



**Impact
Assessment
Report**

Jalashay

A CSR project of Marico India



TABLE OF CONTENT

04	I. Introduction
07	II. Study Approach & Methodology
10	III. Key Findings
18	IV. IRECS Analysis & Conclusions
26	V. Way forward

List of Acronyms

Acronym	Abbreviation
CInI	Collectives for Integrated Livelihood Initiatives
CSO	Civil Society Organisation
CSR	Corporate Social Responsibility
FGD	Focus Group Discussion
FPO	Farmer Producer Organization
IA	Impact Assessment
IRECS	Inclusiveness, Relevance, Effectiveness, Convergence, and Sustainability
KVK	Krishi Vigyan Kendra
NGO	Non Government Organisation
O&M	Operation and Maintenance
PMKSY	Pradhan Mantri Krishi Sinchayee Yojana
POP	Package of Practices
SDG	Sustainable Development Goal
SHG	Self-Help Group
WUG	Water User Group

I. Introduction

In response to the critical challenges of water scarcity and groundwater depletion affecting agricultural productivity and ecological balance, Marico Limited initiated the Jalashay project under its Corporate Social Responsibility (CSR) framework. This project, designed to enhance water security and support sustainable agricultural practices, was implemented across two distinct geographic and socio-economic landscapes: **Tamil Nadu** and **Gujarat**. Each region targeted specific community needs through tailored water management strategies, reflecting the diverse agricultural and climatic conditions of the areas.

1.1 Background of the Project

In Tamil Nadu, the Jalashay project was specifically aligned with the needs of farmers through the Kalpavriksha initiative, a sector of Marico focused on agricultural enhancements. The interventions primarily involved the construction of water bodies such as farm ponds and trench cum bunds, which were strategically designed according to the size of the coconut farms and the specific water requirements stated by the farmers. This approach was particularly focused on promoting climate resilience among coconut plantations by improving groundwater recharge and ensuring water availability for irrigation during critical periods.

In contrast, Gujarat presented a broader approach to water scarcity challenges, particularly in tribal regions of districts like Sabarkantha, Banaskantha, Dahod, and Panchmahal. Implemented by CInI and local partners such as NM Sadguru Water and Development Foundation and VIKSAT,

the project in Gujarat emphasized community-driven water harvesting and the promotion of water use efficiency. The initiatives included the construction and de-siltation of check dams, creation of new water harvesting structures, and extensive community training in sustainable water use practices. These efforts aimed to build community resilience and empower local stakeholders through enhanced access to irrigation, which facilitated the shift towards high-value/cash crops, thereby improving local economic conditions.

1.1.1 Project Objectives and Implementation Strategy

A. Objective:

- The core objective is to recharge underground water in water-stressed regions to support & strengthen local agriculture.

B. Implementation Strategy

Tamil Nadu: Targeted Water Management for Farms

In Tamil Nadu, the Jalashay project was implemented alongside the Kalpavriksha project, specifically tailored to support farmers in the region. This targeted approach was designed to address the critical water needs of coconut cultivation, which is heavily reliant on consistent water availability.

Key Components:

- **Farm Ponds and Trench cum Bunds:** The project focused on constructing farm ponds and trench cum bund systems that are essential for capturing rainwater and recharging the groundwater. Each structure's size and capacity were determined based on the individual

farm's area and the farmer's specific water requirements.

- **Cost-Sharing Model:** To encourage farmer participation and investment, a cost-sharing model was implemented where the farmers contributed 20% of the construction costs. This model not only facilitated project ownership among the farmers but also ensured that the structures were valued and maintained.
- **Geographical and Technical Specificity:** Each water body was carefully planned with geographical requirement, taking into account the natural slope, soil type, and existing water flow patterns to maximize water capture and retention, thereby enhancing the efficiency of groundwater recharge.

Gujarat: Comprehensive Community-Driven Water Resource Management

The implementation in Gujarat was characterized by a broader, community-driven approach, focusing on tribal areas in districts like Sabarkantha, Banaskantha, Dahod, and Panchmahal. The strategy was comprehensive, involving multiple stakeholders to address the overarching issue of water scarcity affecting agriculture and livelihoods.

Key Components:

- **Water Harvesting Structures:** Multiple new water harvesting structures, such as check dams and nala plugs, were constructed to enhance the water storage capacity of the region. These structures help in capturing monsoon runoff and significantly contribute to groundwater replenishment.
- **Desilting of Existing Water Bodies:** The project also involved the desilting of existing check dams

which not only increased their water storage capacity but also extended their operational lifespan, making them more effective for longer periods.

- **Community Training and Engagement:** An integral part of the strategy was to train and engage local communities, especially Water User Groups (WUGs), in the planning, execution, and maintenance of water structures. Training sessions focused on sustainable irrigation practices, efficient water use, and maintenance of irrigation systems.
- **Micro-Irrigation Techniques:** The introduction and promotion of micro-irrigation techniques such as drip irrigation systems complemented the physical water structures. These systems help reduce water usage by delivering water directly to the plant roots, minimizing evaporation and runoff.

The implementation strategies in Tamil Nadu and Gujarat were tailored to the specific environmental and socio-economic contexts of each region. In Tamil Nadu, the focus was on targeted interventions for farmers, while in Gujarat, a more comprehensive, community-wide approach was adopted. Both strategies were underpinned by a strong emphasis on community participation, sustainable practices, and alignment with broader water conservation goals, ensuring that the Jalashay project not only addressed immediate water needs but also contributed to long-term water security and community resilience.

1.2 The Evaluation

The Jalashay project's implementation varied significantly between Tamil Nadu and Gujarat, reflecting the distinct agricultural, climatic, and socio-economic

contexts of each region. As such, the evaluation framework was designed to capture these nuances, ensuring that the assessments are relevant, precise, and conducive to deriving actionable insights.

1.2.1 Objectives of the Evaluation

This evaluation aims to:

- Assess the Relevance and Impact of the water management strategies employed in both Tamil Nadu and Gujarat.
- Evaluate the Effectiveness of the project implementations in enhancing groundwater recharge, improving agricultural productivity, and increasing economic benefits to the communities.
- Examine Sustainability and Scalability of the interventions, including community involvement and the adoption of water-saving technologies.
- Identify Challenges and Lessons Learned to provide recommendations for future water resource management projects.



II. Study Approach & Methodology

This chapter outlines the methodologies employed to evaluate the Jalashay project's interventions in Tamil Nadu and Gujarat. Given the diversity in project activities and regional contexts, the study utilized tailored approaches for each state to capture accurate and relevant data, ensuring comprehensive evaluation outcomes.

2.1 Study Approach

2.1.1 Tamil Nadu: Purposeful Sampling and Direct Assessments

In Tamil Nadu, the study focused on evaluating the effectiveness of water harvesting structures implemented within the coconut farms under the Kalpavriksha project. A purposeful sampling method was chosen to select 20 farmers who were beneficiaries of the project, ensuring that the data collected provided insights into the impacts of the interventions on this specific target group.

Data Collection Methods:

- **Structured Interviews with Farmers:** Interviews were conducted with the selected farmers to gather qualitative and quantitative data on the performance and impact of the water harvesting structures. The interviews helped assess the farmers' perspectives on the utility, effectiveness, and maintenance of the farm ponds and trench cum bunds.
- **Site Observations:** Direct observations were conducted at each of the 20 farms to examine the physical condition and operational status of the water harvesting structures. This method provided firsthand data on aspects like structure integrity, capacity utilization, and signs of any maintenance issues.

2.1.2 Gujarat: Community Engagement and Focus Group Discussions

In Gujarat, the evaluation was expanded to include a broader community perspective, given the project's extensive reach and community-driven approach in the Dahod district. The methodology involved visiting five sites across four villages, where comprehensive community engagement was fundamental.

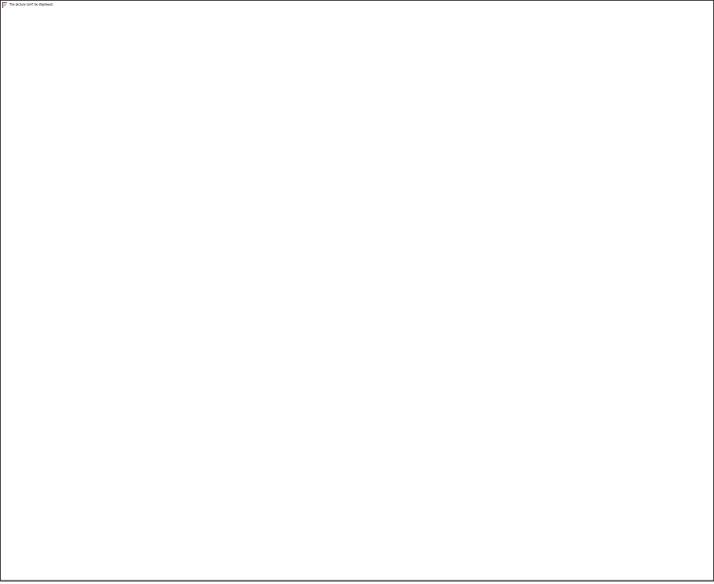
Data Collection Methods:

- **Focus Group Discussions (FGDs):** FGDs were conducted with beneficiary farmers' households and project functionaries at each site. These discussions were designed to elicit a range of views on the project's effectiveness, community participation, and the socio-economic changes brought about by the water management interventions.
- **Observations of Water Structures:** Alongside FGDs, the evaluation teams conducted observational visits to the water structures like check dams and irrigation systems to assess their condition, usage, and integration into the local agricultural practices.

The table 2.1 depicts the sample coverage and the tools that were used for data collection. In Tamil Nadu, farmers were selected from Coimbatore & Theni district. In Gujarat, all 5 locations were visited in Dahod district.

Table 2.1 : Study sample

Tools	Tamil Nadu	Gujarat
Site Observation – Water harvesting structure	20	5
Structured Interview	20	-
Focused Group Discussion (FGD)	-	5



2.2 Evaluation Framework: The IRECS Approach

To do a conclusive analysis on the outcomes of the evaluation, the IRECS (Inclusiveness, Relevance, Effectiveness, Convergence, and Sustainability) framework was utilized. This framework focuses on five critical dimensions:

- **Inclusiveness:** Evaluates how well the project involved various community segments, particularly marginalized and vulnerable groups, ensuring that the benefits of the project are distributed fairly.
- **Relevance:** Assesses the alignment of the project activities with the local needs and priorities of the community as well as the overarching goals of the sponsoring organization.
- **Effectiveness:** Measures the extent to which the project achieved its intended outcomes and how effectively the resources were used to realize these outcomes.
- **Convergence:** Examines the coordination with other initiatives and the integration of resources to amplify the project's impact and avoid duplication of efforts.
- **Sustainability:** Looks at the project's capacity to deliver benefits over an extended period, particularly after the cessation of external support, including the community's ability to maintain and manage project outcomes.

This structured approach ensures that each dimension of the project's impact is thoroughly examined, providing a holistic view of its effectiveness and sustainability.

2.3 Limitations of the Study

While the evaluation of the Jalashay project was conducted meticulously using the IRECS framework, certain limitations were inherent in the study design. They have been listed ahead.

- **Sample Size and Selection Bias:** The evaluation may not fully represent broader demographic and geographical variations due to the focus on a limited number of beneficiaries in both Tamil Nadu and Gujarat, potentially leading to selection bias.
- **Temporal Constraints:** The short duration of the evaluation limits the ability to assess long-term impacts and sustainability of the interventions, as some outcomes may not fully manifest within the study period.

III Key Findings

This chapter delves into analysis of both field and secondary data collected from Tamil Nadu and Gujarat as part of the Jalashay project evaluation. Given the diverse geographical and socio-economic contexts of the two states, the project implemented distinct response measures tailored to address the specific challenges and opportunities in each area. This chapter is structured to separately examine the data and insights gathered from each state, reflecting on how the varied interventions have met the local needs. For Tamil Nadu, the focus has been on enhancing water conservation practices to support coconut farming, while in Gujarat, broader water management strategies were employed to benefit a range of agricultural activities. By segmenting the analysis state-wise, the chapter provides a detailed review of the outcomes and effectiveness of these tailored approaches. Concluding with a synthesized summary of findings, this chapter aligns the regional impacts with the overarching objectives of the Jalashay project, offering a holistic view of its successes and areas for improvement.

3.1 Tamil Nadu

Under the Jalashay project in Tamil Nadu, the focus has been on creating water harvesting structures that helps in recharging water sources like open well & borewells that the farmers have in their farmland. In the financial year 2023-24, 229 water harvesting structure construction & rejuvenation work were undertaken. These construction & rejuvenation work were essentially undertaken on the land of the farmers only and were in form of construction of farm ponds, trench cum bunds and rejuvenation of existing farm ponds. These initiatives are crucial as they address the acute water shortages that significantly hinder coconut cultivation—a

crop that requires a consistent and substantial water supply. The table ahead gives the break-up of the work undertaken.

Table 3.1: Water harvesting work in Tamil Nadu

Type of work	Number
Farm pond construction	170
Trench cum bund construction	40
Farm pond rejuvenation work	19
Total	229

A total of 204 farmers benefited from this intervention. As evident from the table, majority of the work done was pertaining to construction of farm ponds (75% of the total work). In total, 2,58,927 cubic meters of water harvesting potential was created, which essentially translates into 258.9 million litres of water. The figures ahead depicts the details of the size & cost of the farm ponds constructed.

Fig 3.1 Number of Farm ponds constructed capacity wise (N-170)

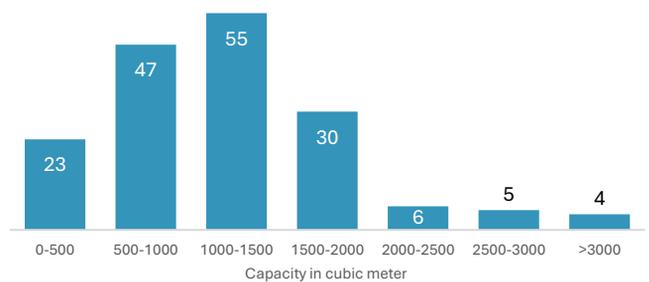
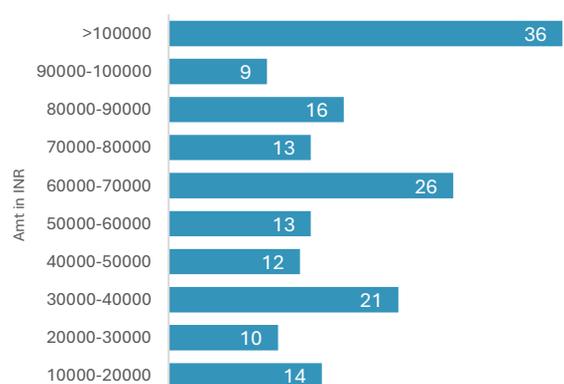


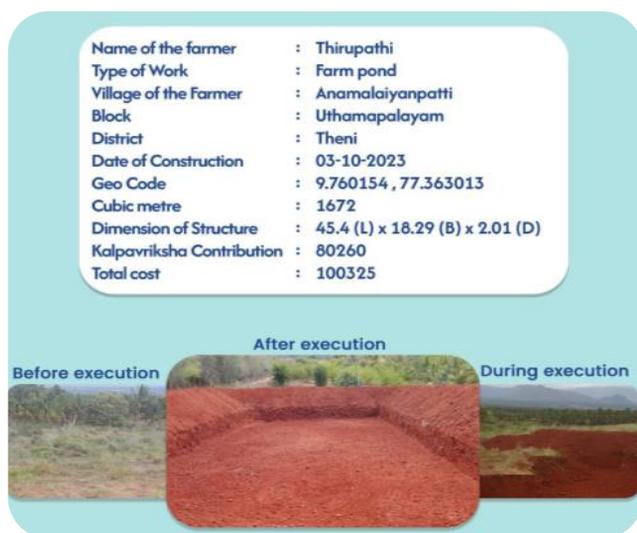
Fig 3.2: Number of farm ponds constructed across different cost categories (N-170)



As evident from figure 3.2, 74% of the farm ponds that were constructed were in the size category of less than 1500 cubic meters, indicating that it suited to farmers' needs and their farm size. Survey data collected from sample of 20 farmers that received Jalashay support indicate that 21% belonged to marginal & small farmers category. 74% of the farmers belong to the semi-medium and medium farmer category. This shows that water needs of smaller farmers were prioritised in the project intervention.

This is also substantiated from the cost data of the farm ponds (fig 3.2) that were constructed. 41% (N-170) farm ponds that were built had costed less than Rs 60,000.00, again indicating that needs of smaller farmers were prioritised. Farmers contributed 20% cost of construction of the water harvesting structure.

Fig 3.3: Sample detail of Water harvesting work



Importance of water harvesting structures in context of broader water challenges:

In Tamil Nadu, farmers face significant challenges due to fluctuating rainfall and the consequent water scarcity. The region's dependence on monsoon rains makes it vulnerable to climate variability, affecting water-intensive crops like coconuts which

require around 200 litres of water per tree per week. In the evaluation study of Kalpavriksha project, 40% of farmers (N-70) had highlighted as the key concern which was affecting coconut productivity.

The Jalashay project's water harvesting structures are a strategic response to these challenges, providing critical infrastructure for capturing and storing rainwater and recharging groundwater sources. The strategic relevance of these structures extends beyond immediate water supply. By enhancing groundwater recharge, they contribute to the sustainability of water resources, a critical factor given the increasing unpredictability of monsoons and changing rainfall patterns in the region due to climate change. Research indicates that groundwater levels in many parts of Tamil Nadu have been declining, making the recharge capability of these structures increasingly vital (Source: Central Ground Water Board report, 2019).

Moreover, the approach of requiring a 20% contribution from the farmers ensures that it creates ownership and commitment to sustainable farming practices. This mechanism helps in the effective utilization of resources and ensures that the benefits are maximized for those who are most invested in the project's success. By sharing the costs, the project can potentially extend its reach and impact, allowing for the creation of more structures across the region.

The stabilization of water supply through these harvesting structures can lead to better crop security, which translates into economic stability for the farmers. With improved water availability, farmers can plan for multiple cropping cycles, potentially increasing their income from coconut yields.

Key insights from field data of 20 sample farmers

- All the 20 farmers in the interview submitted that the farm ponds have helped in improving ground water level. On the aspect of how much the water level has improved, none of the farmers were able to exactly indicate the level of increase. The argument being that the ponds have been constructed within the last year and would require more time to substantiate it with data. But they indicated water volume have visibly improved in their wells.
- The selection of farmers for Jalashay project was based on willingness expressed by the farmers to participate & contribute 20% of the construction cost and no specific selection criterion was followed. Though data from 20 farmers showed that most of them belonged to land ownership size of medium & below.
- 10 out of the 20 farmers were practicing multi-cropping and they indicated that farm pond has created potential to cultivate additional crops along with coconut.
- All the 20 farmers interviewed submitted that the pond require brick lining work along its wall for protection and expected that the project will provide support in doing it. They said that brick lining work will enable them to use the pond effectively for a longer period of time and lower the maintenance cost in future.
- All the 20 farmers submitted that the farm ponds have positively impacted productivity but were unable to estimate a percentage by which it has improved it. Data collected for Kalpavriksha project evaluation on coconut production has been used to analyse this aspect. The tables ahead

depict the pre & post data on coconut production for both Jalashay & Non-Jalashay beneficiaries (both the categories of beneficiaries had received support under Kalpavriksha project.

