sustainability) framework[2] to assess the program's impact on educational initiatives and a Lifecycle Framework for the skilling initiatives covering the integral aspects of Mobilization, Enrollment, Training, Gainful engagement, and Post gainful Engagement.

Fig 1: OECD-DAC REECIS Framework

2 Evaluation Criteria - OECD

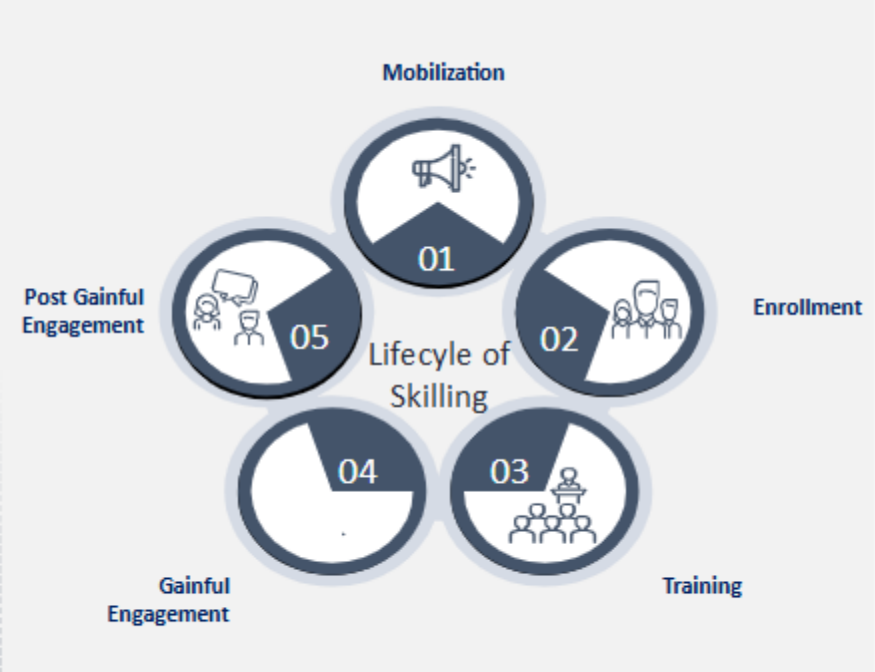

Fig 2: Lifecycle framework for skilling programs

2.3. Sampling

The projects have benefitted 1520 women and youth directly and indirectly benefitted the NGO's team members and other stakeholders involved with the project. To understand the project's impact and get an unbiased representation of the beneficiaries, the research team used Stratified sampling[3] quantitative inquiry and Purposive and Convenience sampling methods for the qualitative investigation to select the respondents for the primary research.

Livelihood Sampling:

Stakeholders	Qualitative Research (Convenience Sampling)	Quantitative Research (Population Proportional to Size of beneficiaries)
	Key Informant Interviews	Survey
Direct Beneficiaries	56	216
Trainers/Instructors	6	

[3] **Stratified sampling** has been used to identify the survey & KII participants with different course type and year of training as strata.

Light of Life Trust team	4 (Mobilizer, Centre head, Project Coordinator, Director)	-
Rallis India team	2	
Total	**68**	**216**[#]

Table 1 : Livelihood Sampling

Survey sample size is statistically significant with a 95% confidence level, 20% population proportion, and 5% margin of error.

Sl No	Course	Total Beneficiaries	Key Informant Interviews	Sample for Survey
1	Sewing & Tailoring	476	7	216
2	Beauty care	409	7	
3	Computer	401	7	
4	Bike Repairing	58	7	
5	Mobile Repairing	36	5	
6	AC, Fridge, Washing Machine Repairing	20	3	
7	Welding	40	5	
8	Jewellery Making	20	3	
9	Ceramic Painting Course	20	3	
10	Candle Making	20	3	
11	Incense Stick Making	10	3	
12	Cake Making	10	3	
	Total	**1520**	**56**	**216**

Table 2: Bifurcation based on the total number of beneficiaries from each course.

2.4. Data Collection

2.4.1 Desk research: Desk research was conducted with the help of annual project reports, assessment reports, and other documents provided by implementation partners and the donor, along with open resources available on the Internet.

2.4.2 Key Informant Interviews: In-depth interviews with the help of an interview guide consisting of open-ended questions were conducted with Beneficiaries, Trainers, Implementation Partners, and the Donor to understand the project's effectiveness.

2.4.3 Surveys: To understand the project impact from a larger sample pool, researchers gathered answers through the surveys from the beneficiaries selected through stratified sampling in proportion to the beneficiaries in each course.

A detailed set of questions asked for each group of respondents can be found in Annexure.

3. Findings

The study utilized distinct sets of questions to evaluate the effectiveness of each program individually, considering the differing objectives of LTC.

3.1 Livelihood & Skill Development Training Center (LTC), Shivar - Akola

The Livelihood & Skill Development Training Centre, initiated by Rallis India Ltd. in partnership with the Light of Life Trust (LOLT), aimed to empower underprivileged communities in Shivar and surrounding villages began with a needs assessment in Akola Taluka, focusing on the socio-economic challenges of the local population. A survey of 10 surrounding villages, including Shivar, was conducted to map the demand for skill-based training. The training center was established in Shivar after refurbishing a dedicated space with essential amenities to make it functional and accessible for the community.

Training Programs

The center offered various vocational training programs to enhance employability over the 3 years, with 1520 participants trained in 12 different programs.

Sr. No.	Training Program	Year			
		2021-2022	2022-2023	2023-2024	Total
1	Sewing & Tailoring	160	196	120	476
2	Beauticare	153	150	106	409
3	Computer	165	122	114	401
4	Bike Repairing	18	20	20	58
5	Mobile Repairing	23	13	0	36
6	AC, Fridge, Washing Machine Repairing	0	0	20	20
7	Welding	0	0	40	40
8	Jewellery Making	0	0	20	20

9	Ceramic Painting Course	0	0	20	20
10	Candle Making	0	0	20	20
11	Incense Stick Making	0	0	10	10
12	Cake Making	0	0	10	10
	Total	**519**	**501**	**500**	**1520**

Table 3: Course-wise and year-wise breakup of LTC beneficiaries

3.1.1 Project Implementation:

To understand the project implementation on the ground and its impact on the beneficiaries, the study undertook 68 interviews with beneficiaries and stakeholders involved in the project and 224 surveys with trainees from different courses.

Of the 224 people surveyed, 154 were female, and 70 were male, with the age groups ranging from below 20 to above 35, where most were aged 31 to 35. Regarding religion, Hindus comprised 69.64%, Buddhists comprised 25.89%, and the remaining 4.46% were Muslims. OBCs were the highest social category at 55.36%, followed by SC/ST at 32.59%, and the remaining belonged to the General and Other categories.

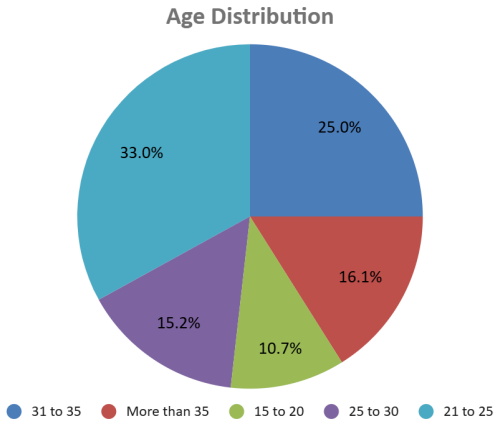

Chart 1: LTC beneficiaries age distribution

Most respondents (97.7%) had at least upper primary education (7th standard and above), where 36.16% were graduates, 57.59% had high school degrees, and 4.02% had upper primary education. Only less than 2% had below primary school education.

Primary source of income	Frequency	Absolute Frequency (% of total)
Private Job	86	38.39%
Business	60	26.79%
Industry Labour	53	23.66%
Others	8	3.57%
Agriculture Labour	17	7.59%
Total	**224**	**100.00%**

Table 4: Primary income sources of LTC's beneficiaries

When inquired about the respondent's primary income sources, the majority were involved in private employment (38.39%), Business (26.79%), and Industry labor (23.66%), with only 7.59% of them depending on agriculture as agriculture laborers. In terms of family income, 70% of the population had less than 2 lakh rupees of annual income, while the remaining 30% had an annual income between 2-5 lakh rupees.

As part of the project implementation, the LOLT followed the structure of Mobilization, Enrollment, Training, Gainful Engagement, and Post Gainful Engagement with the students as detailed below:

Mobilization

The mobilization began with targeted outreach efforts to raise awareness about the Livelihood & Skill Development Training Centre in Shivar, Akola. LOLT employed a variety of methods, including:

1. **Pamphlet Distribution and Banner**: Informational materials were distributed across Shivar and surrounding villages to inform residents about the available training programs.
2. **Community Meetings**: Village-wise and area-wise meetings were organized to interact with potential beneficiaries, individually and in groups.
3. **Social Media Outreach**: LOLT leveraged digital platforms to connect with younger audiences and create awareness about the training opportunities.

Through the interactions with the beneficiaries of all 12 courses and the different stakeholders involved, such as trainers and the implementation partners, it was evident that the local aspirations and potential employment opportunities and self-employment were considered while designing the courses through community engagement and direct outreach to beneficiaries.

"The selected courses, such as computer training, tailoring, and beauty services, were aligned with the local market demands and the aspirations of the beneficiaries. These skills were identified as having good employment potential and the ability to generate income for the participants." - Center Head, LTC.

Through the localized mobilization activities, reaching out to participants door-to-door and explaining to them the benefits of the course and the low fees has helped the project to gather required students and also create additional training facilities, such as satellite training centers, whenever there were considerable interest in one particular course, this removed the need for traveling for many women.

"The need for specific courses in the project geography was identified through community engagement and direct outreach efforts. We conducted surveys, door-to-door visits, and distributed pamphlets, particularly targeting marginalized groups such as Scheduled Castes (SC), Scheduled Tribes (ST), and economically disadvantaged individuals. This grassroots approach allowed for a better understanding of the community's needs and aspirations." - Mobilizer, LOLT.

A survey of 224 beneficiaries revealed that 60% of respondents learned about the training center through friends and family members who had already participated in the courses. While significant effort was required during the initial year to engage the community and conduct door-to-door visits for enrollment, positive word-of-mouth subsequently became the primary driver of student participation in the program.

How did you come to know about the Training Programme?	Frequency	Absolute Frequency (% of total)
Through training center visit	25	11.16%
Through Friends/Family	135	60.27%
Through Social Media	6	2.68%
Others	1	0.45%
Through community mobilization or mobilizer of LOLT	55	24.55%
Through local institution (Gram panchayat)	2	0.89%
Total	224	100.00%

Table 5: Sources of training information

"I learned about the Rallis Livelihood Training Center from women in my area who were already attending the sessions. Their positive feedback inspired me to join. I was a part of the 2022 batch for Basic Computer and the 2023 batch for Tally." - Beneficiary of Computer training

The mobilization process benefitted from the positive reviews and referrals by the women and youth to their neighbors, friends, and family members, which helped mobilize the required candidates.

Enrollment

The enrollment process was streamlined to ensure accessibility for the underprivileged community:

1. **Initial Interaction**: Prospective participants were invited to visit the center, where staff explained course offerings and addressed queries.
2. **Application**: Interested individuals filled out an admission form, providing details such as educational background, household income, aspirations, and reasons for joining.
3. **Documentation**: Applicants submitted supporting documents, including identification proof, photographs, educational certificates, and address proof.

The mobilization meetings were conducted with the help of local leaders by the trainers and mobilizers in the communities of surrounding villages, and the trainers informed the community about the available courses and their structure.

Once interest is generated, potential beneficiaries proceed with registration; interested individuals submit their Aadhaar card, a Transfer Certificate (TC), passport-sized photographs, and a nominal fee of 250-500 rupees. During registration, beneficiaries receive counseling that outlines the training syllabus, duration, and costs.

"The counseling process involved guiding potential beneficiaries through the enrollment steps, explaining the training syllabus, and addressing any questions they had. The approach included offering incentives, such as a free kit in return for Rs 500 as an investment, to encourage enrollment." - Mobilizer, LOLT.

The selection criteria focused on recruiting participants who are 18 years or older and prioritize admission for individuals from marginalized communities, such as Scheduled Castes (SC) and Scheduled Tribes (ST).

"There are no educational barriers for this course, making it accessible to everyone. The only criterion is that beneficiaries must be 18 years or older. This approach ensures inclusivity by providing equal opportunities for individuals from diverse backgrounds to participate and benefit from the program." - Trainer, Stitching, and Tailoring.

The mobilization and enrollment processes benefitted from the engagement of local community leaders, positive recommendations from those who attended the training courses from the center,

the engagement of trainers at the village level, and low entry barriers regarding education requirements and fees.

Training

The training programs were designed to empower participants with vocational and entrepreneurial skills. Key elements of the training process included:

1. **Structured Courses**: Courses ranged from three months (e.g., Sewing, Beautician, and Technician programs) to one month (e.g., Jewelry Making and Ceramic Painting). Training sessions included lectures, demonstrations, hands-on practice, and exposure to real-world applications.
2. **Evaluation and Certification**: Participants underwent a practical examination at the end of each course. Successful candidates received certification, equipping them for job opportunities or self-employment.
3. **Supplementary Support**: A startup kit was provided for all upon successful completion, such as sewing and beautician courses, enabling participants to apply their skills post-training immediately.

The training syllabus for the Livelihood Training Programs was developed through a collaborative approach involving local experts/trainers, industry professionals, and community feedback. This ensured that the courses were relevant to the local market needs and aligned with recognized standards, such as those set by the National Skill Development Corporation (NSDC) for some of the courses.

"The training syllabus is developed through collaboration with local experts, industry professionals, and community members to ensure it meets local needs and recognized standards like those of the NSDC. The syllabus covers basic to advanced bike repair techniques with a strong focus on hands-on training. I incorporate NSDC guidelines, including core competencies and safety standards, to meet recognized standards." - Trainer, Bike Repairing.

Across the various courses, the syllabus was designed to cover a range of skills from basic to advanced levels, tailored to the specific course offered. For instance:

- Tailoring Course: The syllabus progressed from simple sewing techniques to more complex designs, such as "designer blouses, palazzos, and pants," ensuring that participants build a solid foundation before advancing.

"The practical training starts with fundamental skills such as threading the bobbin, needle threading, and fabric cutting. Once these basics are mastered, beneficiaries start stitching simple items like kids' frocks to develop finishing skills. They advance to sewing simple dresses, blouses, and more intricate items such as designer blouses, palazzos, and pants. This step-by-step

approach ensures a solid foundation and practical expertise, making the training comprehensive." - Trainer, Stitching and Tailoring.

- Beauty Care Course: Trainers have taken the initiative to expand the syllabus by including additional hairstyles beyond those provided initially. One trainer remarked, *"I made sure that I teach my students even more than those,*" reflecting a commitment to enhancing the learning experience.

MKCL (Maharashtra Knowledge Corporation Limited) officials regularly reviewed the training materials to ensure quality and adherence to educational standards. Integrating assignments, periodic tests, and peer learning opportunities further reinforces the educational framework.

In terms of teaching methods, it was observed that a variety of teaching methods were employed to facilitate effective learning:

- Hands-On Training: Practical demonstrations were emphasized, allowing students to apply their skills in real-world scenarios. This method was particularly effective for adult learners who benefit from experiential learning.