Table 3.2: Pre & post coconut production for Jalashay Beneficiaries (N-18)

Number of nuts per tree	No. of farmers before Pond	No. of farmers Post Pond	Percentage Change
0-49	4	2	-50%
50-99	7	4	-43%
100-150	6	11	83%
>150	1	1	0%

Table 3.3: Pre & postproduction for Non-Jalashay beneficiaries (N-45)

Number of nuts per tree	No. of farmers before Project	No. of farmers post Project	Percentage Change
0-49	14	6	-57%
50-99	18	10	-44%
100-150	13	24	85%
>150	0	5	100%

The data shows that farmers with farm pond support experienced a notable increase in the number of farmers moving into higher production brackets. Specifically, the transition from 6 to 11 farmers in the 100-150 nuts per tree category suggests that farm ponds have a positive effect on increasing yeild production. However, when comparing with farmers without farm pond support, who also show a shift into higher productivity brackets (from 13 to 24 farmers in the 100-150 nuts category marking an 85% change in the base figure, and from 0 to 5 in the >150 category), it is evident that while farm ponds contribute positively, other factors and interventions are also effectively enhancing productivity. The increase in the highest production bracket (>150 nuts) among non-supported farmers suggests that additional

interventions or other factors may have complemented the production.

The data therefore, does not conclusively establish that farm ponds has created any production advantage for farmers when compared with farmers who had not received farm pond support. But the farm pond has invariably created better water availability & management potential for farmers who have received this support.

3.2 Gujarat

The Jalashay project in Gujarat was part of a broader initiative to enhance water availability and promote sustainable agricultural practices across several tribal villages in Dahod, Sabarkantha, Banaskantha, and Panchmahal districts. This project was implemented under the umbrella of CInI's larger Lakhpati Kisan initiative where it is working with 45000 farmers in Gujarat. The Lakhpati Kisan initiative, driven by CInI, aims to transform the socio-economic landscape of tribal regions by enabling farmers to achieve sustainable agricultural success. The project focuses on:

- Integrating agricultural development with water resource management to ensure that water availability is aligned with agricultural needs.
- Promoting income diversification among tribal households through various agri-based and non-agri. interventions.
- Building capacities of tribal families to manage their resources effectively and engage in the market more efficiently.

This initiative is part of a broader strategy to address the chronic underdevelopment and poverty prevalent in tribal areas by fostering economic resilience and sustainability

Key Activities undertaken under Jalashay Project and Partner NGOs

1. Construction of Water Harvesting Structures:
 - New check dams were constructed and existing ones were desilted to increase water storage capacity and manage water more effectively.
 - In addition to building new structures, the project also included desilting existing check dams to restore and increase their water storage capacity.
 - Partner NGOs: NM Sadguru Water and Development Foundation (active in Dahod) and VIKSAT (active in Sabarkantha and Banaskantha) were instrumental in executing these initiatives.
2. Community Training and Capacity Building:
 - Training were conducted for local farmers and Water User Groups (WUGs) on sustainable water use, efficient irrigation practices, and maintenance of water structures, crucial for the ongoing success of the project.
3. Promotion of Water Use Efficiency and Sustainable Agriculture:
 - Introduction of low-cost drip irrigation systems, mulching techniques, biopesticides, and organic farming initiatives.
 - These activities were supported by the overarching goals of the Lakhpati Kisan project to promote sustainable and profitable farming practices.
4. Soil and Water Conservation:
 - Measures such as soil conservation and the deepening and widening of ponds and drains were implemented to improve water retention and prevent soil erosion.

Table 3.4, 3.5 & 3.6 captures the details of the activities were undertaken in different locations of the project.

The table 3.4 & 3.5 illustrates the benefits derived from the construction of five new check dams and the desilting work carried out on two existing ones within the 06 villages of Dahod and Panchmahal districts, Gujarat. These initiatives have substantially augmented the region's water storage capacity, contributing to enhanced water availability and resource management. Combined, these new structures provide a total water storage capacity of 113.40 million litres, equivalent to 4.00 million cubic feet. Additionally, the desilting efforts on existing check dams enhance water storage capacity by an extra 96 million litres or 4.00 million cubic feet.

Collectively, these initiatives contribute to a cumulative water storage capacity of 209.40 million litres or 7.37 million cubic feet. This substantial increase in water storage not only addresses immediate water scarcity concerns but also ensures sustained access to water resources, bolstering resilience against drought and enhancing overall water security for the target communities in Dahod and Panchmahal districts. The intervention will directly impact 139 HHs and 165 HHs indirectly.

Table 3.6 provides a structured overview of the range and reach of interventions implemented in the Sabarkantha/Banaskantha region under the Jalashay project, highlighting a concerted effort toward sustainable agricultural practices and improved water management. The data showcases the project's broad spectrum of activities, from low-cost drip irrigation systems, which were adopted by 89 farmers, enhancing water efficiency, to the promotion of residue-free farming among 320 farmers, indicating a significant push towards environmentally sustainable agricultural methods. Biopesticide usage and vermicompost implementation, reaching 230 and 100 farmers respectively, further emphasize the shift towards organic farming. Moreover, the construction of check dams and nala plugs, as well as the deepening and widening of ponds and drains (involving 23 and 18 Water User Groups respectively), reflect a robust approach to enhancing local water resources management.

Additionally, soil conservation methods were adopted by 100 farmers, showcasing efforts to maintain soil health and prevent erosion. The table also highlights targeted educational initiatives, such as the training on irrigation system management for 5 WUG members, aimed at building local capacity to sustain these improvements.

Overall, the diversity and scale of these activities underscore a strategic approach to addressing the dual challenges of water scarcity and agricultural sustainability, pivotal for transforming the economic conditions of agricultural communities in these regions.

Highlights of FGDs held at 5 locations in Dahod with community members

Ahead is the insights from focus group discussions (FGDs) conducted with community members in four key villages: Vanasiya, Angalia-Chhariya, Thana Garjan, and Khirkhai. These discussions provided critical qualitative data on the local perceptions, experiences, and outcomes associated with the Jalashay project's water harvesting and agricultural interventions. The feedback gathered from these villages provides a ground-level view of the project's impact, highlighting successes, challenges, and areas for potential improvement.

- **Implementation Strategy and Partnership Long-standing Partnerships:** CInI leverages a longstanding partnership with Sadhguru Foundation, which has been operational since 1997. This collaboration has enabled the foundation to establish a

Table 3.4: New Check Dams
Constructed

Sr. No.	Village name	District	Crest Length (m)	Height (m)	Back Water Length (m)	Capacity (mcft)	HHs Impacted	Area Impacted (Acres)
1	Angliya Chariya	Dahod	25.4	1.9	500	1.25	10	25
2	Vansiya	Panchmahal	25.6	2.5	500	1.5	10	25
3	Khirkhai-2	Dahod	19.4	1.78	300	0.5	13	10
4	Khirkhai-3	Dahod	11.8	1.88	300	0.32	8	10
5	Thanagarjan-1	Panchmahal	14.7	1.5	400	0.5	8	18

Table 3.5: Desilting of Existing Check Dams

Sr. No.	Village	District	Additional Capacity (mcft)	Households Impacted	Area Impacted (Acres)
1	Bhanpur	Dahod	2	60	100
2	Khaltagarabdi	Panchmahal	2	30	50

Table 3.6: Intervention under
Sabarkantha/Banaskantha Geography

Sr. No.	Sub Activities	Target Group	Coverage
1	Low-Cost Drip Irrigation System with Mulching	Farmers	89
2	Biopesticide	Farmers	230
3	Vermicompost	Farmers	100
4	Promotion of Residue Free Farming	Farmers	320
5	Integrated Pest Management	Farmers	285
6	Check Dam / Nala Plug	WUGs	23
7	Pond/Drain Deepening and Widening	WUGs	18
8	Soil Conservation	Farmers	100
9	Training on orientation and management of Irrigation system	WUGs members	5

Data source for above tables: Project closure report of CInI

robust presence in the region, particularly in villages like Vanasiya, Angalia-Chhariya, Thana Garjan, and Khirkhai. Sadhguru Foundation's focus on water conservation projects and its strong community rapport facilitate the effective implementation of project activities.

- **Demand-driven Approach:** Site selection for check dam construction and desilting in the Dahod-Panchmahal region is uniquely responsive to community needs. Projects begin with applications from community members, ensuring that interventions like water harvesting are directly aligned with the local demand. This process not only enhances community buy-in but also ensures that the infrastructure developments are immediately beneficial.
- **Diversification into Vegetable Cultivation:** Encouraging shifts from traditional crops like maize and paddy to vegetable cultivation is a strategic move aimed at increasing agricultural diversity and potential income. This initiative is part of CInI's broader effort to promote sustainable agricultural practices through the Lakhpati Kisan initiative, which is keenly focused on increasing farmer income levels and improving livelihoods.
- **Challenges in Operation and Maintenance:** Despite the successes, there is a notable lack of clarity among community members regarding the long-term operation and maintenance (O&M) of water structures. The current expectation is that Sadhguru Foundation will manage repairs and maintenance, indicating a need for more structured O&M planning and community training to ensure sustainability. In response to these concerns, representatives from Sadhguru Foundation and CInI highlighted that while the structures are new and currently in good condition, they are actively working to develop a formal O&M system. This system aims to engage the beneficiary households and local community members more deeply in the maintenance process. Sadhguru Foundation also noted that they have a dedicated technical team, including engineers and masons, who regularly visit operational sites to assess any maintenance needs and coordinate with the community for follow-up actions. They further explained that if funds are available, Sadhguru typically supports the community in meeting expenses related to O&M.
- **Engagement with Local Institutions:** The integration with local Farmer Producer Organizations (FPOs) and cooperatives, as well as the interaction with Krishi Vigyan Kendras (KVKs) and agricultural research institutes, showcases a well-rounded approach to capacity building and knowledge sharing. These linkages are vital for the ongoing success and scalability of agricultural improvements in the region.
- **Effective Record Keeping:** Sadhguru Foundation's meticulous documentation of all water harvesting activities provides a valuable blueprint for monitoring, evaluation, and the replication of successes in similar contexts. This robust record-keeping is essential for tracking progress and ensuring accountability.
- **Improved Agricultural Output:** Community members anticipate that the enhanced water availability from the newly created water harvesting structures will allow them to increase their crop yields, particularly vegetables, by at least 1.5 times. This optimistic outlook underscores the perceived effectiveness of the Jalashay project's interventions in improving agricultural productivity and water management in the region.

3.3 Summary of Field Data & Observation Analysis

The field observations and data collected from Tamil Nadu and Gujarat provide compelling insights into the impact and operational dynamics of the Jalashay project.

In Tamil Nadu, the construction of 229 water harvesting structures & rejuvenation work, such as farm ponds and trench cum bunds, has improved water availability for farming, enhancing both sustainability and agricultural productivity. Farmers' investment in these structures through a 20% cost-sharing arrangement has fostered greater ownership and responsibility, contributing to the success and upkeep of these initiatives.

Conversely, in Gujarat, the CInI has effectively leveraged its partnership with local NGOs and their long-standing community relationships to implement water conservation strategies and introduce sustainable agricultural practices across multiple districts. Despite the success in infrastructure development and enhanced water management, challenges in operation and maintenance were highlighted, with ongoing efforts by Sadhguru and CInI to formalize sustainable O&M systems. These community-engaged interventions across both states illustrate a robust approach to addressing regional water scarcity and agricultural challenges, paving the way for improved livelihoods and environmental resilience.



IV IRECS Analysis & Conclusions

4.1 Relevance



The relevance of the Jalashay project in both Tamil Nadu and Gujarat is profoundly marked by its alignment with the acute water needs of the respective communities. In Tamil Nadu, the construction of 229 water harvesting structures specifically addresses the critical requirement for consistent water supply in coconut cultivation, a cornerstone of the local agriculture sector. Coconut trees require an average of 200 liters of water per tree per week, and the traditional reliance on monsoon rains has made cultivation vulnerable to fluctuating weather patterns (Source: Tamil Nadu Agricultural University). The project's focus on enhancing groundwater recharge through farm ponds and trench cum bunds directly responds to these challenges, ensuring that farmers have access to a stable water supply, crucial for sustaining their livelihoods.

In Gujarat, the region's primary agricultural activities include the cultivation of maize and paddy, both water-intensive crops. The

introduction of check dams and water harvesting techniques not only secures water for these staple crops but also supports the transition to vegetable cultivation, which can offer higher economic returns. This strategic shift in agricultural focus is particularly relevant given the ongoing changes in climate conditions, which affect rainfall reliability and water availability.

4.1.1 Alignment with Sustainable Development Goals (SDGs)

- A. **SDG 6 (Clean Water and Sanitation):** By improving water quality and availability through sustainable management of water resources, the project directly supports Target 6.4, which aims to substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater.
- B. **SDG 2 (Zero Hunger):** The project's efforts to enhance agricultural productivity through improved

irrigation and sustainable farming practices contribute to achieving food security and promoting sustainable agriculture, aligning with Target 2.3, which focuses on doubling the agricultural productivity and incomes of small-scale food producers

- D. SDG 15 (Life on Land):** By implementing water conservation measures that prevent land degradation and support the resilience of agricultural systems against natural disasters, the project contributes to the sustainable management of land and inland freshwater ecosystems.
- E. SDG 13 (Climate Action):** The project's initiatives also support adaptive capacities to climate-related hazards and natural disasters in all countries, particularly through infrastructure improvements and sustainable practices that reduce exposure to flood risks and other meteorological vulnerabilities.

Conclusion

The Jalashay project's relevance is underscored by its precise alignment with the critical needs of the communities it serves in Tamil Nadu and Gujarat, ensuring that the interventions not only address immediate water scarcity issues but also foster long-term sustainability and resilience against climate variability. The project's alignment with several SDGs further enhances its relevance, showcasing its contribution to broader global objectives beyond the immediate community impact. This strategic relevance ensures that the project delivers meaningful and lasting benefits, reinforcing its essential role in the regions' socio-economic and environmental landscape.



4.2 Effectiveness

The effectiveness of the Jalashay project has been assessed by examining the tangible outcomes achieved in both Tamil Nadu and Gujarat. These outcomes reflect the project's success in meeting its objectives of improving water availability and enhancing agricultural productivity through sustainable practices.

A. Enhancing Water Availability for

Farming in Tamil Nadu - The project's effectiveness is demonstrated by the construction of 229 water harvesting structures, which have significantly impacted the local agricultural landscape, particularly for coconut farming. These structures have ensured that farmers have access to a reliable water supply, crucial for the health and productivity of coconut trees. The farm ponds and trench cum bunds have been instrumental in recharging local groundwater sources, a vital resource for irrigation in coconut farming. This is particularly significant considering the average water requirement of 200 liters per tree per week. The increased water availability has allowed farmers to maintain their crops even during dry spells, thus stabilizing their incomes. Evaluation findings of Kalpavriksha project highlighted that 56% (N-70) farmers reported increased number of nuts per tree & 54% reported improvement in quality of the coconut 40% reported enhancement in size of coconut. This notable improvement in yield is a direct result of the integrated agricultural practices and water management strategies implemented through the project.

B. Gujarat: Comprehensive Water Management and Agricultural

Diversification - In Gujarat, the project's effectiveness spans several

components, from the construction of check dams to the training of farmers in sustainable agricultural practices. The partnership with local NGOs has facilitated the implementation of these interventions effectively.

- **Check Dams and Water Harvesting:** The construction and rehabilitation of check dams have played a critical role in enhancing water storage capacity, directly benefiting over 500 households in the region. The additional water storage has facilitated the cultivation of water-intensive crops like maize and paddy, as well as supported the shift towards high-value vegetable farming.
- **Agricultural Productivity:** The introduction of sustainable practices such as low-cost drip irrigation, biopesticides, and organic farming has not only conserved resources but also improved crop quality and yield. For example, the use of biopesticides and vermicompost has been reported to improve soil health, which in turn enhances crop yields and reduces dependency on chemical inputs.

Conclusion

The Jalashay project has proven effective in both Tamil Nadu and Gujarat by significantly improving water management and supporting sustainable agricultural practices. The tangible improvements in water availability and agricultural productivity, along with the strategic alignment with SDG targets, underscore the project's success. These achievements not only address the immediate needs of the communities but also contribute to long-term environmental sustainability and economic resilience, marking the project's overall effectiveness in fostering sustainable development in the regions.

4.3 Convergence

4.3.1 Strategic Alignment with Government Initiatives

The Jalashay project demonstrates robust convergence with key government initiatives aimed at water conservation and agricultural development. By aligning with national priorities such as India's Jal Shakti Abhiyan, which focuses on enhancing water security, and the Pradhan Mantri Krishi Sinchayee Yojana (PMKSY) that aims to expand irrigation coverage, the project ensures that its water conservation efforts complement and enhance state-sponsored schemes. This alignment not only maximizes resource utilization but also ensures that the project's objectives are supported by broader policy frameworks, enhancing the sustainability and impact of its interventions.

4.3.2 Jalashay project complements Kalpavriksha Project objectives

The Jalashay project's convergence with the Kalpavriksha project in Tamil Nadu is crucial in tackling the acute challenges posed by water scarcity, a significant impediment to coconut cultivation, which is heavily reliant on consistent and adequate water supply. By integrating water management solutions from the Jalashay project with agricultural enhancements from the Kalpavriksha project, the initiatives collectively tackle the broader aspects of agricultural sustainability.

4.3.3 Partnerships with NGOs and Local Community Organizations

Convergence is further evident in the project's collaboration with established NGOs like the NM Sadguru Water and Development Foundation and VIKSAT in Gujarat, which brings extensive experience in water conservation to the project. This partnership leverages the

foundation's local presence and expertise, ensuring that interventions are culturally and contextually appropriate. Additionally, the involvement of Water User Groups (WUGs) and Self-Help Groups (SHGs) in the operation and maintenance of water infrastructure fosters community ownership and local engagement, crucial for the sustainability of the initiatives.

4.3.4 Integration with the Lakhpati Kisan Initiative

The Jalashay project's activities are intricately linked with the Lakhpati Kisan initiative, which seeks to improve the economic status of farmers by integrating water management with agricultural productivity enhancements. This convergence ensures that improvements in water infrastructure directly contribute to agricultural output and farmer incomes, demonstrating a holistic approach to rural development. By connecting water conservation efforts with broader economic development goals, the project addresses multiple aspects of rural livelihoods, making it a model for integrated rural development.

Conclusion

The convergence of the Jalashay project with various governmental programs, NGO partnerships, and community initiatives highlights its integrated and multi-faceted approach to addressing the challenges of water scarcity and agricultural inefficiency. By creating synergies with existing programs and leveraging local and international goals, the project maximizes its impact and sustainability, setting a strong foundation for continued success and replication in other regions.

4.4 Inclusiveness

Inclusiveness is a crucial dimension in the evaluation of the Jalashay project, focusing on how effectively the project engages diverse community segments, particularly marginalized and vulnerable populations, in both Tamil Nadu and Gujarat. This aspect examines the extent to which the project's interventions have been accessible to all community members and how they have contributed to equitable benefits.

4.4.1 Engaging Diverse Community Segments

The Jalashay project has implemented several strategies to ensure inclusiveness:

- a) **Community-Driven Site Selection and Planning:** Both in Tamil Nadu and Gujarat, the project has utilized a participatory approach in selecting sites for water harvesting structures and other interventions. By involving community members in the decision-making process, including women and marginalized groups, the project ensures that the voices of all segments are heard and considered. This approach helps in tailoring interventions to meet the specific needs and priorities of different community groups.
- b) **Targeting Vulnerable Populations:** Special attention has been given to ensure that vulnerable populations, such as smallholder farmers, women, and tribal communities, benefit from the project. In Gujarat, for instance, the collaboration with local NGOs has focused on tribal areas, where communities are particularly vulnerable to water scarcity and economic instability. The project interventions are designed to enhance water security and agricultural productivity, directly

contributing to improved livelihoods for these groups.

- c) **Capacity Building and Empowerment:** Training sessions and capacity-building workshops have been integral parts of the project, aimed at empowering local populations with the knowledge and skills needed to manage water resources effectively and engage in sustainable agricultural practices. By equipping community members with these skills, the project fosters self-sufficiency and resilience, promoting long-term benefits.