- Interactive Sessions: These sessions encouraged engagement and discussion among participants, making concepts easier to understand and recall. Trainers utilized simple language and repeated content as needed to ensure clarity.

- Peer Learning: Students who grasp concepts quickly were encouraged to assist their peers, fostering a collaborative learning environment. This approach not only aids understanding but also builds confidence among participants.

"I use hands-on demonstrations, step-by-step sessions, and real-world examples to ensure concepts are easily understood and engaging. I also incorporate visual aids, videos, and group discussions for better engagement and understanding. Feedback sessions and quizzes help clarify any doubts." - Trainer, Mobile Repairing.

Another trainer who taught stitching and tailoring also noted the effectiveness of these methods: "To ensure concepts were easily understood and engaging, we used straightforward language, repeated the content multiple times, and focused on practical demonstrations.

Each training course typically spanned two months, with classes conducted daily for 2-3 hours. This structure allowed for comprehensive syllabus coverage while accommodating participants' other commitments. In addition to specific course content, several additional skills were integrated into the training programs:

- **Soft Skills**: Courses included training on communication, teamwork, and problem-solving skills, which were essential for workplace success.

- **Business Skills**: Participants received entrepreneurship and financial literacy guidance, preparing them for self-employment opportunities.
- **Practical Proficiency**: Given that many students came from underprivileged backgrounds without access to technology, hands-on practice was strongly emphasized during class hours. This approach ensured that students gained practical proficiency in their chosen fields.

One participant highlighted the importance of these additional skills: *"The training not only taught me tailoring but also how to communicate effectively with clients,"* demonstrating the program's holistic approach.

When beneficiaries were asked to rate the training sessions based on engagement, 97.32% of students reported being very satisfied, while 2.68% were somewhat satisfied, and none rated the sessions negatively. Regarding the trainer's knowledge and expertise, out of 224 beneficiaries, 222 (99.11%) rated themselves as very satisfied with the trainer's knowledge.

The responses were similar in the in-depth interviews conducted with the beneficiaries; no single student had a negative experience with the training conduct and trainer's ability to engage with them.

"The training delivery was excellent. I knew nothing about sewing, not even how to thread the needle. However, the trainer was very patient and taught me step by step. After the class, I practiced at home, and if I faced any issues, I didn't hesitate to call the trainer. She built a strong, supportive relationship with every student." - Student, Stitching and Tailoring.

Gainful Engagement

The objectives of the LTC were to train the women and youth in specialized vocational skills, empower them to start their businesses, and facilitate employment opportunities for those looking for formal employment; in an attempt to achieve the said objectives, the project included below activities to provide gainful engagement to the trainees, in addition to the skill training.

1. **Entrepreneurship Training:** The project included training sessions to foster self-employment and prepare beneficiaries to start businesses. This training emphasized developing a mindset conducive to employability and business initiation.
2. **Networking for Employment Opportunities:** The LOLT team actively networked with local vendors and businesses to create job opportunities for graduates.
3. **Financial Literacy Sessions:** Financial literacy was integrated into the training programs to equip beneficiaries with essential budgeting and financial management skills for sustaining their businesses or employment.

The entrepreneurship training included sensitization of beneficiaries on the fundamentals of starting and managing a business, including market analysis, product pricing, and customer engagement. The training also encouraged beneficiaries to think critically about their business ideas and equipped them with an entrepreneurial mindset.

The training has equipped participants with the essential skills to start and grow their businesses. Many beneficiaries have reported feeling more confident in creating business plans, managing finances, and effectively marketing their products or services. - Mobilizer, LOLT.

The program also provided each participant with a startup kit upon course completion, which included essential tools for their respective trades, further enabling them to kickstart their businesses. A respondent noted, "*The entrepreneurship training helped me understand how to manage my own tailoring business effectively.*"

The program also facilitated networking between beneficiaries, local vendors, and employers to enhance employment prospects. Key activities include:

- Vendor Connections: The LOLT team has established relationships with local vendors for materials related to various trades, such as jewelry making and tailoring. This provided beneficiaries access to affordable resources and encouraged local economic engagement. One beneficiary stated, "*I was able to purchase my sewing machine at a lower cost through the connections made by the LOLT team.*"

- Job Placement Support: The program has successfully linked beneficiaries with job opportunities in local factories and businesses. For instance, after networking with Shri Toys Factory, six beneficiaries secured jobs with a monthly salary of ₹5,400. A participant shared, "Thanks to the support from LOLT, I found a job that allows me to support my family."

"To raise awareness about entrepreneurship and livelihood opportunities, I inform the beneficiaries about various options available in the local market, including job openings and self-employment ventures. For example, I encouraged some women to consider joining a toy-making company. Additionally, I shared information about a tent stitching unit that was set up near my home, and two women from the training program joined that initiative." - Trainer, Stitching and Tailoring

Also, financial literacy is a critical component of the program, aimed at empowering participants with essential financial management skills. These sessions covered basic accounting, where beneficiaries learned how to manage their finances effectively, including budgeting and record-keeping, the importance of saving, and how to make informed investment decisions.

A respondent emphasized the value of these sessions: "*Understanding how to manage money has been life-changing for me; it has helped me save for my children's education.*"

Post-Gainful Engagement Activities

The Livelihood Training Program emphasized continuous support and engagement for beneficiaries after they completed their training. This post-gainful engagement involves various activities to ensure that participants can effectively utilize their skills in the job market or through entrepreneurship.

1. **Follow-Up Support:** After completing their training, beneficiaries received regular follow-up visits from the LOLT team to assess the impact of their new skills and motivate them to apply what they have learned in real-world scenarios.
2. **Production Units:** Establishing production units allowed trained women to collaborate on uniform production and bag-making projects. This provided income and fostered teamwork and community spirit among participants.
3. **Recognition Events:** Special events like Women's Day celebrations recognized the achievements of female beneficiaries who have successfully launched small businesses post-training. These events included competitions and awards, enhancing community engagement and motivation.
4. **Continuous Learning Opportunities:** The project encouraged ongoing education through additional short-term courses in jewelry making and cake baking, which helped beneficiaries diversify their skills and income sources.

Post-training, the program maintained regular contact with beneficiaries through various channels:

- WhatsApp Groups: Beneficiaries were added to WhatsApp groups to share updates, seek assistance, and stay connected with trainers and peers.

"*I usually attend all the classes, but whenever I miss some classes, I'm connected on a WhatsApp group where I get information to attend the same class later*." - Student, Computer Course.

- Regular Meetings: Monthly check-ins were conducted to assess progress and provide additional support to foster a sense of community among participants, allowing them to share experiences and challenges. The program also facilitated networking events that connect beneficiaries with local businesses and potential employers:

- Job Placement Assistance: Beneficiaries were informed about job opportunities as they arose.

"*After training, we inform beneficiaries about job opportunities available in the area. For example, there is a toy-making company in the MIDC that offers employment to those willing to work outside their homes. However, a significant percentage around 80-90% of the women choose to start their own businesses, either from home or outside.*" - Trainer, Stitching & Tailoring.

- Community Events: Regular community events, such as Women's Day celebrations, are organized to keep beneficiaries engaged and connected. One trainer expressed, "*We invite them to participate in special programs like Women's Day celebrations or skill enhancement workshops.*"

3.2.2 Impact

The project provided vocational training to 1520 women and youth over the 3 years and helped the beneficiaries in various ways; from the interactions with beneficiaries, the below aspects have been found to have impacted their lives.

Skill Improvement:

From the on-the-ground observations, it was observed that the women in the surrounding villages had restrictions in stepping out of their homes for work and had limited options to utilize their education due to their conservative families, limiting them from pursuing opportunities. Thus, the local women preferred the skilling center with a localized vocational skilling that suited earning income out of homes.

"I used to go out to wash dishes, but my in-laws and husband didn't like me working in other people's houses, so they asked me to stop. So I was not earning at all." - Participant, Tailoring & Stitching.

"Before the training, I was not employed. I was focused on household responsibilities and had never stepped out for work." - Participant, Jewelry making.

Of the 1520 beneficiaries over the 3 years, 1288 were female, 885 were in the Stitching and Tailoring and Beautician courses alone, and 323 were in the computer courses. Just three of these courses accounted for 1208 women (94% of the women), while the remaining classes, like jewelry making, cake making, incense stick making, ceramics, and candle making, were taken up by the remaining 80 women.

There were clear preferences by gender, where courses like welding, bike repair, AC and washing machine repair, and mobile repair were only taken up by men, who constituted 15% of the overall beneficiaries. The only courses taken up by both genders were related to computer courses, where skills like Excel, Tally, and Digital learning courses were taught.

The vocational courses were created specifically to address the local earning opportunities for women and youth based on the insights from community engagement. It was reflected in the kind of courses introduced in the year 2023-24, where seven new courses such as AC, Fridge,

Washing Machine Repairing, Welding, Jewellery Making, Ceramic Painting Course, Candle Making, Incense Stick Making, and Cake Making were introduced.

It was also noted that due to the proximity of towns like Akola, where there is a high Buddhist population, there was a need for candle making as the community lit candles as part of their prayers. Also, due to the proximity of the towns, the beauticians are in demand, and each female participant created their clientele and took up individual assignments, earning 5000-8000 rupees monthly.

"The selected courses, such as computer training, tailoring, and beauty services, were aligned with the local market demands and the aspirations of the beneficiaries. These skills were identified as having good employment potential and the ability to generate income for the participants." - Centre Head, LoLT.

When asked how the skilling initiative has impacted their skills and knowledge, 209/224 respondents mentioned they had learned new skills. At the same time, most of them also mentioned they could improve their existing skills through the program. Thus, improvement in the skills had a clear impact on the beneficiaries.

How has the training impacted your skills and knowledge?	Frequency	Absolute Frequency (% of total)
Improvement in existing skills	166	18.42%
Increased self-confidence	173	19.20%
Learn new skills	209	23.20%
Increase in income	183	20.31%
Able to contribute to household income	65	7.21%
More work opportunities	89	9.88%
More awareness of entrepreneurship	16	1.78%
Total	901	100.00%

Table 6: Impact of training over the beneficiaries

Increased Income through Employment Generation:

Of the 224 surveyed respondents, 183 (82%) mentioned improved income after the training. Many had no income before the training and started earning some income right after the training by undertaking self-businesses such as tailoring, beautician assignments, cake making, etc, or joining entry-level positions in nearby offices.

“After completing the tailoring training, I started stitching blouses from my home within just one month. Currently, I am earning between ₹2,000 and ₹5,000 per month through this activity.” - Participant, Tailoring and Stitching.

“Before this, I was earning 4000 per month. But after completing the course, I now earn around Rs. 12000/month.” - Participant, Computer Course.

“The income has changed significantly. Since completing the jewelry-making course, I now earn approximately ₹3,000 monthly. My current role involves designing and creating trendy jewelry pieces, which I can do from home.” - Participant, Jewelry making.

These instances highlight how the training has helped these women earn a decent livelihood at home or near their villages.

The training didn’t only create earning opportunities for women participants; even the men who participated mentioned they had seen improved earnings after the training.

“My employment and income source have significantly changed since the training. Earlier, I worked as a laborer in a cement shop, earning around ₹10,000 per month. Now, I have a job at D-Mart, where I earn ₹15,000 per month, and I also do mobile repair work in the evenings, which brings in an additional ₹9,000–₹10,000 per month. This means my total monthly income has increased to ₹25,000.” - Participant, Mobile Repairing.

“My income has increased. Earlier, my daily income was ₹500-₹600, but now it is ₹1,000-₹1,200 per day.” - Participant, AC, Washing Machine, and Fridge Repairing.

From the interactions with the male participants, most of their income has improved to an average of 15,000 or more after the training. At the same time, most women have started making additional income from the comfort of their homes, while other women took up jobs in local offices as data entry operators, and accountants.

Increased Self-Confidence and Contribution to Household Income:

The addition of new skills has improved the women's self-confidence in setting up their home-based businesses and venturing into full-time employment, and contributed to increased self-confidence.

“I am the second youngest in my family, and everyone used to think I was immature. However, after attending this course and starting my own business, my family's perspective of me has

completely changed. I am much more confident now, personally and professionally." - Participant, Tailoring and Stitching.

"You can see a lot has changed in me. Before joining this course, I only attended college and returned home, not doing much else. However, after joining this course, I learned important workplace skills like behaving professionally, interacting with seniors, and handling customers. Where I work now, I manage customers independently, provide product knowledge, prepare invoices, and assist with my senior's tasks from 7 AM to 12 PM. This course has transformed my approach and confidence in handling responsibilities." - Participant, Computer Course.

Due to the contribution of the women economically to household income, it was observed that the family's behaviors were also changed, and the women felt more involved in their families' financial and overall decisions.

"The training has been highly relevant to my goals and current needs. It helped me address challenges at home, as being in a joint family brought some issues. After completing the training and starting to earn, the behavior of my family members towards me changed positively. While tailoring is a common business, its success depends on skills and effective customer management, making the training highly valuable in meeting the demands of my community." - Participant, Tailoring & Stitching.

"I earn around ₹3,000 per month now. This additional income has given me a sense of independence and helps support my family's expenses." - Participant, Jewelry Making.

The livelihood training and skill center was successful in bringing the women out of their homes and providing employment opportunities which resulted in increased self-confidence and dignity among the family members. The participated youth also saw improved incomes almost doubling in some cases. However, the project's limitations were in it's selection of traditional vocations which have a quick saturation point, especially when many from the same villages get trained in the same vocation, and may not be particularly useful for graduates and post-graduates who wish to undertake advanced skill training.

4. Analysis

The observations and findings through primary research of the LTC projects have been analyzed on the OECD-DAC global framework REECIS as below:

4.1 Relevance:

The first criterion in the REECIS framework, Relevance, evaluates how well an intervention's goals and structure align with the needs, policies, and priorities of the beneficiaries, the global community, the country, and partner institutions. It also considers the intervention's adaptability to evolving circumstances to ensure its continued relevance.

Women in the region faced socio-economic and cultural constraints that confined them to their homes. To address this, the program established a training center offering vocational courses tailored to local opportunities. These courses emphasized skills that could be practiced at home or near home with minimal investment, such as tailoring, jewelry making, and candle making for women, and bike repairing, mobile repairing, etc for men. By empowering women and youth with marketable vocational skills, the initiative aimed to foster confidence, enable income generation, and break poverty cycles within families.

By and promoting vocational skills for women and youth—the project aligned with local needs while also supporting national and international priorities. Specifically, the initiative contributed to the Sustainable Development Goals (SDGs):

- **Gender Equality (SDG 5):** Empowering women through skill development and entrepreneurship.
- **Decent Work and Economic Growth (SDG 8):** Enabling livelihood opportunities and self-reliance.
- **Reduced Inequalities (SDG 10):** Bridging socio-economic gaps through targeted interventions.

Through these efforts, the program promoted lifelong learning and economic resilience. However, to enhance its impact, there is a need to refine the implementation methodology for educational initiatives and diversify the training center's course offerings to better align with evolving market demands, at least for those with relevant education to pursue advanced courses.

4.2 Effectiveness:

The second criterion of the framework analyzes the effectiveness of the intervention, the extent to which the intervention achieved its objectives, and the results.

The objective of the project was to bring women out of their homes and create economic opportunities for women and youth locally through the skilling center. Both of these have been achieved to an extent as the beneficiaries of both the projects expressed satisfaction, and recommended the projects to their peers.