4.4.2 Aligning with Social Equity and Gender Inclusivity

The project also places a strong emphasis on promoting gender inclusivity and social equity:

- a) **Women's Participation:** Women, often the primary water managers in households, have been actively involved in training programs and Water User Groups (WUGs). This inclusion ensures that women's specific needs and perspectives are addressed, and they are empowered to take on leadership roles within their communities.
- b) **Equitable Access to Resources:** The Jalashay project has strived to ensure that all community members have equal access to the resources provided by the project, such as water from new or rehabilitated water bodies, and the benefits derived from improved agricultural practices. This is crucial in avoiding the reinforcement of existing inequalities and ensuring that the project's benefits are distributed fairly across the community.

4.4.3 Impact on Social Cohesion

By fostering inclusive participation and ensuring equitable access to benefits, the Jalashay project not only enhances the social cohesion within communities but

also builds a strong foundation for collective action in water management and agricultural development. This enhanced social cohesion is vital for the sustainability of project outcomes, as it encourages continued collaboration and mutual support among community members.

Conclusion

The Jalashay project's emphasis on inclusiveness has significantly contributed to its overall success. By ensuring broad participation, targeting vulnerable populations, and promoting gender inclusivity and social equity, the project not only addresses the immediate needs related to water scarcity and agricultural challenges but also fosters a more resilient and cohesive community structure. This inclusive approach is essential for the sustainability and scalability of development interventions, making it a model for future projects aiming to enhance community development through integrated and participatory approaches.



4.5 Sustainability

Sustainability is a critical dimension in assessing the long-term impact and viability of the Jalashay project. This aspect evaluates how the project's interventions are designed to endure beyond the initial implementation phase, ensuring ongoing benefits to the communities in Tamil Nadu and Gujarat. The analysis covers environmental sustainability, economic resilience, and community ownership.

4.5.1 Environmental Sustainability

The Jalashay project has implemented several measures to ensure environmental sustainability:

- a) **Water Conservation and Management:** The project's core activities include constructing water harvesting structures and rejuvenating existing water bodies. These interventions help in mitigating the effects of erratic rainfall and reducing water runoff, which is crucial for maintaining groundwater levels and ensuring a sustainable water supply for agriculture and domestic use.
- b) **Promotion of Sustainable Agricultural Practices:** In both states, the project promotes practices such as the use of biopesticides, organic farming, and efficient irrigation techniques. These practices not only reduce the ecological footprint of farming but also improve soil health and reduce dependency on chemical inputs, contributing to the long-term sustainability of agricultural lands.

4.5.2 Economic Sustainability

The project's impact on economic sustainability is evident through:

- a) **Enhanced Agricultural Productivity:** By improving water availability and introducing sustainable farming

practices, the Jalashay project helps increase agricultural yields and diversify crop production. This leads to improved income stability for farmers, reducing their vulnerability to external shocks such as droughts or market fluctuations.

- b) **Capacity Building and Skill**

Development: Training and capacity-building efforts ensure that community members have the skills needed to manage their resources effectively. Empowering communities with knowledge and technical skills in water management and sustainable agriculture underpins the economic sustainability of the interventions.

4.5.3 Community Ownership and Institutional Sustainability

- a) **Engagement of Local Institutions:** The project's strategy includes strengthening local institutions such as Water User Groups (WUGs) and Self-Help Groups (SHGs), which play crucial roles in the management and maintenance of the infrastructure created. By building the capacity of these groups and formally involving them in project governance, the project ensures that local stakeholders have both the interest and the ability to sustain project benefits.
- b) **Formalization of Maintenance and Management Plans:** To address potential challenges in operation and maintenance, the project works on formalizing maintenance plans with community involvement. These plans are supported by establishing funds or mechanisms for regular maintenance, supported by the community's contributions or other sustainable funding sources.
- c) **Policy Integration and Alignment with Government Programs:** The project aligns with national and local government programs focused on water

conservation and rural development, ensuring that its goals are integrated into broader policy frameworks. This alignment helps in securing support from government bodies for continued resources and legitimizes project activities within the official development agenda.

Conclusion

The sustainability of the Jalashay project is multifaceted, encompassing environmental conservation, economic resilience, and community-driven management. By building robust systems for resource management, enhancing the economic benefits for the local population, and ensuring that project activities are deeply integrated into the community and policy frameworks, the project lays a strong foundation for sustained impact. This comprehensive approach to sustainability not only secures the long-term success of the project but also serves as a model for similar initiatives aiming to achieve enduring benefits in resource-scarce regions.



V. Way forward

REINFORCING THE STRENGTHS

- 1. Strengthen Community Engagement and Ownership:** Continue to foster deep community engagement and ownership, particularly by empowering local institutions such as Water User Groups (WUGs) and Self-Help Groups (SHGs). Further enhance their capacities to manage and maintain water resources independently, ensuring that these groups are well-equipped with the necessary skills and resources.
- 2. Expand Water Conservation Techniques:** Reinforce the success of water harvesting structures by expanding the scope and scale of these techniques. Consider the introduction of new, innovative water conservation technologies that could further enhance water security, such as advanced rainwater harvesting systems or more efficient irrigation methods.
- 3. Integrate More Comprehensive Agricultural Training Programs:** Building on the project's success in promoting sustainable agricultural practices, develop more comprehensive training programs that cover a broader spectrum of topics. These could include advanced sustainable farming techniques, financial literacy for farmers, and strategies for market expansion, further enhancing the economic impact of the project.
- 4. Enhance Documentation and Impact Assessment:** Continue to strengthen the project's documentation and impact assessment processes. Regularly update and refine data collection methods to ensure accurate tracking of both short-term outputs and long-term outcomes. This will not only aid in monitoring progress but also in demonstrating the project's success to stakeholders and potential donors.

CAPITALISING ON THE OPPORTUNITIES

- 1. Formalize Partnerships with Government and Private Sector:** Capitalize on opportunities to formalize and expand partnerships with government agencies and the private sector. Such collaborations could bring additional resources, expertise, and legitimacy to the project's initiatives, opening up new avenues for funding and scaling interventions across other regions.
- 2. Develop Integrated Water and Land Management Plans:** Focus on developing integrated water and land management plans that address not only water conservation but also land degradation and biodiversity conservation. This integrated approach can enhance the ecological sustainability of the regions and provide multiple benefits in terms of climate resilience and agricultural productivity.

Face the Future with Confidence[®]

© 2024 Protiviti India Member Private Limited - Confidential is the India Member Firm of the Protiviti network of independent and locally owned consulting firms that operate under the Protiviti name. Member Firms are autonomous companies, are not agents of Protiviti Inc. or other firms in the Protiviti network and have no authority to obligate or bind other firms in the Protiviti network.

protiviti[®]

Impact Assessment Report

Kalpavriksha

A CSR project of Marico India

2023-24

THE NEW TREN CO

04	I. Introduction
06	II. Study Approach & Methodology
09	III. Key Findings
21	IV. IRECS Analysis & Conclusions
33	V. Way forward

List of Acronyms

Acronym	Abbreviation
FSP	Field Service Personnel
ICAR-CPCRI	Indian Council of Agricultural Research - Central Plantation Crops Research Institute
IPM	Integrated Pest Management
IRECS	Inclusiveness, Relevance, Effectiveness, Convergence, Sustainability
Jalashay	Water Conservation Initiative (Under the Project)
MGNREGA	Mahatma Gandhi National Rural Employment Guarantee Act
OECD-DAC	Organisation for Economic Co-operation and Development - Development Assistance Committee
OBC	Other Backward Class
SC	Scheduled Caste
SDG	Sustainable Development Goals
SMS	Short Message Service
ST	Scheduled Tribe
TNAU	Tamil Nadu Agricultural University
UNFPA	United Nations Population Fund

I. Introduction

1.1 Background of the Project

Marico's Kalpavriksha Project, implemented through the Parachute Kalpavriksha Foundation (PKF), is a flagship initiative aimed at improving the productivity and livelihoods of farmers across India. Launched in 2015 as a pilot in Tamil Nadu's Thanjavur district, the program has since expanded to Tamil Nadu, Karnataka, and Andhra Pradesh, covering key coconut-growing regions. The project is designed to address systemic challenges faced by farmers, including low productivity, high input costs, water scarcity, pest infestations, and price volatility. The mission of Kalpavriksha is to "Help farmers increase their production and revenue" through scientific, sustainable, and technology-driven agricultural practices. The project's key components include:

- **Productivity Improvement Program** – Field Service Personnel (FSPs) provide farmers with on-ground training on best agronomic practices, pest management, and water conservation.
- **Agri-Business Services** – Farmers gain access to subsidized farm inputs, machinery rentals, and essential agronomic services.
- **Call Centre Support** – A dedicated helpline for farmers to seek guidance on farming challenges.
- **Kalpavriksha App & Digital Platforms** – Providing farmers with real-time market information, agronomic advice, and digital connectivity.
- **Knowledge Centre & Training Modules** – In-person and virtual training sessions for farmers.

By integrating modern agricultural techniques with traditional knowledge and farmer capacity-building, the Kalpavriksha Project aligns with both India's national agricultural policies and global sustainability goals (e.g., SDG 2.3 – Doubling agricultural productivity, and SDG 6.4 – Improving water-use efficiency).

1.2 Need for the Evaluation

Given the complex agricultural landscape and evolving challenges faced by Indian farmers, annual impact assessments are critical to ensure that the Kalpavriksha Project remains relevant, effective, and scalable. The previous evaluation for FY 2022–23 highlighted several achievements as well as areas for improvement, including:

- Increased productivity – 7 out of 10 farmers reported a 25% or more increase in coconut production.
- Limited income growth – Despite higher yields, fluctuating coconut prices meant that income growth was inconsistent.
- Strong farmer dependency – Many farmers still relied heavily on the Field Service Personnel (FSPs) rather than independently adopting best practices.
- Need for improved sustainability strategies – Greater emphasis was required on soil health, organic farming, and long-term financial linkages.

This evaluation for FY 2023–24 builds upon past assessments to further analyze:

- The program's effectiveness in sustaining yield improvements.
- The economic impact on farmer incomes.

- The level of farmer independence post-training.
- Adoption and impact of digital interventions (Kalpavriksha App & Call Centre).
- New challenges, emerging trends, and recommendations for future growth.

1.3 Objective of the study

The primary objectives of this FY 2023–24 evaluation are:

- **Assessing Impact** – To determine how Kalpavriksha interventions have influenced farmers’ productivity, income, and resilience.
- **Program Effectiveness & Sustainability** – To evaluate resource utilization, program outreach, and alignment with Marico’s long-term sustainability goals.
- **Scalability & Farmer Adoption** – To examine whether farmers are independently implementing the recommended scientific farming practices.
- **Recommendations for Improvement** – Identifying key areas for program enhancement, including potential expansion into additional geographies.



II. Study Approach & Methodology

2.1 Study Coverage and Sampling

The evaluation study was conducted in the Tamil Nadu and Karnataka regions, two of India’s largest coconut-producing states. The study sample was selected purposively to ensure representation across various farmer categories, landholding sizes, and project service recipients. The sample coverage details have been provided in the attached table. The study sought to assess the effectiveness, impact, sustainability, and inclusiveness of the project by capturing farmers' experiences, challenges, and benefits realized over the past year. Additionally, perspectives from Field Service Personnel (FSPs), agricultural experts, and Gram Panchayat members were included to gain multi-stakeholder insights into the project’s reach and functionality.

2.2 Mixed-Method Approach

A mixed-method research approach was employed to ensure a comprehensive evaluation, utilizing both quantitative and qualitative techniques. The study design included:

- **Structured Farmer Interviews:** A questionnaire-based interview was conducted with farmers to assess changes in productivity, income levels, farm management practices, and engagement with project services such as FSPs, the Call Center, and digital platforms.
- **FSP Interviews:** Discussions with Field Service Personnel provided insights into service delivery mechanisms, farmer adoption of solutions, and challenges in knowledge transfer and support accessibility.
- **Stakeholder Consultations:** Agricultural experts from Tamil Nadu

Agricultural University (TNAU), Panchayat functionaries, and other local stakeholders were engaged in discussions to assess institutional convergence, policy alignment, and external factors influencing the project’s impact.

This triangulation of data sources enabled the study to validate findings across different respondent groups and build a holistic understanding of the project’s effectiveness. The table below depicts the sample size of the study.

Table 2.1 : Study sample

Tools		Tamil Nadu	Karnataka
Direct Observation		50	20
Focused Group Discussion (FGD) with PRI members		2	
Key Informant Interview (KII)	Farmers	50	20
	Panchayat Members	2	
	Agronomist	1	
	Field Service Personnel (FSP)	15	5
	Tamil Nadu Agricultural University (TNAU)	1	-
	Call center manager	1	

2.3 Evaluation Framework: The IRECS Approach

The study was guided by the IRECS Evaluation Framework, which is an extended version of the OECD-DAC (Development Assistance Committee) guidelines. The IRECS framework ensures a structured, multi-dimensional assessment by evaluating the project across five key dimensions:



I – Inclusiveness:

- Measures the extent to which the project has reached different farmer groups, including marginal, small, and large landholders, socially disadvantaged groups (SC/ST farmers), and female farmers.
- Examines gender inclusiveness and participation gaps, identifying barriers preventing equitable access to project benefits.

R – Relevance:

- Assesses how well the project aligns with the key challenges faced by farmers (e.g., disease outbreaks, pest attacks, labor shortages, and water scarcity).
- Evaluates alignment with Sustainable Development Goals (SDGs) and state/national agricultural policies to ensure policy coherence and long-term impact.

E – Effectiveness:

- Measures how well project interventions have translated into tangible benefits such as increased yield (reported by 69% of farmers), quality improvements (54% of farmers), and reduced crop losses (34%).
- Evaluates the efficiency of service delivery mechanisms such as FSP advisory, Call Center support, and digital platforms in enhancing knowledge transfer and farm productivity.

C – Convergence:

- Examines institutional partnerships and policy linkages, particularly the integration of the Jalashay initiative for water conservation and collaboration with Gram Panchayats in farmer enrolment and resource mobilization.
- Assesses the role of Tamil Nadu Agricultural University (TNAU) in providing technical guidance, training modules, and farm input solutions.

S – Sustainability:

- Analyses the long-term viability of project interventions, particularly in terms of farmer self-sufficiency, digital adoption,

economic resilience, and climate adaptation.

- Explores strategies for reducing dependency on project resources, enhancing local governance participation, and institutionalizing best practices for continued farmer benefit beyond the project's active cycle.

The IRECS framework enabled a structured, evidence-based evaluation that not only assessed current project outcomes but also provided strategic recommendations for future scalability and sustainability.

2.4 Data Collection and Analysis

Data was collected using structured surveys, key informant interviews, and stakeholder consultations, ensuring a multi-perspective evaluation. Quantitative responses were statistically analysed to identify trends, while qualitative insights from farmer discussions and expert consultations were thematically categorized to capture emerging patterns and contextual understanding. The findings were cross-validated across different respondent groups, ensuring data reliability. Comparative analysis was conducted to assess the variations in project impact between different regions, farmer categories, and intervention types.

2.5 Limitations of the Study

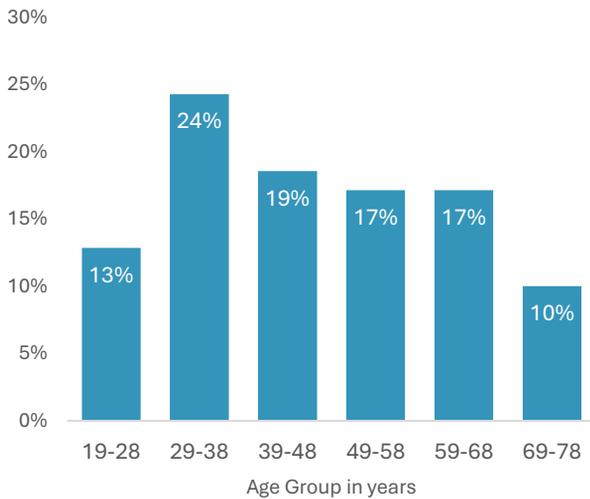
While the study provides valuable insights into the project's impact and effectiveness, certain limitations were identified:

- **Sample Size Constraints:** While efforts were made to ensure representative sampling, the findings may not fully capture variations in farmer experiences across all coconut-growing regions.
- **Dependence on Farmer Recall:** Some responses were based on farmers' memory of past events, which may introduce recall bias in estimating changes in production, income, or quality improvements.

III Key Findings

3.1 Beneficiary Reach

Fig 3.1: Farmers' Age composition
N- 70



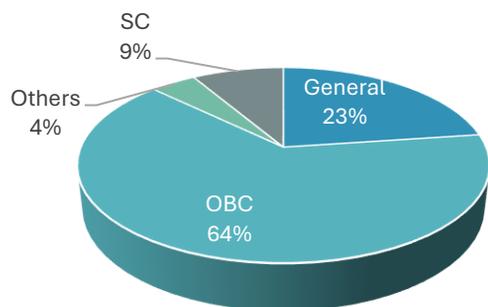
The age composition of the sampled 70 farmers from Tamil Nadu (50) and Karnataka (20) reflects a balanced distribution between younger and older farmers, though with a slight tilt towards younger and middle-aged groups. While the largest share (24%) falls within the 29-38 age group, a significant 44% of farmers are above 48 years, indicating that a substantial portion of experienced farmers remain active. This suggests that while youth participation is rising, older farmers continue to dominate.

This observation aligns with broader demographic trends in Indian agriculture. According to the report "Agriculture Employment in India: An Update" by the Great Lakes Institute of Management, the average age of farm workers in India increased from 36.6 years in 2004-05 to nearly 40 years in 2018-19, indicating an aging agricultural workforce (Source: <https://www.greatlakes.edu.in/chennai/assets/greatlakes/pdf/agri-employment-report.pdf>).

In Tamil Nadu, the share of the prime working-age population (20-59 years) engaged in agriculture has declined to less than 20% as of 2018-19, reflecting a shift towards non-agricultural sectors. Similarly, Karnataka has experienced a decrease in agricultural employment, with a notable increase in the service sector's share of employment. These trends suggest that the aging farmer demographic observed in the sample is consistent with state-level data, where younger populations are increasingly moving towards industrial and service sectors, leaving an older cohort in agriculture.

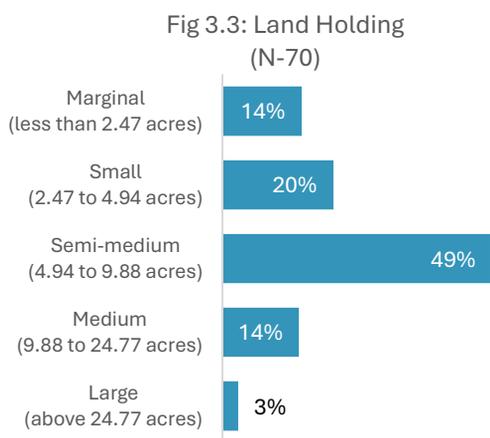
The pie chart illustrates the social distribution of beneficiary farmers in Tamil Nadu and Karnataka. In Tamil Nadu, the majority of farmers belong to the Other Backward Classes (OBC) category, reflecting the state's broader social composition. According to the "Prospects of Coconut Cultivation in Tamil Nadu – A SWOT Analysis" (2023), Tamil Nadu contributes approximately 34% of India's total coconut production, with a significant portion of its agricultural community comprising OBC farmers.

Fig 3.2: Social Composition
N-70



In Karnataka, the social distribution of farmers is more varied. A comprehensive study on coconut production in Karnataka (2018) indicates that while OBCs constitute a substantial segment, there is also notable representation from Scheduled Castes (SC) and Scheduled Tribes (ST). Specifically, in certain villages, OBC representation among farmers is as high as 88.89%, while SC representation remains minimal.

Comparing the chart data to these state-specific data, it appears that the beneficiary distribution aligns with the predominant social groups engaged in coconut farming in each state.