The LTC initiative successfully empowered beneficiaries by improving their skills, confidence, and income levels. By creating tailored opportunities for women and youth, it addressed local socio-economic challenges effectively.

Post-training, 82% of participants reported increased income, with women earning ₹2,000–₹8,000 per month from home-based businesses, and men seeing substantial gains; and the youth seeing improvement of their monthly earnings from ₹10,000 to ₹25,000. The improvements were directly attributable to the project and the center achieved its objectives of training women and youth to create local employment opportunities.

4.3 Efficiency:

The third criterion of the framework analyzes the efficiency of the intervention, The extent to which the intervention delivers, or is likely to deliver, results in an economical and timely way.

The Livelihood Center invested over ₹58.4 lakh across three financial years, training 1,520 participants in 12 different vocational courses, each lasting 2–3 months. This amounted to an average cost of ₹3,844 per beneficiary over the three years. The cost invested for the skilling center has been well utilized in generating additional income for the participants.

LTC	FY	Funds utilized (Rs)	No. of Beneficiaries	Per Beneficiary Cost (Rs)
1	21-22	1591257	519	3066
2	22-23	2024947	501	4042
3	23-24	2226403	500	4453
	Total	**5842607**	**1520**	**3844**

Table 7: Per beneficiary cost of Livelihood center

4.4 Impact:

The fourth criterion of the framework analyzes the Impact of the intervention, The extent to which the intervention has generated or is expected to generate significant positive or negative, intended or unintended, higher-level impacts.

The livelihood initiatives in Akola made significant strides in addressing foundational gaps in learning and employability. The LTC had an equally commendable impact, empowering 1,520 beneficiaries, with 84% women participating in vocational training. Courses like tailoring, beautician services, and computer skills equipped women with income-generating abilities, enabling them to earn ₹2,000–₹8,000 per month. Male participants reported significant financial gains, with a mobile repair trainee increasing monthly income from ₹10,000 to ₹25,000 and an appliance repair trainee doubling daily earnings from ₹500–₹600 to ₹1,000–₹1,200. Beyond income, 77% of beneficiaries experienced enhanced confidence, fostering greater socio-economic participation. The program's use of localized mobilization strategies and tailored courses ensured accessibility and relevance for rural communities, contributing to breaking gender and economic barriers.

Despite these achievements, this initiative exhibited notable limitations. For LTC, while income generation was a success, the program leaned heavily on basic vocational skills with limited scalability. Women's earning potential remained capped, with tailoring and beautician work offering relatively low returns compared to technical courses pursued by men. The absence of advanced skill training and weak market linkages further constrained long-term economic opportunities for participants.

To enhance their impact, the livelihood program needs to diversify its course offerings, introduce advanced skill options, and strengthen entrepreneurial support to ensure sustainable and transformative outcomes.

4.5 Coherence:

Coherence, the fifth criterion of the framework, examines how well the intervention aligns with other local and national initiatives.

On the skill training front, the program addressed local employment needs by identifying opportunities suitable for women, such as tying up with toy shops and establishing candle-making businesses for women. This focus on independent, home-based employment aligns with national priorities to create economic opportunities for women and youth.

However, several gaps in coherence remain. The project lacked connections to government facilities or partnerships with organizations that could provide financial or mentoring support and advanced skill training for the entrepreneurs and job seekers.

4.6 Sustainability:

The sixth and final criterion of the framework assessed the sustainability of the program's benefits over time.

Challenges to sustainability were identified. Skill saturation within communities posed a risk of diminishing program value over time, emphasizing the need for continuous innovation and fresh content and courses to maintain engagement. Reliance on external agencies for teacher training and resource provision raises concerns about long-term resilience if partnerships or funding declined. Thus, raising the need to build the capacities of existing teachers over multiple interventions eating into the limited school time.

Overall, while the program demonstrated promising sustainability through strong community support, teacher capacity building, and curriculum relevance, addressing challenges such as resource dependence and maintaining innovation will be critical. Continuous engagement with beneficiaries and proactive adjustments are essential to preserving the program's long-term impact.

5. Recommendations

5.1 Livelihoods

The livelihood center which has been serving the local employment needs by training the participants in 12 different courses has a scope to improve the offerings as suggested below:

1. Marketing Tools for Women Entrepreneurs: Interactions with beneficiaries of self-employment-oriented courses have revealed a significant demand for training on marketing tools and brand identity creation. Women entrepreneurs are seeking support to develop online presence, business cards, and other promotional tools to effectively showcase their work to customers.

To address this need, Rallis can draw inspiration from programs implemented by the Mann Deshi Foundation[4]. The foundation has successfully trained rural women entrepreneurs in key areas of business management, including obtaining shop licenses, leveraging digital tools, and enhancing their online presence through platforms like WhatsApp and Facebook. Mann Deshi's comprehensive approach equips women with skills to maintain their businesses and expand their reach in competitive markets. Implementing similar initiatives will empower women with practical marketing strategies and tools, enabling them to establish stronger customer connections and achieve sustainable growth.

2. Introduction of advanced courses for Graduates: There was a demand for advanced skills, among graduate and postgraduate participants who constituted 36% of the beneficiaries in livelihood training programs. With the job market rapidly evolving, traditional vocational training in trades like tailoring or beautician services is no longer sufficient to meet the aspirations or employability needs of these individuals. Beneficiaries increasingly seek courses aligned with modern technological advancements and sustainable practices, which are essential for securing high-value employment and achieving long-term economic independence.

Integrating 21st-century skills into the livelihood center can significantly enhance the relevance and impact of the program. By equipping participants with in-demand competencies, such as digital literacy, renewable energy technology, or programming, these centers can prepare beneficiaries for better job opportunities in both local and global markets. This shift would not only improve employability but also attract a more diverse participant base, fostering broader community engagement and inclusivity. Such initiatives can also position beneficiaries as contributors to sustainable development, addressing economic and environmental challenges simultaneously.

[4] *Mann Deshi Foundation.* (https://www.manndeshi.org) – Training rural women entrepreneurs in digital and business skills.

To implement advanced courses effectively, the center should consider forming partnerships with educational institutions, offering specialized workshops, creating mentorship programs, and leveraging online learning platforms. This multifaceted approach can create a robust training ecosystem that meets modern workforce demands. Additionally, providing placement opportunities after training can significantly enhance the program's appeal and outcomes by ensuring participants transition seamlessly into the workforce.

Additionally, focusing on market diversification is critical; reliance on trades with limited earning potential and localized demand, such as tailoring, risks quick saturation if multiple participants from the same community are trained. Instead, centers should prioritize vocations with broader market applicability or establish strong market linkages for locally produced goods to ensure sustainable income streams and greater economic resilience for beneficiaries.

3. Expansion for other locations: The skilling project has reached a saturation point in the nearby villages, where many women have successfully completed courses in tailoring, beauty parlors, and other vocational skills. This saturation limits the pool of new participants, making it increasingly challenging to engage the same community with identical training offerings. While the project has initially met its enrollment targets, recent trends indicate a decline in new participants, highlighting the need for a strategic shift.

To address these challenges and enhance the project's impact, it is essential to conduct a feasibility study aimed at identifying new locations for training centers. This study should focus on assessing market demand for advanced skill sets that extend beyond traditional courses. Skills such as electric vehicle technology and artificial intelligence could be introduced to align with current market trends. Additionally, engaging with communities through grassroots mobilization will help uncover their aspirations and needs, ensuring that the new offerings are relevant and impactful. By expanding course offerings to include more advanced skills and ensuring that training centers are equipped with modern tools and accessible infrastructure, the project can revitalize its impact and continue empowering women, and youth through skill development.

4. Building Economic Opportunities and Community Connections: Developing a dedicated handicraft website or sustainable brand to showcase and market products made by women beneficiaries trained at the center can significantly enhance their economic prospects and entrepreneurial opportunities. The platform could feature a diverse range of products, such as handmade garments, accessories, and home decor items, emphasizing the artisans' craftsmanship and the unique stories behind each creation. This personalized narrative can appeal to consumers seeking authentic, ethically sourced products, thereby adding value to the brand.

To further support the artisans, the initiative could include provisions for assisting with raw material purchases. Ensuring access to affordable, high-quality materials is crucial for maintaining product standards and enabling the women to scale their production. This support

could be in the form of bulk procurement arrangements, collaborations with local suppliers, or establishing a raw material bank at the center.

To boost visibility and market reach, the initiative could establish partnerships with local businesses and participate in craft fairs, exhibitions, and online marketplaces. These efforts would not only increase sales but also foster a sense of community among the women by encouraging collaboration, peer support, and collective growth. Creating a recognizable and robust handicraft brand could serve as a powerful tool to connect these women with broader markets, ensuring steady demand for their work.

By integrating such strategies, the center can offer sustainable employment opportunities that enable women to leverage their skills and creativity while contributing to the local economy. This model not only promotes financial independence but also highlights the unique cultural and artistic heritage of the community, positioning the brand as a symbol of empowerment and innovation.

5. Biometric Attendance Systems: Introducing a biometric system for capturing trainee attendance will be a significant step forward from the traditional register method currently used to capture trainee's attendance. Biometric systems provide an accurate and tamper-proof way to record attendance, eliminating issues such as proxy marking and manual errors. This technology fosters accountability among trainees by ensuring their presence is authentically recorded, thereby promoting higher adherence to training schedules, and eliminating absenteeism. Additionally, biometric systems streamline data collection and reporting, offering real-time insights into attendance trends. This helps trainers and administrators identify patterns of absenteeism and address them proactively. Ultimately, the shift to biometric systems enhances the efficiency, transparency, and overall effectiveness of attendance management, contributing to improved participation and discipline among trainees.

6. Remedial Classes: Remedial classes are essential in short-duration technical courses designed for women and youth from rural areas, as they address the varying levels of educational preparedness among participants. Many beneficiaries may lack foundational skills or struggle with the pace of the curriculum due to limited prior exposure to technical concepts. Remedial classes bridge this gap by reinforcing basic knowledge and providing individualized support, ensuring all participants can keep up with the course. Additionally, these courses must incorporate strategies to address absenteeism, as irregular attendance can hinder skill acquisition and overall effectiveness. Flexible scheduling, regular follow-ups, and motivational initiatives can encourage consistent participation, ensuring beneficiaries gain the maximum advantage from the training program.

6. Closure

The impact assessment report for the Rallis India initiatives under the LTC offers a thorough evaluation of the educational and vocational training efforts aimed at enhancing learning outcomes and improving employability among rural communities.

The LTC aims to empower rural communities through vocational training targeted at women and youth. Over 1,520 beneficiaries have received training in various market-relevant skills such as sewing, computer applications, and beautician services.

The LTC successfully trained individuals in skills that directly enhance employability, with 97 participants receiving certifications. Beneficiaries reported increased income levels; women earned between ₹2,000 to ₹8,000 monthly from home-based businesses, while men experienced substantial earnings growth through vocational training. This initiative also contributed to increased confidence among participants - beneficiaries of the LTC reported improved self-esteem and socio-economic participation.

Key achievements of these initiatives include high engagement rates, diverse training offerings tailored to local employment needs, and a positive impact on community involvement. The LTC provided a wide range of courses that effectively addressed socio-economic challenges faced by beneficiaries.

Despite these successes, several areas for improvement were identified. The need for more rigorous assessment tools was highlighted; simplistic testing methods limited the ability to measure true progress effectively. Regular updates to training materials are essential to maintain relevance, along with the inclusion of marketing skills for women entrepreneurs. Additionally, establishing stronger follow-up mechanisms for beneficiaries post-training could significantly enhance long-term success and sustainability of outcomes.

In conclusion, the LTC initiatives have made remarkable strides in empowering rural communities through skill development. While the achievements are commendable, implementing the recommended improvements will further enhance program effectiveness. Continuous evaluation and adaptation are crucial to ensuring that these initiatives remain responsive to evolving community needs and contribute meaningfully to the socio-economic development of rural Maharashtra.

Annexures

Annexure A : Primary Research tool for Livelihood training program

1. Beneficiaries KII

Sr. No	Questions	Probe
1	Tell us about yourself - name, age, gender, family background, educational qualifications Describe your main roles and responsibilities	*Tweak questions if students are already placed and working in such industries*
2	What was your employment or primary livelihood activity prior to participating in the training?	
3	Do you have access to any social entitlement documentation, such as a ration card, ID, or other government-provided benefits?	
4	How many earning members do you have in your family? How would you describe your family's primary sources of income?	
5	Has your employment or income source changed since the training, and if so, what is your current role or livelihood activity?	
6	According to you, What challenges do people in this area were facing in finding stable work or improving their livelihoods?	*Lack of Industries, Lack of opportunities for skill building, Lack of matching skill set, Lack of initiatives for entrepreneurship, Reliance on farming, lack of motivation, lack of modern techniques, traditional methods, insufficient funds, sustainable methods, medication of livestock, etc*
7	How did you come to know about Rallis Livelihood Training Center, What inspired you to join this project? Which batch were you a part of? OR When did you finish your training? which course/trade?	
8	How relevant do you feel the training is to your personal career goals or current job needs? Are they aligned with the types of jobs or businesses that are in demand in your community?	

9	Did you attend any informational or mobilization meetings before enrolling? Tell us about enrollment, the training, and the employment process that you have received or know about.	
10	Was any counseling provided to help you understand the program? Do you know of any participants who left the program? If so, do you know their reasons for leaving?	
11	Tell us about various types of skill training provided and what is taught in those training sessions, how are these sessions conducted? (online or in-person or hybrid).	
12	Was the training delivered in a way that was easy to understand and engaging? How well do you remember the concepts taught, and how likely are you to apply them in real-life or work situations?	
13	Did the program help you with job placement, and how was the process managed? How organisation helped you to connect with government scheme?	
14	Have you noticed if more people are interested in joining this program after hearing about your experience? did you recommend this program to anyone? why?	
15	How many sessions were conducted out of which how many have you attended? If you or anyone is not able to attend the session do anyone keep track of it and follow up with you for not attending the sessions? how do you catch up with that missed session? After completing the training, did you receive any additional support or guidance to help you succeed in your job or business?	

16	Do you think the Rallis training project was necessary? if yes, then how did it help you? How has your awareness about skill development and training opportunities changed since you joined this program?	
17	What new ideas or opportunities for earning a livelihood have you learned about through this program? Do you feel better prepared to start your own business or pursue self-employment?	*Any Soft-skill training which helped to access of job opportunity*
18	Have these sessions brought any change in your overall behavior (boost up your confidence, inspiration, etc.) and professional level (increase income, multiple opportunities for livelihood, etc.)	
19	How has this program contributed to your personal growth or professional goals?	
20	Since completing the training, has there been an improvement in your income? If so, how has this impacted your life? Does the income growth matches their expectations or outcome expected from the course?	
21	What aspects of the training or program do you think were especially helpful or well-organized? any particular practices in this program that you think should continue for future participants?	
22	Were there any challenges you faced during the program that you feel could be addressed to help future participants?	
23	Are you aware of any government schemes or policies that are aligned with skill training and job replacements? If yes, then how did you come to know about it?	