The landholding distribution chart illustrates the farm sizes of sampled farmers in Tamil Nadu and Karnataka, offering insights into the project's reach. The largest proportion of farmers (49%) falls in the semi-medium category (4.94–9.88 acres), followed by small farmers (2.47–4.94 acres) at 20%. Marginal (less than 2.47 acres) and medium (9.88–24.77 acres) farmers each account for 14%, while large farmers (above 24.77 acres) constitute only 3% of the sample. This suggests that the project primarily engages with small and semi-medium farmers, which aligns with general agricultural landholding patterns in Tamil Nadu and Karnataka.

Tamil Nadu and Karnataka are among India's top coconut-producing states, with a majority of farmers having small or semi-medium landholdings. According to the Agricultural Census of India (2015-16):

- In Tamil Nadu, about 76% of all agricultural landholdings fall under marginal (below 2.5 acres) and small (2.5–5 acres) categories.
- In Karnataka, small and semi-medium farmers (2.5–10 acres) account for over 65% of agricultural landholdings.

These state-level figures suggest that the sample's distribution (49% semi-medium and 34% small/marginal) is reasonably representative of the broader farming landscape, albeit with a slightly lower representation of marginal farmers than expected.

Additionally, project-level data from Tamil Nadu reveals that out of 8,558 total beneficiaries covered in the financial year 2023-24, 55.34% had landholdings between 0 to 3 acres, highlighting a strong inclusion of marginal and small farmers in the overall project outreach. However, when compared with the sampled farmers in the study, only 14% fall under the marginal category (<2.47 acres), suggesting that marginal farmers were underrepresented in the sample study relative to the actual beneficiary profile in Tamil Nadu.

The landholding distribution of the sampled farmers closely matches state agricultural trends, but significantly underrepresents marginal farmers compared to actual project beneficiaries in Tamil Nadu. The project's broader impact suggests a higher reach among small and marginal farmers than the sample study reflects.



The landholding distribution of the sampled farmers closely matches state agricultural trends, but significantly underrepresents marginal farmers compared to actual project beneficiaries in Tamil Nadu. The project’s broader impact suggests a higher reach among small and marginal farmers than the sample study reflects. This indicates that while the study provides insights into mid-sized farms, future research should consider a more proportionate representation of marginal farmers to ensure an accurate assessment of project effectiveness.

2.2 Project service inputs for farmers

2.2.1 FSP service visit

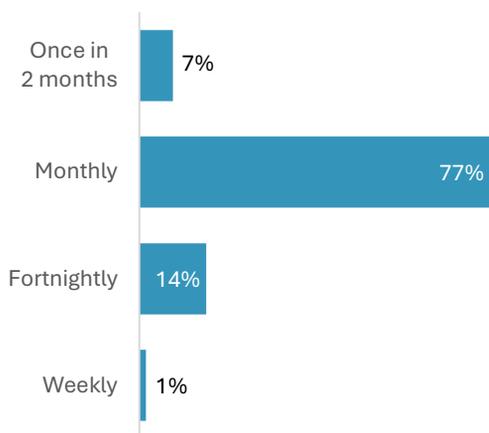
The Field Service Personnel (FSPs) serve as the backbone of the Kalpavriksha Project, acting as both facilitators and technical advisors to coconut farmers. Their role extends beyond beneficiary identification in the two-year cycle, as they are instrumental in delivering essential agricultural knowledge and support services. Through their on-ground interactions, FSPs provide technical guidance on best practices in farming, covering key areas such as disease and pest management, nutrient optimization, and efficient water management. Additionally, they bridge the gap between farmers and agribusiness services, assisting in root feeding, brush cutting, and power tilling.

To further enhance their reach, FSPs facilitate access to the Kalpavriksha App, which serves as a digital platform offering real-time market price updates, buyer connections, and query resolution services. This combination of direct field engagement and digital interventions ensures that farmers receive timely support and customized solutions to

improve productivity and sustainability. Furthermore, training sessions and call center assistance provided through FSPs strengthen farmers’ technical knowledge throughout the year, fostering greater independence and efficiency in coconut cultivation.

The evaluation study assesses the frequency of FSP visits, ease of solution implementation, and overall effectiveness of their interventions in supporting farmers. Understanding these aspects is crucial for optimizing service delivery and ensuring long-term impact on farming communities.

Fig 3.4: FSP Service visit Schedule N-70



The Field Service Personnel (FSP) visit frequency chart provides insights into the regularity and intensity of support received by farmers under the Kalpavriksha Project. The majority of farmers (77%) receive FSP visits on a monthly basis, which indicates that the project ensures consistent technical support, problem resolution, and advisory services related to farming. This monthly frequency suggests that farmers are likely engaged regularly in best practices for disease, pest, nutrient, and water management, ensuring timely intervention in case of farming challenges. A smaller proportion (14%) of farmers receive visits fortnightly, which could



indicate cases where higher intervention is needed. This group benefits from more intensive monitoring and hands-on assistance. 7% of farmers receive visits once in two months, which, while still providing support, may indicate less frequent engagement due to factors such as farmer self-sufficiency, location challenges, or lower perceived need for technical assistance.

Only 1% of farmers receive weekly visits, which suggests that high-frequency support is rare and likely targeted at specific cases requiring urgent intervention.

The project ensures regular engagement, with 77% of farmers receiving at least one visit per month, reflecting a structured approach to farmer support. While fortnightly visits (14%) help those needing extra guidance, bi-monthly and weekly visits remain rare, indicating a standardized monthly intervention model. Overall, the FSP visit structure appears well-organized, ensuring that most farmers receive timely and essential support to enhance coconut farming practices and productivity.

Table 3.1 : Usefulness of Technical Support provided by FSP

Usefulness level	Percentage of farmers (N-70)
Extremely useful	67%
Moderately useful	33%

The usefulness of Field Service Personnel (FSP) services is overwhelmingly positive, with 67% of farmers rating the support as "Extremely Useful" and the remaining 33% considering it "Moderately Useful". This suggests that farmers highly value the technical support, problem-solving assistance, and access to agri-business services provided by the FSPs.

When correlated with the FSP visit frequency data, where 77% of farmers receive monthly visits and 14% receive fortnightly visits, it becomes evident that consistent engagement plays a crucial role in farmers perceiving the services as highly beneficial. The high satisfaction levels (67% "Extremely Useful") align with the structured, frequent visits, indicating that regular interactions lead to better knowledge retention, implementation of best practices, and problem resolution.

Table 3.2 : FSP's service satisfaction rating on scale of 1 to 10

Scale point	Percentage of Farmers (N-70)
5	1%
7	1%
8	16%
9	34%
10	47%

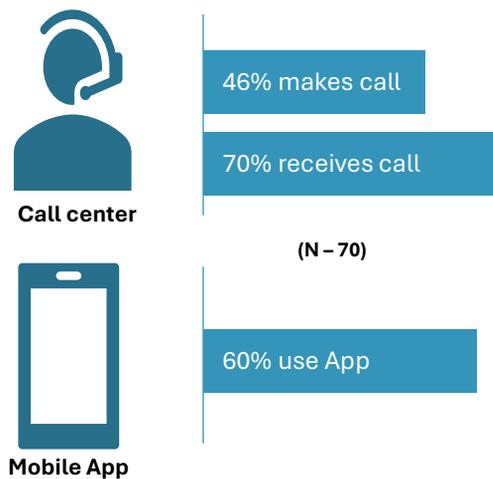
The satisfaction ratings of Field Service Personnel (FSP) services among the 70 sampled farmers indicate a high level of approval and effectiveness in delivering project support. A majority of farmers (81%) rated the service between 9 and 10, reflecting strong positive sentiment towards the technical assistance, problem-solving support, and accessibility of FSPs. Additionally, 47% of farmers gave a perfect score of 10, while 34% rated it 9, demonstrating that farmers find the services highly beneficial. Only 2% of farmers rated the service below 8, suggesting minimal dissatisfaction. The strong correlation between visit frequency, usefulness, and satisfaction levels reaffirms that the monthly and fortnightly engagement structure (91% of farmers) is highly effective. This alignment indicates that consistent knowledge transfer and direct farmer support contribute significantly to satisfaction levels.

2.2.2 Call Center & Mobile App

As part of its commitment to supporting farmers, the project has established two key digital support services—Call Centers and the Mobile App—to provide technical assistance, market information, and learning resources. The Call Center, operating from Coimbatore, serves farmers across Tamil Nadu, Karnataka, and Andhra Pradesh, with multi-lingual support personnel trained to address farming-related concerns. Using custom-made software, all farmer queries are registered against their unique farmer IDs, ensuring efficient tracking and resolution. In the first two years, the Call Center proactively reaches out to newly enrolled farmers to assess their experience with project inputs and provide troubleshooting support. Additionally, Field Service Personnel (FSPs) encourage farmers to utilize the Call Center for assistance, with the long-term objective of transitioning them from direct FSP intervention to self-reliant access via the Call Center.

Complementing this service, the Kalpavriksha Mobile App is designed to provide real-time market price updates, educational videos, and learning content on best practices in coconut cultivation. Together, these technology-driven interventions aim to enhance farmer accessibility to expert guidance, reduce dependency on in-person support, and promote digital learning.

The impact assessment tried to look at this services in context of its level access by the farmers, i.e. it examines the reach, effectiveness, and farmer engagement levels with these services, providing insights into their impact on knowledge transfer, problem resolution, and farm productivity.



The evaluation data provides valuable insights into the utilization and adoption of the Call Center and Mobile App services by farmers under the project. The findings indicate moderate engagement with the Call Center, with 60% of farmers making calls and 70% receiving calls. However, the frequency of farmer-initiated calls remains low, as 52% (N-33) of those making calls do so only occasionally. A key reason cited for this was the regular visits by Field Service Personnel (FSPs), which reduced the perceived necessity of calling the center. This suggests that while the Call Center is functional and accessible, its full potential remains underutilized due to farmers' continued reliance on in-person support. This highlights the need for a stronger push towards transitioning farmers from FSP dependency to the Call Center, in line with the project's long-term strategy.

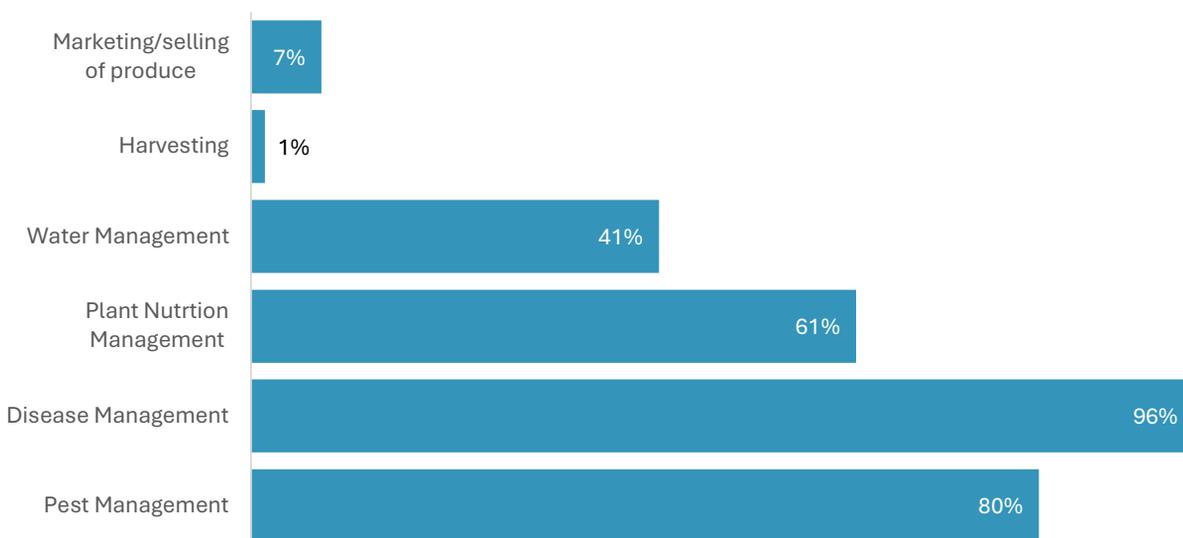
In terms of Mobile App adoption, 60% (N-70) of farmers reported using it, indicating a relatively positive uptake. However, among the 40% who do not use the app, 54% (N-28) attributed it to the lack of smartphones, and 14% (N-28) stated they lacked the skills to operate mobile applications. These findings suggest that while the App is a valuable tool for farmers who have access to it, digital literacy and

smartphone penetration remain key barriers to universal adoption. To maximize the app's impact, the project may need to introduce training programs on smartphone usage and explore alternative dissemination strategies, such as community-based digital learning sessions or integration with farmer cooperatives. Additionally, providing offline access options or SMS-based market price alerts could enhance accessibility for farmers who lack smartphones.

Overall, while both the Call Center and Mobile App services have demonstrated reasonable adoption, the findings emphasize the need for strategic interventions to encourage greater utilization. Strengthening awareness campaigns, improving digital literacy, and gradually shifting farmers from FSP dependency to Call Center support will be critical in enhancing the long-term sustainability of these digital services.

2.2.3 Technical support sought from FSP or Call Center

Fig 3.5: Technical Support Sought by farmers



The analysis of the support sought by farmers from Field Service Personnel (FSP) and the Call Center reveals critical challenges that require targeted interventions. **Disease management emerges as the most pressing concern, with 96% of farmers seeking assistance, particularly for Kerala Wilt Disease**, a major issue in coconut plantations. Studies in Coimbatore and Tirupur districts confirm that root wilt disease significantly affects coconut productivity, emphasizing the need for structured disease control measures ([extensionjournal.com](https://www.extensionjournal.com)). Similarly, **41% of farmers require support for irrigation and water management**, a challenge particularly pronounced in Tamil Nadu due to recurring low rainfall conditions. The 2016–2017 drought in Tamil Nadu, recorded as one of the worst in 140 years, had devastating effects on coconut farming, reinforcing the necessity for improved irrigation solutions and water conservation strategies ([india.mongabay.com](https://www.india.mongabay.com)).

Beyond water concerns, **61% of farmers seek guidance on nutrient management**, which aligns with research indicating that improper fertilization is a major constraint on coconut yields. A study on coconut farming in Tamil Nadu highlights the need for balanced nutrient application to improve productivity ([researchgate.net](https://www.researchgate.net)). **Pest management is another**

significant issue, with 80% of farmers requesting assistance, particularly in controlling rhinoceros beetles and red palm weevils, both of which have been identified as key threats to coconut crops.

Farmers also struggle with **market access and price fluctuations, with 7% seeking support in marketing their produce**. The lack of reliable market information impacts income stability, as studies show that limited awareness of price trends reduces farmers' bargaining power.

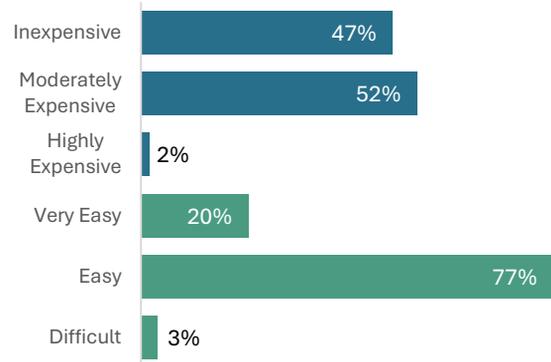
For the project, these findings highlight the need for enhanced disease and water management interventions, including the provision of advisory services on disease control, improved irrigation techniques, and water conservation methods. Greater efforts are also needed in pest control and nutrient management. Strengthening market access through price information services and training programs will further empower farmers and enhance the project's long-term impact.

2.2.4 Solution deployment ease

An essential aspect of the evaluation was to assess the ease of solution deployment by farmers, focusing on two critical factors: the level of difficulty in implementation and the associated costs. While technical guidance and advisory services are provided through Field Service Personnel (FSPs) and the Call Center, the ultimate effectiveness of these interventions depends on farmers' ability to adopt and integrate solutions within their farming practices. The evaluation aimed to understand whether farmers found the recommended practices practical, affordable, and accessible, or if barriers such as high costs, complexity, or resource constraints limited their adoption. By examining these factors, the study provides insights into how effectively project interventions translate

into actionable improvements on the ground and what adjustments may be needed to enhance farmer uptake and sustainability.

Fig 3.6: Solution deployment ease & its cost N-70



The evaluation findings indicate that the majority of farmers find it relatively easy to implement the solutions recommended by the project, with 77% rating deployment as "Easy" and 20% as "Very Easy." This suggests that the interventions provided through Field Service Personnel (FSPs) and the Call Center are practical, well-communicated, and aligned with farmers' operational capacity. However, a small fraction (3%) reported difficulty in implementation, indicating potential barriers such as lack of resources, labour constraints, or complexity of recommended practices.

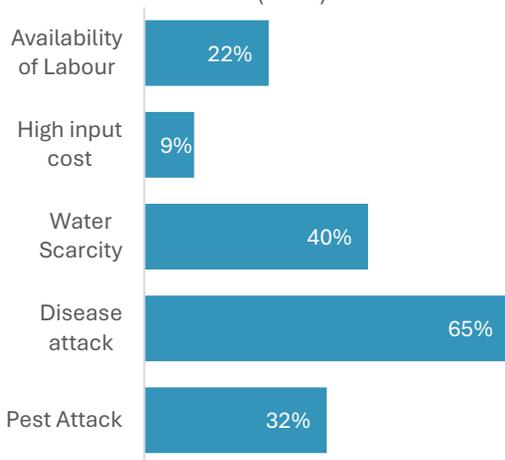
In terms of cost-effectiveness, 47% of farmers found the solutions inexpensive, while 52% considered them moderately expensive. This reflects that while most solutions are affordable and within reach, some farmers may still face financial challenges in fully implementing the recommended practices. The fact that only 2% rated solutions as highly expensive suggests that cost is not a significant deterrent for most farmers, but affordability remains a consideration for a subset of the farming community.

The high ease-of-deployment rating demonstrates that the project's interventions are designed with farmers' practical realities

in mind, enabling smooth adoption. However, the moderate cost perception by over half of the farmers indicates that cost-reduction strategies—such as subsidies, financing options, or bulk procurement mechanisms—could further enhance accessibility. Addressing the concerns of the small fraction who find deployment difficult could involve additional training, hands-on demonstrations, or support in resource mobilization. Overall, the findings affirm that the project’s solutions are largely effective and accessible but could be further optimized for cost efficiency and inclusivity.

2.3 key challenges being faced by farmers

Fig 3.7: Challenges faced by farmers (N=70)



The chart highlights the major challenges affecting farmers, with disease attack (65%) and water scarcity (40%) emerging as the most critical concerns. Additionally, labour availability (22%) and pest attack (32%) are significant constraints, while high input costs (9%) seem to be a lesser but still relevant issue. The insights gathered during farmer interactions provide deeper context to these challenges.

Disease Attack (65%) - The Most Pressing Concern : The fact that 65% of

farmers struggle with disease-related issues is consistent with findings if ICAR’s assessments of coconut farming in South India. Kerala Wilt Disease (Root Wilt) is one of the most severe threats to coconut production, causing significant yield losses (Source: ICAR-CPCRI). The high prevalence of disease attacks underscores the need for stronger disease management strategies, including integrated pest and disease management (IPDM) approaches, early detection, and widespread farmer training on disease control measures.

Water Scarcity (40%) – A Critical Challenge, Especially in Tamil Nadu: The availability of irrigation water is a major concern for 40% of farmers, particularly in Tamil Nadu, which has faced severe drought conditions in recent years. This aligns with broader agricultural data showing that Tamil Nadu is one of the most water-stressed states in India (Source: Mongabay India). To combat this, **Jalashay Project** has been implemented in Tamil Nadu by PKF, promoting farm ponds and trench-cum-bunds to improve groundwater recharge. These structures are built on cost sharing basis wherein farmers invest 20% cost of construction of the structure. With 900 such structures built, having a combined water harvesting potential of 1.46 billion litres, these efforts could help alleviate irrigation challenges in the region.