2. Trainer KII

Sr. No	Questions	Probe

1	Name, Age,gender Tell us about your educational background and your relevant work experience. How long have you been working at this training center, and what are your responsibilities in your current role?	*How he got to know about this position and his selection process?* *Any support in in-service skill upgradation*
2	Can you provide a brief overview of the livelihood patterns and challenges faced by the community in this region?	*Income bracket of beneficiaries* *Major source of earnings, and involvement of youth in traditional and non-traditional livelihoods.any trends of migration?*
3	According to you, what are the specific needs within the project geography?	*Employement/livelihood demand*
4	What skills or knowledge do you believe beneficiaries should gain from this intervention? Are you familiar with how the courses have been selected and finalized for the training program?	
5	What criteria do you use to select beneficiaries, and how do you ensure inclusivity?	
6	Are you involved in the mobilization process? How would you approach the mobilization of beneficiaries for training? What strategies do you think are effective in motivating people to join the training programs?	*peer-to-peer (alumnai) influncing strategy is put in use*
7	What steps are involved in the counseling and enrollment process for beneficiaries? What is the current dropout rate, and what factors contribute to beneficiaries dropping out?	
8	Can you provide details on the development of the training syllabus? How do you ensure it meets recognized standards (e.g., NSDC, Farmers' Field School)?	

9	What training methods do you use to ensure concepts are easily understood and engaging for beneficiaries? Duration of each training courses, timings? Could you please share whether soft skills, business skills, or other horizontal skills are included in your program, and if so, what is your perspective on their importance for the participants?	
10	What is the job placement process for beneficiaries after training? what percentage successfully secure employment?	
11	How has the number of applicants for courses changed in recent terms compared to previous ones, and what factors do you think influence this trend?	
12	How do you monitor the progress of beneficiaries during and after the training, and what methods do you use to assess their skill development?	
13	What all methods are used to assess whether project objectives are met based on the outputs achieved?	
14	What strategies do you have for post-skilling support and ensuring beneficiaries engage gainfully in their respective fields?	*Any soft skills or intrerpersonalskills, team skills, decision making skills aided them post-skilling*
15	What all methods are followed to measure the targets versus achievements in enrollment numbers and job placements for the training program?	
16	What methods or tools do you use for monitoring the progress of beneficiaries at different levels within a project? How do you ensure that project objectives are being met in terms of output and impact	
17	Can you provide the overview of the selection and deployment of other team members/ staff in the training program?	
18	How do you ensure that your training aligns with government initiatives and industry demands? Does any government initiatives or schemes are helping the	*relevance of bringing instructors to a particular standard for quality delivery of course*

	beneficiaries post training?	
19	What strategies have you employed to increase the number of applicants in subsequent cycles of skilling courses?	*change in mobilisation process* *or increase in outreach etc*
20	What efforts have you made to raise awareness about entrepreneurship and available livelihood opportunities among beneficiaries? Can you share any success stories related to beneficiaries pursuing entrepreneurial ventures?	
21	Have you observed any changes in the behaviour as a result of the training and engagement? How do you support beneficiaries post-training? Can you describe your management process in this regard?	
22	Can you provide examples of individuals who have experienced notable personal and professional growth through your training?	
23	According to you, What are the good/innovative practices of the training programs?	
24	Do you think there should be any improvement in the training programs to make it more effective? If yes, please share your suggestions	
25	What strategies do you employ to ensure the sustainability of outcomes and the continuity of training activities in the long term?	
26	What measures are in place to ensure the continuity of activities post-training, and how do you plan to keep beneficiaries engaged long-term?	

3. LOLT Team KII

Sr. No	Questions	Probe
1	Can you provide basic details about the beneficiaries	(name, age,gender caste, education level, and socioeconomic background)?
2	How was the need for specific courses identified in	

	the project geography? Was a needs assessment conducted?	
3	What was the rationale behind selecting the particular courses for training, and how were they aligned with beneficiery aspirations and the demands of the local market?	
4	What process was followed for identifying and selecting beneficiaries for each training program?	
5	How many mobilization meetings were held, and how effective were those meetings in creating awareness and interest among potential beneficiaries?	*Any specific efforts to ensure female enrolment?*
6	Can you describe the counseling and enrollment processes? What was the dropout rate, and what were the main reasons for dropouts?	
7	How were the training syllabi developed, and did they align with any standard frameworks?	
8	What training modes and methods were employed to ensure that concepts were easy to understand and recall for the beneficiaries?	*Convinient time of Training?*
9	Was there any feedback mechanism in place to assess the engagement level of beneficiaries and their ease of understanding?	
10	What percentage of beneficiaries achieved job placement or self-employment after completing their training? What challenges, if any, did they face in securing jobs?	
11	How were job placements facilitated, and what steps were taken to establish partnerships with employers?	
12	What monitoring mechanisms were used to track the progress of beneficiaries throughout their training and post-training?	
13	How was the project's success measured against its objectives? Were there any targets for enrollment and placement, and how close did the project come to meeting these targets?	*change in courses offered or addition of courses*

14	Has there been a change in the number of applicants for training courses over time? What factors influenced any increase or decrease in enrollment?	
15	Was there an increase in awareness about skill development or entrepreneurship among the local population, as evidenced by subsequent training cycles?	
16	How has the project contributed to changes in beneficiaries' skills, social dignity, decision-making abilities, and overall quality of life?	
17	What has been the impact of the project on personal and professional growth?	such as income improvements, increased self-confidence, or improved social standing

4. Rallis Team KII

Sl. No	Questions	Probe
1	Name: Designation: Can you tell us about yourself? For how long have you been associated with the Rallis India? What is your role in the program?	
2	What factors influenced the selection of these specific locations for the project, and why was skill development chosen as the primary intervention in these areas? How were project beneficiaries identified and selected?	*try to understand how the project has been conceptualised?*
3	Before implementing the project was there any study conducted? If yes, on what insights shaped the selection of training courses? Are the selected trades and training topics aligned with current market demands?	

4	How does the training module compare to recognized standards? are they aligned with the National Skill Development Corporation (NSDC)? What is your observation on the training module? Are there any gaps in the syllabus or content that should be addressed?	*Incorporation of Soft skills in the modules*
5	Are you part of the quality check of the training and engagement plant of the project? What is your observation on the quality of the training?	
6	What is the status of the trainees after completion of the course?	
7	What is your feedback on the mobilisation, enrollment and job placement process?	
8	How many internal and external staff members are involved, and how is their engagement managed? What was the selection process for the deployment of the staff members?	
9	How is budget utilization tracked, and what procedures are in place for budget management? Could you outline the project's monitoring procedures across its various phases (Mobilization, Enrollment, Training, Employment, and Post-Employment)?	
10	Are there any collaborations with government schemes or programs for skill development and employment? What other employment agencies or government departments are involved, if any? If not, Are there plans to collaborate with government programs to support beneficiaries through various schemes?	
11	In the past 3 years, has the number of applicants increased across subsequent training cycles? If so, by what percentage? How this project has impacted the trainees? How would you explain the level of awareness change observed in all 3 years?	*How did different courses perform? Were there any changes or new courses introduced?*
12	What kind of job placements are being offered, and how closely are these aligned with beneficiaries' training?	

13	How has the project impacted beneficiaries' awareness of entrepreneurship and livelihood opportunities?	
14	What are the changes that have been observed in trainees personal and professional life?	*try to know the impact at individual, families level*
15	According to you let us know if the project was able to achieve the objective of the study. If yes, how? If no, what were the challenges faced in achieving the objectives?	
16	Have you placed any surprise visits on the field to monitor the entire process? Tells us about the monitoring, documentation and reporting process.	
17	What post-skilling support is available to beneficiaries to help them transition into sustainable livelihoods?	*Any relevance of imparting of soft skills*
18	Could you share any good practices observed during the project, as well as areas for potential improvement?	
19	Are there any future plans to expand or enhance this skill training program?	