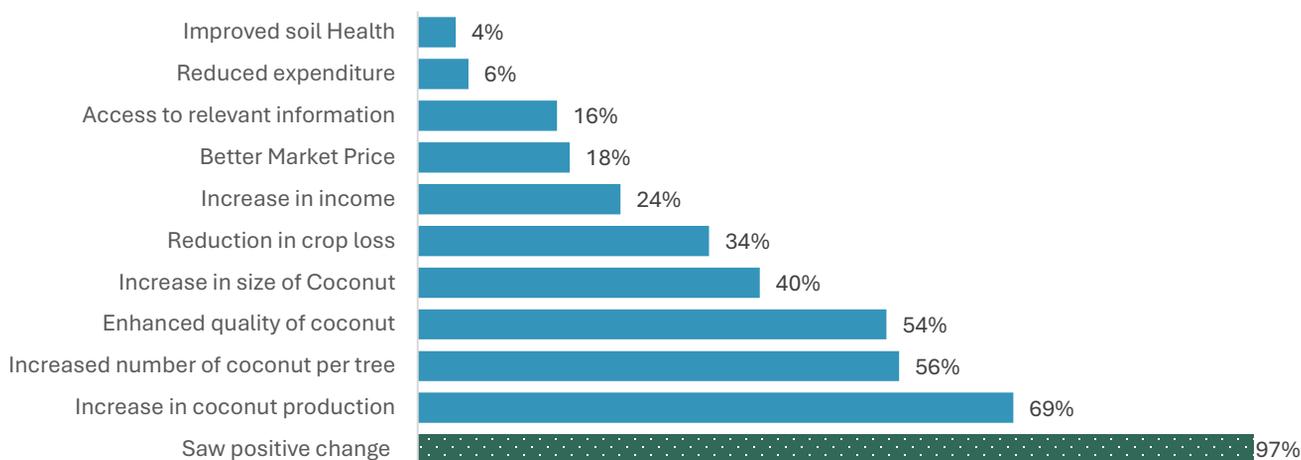
Availability of Labour (22%) – A Unique Challenge with Policy Implications: A surprising concern raised by farmers is the impact of MGNREGA (Mahatma Gandhi National Rural Employment Guarantee Act) on farm labour availability. Farmers claim that MGNREGA has diverted traditional agricultural workers away from coconut farming. This observation aligns with studies in Tamil Nadu that highlight shifts in rural labour dynamics due to MGNREGA implementation (Source: Economic & Political Weekly). While MGNREGA provides crucial livelihood security, its unintended

effects on farm labour availability need further study, and potential solutions.

High Input Costs (9%) – A Lesser Concern but Still Relevant: Only 9% of farmers identified high input costs as a major issue, suggesting that cost barriers are not as severe as other challenges like disease, water, and labor. This may be attributed to government subsidies and interventions that help reduce input costs (Source: [Coconut Development Board](#)). However, rising costs for fertilizers, irrigation, and pest control measures could still pose challenges in the long run, warranting continuous monitoring and financial support mechanisms.

2.3 Benefit realisation by farmers in last one year

Fig: Benefits realised by farmers (N-70)



The chart highlights the benefits realized by farmers over the past year of the project, indicating significant positive impacts on coconut farming outcomes. An overwhelming 97% of farmers acknowledged experiencing positive changes, reinforcing the effectiveness of project interventions. The most notable improvement has been the increase in coconut production (69%) and the number of coconuts per tree (56%), aligning with earlier findings where farmers sought technical support primarily for disease (96%) and pest management (80%). The project's interventions in these areas, through Field Service Personnel (FSPs) and Call Center support, have contributed to disease control and farm productivity, ultimately leading to higher yields.

Furthermore, 54% of farmers reported enhanced coconut quality, and 40% observed an increase in the size of coconuts, indicating that nutrient and water management support (61% and 41% demand, respectively) played a crucial role in improving fruit development. These results suggest that training on fertilization, root feeding, and irrigation techniques has positively impacted tree health and productivity. However, only 4% of farmers cited improved soil health, indicating that soil management practices may not have been a major focus of the project, despite their long-term importance in sustaining productivity.

Economic benefits are also evident, though relatively moderate compared to production-based improvements. 24% of farmers reported an increase in income, and 18% cited better market prices, suggesting that while productivity has improved, market access and pricing remain challenges. This corresponds with previous data showing only 7% of farmers sought marketing support, highlighting an area where the project could further strengthen

interventions.

Additionally, 16% of farmers noted improved access to relevant information, indicating that while the Kalpavriksha App and Call Center services are useful, there may still be gaps in digital adoption (as 40% of farmers were not using the app due to a lack of smartphones or digital literacy).

Another notable impact is the 34% reduction in crop loss, correlating with improved pest and disease management practices. This suggests that the project has been successful in helping farmers mitigate major risks, particularly in regions like Tamil Nadu, where water scarcity and disease outbreaks were prominent concerns. However, only 6% of farmers reported reduced expenditure, indicating that while interventions have improved productivity, the cost of implementation remains a consideration, as evidenced earlier when 52% of farmers found the solutions moderately expensive.

Overall, the data confirms that the project has effectively addressed critical productivity challenges, particularly in disease control, pest management, and water optimization, leading to higher yields and better-quality coconuts. However, there is scope for strengthening soil health initiatives, enhancing market access strategies, and addressing cost-related constraints to ensure long-term sustainability and profitability for farmers.



IV IRECS Analysis & Conclusions

4.1 Relevance



The project's interventions in supporting farmers are highly relevant and strategically aligned with global sustainability efforts, particularly in addressing key challenges in coconut farming and contributing to several United Nations Sustainable Development Goals (SDGs). Coconut farming, while crucial to the agricultural economy in states like Tamil Nadu and Karnataka, faces significant challenges, including climate change, pest and disease outbreaks, labour shortages, and market instability. The project plays a vital role in mitigating these issues, improving productivity, and enhancing farmer livelihoods.

4.1.1 Alignment with Sustainable Development Goals (SDGs)

A. SDG 1: No Poverty – The project directly supports **income enhancement for farmers** by improving farm productivity and reducing crop losses. The coconut industry has been identified as a potential **poverty alleviation sector**, particularly for

smallholder farmers who rely on it for their livelihoods (source: International Coconut Community, Established 1969, A UNESCAP inter-government organization)

- B. SDG 2: Zero Hunger** – Increased coconut productivity ensures a **stable supply of food products** derived from coconut, supporting **food security** in coconut-growing regions. Sustainable coconut farming practices also help farmers maintain long-term productivity and soil health.
- C. SDG 8: Decent Work and Economic Growth** – By **introducing capacity-building initiatives, technical training, and access to improved farming techniques**, the project promotes **sustainable livelihoods** and **economic growth** in rural farming communities. Industry collaborations, such as the **Sustainable Coconut Partnership**, also aim to strengthen the sector (Source: BSR Report)

D. SDG 12: Responsible Consumption and Production – The project encourages **sustainable and responsible farming**, ensuring **optimal resource use, reduced waste, and better environmental outcomes**. Companies like Unilever have acknowledged the need for **more sustainable coconut supply chains**, further reinforcing the relevance of such initiatives (Source: Unilever Report).

4.1.2 Addressing Key Challenges in Coconut Cultivation

A. Climate Change and Water Scarcity -

Water scarcity remains one of the most significant constraints for farmers, particularly in Tamil Nadu, which has been experiencing severe droughts and declining groundwater levels. Between March and June 2024, heatwaves led to widespread crop losses, emphasizing the urgent need for sustainable irrigation practices (Source: Mongabay India). The project's Jalashay initiative, promoting farm ponds and trench-cum-bunds, directly addresses this issue by improving groundwater recharge and water conservation.

B. Pest and Disease Management - 96%

of farmers sought technical support for disease management, with issues such as Kerala Wilt Disease, Rhinoceros Beetle, and Red Palm Weevil being common concerns. Research by ICAR-CPCRI has identified these as the leading causes of coconut yield losses, emphasizing the importance of integrated pest management (IPM) strategies. The project's technical interventions and advisory support through FSPs and the Call Center have been crucial in helping farmers manage these threats effectively.

C. Labor Shortages and MGNREGA

Impact - Labor availability remains a critical issue (22% of farmers reported labour shortages), with farmers blaming MGNREGA (Mahatma Gandhi National Rural Employment Guarantee Act) for reducing the availability of traditional farm labour. Studies in Tamil Nadu suggest that MGNREGA has led to a shift in rural labour patterns, with workers preferring less intensive jobs over farm labour (Source: Economic & Political Weekly). Addressing this challenge requires mechanization support, improved labour incentives, and alternative workforce strategies.

D. Market Fluctuations and Price Instability -

Farmers have long struggled with price volatility and dependence on middlemen, with only 18% of surveyed farmers reporting better market prices. This suggests that while production improvements have been achieved, market access and pricing mechanisms remain weak. Studies have highlighted the need for better price forecasting, farmer collectives, and direct-to-market linkages to stabilize farmer incomes (Source: Indian Journal of Agricultural Economics).

Conclusion

The project's relevance is evident through its alignment with SDGs and its direct response to key agricultural challenges faced by farmers. By addressing climate resilience, disease control, labour shortages, and market inefficiencies, the project enhances both productivity and farmer well-being. However, expanding access to market linkages, financial support for mechanization, and improved soil health initiatives could further strengthen the long-term impact and sustainability of coconut farming in Tamil Nadu and Karnataka.

4.2 Effectiveness

The effectiveness of the project has been assessed by examining farming practices, productivity improvements, economic benefits, and farmer adoption of project interventions. The evaluation findings highlight significant positive changes in farm productivity, disease and pest management, and quality enhancement, indicating that the project's strategies have been well-received. However, while technical support mechanisms such as Field Service Personnel (FSPs) and the Call Center have played a crucial role, some challenges remain in farmer transition to independent problem-solving, market accessibility, and cost efficiency. This section evaluates the effectiveness of the project by correlating key impact indicators with evaluation data.

A. Increased Coconut Production and Yield Improvement - One of the most tangible outcomes of the project has been the increase in coconut production, with 69% of farmers reporting a rise in overall yield. Additionally, 56% of farmers observed an increase in the number of coconuts per tree, while 40% noted an improvement in coconut size. This aligns with earlier findings where 96% of farmers sought support for disease management and 80% for pest control, indicating that interventions in these areas have translated directly into higher farm productivity. The presence of technical guidance through FSP visits (77% monthly) and Call Center support (70% farmer engagement) suggests that consistent advisory support has facilitated the adoption of best agronomic practices, contributing to improved yields.

B. Effectiveness in Pest and Disease Management - The project has

successfully addressed pest and disease outbreaks, which were among the most significant constraints faced by farmers. The fact that 96% of farmers sought disease management support and 80% requested pest control assistance highlights the critical need for intervention in these areas. The effectiveness of these interventions is reflected in the 54% of farmers who reported enhanced coconut quality and 34% who experienced a reduction in crop loss. Given that pests like the Rhinoceros Beetle and Red Palm Weevil were identified as major yield-destroying threats, the project's efforts in integrated pest management (IPM) and disease control strategies appear to have yielded measurable improvements.

C. Adoption of Digital and Call Center Services - The project aimed to reduce farmer dependence on FSPs over time by transitioning them toward Call Center and digital advisory services. The evaluation data shows that 60% of farmers have actively used the Call Center, while 70% have received support through it. However, only 52% of those who made calls did so regularly, with many citing the continued availability of FSPs as a reason for low direct engagement with the Call Center. Similarly, 60% of farmers reported using the Kalpavriksha Mobile App, but 54% of non-users cited a lack of smartphones, while 14% mentioned difficulty in using mobile apps. While the availability of digital services has improved access to information, a stronger push towards farmer digital literacy and device accessibility is needed for full effectiveness.

D. Water and Resource Management Effectiveness - Water scarcity emerged as a critical issue for 40% of farmers, particularly in Tamil Nadu, which has faced prolonged dry spells. The project's

Jalashay initiative, which has built over 900 farm ponds and trench-cum-bund structures, is a significant intervention aimed at groundwater recharge and sustainable irrigation practices. However, the impact of these measures on long-term water security has yet to be fully assessed, and further expansion of the initiative may be required to ensure that a greater number of farmers benefit from improved water availability.

E. Economic Impact: Income Growth and Market Accessibility - The effectiveness of the project in enhancing farmer incomes has been moderate, with only 24% of farmers reporting a direct increase in income. While higher yields have been achieved (69% reporting increased production), only 18% of farmers noted improvements in market price realization. This suggests that while production-side interventions have been effective, market access mechanisms remain a weak link. Only 7% of farmers sought marketing support, indicating that awareness and facilitation of direct-to-market opportunities need to be strengthened. Addressing these gaps through market linkage initiatives, farmer cooperatives, and price forecasting tools could significantly enhance economic outcomes for farmers.

F. Ease of Solution Deployment and Cost Efficiency - The implementation feasibility of recommended solutions was another key metric assessed in the evaluation. The data shows that 97% of farmers found the solutions easy to deploy, with 77% rating them as "Easy" and 20% as "Very Easy". However, cost remained a concern, with 52% of farmers finding the solutions "Moderately Expensive" and

only 47% considering them inexpensive. While the effectiveness of the interventions is evident, improving cost-efficiency through subsidies, collective resource sharing, or financial assistance mechanisms could enhance farmer adoption further.

Conclusion

The effectiveness of the project is strongly supported by the evaluation findings, particularly in terms of yield improvements, disease and pest control success and the accessibility of technical support mechanisms. The project has made significant strides in advisory services, production improvements and knowledge dissemination, but economic and digital adoption challenges remain. The next phase of the project should focus on strengthening market access, ensuring cost-effective solutions, and promoting wider farmer independence in using digital tools. Overall, the project has been highly effective in addressing core agricultural constraints, with measurable benefits for farmers.



4.3 Convergence

4.3.1 Strengthening Internal Convergence: Integration with Jalashay Project

The project has demonstrated strong internal convergence with the Jalashay initiative, which focuses on water conservation and irrigation improvements for farmers. Given that 40% of farmers identified water scarcity as a key challenge, the construction of 900 farm ponds and trench-cum-bunds under Jalashay has provided a critical intervention to address declining groundwater levels. This integration enhances the sustainability of the project by ensuring that increased coconut production is supported by stable water resources, reinforcing the interconnectedness of productivity improvements and resource availability.

4.3.2 Collaborating with Gram Panchayats: Strengthening Institutional Linkages

The project is making active efforts to establish collaborations with Gram Panchayats, which was evident from the meetings held with Panchayat officials during the evaluation exercise. Panchayat functionaries expressed their willingness to participate in farmer identification and enrolment, demonstrating local-level institutional interest in supporting farmers. Gram Panchayats can play a crucial role in facilitating farmer engagement, resolving resource-related issues, and strengthening community-based implementation of the project's interventions.

A particularly important area where Gram Panchayats can contribute is in addressing labour shortages, which 22% of farmers cited as a major constraint. The evaluation highlighted that Panchayats could facilitate dialogue between

farmers and the local labour force, helping to resolve tensions surrounding MGNREGA. Farmers widely perceived MGNREGA as a factor in labour shortages, as farm workers preferred guaranteed employment under the scheme over coconut farming. By strategically engaging with Gram Panchayats, the project can work towards solutions that balance MGNREGA benefits while ensuring an adequate labour supply for farming.

However, it is important to acknowledge that engaging at the Gram Panchayat level on politically sensitive issues like labour supply may lead to entanglement with local politics. The evaluation recommends that strategic planning be undertaken to establish partnerships not only at the Panchayat level but also at the block and district levels, ensuring a higher-level institutional framework that minimizes political risks while enhancing cooperation. This multi-tiered approach could also enable the project to leverage Panchayat resources for other critical interventions, such as water conservation efforts and local agricultural infrastructure development.

4.3.3 Partnership with Tamil Nadu Agricultural University (TNAU): Leveraging Scientific Expertise

The project has also established a meaningful convergence with Tamil Nadu Agricultural University (TNAU), leveraging its technical expertise for farmer training and innovation in coconut farming practices. TNAU has played a pivotal role in supporting capacity-building initiatives, ensuring that farmers receive high-quality training on best practices for nutrient management, pest control, and disease mitigation. Furthermore, the project actively uses TNAU-developed products in its root-feeding services, aligning its interventions with scientific advancements in farming.

Additionally, the project engaged a retired professor from TNAU as an advisor, reinforcing its commitment to technical excellence and evidence-based interventions. This collaboration not only enhances the credibility of the project's methodologies but also provides a continuous knowledge transfer mechanism that benefits farmers.

Conclusion

The project's convergence strategy has successfully integrated water conservation efforts through Jalashay, engaged with Gram Panchayats, which also presents a potential for more effective opportunity for farmer identification and resolving labour-related solutions and collaborated with TNAU for technical expertise and training. Moving forward, further institutional engagement at the block and district levels will be essential to maximize the effectiveness of labour-related interventions while minimizing political risks. Strengthening these partnerships will not only improve project outcomes but also create a more sustainable and locally embedded approach to coconut farming development.



4.4 Inclusiveness

The project demonstrates a strong commitment to inclusiveness by ensuring that farmers across different socio-economic backgrounds, landholding sizes, and geographic locations benefit from its interventions. The evaluation findings indicate that the project has successfully engaged a diverse set of farmers, including smallholders and those from socially and economically disadvantaged communities. However, while significant strides have been made, certain gaps remain in ensuring complete inclusivity, particularly in digital access and labor-related participation.

4.4.1 Social Inclusiveness: Reaching Marginalized Farmer Groups

The evaluation revealed that the project effectively targets Other Backward Classes (OBC) farmers, who form the majority of the beneficiary group, reflecting the wider demographic profile of farmers in Tamil Nadu and Karnataka. The inclusion of Scheduled Caste (SC) and other socially disadvantaged farmers, while present, can be further strengthened to ensure that farming interventions reach historically marginalized communities. Gram Panchayat partnerships—as discussed in the Convergence section—can play a role in bridging this gap by enabling more localized and equitable beneficiary identification.

4.4.2 Economic Inclusiveness: Addressing Small and Marginal Farmers

The landholding profile of the project's beneficiaries suggests that a significant proportion (34%) of farmers belong to small and marginal categories (<4.94 acres), with 49% in the semi-medium category (4.94–9.88 acres). In Tamil Nadu 55.34% of registered coconut farmers own less than 3 acres.

Additionally, 52% of farmers found the cost of solutions "moderately expensive", while only 47% considered them inexpensive. This indicates that affordability remains a concern, particularly for smallholder farmers. Providing financial support mechanisms, cooperative-based cost-sharing models, or linkages with existing government schemes for smallholder subsidies can enhance participation from resource-constrained farmers.

4.4.3 Digital Inclusiveness: Bridging the Technology Divide

While 60% of farmers reported using the Kalpavriksha mobile app, a substantial 40% of farmers were unable to access it. Among non-users, 54% cited a lack of smartphones, while 14% expressed difficulty in using mobile applications. This digital divide highlights an important barrier to inclusiveness, particularly for older and less tech-savvy farmers. Strengthening digital literacy programs, introducing community-based technology training, and exploring alternative communication methods (e.g., SMS-based advisory services) could ensure that no farmer is excluded from receiving market and knowledge updates due to technology constraints.

4.4.4 Gender Inclusiveness: Limited Visibility of Women

The evaluation did not explicitly highlight women's participation in the project, which may indicate a gender gap in engagement. The study sample also had only 4% (N-70) women farmers. This disparity reflects broader structural challenges in agricultural land ownership in India. Nationally, women account for merely 14% of landowners, possessing about 11% of agricultural land (source: tandfonline.com). In Tamil Nadu, approximately 20% of women own land, while in Karnataka, the figure is higher, with over 40% of women owning land, either alone or jointly (Source: india.unfpa.org.)

Despite limited land ownership, women's participation in agricultural labour, particularly in farming, is significant. Women are extensively involved in various stages of coconut cultivation, including traditional farming practices, harvesting, and processing. In the coir industry, which is closely linked to farming, women constitute a substantial portion of the workforce (Source: coconutboard.gov.in.) Initiatives in regions like Kerala have also seen women stepping into roles traditionally held by men, such as coconut picking, to address labour shortages (source: npr.org.)