5. Survey Tool

Sr. No	Type	Question	Answer
1	Select One	In which course are you enrolled in the project of LOLT?	Sewing & Tailoring
			Beauticare
			Computer
			Bike Repairing
			Mobile Repairing
			AC, Fridge, Washing Machine Repairing
			Welding
			Jewellery Making
			Ceramic Painting Course

			Candle Making
			Insence Stick Making
			Cake Making
2	Text	Name of the respondent	
3	Select One	Gender of the Respondent	Male
			Female
4	Select One	Age of the Respondent	15 to 20
			21 to 25
			25 to 30
			31 to 35
			More than 35
5	Select One	Religion	Hindu
			Muslim
			Christian
			Buddhist
6	Select One	Caste	General
			SC
			ST
			OBC
			Other
6a	Text	If Other, please specify	
7	Select One	Marital status	Married
			Divorced
			Widow
			Single

8	Select One	Qualification	Not attended school
			Primary (1st to 5th)
			Upper Primary (7th to 8th)
			Higher School (9th to 10th)
			Junior Collage (11th to 12th)
			Graduate
			College drop out
			ITIs/Diploma
			NA
9	Select One	Primary source of income	Private Job
			Business
			Industry Labour
			Agriculture Labour
			Others
9a	Text	If others, Please mention	
9b	Select One	Secondary source of income	Only have one source of income
			Private Job
			Business
			Industry Labour
			Agriculture Labour
			Others
9c	Text	If others, Please mention	
10	Multiple Option	Available official government documents	PAN Card
			Aadhar card
			Job card
			Bank account
			Caste certificate
			Land documents

			Ration card
11	Select One	Average Annual family income	0-19,000
			20,000-50,000
			51,000 to 99,000
			1 lac to 1.5 lac
			more than 1.5 lac
			don't want to say
		Before Training Occupation & Income	
12	Select One	Occupation	Student/Pursuing education
			Unemployed
			Self-Employed/Business
			Part time employed
			Full time employed
			NA
12a	Select One	What was your monthly income?	Less than ₹5,000
			₹5,000 - ₹10,000
			₹10,000 - ₹15,000
			Above ₹15,000
			NA
Relevance & Effectiveness			
13	Select One	How do you came to know about the Training Programme?	Through community mobilisation or mobiliser of LOLT
			Through Friends/Family
			Through local institution (Gram panchayat)
			Through training center visit
			Through Newspaper Advertisement
			Through Social Media
			Others

13a	Text	Others (Please specify)	
14	Select One	What motivated you to participate in the Training program?	Will help to get a job
			Will help for self employment
			Wanted to Learn a new skill
			Improving existing skill
			Opportunity for gaining more income
			Lacked clarity and joined based on a referral
			Others
			None
14a	Text	If, Others Please Specify	
15	Select One	Rate the training sessions based on the level of engagement	Very satisfied
			Somewhat satisfied
			Neutral
			Somewhat dissatisfied
			Very dissatisfied
16	Select One	Rate the level of trainer's knowledge and experience in the trade focused on the training	Very satisfied
			Somewhat satisfied
			Neutral
			Somewhat dissatisfied
			Very dissatisfied
17	Select One	Rate the training program's ability to provide the necessary skills, knowledge and job opportunities	Very satisfied

			Somewhat satisfied
			Neutral
			Somewhat dissatisfied
			Very dissatisfied
18	Select One	Was the training module or methods easy to understand?	Very easy
			Somewhat easy
			Neutral
			Difficult
			Very difficult
19	Select One	Rate the training program's follow-up system and support provided after the training program ended.	Very satisfied
			Somewhat satisfied
			Neutral
			Somewhat dissatisfied
			Very dissatisfied
20	Select One	How satisfied are you with the overall training programme?	Very satisfied
			Somewhat satisfied
			Neutral
			Somewhat dissatisfied
			Very dissatisfied
21	Multiple	What challenges did you face during the training program?	Difficulty in understanding the content
			Limited access to practical training

			Insufficient time for practice or exercises
			Difficulty in applying skills to real-life situations
			Lack of interaction or support from trainers
			None of the above
			Other
21a	Text	If Other, Please specify	
22	Select One	Are there any job opportunities after completing these courses?	Yes
			No
23	Select One	Are you still connected with the LOLT team and the center?	Yes
			No
			Sometimes
Post Training			
24	Select One	What is your current employment status after completing the training?	Student/Pursuing education
			Unemployed
			Self-Employed/Business
			Part time employed
			Full time employed
			NA
		If self employed, Ask this question, if not skip this	
24a	Select One	Did you received support from the institute to start your businesss ?	Yes
			No

25	Select One	How soon after completing the training did you find a job or started your own business?	Immediately after completion
			Within 1 month
			1-3 Month
			3-6 Month
			More than 6 Month
26	Select One	Have you been able to apply what you learned from the institute in your job?	Yes, I use it regularly in my work
			Somewhat, but I face challenges in applying it
			Not yet, but I believe it will be useful in the future
			No, I haven't found it applicable
27	Select One	How much is your monthly income with the current job or business?	Upto ₹5,000
			Between ₹5,000 to ₹10,000
			Between ₹10,000 to ₹15,000
			Between ₹15,000 to ₹20,000
			More than ₹20,000
28	Select One	Are you aware of any government schemes or policies that are aligned with skill development or entrepreneurship?	Yes
			No

28a	Text	If yes, please give the names of the scheme you are aware of.	
29	Multiple	How has the training impacted your skills and knowledge?	Learn new skills
			Improvement in existing skills
			Increase in income
			Increased self confidence
			Able to contribute in household income
			More work opportunities
			More awareness of entrepreneurship
			Other
29a	Text	If Other, please specify	
30	Select	What aspects of the training program do you think could be improved?	Training content
			Quality and clarity of teaching methods
			Availability of hands-on practice sessions
			Duration of the training
			Post-training job placement support
			Access to advanced skill-building resources
			Frequency and quality of feedback from trainers
			Support for entrepreneurship opportunities
			Other
30a	Text	If Other, Please specify	
31	Select	What additional resources or support would help you further (Employment & Business)?	Access to advanced training materials and resources
			More hands-on practice opportunities
			Guidance for job search and placement

			Mentorship or career counseling sessions
			Opportunities for further skill advancement
			Networking with employers and industry professionals
			Support for starting a small business or entrepreneurship
			Financial support for tools or equipment
31a	Text	If Other, Please specify	
32	Select	Would you recommend this project to other ?	Yes
			No

Annexure B: About NuSocia

NuSocia (registered as IN2X Sustainability Advisors Pvt Ltd) is an impact advisory and research organization, founded in 2017 by a group of industry experts with nearly two decades of experience across various sectors of the social impact spectrum. Its mission is to strengthen the impact ecosystem through research, advisory, and training support. The organization was incubated at NSRCEL, Indian Institute of Management (IIM) Bangalore. NuSocia collaborates with Corporations, Governments, Foundations, and Nonprofits, helping them maximize, manage, measure, and communicate their social impact. Clients choose NuSocia for its deep expertise and its ability to connect at the grassroots level, allowing for practical, tailored solutions that meet their specific needs.

Through its unique process, commitment to excellence, and vast experience, NuSocia has become one of the trusted social impact consulting partners for clients, delivering and supporting projects nationwide and working with key industry names. Specializing in Program Management, NuSocia offers services across the entire program lifecycle, including strategy, needs-gap assessments, program design, implementation, monitoring and evaluation, impact assessments, program and process documentation, communication, and more.

With a global consulting team, localized partnerships, and a workforce that is 65% female, NuSocia is composed of CSR professionals, management consultants, social sector experts, data scientists, and social researchers, all united by a passion for creating meaningful, people-centered ideas.

The core team consists of members from diverse professional and educational backgrounds, such as Agriculture, Public Health, Environmental Conservation, Solid Waste Management, Watershed Management, Gender, and Social Entrepreneurship, among others. Collectively, the team possesses

functional knowledge of over 10 Indian languages. Led by a woman founder and leader, NuSocia is committed to fostering an inclusive and diverse environment, with a strong focus on equality, empowerment, and mutual respect.