Furthermore, the project's Field Service Personnel (FSP) team is currently composed entirely of male members. To promote gender inclusiveness, it is recommended that the project strives for a more balanced representation within the FSP team. This could enhance engagement with female farmers and labourers, ensuring that the project's benefits are more equitably distributed across genders.

Addressing these disparities requires targeted strategies to enhance women's access to land ownership and active participation in farming. This includes promoting awareness of land rights, facilitating access to resources, and ensuring that project interventions are designed to be inclusive and supportive of female farmers and labourers.

4.4.5 Labor Inclusiveness: Addressing Worker-Farmer Relations

The project has recognized that labor availability remains a key issue, with 22% of farmers citing difficulty in securing labourers due to MGNREGA's impact on traditional farm labour pools. The evaluation suggests that Gram Panchayats could act as a bridge between

farmers and available labourers, promoting a more inclusive, community-driven approach to workforce distribution. However, given the political sensitivities surrounding MGNREGA and labour issues, these efforts need to be strategically managed to ensure mutual benefit for both farmers and farm labourers.

Conclusion

The project has successfully ensured inclusivity in reaching different farmer segments, particularly in terms of landholding diversity and access to technical support. However, further efforts are needed to enhance digital accessibility, affordability for smallholders, gender inclusion, and labour-farmer collaboration. Strengthening partnerships with Panchayats, expanding financial assistance models, and introducing targeted interventions for marginalized and women farmers will help broaden the reach and ensure that all farmers—regardless of their economic, social, or technological status—can fully benefit from the project's interventions.

4.5 Sustainability

Ensuring the long-term sustainability of the project is crucial for maintaining the positive impacts achieved in farming communities. The project's sustainability has been assessed through its economic viability, environmental resilience, institutional partnerships, and farmer capacity-building efforts. The evaluation findings indicate that while the project has made significant progress in improving productivity, disease management, and technical knowledge transfer, certain areas require further strengthening to ensure continued benefits beyond the project's active intervention period.

4.5.1 Economic Sustainability: Strengthening Market Linkages and Financial Viability

The increase in coconut production (69%) and quality improvements (54%) highlight the project's success in enhancing farm productivity, but only 24% of farmers reported an increase in income, indicating that market accessibility remains a challenge. Without stable market linkages, higher production alone may not translate into sustained financial gains for farmers. Strengthening farmer cooperatives, price forecasting mechanisms, and direct-to-market linkages will be crucial in ensuring that farmers can independently sustain their economic growth beyond the project's lifecycle.

Additionally, 52% of farmers found project interventions "moderately expensive", meaning that financial accessibility to farm inputs and services could be a barrier in the long term. Exploring cost-sharing models, financial inclusion strategies, and micro-credit linkages can help farmers continue adopting best practices without project-funded support.

4.5.2 Environmental Sustainability: Water Conservation and Climate Resilience

With 40% of farmers citing water scarcity as a key challenge, the project's integration with the Jalashay initiative, which has built over 900 farm ponds and trench-cum-bunds for groundwater recharge, is a critical step toward long-term water sustainability. However, continued efforts are needed to monitor the effectiveness of these structures, promote efficient irrigation practices, and expand climate-resilient farming techniques.

Climate change remains a major external risk factor, with heatwaves between March and June 2024 causing significant coconut crop losses (Source: Mongabay India). Encouraging climate-smart farming practices, such as drought-resistant coconut varieties, agroforestry integration, and improved soil management, will be crucial to enhancing farm resilience against future climate shocks.

4.5.3 Institutional Sustainability: Strengthening Local Governance and Partnerships

The project has taken significant steps to ensure institutional sustainability through partnerships with Gram Panchayats and Tamil Nadu Agricultural University (TNAU). The Gram Panchayat's potential role in resolving labour shortages and facilitating water resource management needs to be strategically navigated to avoid political entanglements. Establishing formalized agreements at the block and district levels can ensure that local institutions remain engaged in supporting farmers even after the project concludes.

Furthermore, the partnership with TNAU has been instrumental in providing technical advisory services, training programs, and access to research-driven solutions such as root-feeding technology. Continuing collaborations with agricultural

universities and research institutions will be key to keeping farmers updated with the latest agronomic advancements and best practices.

4.5.4 Farmer Capacity-Building: Enabling Self-Sufficiency

One of the most crucial determinants of sustainability is whether farmers can continue implementing best practices without direct project intervention. The effectiveness of Field Service Personnel (FSPs) and Call Center support has been evident, with 77% of farmers finding solutions easy to implement and 60% engaging with the Call Center for technical advice.

The project's strategy to gradually wean off farmers from FSP's in person support to call center driven support is an effective strategy and has worked well as it has successfully engaged with more than fifty thousand farmers since its inception in 2015.

4.5.5 Gender-Inclusive Sustainability: Increasing Women's Participation

With only 4% of the study sample consisting of female farmers, the project needs to strengthen gender-inclusive sustainability mechanisms. While women are significantly involved in coconut farm labour, their limited land ownership and comprehensive access to training opportunities create long-term barriers to sustainability. Encouraging women's participation in coconut cooperatives, facilitating access to agricultural credit, and increasing female representation within the FSP team can ensure that gender inclusivity becomes a fundamental aspect of the project's long-term impact.

Conclusion

The project has laid a strong foundation for farmers by addressing key

productivity constraints and introducing best practices for farm management.

However, to ensure long-term sustainability, a strategic focus on market access, financial affordability, climate resilience, institutional partnerships, and digital adoption is necessary. Strengthening Gram Panchayat engagement, expanding farmer-led networks, and ensuring gender-inclusive participation will be critical in transitioning the project into a self-sustaining model that continues to benefit farmers beyond the project's active intervention period.



V. Way forward

REINFORCING THE STRENGTHS

1. Strengthening Farmer Support Systems Through FSP and Call Center

Integration - The FSP model has been highly effective, with 77% of farmers reporting ease of solution deployment. Gradual farmer transition from FSP to Call Center and digital advisory platforms must be reinforced. Incentivizing frequent Call Center engagement and introducing targeted digital literacy programs can further enhance farmer independence in knowledge access.

2. Expanding Jalashay's Reach for Water Security

- Expanding farm pond and trench-cum-bund adoption in water-stressed areas through higher farmer participation, Panchayat collaboration, and technical refinements can ensure long-term water sustainability.

3. Strengthening Disease and Pest Control Mechanisms

- With 96% of farmers requiring disease management support and 80% needing pest control assistance, maintaining high-quality advisory support, early detection training, and access to biological control solutions is critical. Partnerships with TNAU and ICAR-CPCRI should continue to innovate cost-effective, sustainable solutions for disease and pest mitigation.

4. Strengthening Institutional Partnerships with Gram Panchayats and TNAU

- Gram Panchayats have shown interest in farmer identification and enrolment, and their role in facilitating rural labour supply and resource mobilization (such as irrigation development) can be expanded. TNAU's technical expertise should be further leveraged for skill development programs, research-backed intervention design, and integrating scientific advancements into farmer practices.

CAPITALISING ON THE OPPORTUNITIES

1. Addressing the Gender Gap in Farmer Participation and FSP Team

Composition: The project currently has only 4% female farmer representation in the sample, reflecting structural barriers in land ownership. Expanding women's participation in training, market linkages, and credit access programs will enhance inclusivity. Additionally, introducing female Field Service Personnel (FSPs) will improve engagement with women involved in farming labour and processing activities.

2. Scaling Up Digital Adoption for Knowledge Dissemination:

Expanding SMS-based advisory services for non-smartphone users, conducting rural digital literacy workshops, and exploring partnerships for affordable smartphone distribution can bridge the digital divide.

3. Introducing Financial and Subsidy Support for Costlier Solutions:

While 97% of farmers found project solutions easy to implement, 52% reported them as "moderately expensive". Partnering with microfinance institutions, cooperative credit organizations, and government subsidy schemes can make high-impact solutions more affordable. Piloting group-based procurement models can also reduce individual farmer costs for critical inputs like fertilizers and root-feeding services.

Face the Future with Confidence[®]

© 2024 Protiviti India Member Private Limited - Confidential is the India Member Firm of the Protiviti network of independent and locally owned consulting firms that operate under the Protiviti name. Member Firms are autonomous companies, are not agents of Protiviti Inc. or other firms in the Protiviti network and have no authority to obligate or bind other firms in the Protiviti network.

protiviti[®]

2024

protiviti[®]
Global Business Consulting

Marico's Nihar Shanti Pathshala Funwala

Impact Assessment Report

Content

List of Acronyms

I	Introduction	3
II	Study Methodology	5
III	Key Findings	8
IV	IRECS analysis & Conclusion	35
V	Way Forward	45

List of Acronyms

NSPF	Nihar Shanti Pathshala Funwala
LFW	Leap For Word
ER	Elementary Reading
AR	Advanced Reading
ASER	Annual Status of Education Report
NAS	National Achievement Survey
NEP	National Education Policy
FLN	Foundational Literacy and Numeracy
NIPUN	National Initiative for Proficiency in Reading with Understanding and Numeracy
SSA	Samagra Shiksha Abhiyan
SDG	Sustainable Development Goal
IRECS	Inclusiveness, Relevance, Effectiveness, Convergence, and Sustainability
KII	Key Informant Interview
CSR	Corporate Social Responsibility
DIET	District Institute of Education and Training

I. Introduction

1.1 Nihar Shanti Pathsala Funwala (NSPF) program

The **Nihar Shanti Pathsala Funwala (NSPF) program**, supported by Marico Limited and implemented by Leap For Word (LFW), is designed to enhance English literacy among children in regional government schools across various Hindi-speaking states including Madhya Pradesh, Jharkhand, and Chhattisgarh. Since its inception, NSPF has significantly expanded its outreach, with substantial engagement across all districts of these states. For the financial year 2023–24, the program successfully trained approximately 1.75 lakh teachers across its implementation regions, significantly expanding the pool of educators equipped with phonics-based English literacy instruction skills.

The NSPF employs a phonetic-based translation algorithm which enables teachers to effectively instruct English using students' mother tongues. This approach significantly reduces language barriers, making learning accessible irrespective of the teachers' existing English capabilities. The program follows an innovative, structured, modular, and e-learning-based model, organized into four progressive learning levels:

1. **Elementary Reading:** Utilizes phonetics-based learning techniques, enabling students to read, spell, and comprehend simple words (4-8 letters, single syllable with multiple sound words). It builds a vocabulary of around 400-600 words. This level typically requires 4-6 months with daily classroom sessions of 20-25 minutes.
2. **Advanced Reading:** Involves breaking complex words (8-14 letters, multi-syllable words) into smaller parts for easier comprehension and spelling. It also covers 8-10 letter single-syllable words, further expanding vocabulary by an additional 400-600 words. This level also spans 4-6 months with 20-25 minutes daily sessions.
3. **Elementary Comprehension:** Enables students to read and comprehend sentences using a translation algorithm, primarily involving simple tenses. Students gradually become capable of formulating sentences in simple tenses, understanding, and communicating effectively in English. It is structured to be completed in approximately 4-6 months.
4. **Advanced Comprehension:** Focuses on the ability to read and comprehend sentences encompassing all tense structures using the translation method. Students develop advanced proficiency in understanding and formulating sentences across all tense structures. This level also requires approximately 4-6 months with daily sessions.

The program's implementation strategy emphasizes linguistic inclusivity, socioeconomic accessibility, and teacher empowerment. By employing a phonetic-based translation algorithm taught in the students' mother tongue, NSPF effectively mitigates linguistic barriers to learning English. Additionally, it actively targets children from economically and

socially disadvantaged communities, thus aligning with national priorities for inclusive and equitable education.

1.1.1 Program's Operational Design

The **Nihar Shanti Pathshala Funwala (NSPF)** employs a structured, systematic approach comprising orientation, teacher training and certification, ongoing teacher support, classroom implementation, continuous monitoring, and evaluation. The operational model begins with obtaining state-level permission and sensitizing educational authorities, followed by structured online training and certification of teachers. Certified teachers use a phonetic-based curriculum designed to overcome English language barriers through mother-tongue instruction. Continuous support and monitoring ensure fidelity in classroom teaching, and regular assessments track student progress and learning outcomes, facilitating data-driven program refinement and improvement.



1.2 Evaluation

This evaluation report pertains to the NSPF program implemented during the financial year 2023-24 in Jharkhand & Madhya Pradesh. The evaluation has the following key objectives:

- Assess the extent of improvement in students' competencies in reading, spelling, vocabulary, comprehension, and sentence structuring attributable to the NSPF program.
- Evaluate the effectiveness of the implementation process, teacher training methods, and stakeholder engagement strategies.
- Identify challenges and gaps in implementation and propose actionable recommendations for Marico and Leap For Word to enhance program effectiveness and sustainability.

The evaluation utilizes a blended qualitative and quantitative methodology, engaging stakeholders including teachers, students, parents, government representatives, and the implementing agency to ensure comprehensive insights into the NSPF program's impact and sustainability.

II. Study Methodology

This chapter outlines the methodology adopted for evaluating the Nihar Shanti Pathshala Funwala (NSPF) Program, focusing on the key parameters of inclusiveness, relevance, effectiveness, convergence, and sustainability (IRECS Framework). The evaluation was conducted for the financial year 2023-24.

2.1 Evaluation Framework: IRECS Approach

The **IRECS Framework** was used as the primary analytical tool to evaluate the NSPF project's performance across the following dimensions:

- **Inclusiveness:** Assessing the extent to which the project has reached marginalized communities, low-performing schools, and underserved student groups, including gender and socio-economic inclusion.
- **Relevance:** Evaluating the alignment of the project with the learning needs of students, existing gaps in foundational literacy (using ASER and NAS reports as benchmarks), and its contribution to national and global education goals (e.g., SDG 4).
- **Effectiveness:** Measuring the improvement in student learning outcomes (reading, vocabulary, and spelling), teacher capacity enhancement, and implementation efficiency based on field data.
- **Convergence:** Examining how well NSPF aligns with existing government initiatives (NEP 2020, NIPUN Bharat, Samagra Shiksha Abhiyan) and its integration within the public education system.
- **Sustainability:** Analyzing the long-term viability of the project, including teacher-led continuity, institutional adoption, and resource scalability.

The IRECS framework enabled a structured and multidimensional evaluation, ensuring that key aspects of project implementation and impact were systematically assessed.

2.2 Methodology

The evaluation was based on a purely qualitative methodology aimed at capturing the nuanced experiences and perspectives of key stakeholders — particularly schoolteachers and headmasters — who were engaged with the NSPF project. The focus was not only on assessing knowledge uptake but also on evaluating program delivery, pedagogical changes, and perceived student learning gains.

2.2.1 Sampling Strategy

A convenience sampling approach was adopted for selecting both schools and students, guided by the following rationale:

A. School Selection:

In each of the two focus states — Madhya Pradesh and Jharkhand — **9 schools** were selected based on the guidance and facilitation of the implementing partner **Leap for**

Word (LFW). These schools were chosen due to their **proximity, accessibility,** and the **partner's internal assessment** of relatively better-performing schools under the program. This approach helped evaluators engage with schools where the program's content and methodology were being more effectively delivered, thus allowing a closer study of its implementation potential.

B. Student Selection within Schools:

Within each sampled school, teachers were asked to nominate **six students** each for the learning assessments in both Early Reading (ER) and Advanced Reading (AR) categories. The nominated students were those who had been more regularly exposed to NSPF interventions and were **perceived by teachers to be performing relatively better.** While this introduces a selection bias, it was intentionally adopted to gain a performance-based snapshot of learning outcomes among those who had meaningful exposure to the intervention.

C. Justification through Project Coverage:

The NSPF project has operated at a **massive scale,** particularly in Madhya Pradesh and Jharkhand. For example:

- In **Madhya Pradesh,** 165,358 teachers registered, 90,646 received training, and over 773,000 students benefitted.
- In **Jharkhand,** 58,974 teachers registered, 43,309 received training, and over 481,000 students benefitted.

Given the scale of operations — with **over 1.42 million students benefitted across all states** — a **purposive-convenience approach** allowed the evaluation team to generate insights within practical limitations. It helped focus on implementation contexts where the project was functional and actively delivered, making it more efficient to examine the **qualitative dimensions** of pedagogy and student response.

D. Evaluation Objective Alignment:

The core objective was not to generate statistically generalizable findings, but rather to gather **deep, practice-grounded insights** that can inform both **programmatic refinements** and **policy directions.** Thus, convenience sampling aligned well with the exploratory and diagnostic intent of the evaluation.

2.2.2 Data Collection Tools used

A. Students Learning Assessment Test

- Conducted in **16 schools** (8 in Jharkhand and 8 in Madhya Pradesh) covering 96 students (6 per school).
- Included two modules:
 - **Elementary Reading (ER):** Focused on **word recognition, pronunciation, and comprehension.**
 - **Advanced Reading (AR):** Assessed **complex word decoding, spelling accuracy, and meaning retention.**

- The tests comprised two sections:
 - **Section 1:** Oral reading and meaning recall.
 - **Section 2:** Writing-based spelling and meaning recognition.

B. Teacher Key Informant Interviews (KIs)

- **16 teachers** (8 from Jharkhand, 8 from Madhya Pradesh) participated.
- Structured interviews focused on:
 - Effectiveness of NSPF teacher training.
 - Classroom implementation challenges and successes.
 - Use of WhatsApp for teacher support.
 - Recommendations for program improvement.

2.2.3 Parental Consultations (Where Feasible)

- Meetings were conducted with parents in selected schools to gauge:
 - Awareness of NSPF.
 - Perceived changes in students' reading abilities.
 - Support required for home-based reinforcement of learning.

2.3. Data Analysis Approach

A **comparative and thematic analysis** was conducted using the IRECS framework:

- **Quantitative data** from learning assessment tests were analysed to measure improvements in **reading, vocabulary, and spelling proficiency**.
- **Qualitative insights** from teacher interviews, school leadership feedback, and parental inputs were synthesized to understand classroom experiences, teaching effectiveness, and sustainability challenges.

2.4 Study Limitations

While the evaluation was structured and comprehensive, a few constraints were encountered:

- **Limited parental feedback:** Engagement with parents was possible only in some schools, which may not fully capture the home-based learning impact.
- **Variability in school conditions:** Differences in school infrastructure, student-teacher ratios, and administrative support may have influenced learning outcomes.

Despite these limitations, the evaluation provides **a robust, evidence-based assessment** of NSPF's impact and areas for future enhancement.

III. Key Findings

This chapter presents the key findings and analysis derived from the field-level evaluation of the Nihar Shanti Pathshala Funwala (NSPF) program conducted for the financial year 2023-24. This chapter presents a detailed analysis of the programme performance and overall trends in literacy competencies achieved through the NSPF initiative.

3.1 Government Engagement

Active collaboration with state education systems has been a defining feature of the NSPF roll-out in Madhya Pradesh and Jharkhand. Rather than operating as an external “add-on,” the programme has worked to embed its phonics methodology, teacher-support tools, and student-motivation activities inside the government’s own Foundational Literacy and Numeracy (FLN) architecture.

A. Formal Interfaces and Policy Alignment

- **State-level MoUs and Advisory Positions.** In both states, Leap for Word (LFW) secured formal memoranda of understanding that authorise online teacher training and recognise NSPF content as a supplementary FLN resource. One LFW representative is embedded in each state’s Samagra Shiksha project-management unit, providing on-demand technical advice on English-language components of FLN.
- **DIKSHA Integration (Jharkhand).** All four NSPF learning levels—Elementary Reading, Advanced Reading, Elementary Comprehension, and Advanced Comprehension—have been uploaded to the state’s DIKSHA portal, giving every government teacher free, one-click access to concept videos and practice sheets.
- **Fortnightly FLN Review Meetings (MP).** The Madhya Pradesh School-Education Department now includes NSPF progress indicators—teachers certified, activeness rates, and Word Power Championship participation—in its regular FLN dashboard, ensuring that district officials track English-literacy alongside numeracy and Hindi benchmarks.

B. Word Power Championship: From programme Event to FLN Flagship

The **Word Power Championship (WPC)**—an inter-school contest that tests speed reading, decoding accuracy, and vocabulary recall—began as a motivational activity funded by Marico’s CSR arm. In FY 2023-24 it was formally **adopted under each state’s FLN action plan**, signalling full government ownership.

- **Scale and Reach.** Over 8,000 government schools registered in MP and 3,500 in Jharkhand; district education officers chaired the selection rounds, and state ministers awarded trophies at the finals.
- **Curricular Linkage.** Championship word lists are now mapped to the FLN progression ladder; teachers are encouraged to use WPC practice sheets as weekly formative-assessment tools.

- **Equity Lens.** Guidelines stipulate 50 % girl participation and reserve at least one slot per team for a first-generation learner, dovetailing with FLN’s inclusion mandate.

C. Operational Convergence

Table 3.1: Operational convergence with government

Engagement Layer	Illustrative Practice
Teacher Training	State DIETs nominate master trainers to co-host NSPF refresher webinars, creating a shared cadre of English-resource persons.
Monitoring & Data	NSPF activeness dashboards feed into the states’ FLN review portals, giving Cluster Resource Coordinators a single view of Hindi, maths, and English indicators.
Resource Distribution	District Samagra Shiksha funds have been tapped in five MP districts to print NSPF concept books.

D. Benefits Observed

- **Policy Legitimacy.** Government endorsement boosts teacher buy-in; certification badges now carry state logos, enhancing perceived value.
- **Administrative Leverage.** District officials can mandate refresher participation or bundle NSPF practice sheets with other FLN worksheets, driving scale at minimal incremental cost.
- **Sustainability Pathway.** With WPC and core content lodged inside FLN, the programme’s long-term survival no longer depends solely on external CSR funding.

3.2 Teacher’s Capacity Building & engagement in programme delivery

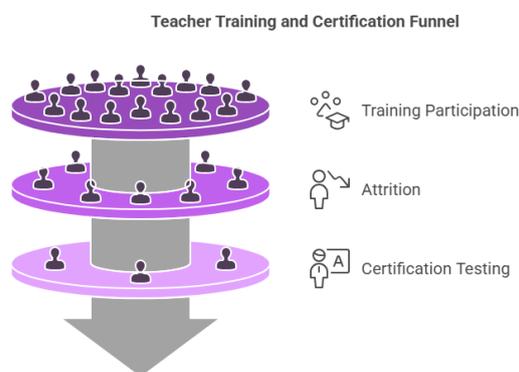
The NSPF project’s central pillar is the capacity building and regular enhancement with English teachers in regional govt. schools for pedagogical improvement and change in classroom practices.. The approach is rooted in the belief that systematic, scalable, and inclusive teacher training is essential to address foundational learning gaps in English across rural and underserved geographies. The program follows a phased online training model supported by certification, ongoing teacher support system, and digital engagement.

Model Highlights

- **Objective:** The core objective of the teacher training component is to **equip all regional government school teachers**—irrespective of their English proficiency— with the skills to deliver **phonics-based English instruction** effectively in their classrooms.
- **Design for Scale and Inclusivity:** The model is designed for **maximum reach**, inviting **all teachers in the target geography** to participate in the online training sessions. This **open-invitation approach** ensures inclusiveness and allows teachers from diverse academic backgrounds and teaching levels to familiarize themselves with the NSPF methodology. The training is structured as a **training-cum-orientation** program,

which not only disseminates content but also builds teacher interest and motivation to integrate English instruction in day-to-day classroom delivery.

- **Phased Engagement and Attrition Management:** Recognizing that **not all trained teachers will continue with implementation**, the model pragmatically anticipates **natural attrition**. Teachers who teach non-English subjects, those already proficient in English, or those handling non-targeted grade levels (such as high school) often disengage post-training. This phased fallout is factored into the model's design and is **not considered a failure** but a **filtering mechanism** that allows the project to eventually engage with a core group of motivated and contextually relevant educators.



- **Certification and Differentiation**
Upon completion of training, teachers undergo a **certification test**, which categorizes them into performance tiers:
 - **1 to 3 stars** reflect foundational understanding and engagement.
 - **4 and 5 stars** indicate stronger mastery of NSPF methodologies and greater potential for becoming **content champions** or peer mentors within their schools or clusters.This tiered certification helps identify high-performing teachers for **deeper classroom integration, targeted support, and peer learning roles**.

Delivery Mode and Support Structure

- All trainings are conducted **exclusively online**, making it accessible and uniform across geographies.
- Teachers are supported through **WhatsApp-based engagement**, ensuring continuity, timely doubt resolution, and a repository of teaching resources and classroom content.
- As part of the **Teacher Lifecycle**, teachers progress through **training, certification, and classroom implementation**, with select teachers moving into the “active implementation” phase.

The following teacher-capacity funnel analysis draws on data extracted from **Leap for Word’s internal monitoring system for FY 2023-24**. It traces how teachers in Madhya Pradesh (MP) and Jharkhand (JH) progress from initial registration through training, certification, and active classroom delivery, and how that translates into student reach.

Table 3.2: Teacher’s Engagement analysis

Funnel Phase	Madhya Pradesh	Jharkhand	Conversion Rate MP	Conversion Rate JH
Registrations	165,358	58,974	—	—
Completed Training	90,646	43,309	55 % of registrants	73 % of registrants
Certified	62,989	33,133	70 % of trained	76 % of trained
Active Teachers*	55,290	26,761	88 % of certified	81 % of certified
Students Reached	1,105,800	535,220	≈ 20 students per active teacher	≈ 20 students per active teacher

*Active = teachers who reported rolling out NSPF lessons during the year.

Leap for Word’s monitoring data show two distinct efficiency patterns across the teacher pipeline:

- **Registration → Training:** Jharkhand converts a markedly larger share of registrants into trainees—about 73 percent of those who sign up actually complete the on-line course—whereas Madhya Pradesh converts only 55 percent. This suggests stronger first-mile engagement or easier logistical access for Jharkhand teachers; MP needs more persistent nudges and orientation support to move registrants into the training room.
- **Training → Certification:** Once teachers attend the course, both states post robust pass-through rates. Roughly 70 percent of MP trainees and 76 percent of Jharkhand trainees clear the certification test, confirming that the on-line content is graspable and the assessment is well aligned with what is taught.
- **Certification → Active classroom delivery:** The post-certification picture reverses. In Madhya Pradesh 88 percent of the certified teachers actually roll out the module at the classroom level whereas in Jharkhand this is around 81 percent. Thus, the percentage of certified teachers getting converted to active teachers is lesser in Jharkhand compared to Madhya Pradesh. This implies stronger follow-up, scheduling support or head-teacher encouragement in MP, while Jharkhand loses one in five certified teachers before the content reaches the students.
- **Student reach per active teacher:** Despite these differences, each active teacher in both states services roughly twenty students, indicating a consistent classroom load and comparable scalability once teachers are actually delivering the NSPF lessons.

In short, Jharkhand excels at pulling teachers into training and getting them certified, but drops more teachers before classroom implementation. Madhya Pradesh struggles at the front end yet excels at keeping certified teachers active. Addressing MP’s front-end

engagement and Jharkhand’s post-certification follow-through will tighten the funnel in both contexts and maximise overall impact.

The tables below draw on **Leap for Word’s internal monitoring system for FY 2023-24** and present two complementary snapshots of how teachers in Madhya Pradesh (MP) and Jharkhand (JH) are engaging with the NSPF programme:

1. **Activeness Distribution** – teachers are grouped into four bands based on the **proportion of scheduled NSPF lessons they actually deliver** during the year (> 75 %, 50–75 %, 25–50 %, < 25 %). This metric highlights the depth of classroom implementation after certification.
2. **Teacher-Engagement Touch-points** – counts of online trainings held, call-centre interactions, and WhatsApp push-messages sent to teachers. These figures indicate the **intensity of follow-up support** provided to keep teachers motivated and on track.

Together, these datasets show **both the outcome side (how active teachers are) and the effort side (how often the programme team reaches out)**, allowing us to explore how support intensity may relate to classroom activeness in each state.

Table 3.3: Teachers’ Activeness distribution

Activeness Band (Lesson-delivery rate)	Madhya Pradesh	Jharkhand	Share of State Total
> 75 % (Highly engaged)	12	48	0.02 % (MP) vs 0.18 % (JH)
50 % – 75 % (Moderately high)	718	948	1.3 % (MP) vs 3.5 % (JH)
25 % – 50 % (Moderately low)	12,119	6,925	22 % (MP) vs 26 % (JH)
< 25 % (Low / sporadic)	42,441	18,840	77 % (MP) vs 70 % (JH)
Total Active Teachers	55,290	26,761	100 %

Key insights

- In both states the vast majority of certified teachers are **active at some level**, yet most fall into the **“low / sporadic” band** (< 25 % lesson-delivery rate): **77 % in MP and 70 % in JH**.
- Jharkhand, though smaller in absolute numbers, has a **larger proportion of highly engaged teachers** (> 50 % activeness = 3.7 %) than MP (1.3 %).
- The tiny “> 75 %” segment (12 teachers in MP, 48 in JH) represents a **core champion cohort** that can be leveraged for peer mentoring.

Table 3.4 : Teacher-Engagement Touchpoints

Engagement Metric	Madhya Pradesh	Jharkhand
Online training sessions held	8	15

Unique teachers spoken with by call-centre	67,407	49,604
Average connected calls per active teacher	2.7	5.2
Unique teachers receiving WhatsApp pushes	2,30,100	1,15,290
Average WhatsApp messages per teacher	8	11

Key insights

- **Call outreach** is extensive in both states, but Jharkhand teachers receive **almost double the call-centre touchpoints** per active teacher (5.2 vs 2.7). This aligns with JH’s relatively higher share of medium-to-high activeness bands.
- **WhatsApp messaging** is the dominant broadcast channel, reaching four to five times the active-teacher base in each state. Jharkhand teachers receive **more frequent pushes** (11 vs 8 messages), suggesting stronger digital engagement efforts.
- Jharkhand’s higher engagement intensity (more trainings, calls, and WhatsApp pushes per teacher) likely contributes to its **larger proportion of teachers above the 50 % activeness threshold**.

Implications for Program Impact

The activeness and engagement data reveal a critical linkage between the intensity of follow-up support and the depth of classroom implementation—an essential determinant of student learning gains:

- **Classroom Reach vs. Learning Impact:** Because more than 70 % of certified teachers in both states fall into the “low / sporadic” (< 25 %) activeness band, a sizeable share of students are exposed to NSPF lessons only intermittently. This dilutes the project’s potential to raise vocabulary retention and spelling accuracy—areas already identified as weaker in the learning-assessment results.
- **High-Touch Support Yields Better Uptake:** Jharkhand, which receives nearly double the call-centre touchpoints and a higher cadence of WhatsApp pushes per teacher, shows a noticeably larger proportion of teachers in the medium-to-high activeness brackets (> 50 %). This suggests that sustained, personalised engagement is a practical lever for improving lesson-delivery rates and, by extension, student outcomes.
- **Champion Cohort as Catalysts:** Although tiny, the > 75 % activeness cohort represents a ready-made pool of local exemplars. Leveraging these teachers as demonstration coaches or peer mentors could create a ripple effect, nudging lower-activeness colleagues toward more consistent classroom practice.
- **Risk of Plateau in Madhya Pradesh:** With 77 % of MP teachers delivering fewer than one-quarter of scheduled lessons, the state risks stagnation in literacy gains unless engagement intensity is raised to Jharkhand-like levels. When phonics-based

instruction reaches students only in fits and starts, vocabulary building, spelling accuracy, and comprehension never progress beyond early gains, leaving overall literacy growth flat. This patchy exposure also erodes classroom momentum: teachers who struggle to see steady improvement naturally lose motivation, further reducing lesson frequency and reinforcing a cycle of low activeness. At the school level, headmasters and cluster officials observing uneven or stalled results may downgrade the programme's priority in already crowded timetables, inadvertently widening disparities between schools with highly engaged teachers and those where implementation lags. Such internal achievement gaps are compounded when better-served classes surge ahead while the majority stagnates, undermining the goal of equitable foundational literacy. Finally, without clear evidence of continuous, statewide improvement, it becomes more difficult to position NSPF as an essential, policy-aligned component of the state's long-term foundational-literacy strategy.

Teacher's Interview Insights

16 teachers, 8 from Jharkhand & 8 from MP who had received training and were actively involved in conducting English sessions as per NSPF modules were interviewed. Following are the insights generated from the interviews conducted.

a) Perceived Need for the English Literacy Program

- **75%** of teachers emphasized that **English was an intimidating subject** for students, particularly in Hindi-medium schools, before NSPF was introduced.
- **100%** teachers highlighted that the phonics-based word reading technique was an **innovative and effective method**, allowing children to grasp English pronunciation and reading faster.
- **56%** felt that the **program should be formally integrated into the school syllabus** for better alignment with existing curricula.

b) Implementation Process

- **88%** of teachers reported that they follow the structured NSPF module regularly in their classroom, adapting lessons to students' proficiency levels. Though teachers in both Jharkhand & MP highlighted that irregular attendance of students posed a challenge in implementation of the learning module.
- More than **90%** of the teachers also indicated that they are charged with multiple responsibilities in their job along with teaching, coupled with teacher's shortage & infrastructure challenges, poses a challenge in regularly conducting learning sessions
- **63%** stated that they relied on **WhatsApp groups** for training updates, resource sharing, and teacher discussions at the **block and district levels**.
- **50%** of teachers reported adjusting their sessions dynamically, **grouping students based on their learning levels** to accommodate varying progress rates.

c) Effectiveness and Experience of Online Training

- **75%** of teachers found the **online training effective** and easy to understand, with only minor connectivity issues.
- **50%** felt that training sessions were **too long** and recommended **shorter, more structured formats**. **63%** appreciated the availability of **recorded sessions**, which allowed them to revisit concepts.
- **50%** suggested having **small-group offline training** at the village/block level to enable better engagement and **face-to-face interactions**.

d) Teaching Methodologies

- **88%** of teachers reported **shifting from rote memorization** to a phonics-based approach, helping students learn English more conceptually rather than through direct memorization.
- **50%** emphasized the need for **more printed materials** to supplement digital resources and reduce dependency on mobile-based learning.

e) Use of WhatsApp for Training and Resource Sharing

- **88%** of teachers **heavily relied on WhatsApp** for training materials, quizzes, and updates.
- **63%** found WhatsApp useful for **regular engagement** with both **peers and program facilitators**.

f) Doubt Resolution and Handholding Support

- **75%** of teachers actively sought **help through phone calls or WhatsApp messages** whenever they had doubts.
- **63%** found the support system **reliable**, with queries being promptly addressed by the NSPF team.

g) Preference Between Live and Recorded Sessions

- **50%** of teachers preferred **live sessions** for real-time interaction and instant doubt clarification.
- **50%** valued **recorded sessions** for their flexibility and ability to revisit concepts.
- **Most teachers preferred a blended model**, with both live and recorded sessions available.

h) Resource Materials and Reference Kits

- **63%** of teachers confirmed that they receive **teaching resource materials**, including **digital content and student workbooks**.
- **50%** requested additional **offline learning resources** to accommodate areas with poor internet connectivity.

i) Post-Training Handholding Support

- **75%** of teachers consistently received follow-up support from the NSPF team, including post-training check-ins.

- **63%** mentioned that they received direct calls from the NSPF team for clarification of doubts.

j) Perceived Effectiveness of the Content and Methodology

- **88%** of teachers endorsed the phonics-based methodology, stating that it:
 - **Accelerated English learning** by shifting from **rote learning to phonetics-based instruction**.
 - **Improved student comprehension**, with **60-70%** of students grasping lessons effectively after each class.

k) Impact of the Program on Teachers' Skills and Confidence

- **75%** of teachers reported that their own confidence in teaching English had **significantly improved**.
- **63%** of teachers, especially those who previously had no English teaching experience, said they were now able to **comfortably conduct English lessons**.

l) Changes in Teaching Practices Post-Training

- **Before NSPF:** **75%** of teachers relied on rote memorization methods, which students found difficult.
- **After NSPF Training:**
 - **88%** shifted to a **phonics-based approach**.
 - **63%** incorporated **daily-use sentence practice** in their lessons.
 - **50%** introduced **storytelling techniques** and **interactive activities** to improve vocabulary retention.

m) Classroom Structuring and Assessment

- **50%** of teachers used **learning-level-based instruction** rather than a fixed sequence, adjusting lessons based on students' needs.
- **63%** used **classroom activities & workbook exercises** to gauge students' understanding.
- **50%** reported **time constraints** as a key challenge in implementing the curriculum fully.

The teacher interviews confirm that NSPF's phonics-based methodology has been highly effective in transforming English teaching practices. The majority (88%) of teachers report improvements in student reading and comprehension, though challenges remain in ensuring sustained vocabulary retention and efficient classroom implementation. While online training is widely accepted, offline engagements, structured resource distribution, and refresher training remain crucial for long-term impact. Ensuring continuous support through peer groups, WhatsApp-based engagement, and structured assessments will be key to strengthening program outcomes at scale.

3.3 Content Delivery & Classroom practices

Once teachers complete certification, NSPF enters its **critical impact phase**, i.e. classroom sessions & improving student learning. Three tightly linked delivery channels—WhatsApp content pushes, structured telephone assistance, and live virtual sessions—work in tandem with printed/digital teaching aids to keep teachers motivated, equipped, and on-track.



- **WhatsApp content push:** Each week, for roughly nine to twelve consecutive weeks, teachers receive a compact bundle on WhatsApp that covers two to four core phonics or comprehension concepts. Every bundle contains ready-to-use slides, short explainer videos, practice sheets, and an end-of-week quiz. The intent is two-fold: first, to remove the burden of lesson planning so teachers can focus on facilitation; second, to standardise instructional quality across classrooms. Monitoring data focus on how many teachers open or download each bundle and what proportion of students complete the embedded quizzes—simple metrics that flag where additional nudges are needed.
- **Assistance via calls:** A dedicated call-centre team follows a tiered protocol that begins with orientation calls, moves to mid-cycle check-ins, and escalates to troubleshooting calls when teachers are flagged for low activity or specific doubts. Typical issues include difficulty accessing digital content, uncertainty about phonics techniques, or motivational dips. Each call is logged in real time, capturing call volume, resolution category, and follow-up status; this allows managers to see which support campaigns re-activate the greatest share of low-activeness teachers and to measure average calls per active teacher.
- **Live sessions:** Where timetable clashes, low confidence, or connectivity problems threaten lesson continuity, NSPF conducts live, online classes that students attend collectively. Teachers co-facilitate these sessions, gradually building the confidence to replicate them on their own. Sessions are intentionally interactive—polls, rapid-fire quizzes, and shout-outs for top-performing classes keep energy high—while weekly leaderboards and digital certificates sustain momentum. Attendance logs track both teachers and students, with special attention to whether teachers participate in at least three-quarters of scheduled sessions.

- **Support framework and success metrics:** All three channels rest on a common backbone: printed concept books, digital practice sheets, and 24-hour WhatsApp groups where rapid troubleshooting occurs. By aligning resources, motivation, and operational support around these learning metrics, NSPF ensures that every WhatsApp push, phone call, and live session translates directly into stronger classroom practice and, ultimately, better student achievement.

Evaluation Perspective on Content Delivery & Classroom Practices

The multi-channel support system—weekly WhatsApp bundles, structured call-centre outreach, and live virtual sessions—maps well onto the engagement patterns observed in the monitoring data, yet the evaluation highlights both strengths and critical gaps.

- **WhatsApp pushes are reaching teachers but need sharper follow-through.** Programme monitoring data shows that in Madhya Pradesh more than 2.3 lakh teachers receive broadcasts, yet 77 % of certified teachers still deliver fewer than 25 % of scheduled lessons. This suggests that mere content receipt is not translating into classroom action; analytics on “opens,” quiz completion, and short reminder nudges should be used more aggressively to convert passive recipients into active implementers. Jharkhand, which pushes an average of 11 messages per teacher (versus eight in MP), posts a higher share of medium-to-high activeness teachers, indicating that increased cadence and more interactive content can lift lesson-delivery rates.
- **Telephone support is a proven lever but remains under-utilised in MP.** Jharkhand teachers receive almost twice as many connected calls per active teacher (5.2 versus 2.7), and the state correspondingly shows a greater proportion of teachers in the 50–75 % activeness band. Scaling this higher-touch model in MP—particularly targeted calls to the 42 000 teachers in the “low / sporadic” bracket—could arrest the looming plateau in student-learning gains.
- **Live sessions are a valuable safety-net, yet attendance tracking must be tightened.** Live classes maintain continuity when local constraints arise, but no systematic data were available on teacher and student attendance consistency. Integrating simple attendance analytics would allow the programme to identify teachers who rely heavily on live sessions and channel extra coaching to help them transition toward independent delivery.
- **Alignment with learning metrics needs stronger feedback loops.** The current system excels at broadcasting content and logging calls, but it does not consistently close the loop by linking activeness data to student-assessment dashboards. Doing so would let programme functionaries see, in near-real-time, how increases in message cadence or call frequency affect reading accuracy, vocabulary retention, and spelling scores—thereby sharpening resource allocation.

In summary, the delivery architecture is conceptually sound and clearly appreciated by teachers, yet its full impact will only be realised when digital pushes, phone calls, and live sessions are more tightly coupled with data-driven triggers and learning-outcome feedback. Prioritising higher-touch engagement for low-activeness teachers—particularly in Madhya Pradesh—and systematically tracking live-session attendance are immediate opportunities to translate support inputs into deeper, more consistent classroom practice.

3.4 Parental engagement

Parental involvement was explored as a complementary lens in the evaluation; however, the field team encountered very limited parent participation in both Madhya Pradesh and Jharkhand. Despite advance notice and active effort by school staff to convene parents on the days of the visit, only one or two parents came forward at a handful of sampled schools in each state. This sparse turnout itself is a finding: it signals that parents—many of whom juggle seasonal labour, farm work, or daily-wage jobs—have little discretionary time to attend school-based meetings, and that the NSPF programme has yet to establish a routine channel for their engagement.

During the few interviews that did take place, parents were aware that their children attend a “special English class” that differs from the regular textbook period; they mentioned hearing children pronounce new words or practise reading aloud at home. Yet they could not articulate the underlying phonics method, the learning levels (ER or AR), or the specific goals of weekly practice sheets. In other words, awareness exists at a surface level, but deeper insight and active reinforcement at home are largely absent.

From an evaluation standpoint, this limited interaction underscores two implications:

- a) Programme communication with households remains minimal. Without simple, parent-friendly touchpoints—SMS updates, take-home activity cards, or brief parent-teacher huddles—families cannot reinforce classroom learning, and valuable practice time at home is lost.
- b) Future gains in vocabulary retention and spelling may plateau if children receive phonics input only at school; consistent exposure across settings is a recognised accelerator of language acquisition.

Strengthening parental engagement—through low-cost, low-time-demand strategies such as fortnightly WhatsApp voice notes in Hindi explaining the week’s target sounds, or short demonstration videos sent via community groups—could convert passive awareness into active support, amplifying the impact of NSPF’s classroom instruction.

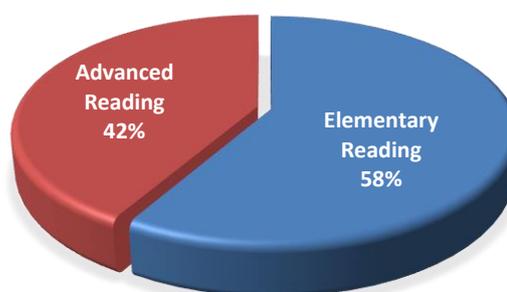
3.5 Evaluation Learning assessment outcome

3.5.1 Students' participation in the learning assessment test

The pie chart presents student participation in the learning assessment tests conducted for the two implemented modules—

Elementary Reading (ER) and **Advanced Reading (AR)**—for the financial year 2023-24. Out of the total **96 students** assessed across 16 schools from Jharkhand and Madhya Pradesh, **58%** (approximately 56 students) were evaluated at the **Elementary Reading level**, while **42%** (approximately 40 students) were assessed at the **Advanced Reading level**.

Fig 3.1: Students participation in Learning assessment test, N-96



The table below gives the break-up of the students' participation in the learning assessment across both the states.

Table 3.4: Students coverage state-wise

Learning level	No. of students	
	Jharkhand	MP
Elementary Reading	34	22
Advanced Reading	15	25

3.5.2 Learning assessment test outcome

A. Elementary Reading

The **Elementary Reading (ER)** assessment test was structured into two distinct sections to comprehensively evaluate students' foundational English literacy skills acquired through the NSPF curriculum.

Section 1 – Reading and Meaning Identification:

Students were presented with a list of 15 English words (primarily single-syllable words, typically consisting of 3-6 letters). For each word, students were required to:

- Read the word correctly.
- Verbally state the correct meaning of the word.

Section 2 (Spelling and Meaning from Hindi to English):

In this section, 15 English words were presented in the Devanagari script. Students were required to:

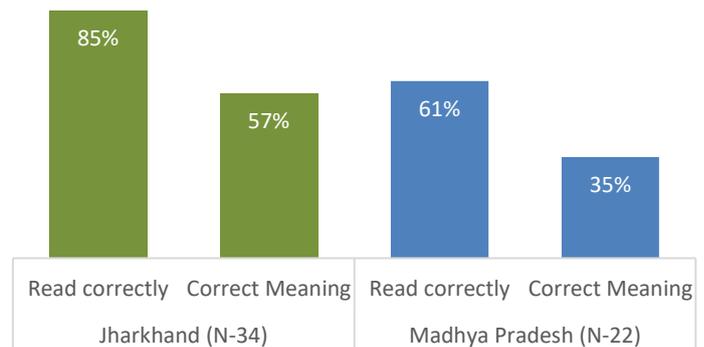
- Read and write down the correct spelling of each word in English (in Latin script/Roman alphabet).

- Clearly identify the correct meaning of the English words.

The dual-section format ensures that the assessment captures students' proficiency in reading, spelling, phonetics and vocabulary, aligning with the phonetic-based, mother-tongue-driven teaching approach unique to the NSPF program.

The Elementary Reading (ER) assessment conducted involved a test of **15 words** in each of the two sections: Reading (correct pronunciation) and Vocabulary (correct meaning). The comparative analysis between Jharkhand (N=34) and Madhya Pradesh (N=22), depicted in the figure 3.2, reveals clear differences in average performance levels:

Fig 3.2: ER - Word reading & Vocabulary test average scores



- Reading Accuracy:** Jharkhand students scored significantly higher with an average accuracy of **85%**, whereas Madhya Pradesh students averaged **61%**.
- Vocabulary (Correct Meaning):** Similarly, Jharkhand students achieved an average score of **57%**, notably higher than Madhya Pradesh students who averaged **35%**.

When compared to previous year's results (FY 2022-23), Jharkhand's performance remains robust. The prior assessment recorded Jharkhand students with an average reading score of **77.36%**, vocabulary score of **58.16%**, which shows an improvement for both the states, especially for Jharkhand.

The table ahead depicts the test results for each of the words that was administered in section 1 of ER assessment.

Table 3.5: Percentage of students correctly reading words and articulating its meaning

Elementary level (ER) Word reading test		Jharkhand (N-34)		Madhya Pradesh (N-22)	
		Read correctly	Correct Meaning	Read correctly	Correct Meaning
Word 1	TREE	100%	97%	82%	64%
Word 2	WORK	94%	29%	59%	23%
Word 3	FISH	97%	100%	77%	86%
Word 4	SAND	97%	15%	77%	0%
Word 5	ROOT	94%	44%	68%	9%
Word 6	FOOD	100%	76%	68%	27%
Word 7	SMILE	71%	65%	45%	41%
Word 8	GRASS	97%	71%	64%	50%
Word 9	WATER	97%	94%	59%	45%
Word 10	FRUIT	76%	88%	64%	77%
Word 11	HAPPY	94%	85%	82%	59%

Word 12	DREAM	65%	24%	64%	14%
Word 13	STRANGE	59%	3%	23%	0%
Word 14	THROAT	71%	3%	45%	9%
Word 15	CHANGE	68%	56%	36%	18%
Average Score		85%	57%	61%	35%

The data presented in the table above reveals the following aspect:

- High-frequency simple words such as "TREE," "FOOD," and "FISH" were read correctly by nearly all students from Jharkhand (94-100%), with a comparatively lower but still notable accuracy among Madhya Pradesh students (68-82%).
- However, a substantial drop in performance was observed for relatively complex or abstract words like "STRANGE" and "THROAT," with only 59-71% students from Jharkhand and even fewer students from Madhya Pradesh (23-45%) able to read these correctly.
- Vocabulary comprehension (correct meaning) revealed a larger performance gap. For example, while 76% of Jharkhand students correctly identified the meaning of the word "FOOD," only 27% from Madhya Pradesh could do so. Similarly, words like "STRANGE" and "THROAT" had very low meaning comprehension scores in both states, with Jharkhand marginally ahead.

There is a clear trend where longer words tend to have lower percentages of correct responses (reading/spelling/understanding) in both Jharkhand and Madhya Pradesh. This pattern might suggest that word length (and possibly complexity) is a factor in student performance across these states, which has been graphically depicted in figure 3.3

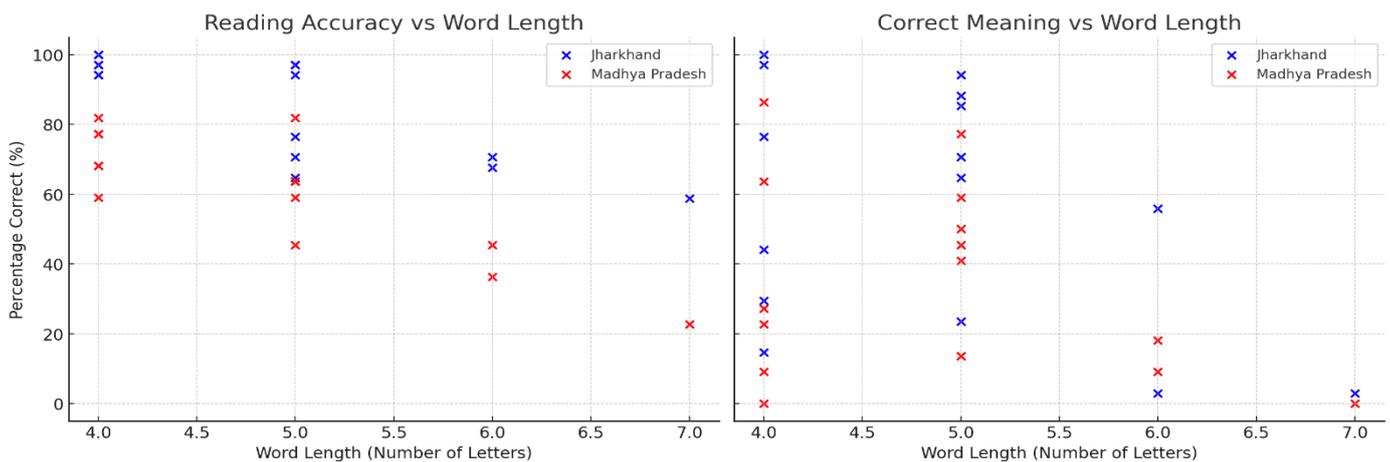
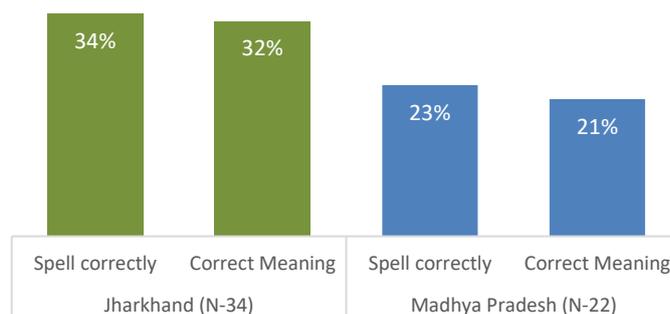


Fig 3.3: Performance trends by word length

A correlation analysis indicates that Jharkhand shows a clearer trend: longer words correlate with lower performance in both reading and vocabulary, and these correlations are moderate and statistically significant. In Madhya Pradesh, while the direction of the correlation is negative, it is weaker and not significant at the 5% level, meaning it can't be confidently concluded that a direct linear relationship between word length and performance based on this dataset alone.

In the current financial year (FY 2023-24), Jharkhand students (N=34) achieved 34% spelling accuracy and 32% meaning accuracy in the **ER test pertaining to section 2**, surpassing their Madhya Pradesh counterparts (N=22), who scored 23% in spelling and 21% in meaning (figure 3.4). Despite Jharkhand's relatively higher performance, both states exhibit modest overall proficiency in these areas.

Fig 3.4: ER - Word spelling & Vocabulary test average scores



Compared to the previous year (FY 2022-23), when Jharkhand's average spelling score was approximately 60% and its vocabulary score was around 58%, there is a noticeable decline in both indicators (to 34% and 32% respectively). Madhya Pradesh has similarly seen a dip from roughly 29% in spelling and 26% in vocabulary meaning to the current 23% and 21%.

The table ahead depicts the test results for each of the words that was administered in section 2 of ER assessment.

Table 3.6: Percentage of students correctly spelling words and articulating its meaning

Elementary word spelling test		Jharkhand (N-34)		Madhya Pradesh (N-22)	
		Spell correctly	Correct Meaning	Spell correctly	Correct Meaning
Word 1	बास्केट (Basket)	44%	38%	59%	23%
Word 2	सबमिट (Submit)	21%	26%	14%	9%
Word 3	सब्जेक्ट (Subject)	38%	65%	23%	50%
Word 4	पब्लिक (Public)	26%	18%	23%	32%
Word 5	डोमेस्टिक (Domestic)	18%	38%	18%	9%
Word 6	फिनिश (Finish)	47%	56%	41%	55%
Word 7	विटनेस (Witness)	18%	9%	5%	0%
Word 8	हॉस्पिटल (Hospital)	41%	88%	36%	77%
Word 9	एक्स्पेक्ट	18%	3%	9%	5%

	(Expect)				
Word 10	ऑब्जेक्ट (Object)	50%	9%	9%	0%
Word 11	पोलिश (Polish)	47%	56%	41%	23%
Word 12	प्रिडिक्ट (Predict)	24%	3%	9%	0%
Word 13	इंजेक्ट (Inject)	35%	9%	18%	5%
Word 14	प्रेजेंट (Present)	50%	38%	27%	18%
Word 15	ब्लैंकेट (Blanket)	26%	29%	9%	5%
Average Score		34%	32%	23%	21%

Following are the key observations related to the data presented in table 3.3

a) Overall Observations

- Jharkhand’s average scores for spelling (34%) and meaning (32%) exceed Madhya Pradesh’s corresponding averages of 23% and 21%.
- Both states display considerable variation across different words, indicating that certain words are easier or more familiar to students than others.

b) Frequently Recognized Words

- फिनिश (Finish): Notably, both states show relatively higher spelling and meaning accuracy for this word (JH: 47%/56%, MP: 41%/55%). This suggests students may have encountered the word frequently or find its phonetic structure simpler.
- हॉस्पिटल (Hospital): Students in both states also demonstrate relatively stronger meaning recognition here (JH: 88%, MP: 77%), likely due to higher familiarity with the concept or the word’s routine usage.

c) Words with Greater Challenges

- इंजेक्ट (Inject) and ब्लैंकेट (Blanket): Both states record notably low spelling accuracy (around or below 35%), hinting at unfamiliar letter combinations or less frequent usage in daily contexts.
- सबमिट (Submit) and सब्जेक्ट (Subject): While Jharkhand students show moderate or decent meaning recognition for “Subject” (65%), spelling accuracy for both words remains below 40% in both states, suggesting difficulties in translating Devanagari phonetics to correct English spellings.

d) Patterns and Insights

- **Phonetic Complexities:** Words containing blended sounds or multiple syllables (e.g., डोमेस्टिक / Domestic, एक्स्पेक्ट / Expect) often show low spelling accuracy in both states.
- **Meaning vs. Spelling:** In many instances, meaning accuracy marginally outperforms spelling accuracy (e.g., फिनिश, हॉस्पिटल, पोलिश / Polish), indicating that students might recognize or understand certain words by context yet struggle to spell them precisely.

e) Comparison with Last Year's Data

- **Downward Trend:** Last year, Jharkhand stood at approximately 60% for spelling accuracy and 58% for correct meaning, while MP was closer to 29% in spelling and 26% in meaning. The current dip to 34%/32% (Jharkhand) and 23%/21% (MP) underscores a need for renewed focus on phonics, spelling rules, and vocabulary reinforcement to maintain and improve foundational literacy skills.

3.5.3 Advanced Reading (AR)

Similar to the Elementary Reading (ER) assessment, the **Advanced Reading (AR)** test comprises two main sections, each designed to evaluate students' ability to handle more complex English words:

1. Section 1: Reading and Meaning

Students were presented with multi-syllable English words of greater length or complexity. They were required to:

- **Pronounce each word accurately.**
- **State the correct meaning** of each word.

2. Section 2: Transliteration and Spelling

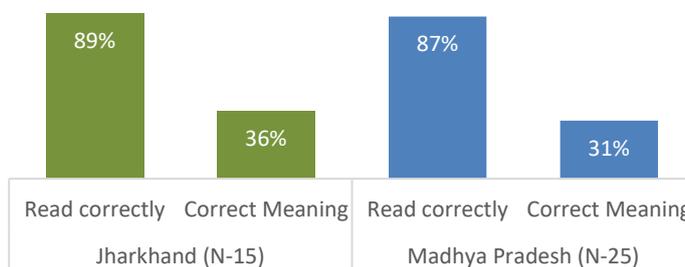
English words were displayed in Devanagari script (reflecting English phonetics). Students must:

- **Identify the correct phonetic elements** from the Devanagari text.
- **Spell the word accurately in English** (Roman script).
- **Confirm its meaning**, demonstrating comprehension skills.

Figure 3.5 depicts the average test scores that was achieved by students in both the states for test in section 1 of AR assessment. Here also, the test contained 15 words that the students had to read and tell its correct meaning.

In **FY 2023-24** (refer fig 3.5), Jharkhand (N=15) achieved **89%** in reading accuracy but only **36%** in vocabulary (correct meaning), while Madhya Pradesh (N=25) displayed similarly strong **87%** in reading accuracy yet modest **31%** in vocabulary. Compared to **FY 2022-23**, both states showed a notable rise in reading proficiency: Jharkhand improved from an average

Fig 3.5: AR - Word reading & Vocabulary test average scores



of **86.44%** to **89%**, and Madhya Pradesh rose sharply from **74.04%** to **87%**. However, vocabulary (meaning) outcomes present a mixed picture. Madhya Pradesh advanced from **27.37%** to **31%**, albeit still at a relatively low level, whereas Jharkhand dropped from **51.84%** to **36%**. This widening gap between strong word reading accuracy and relatively weak comprehension of meanings underlines a potential need for additional interventions aimed at enhancing conceptual understanding, contextual usage, and retention of higher-level vocabulary in the AR module, especially for Jharkhand students.

Table 3.4 depicts the scores for each of the word for both the states.

Table 3.7: Percentage of students correctly reading words and articulating its meaning (AR)

Advanced level Word reading test		Jharkhand (N-15)		Madhya Pradesh (N-25)	
		Read correctly	Correct Meaning	Read correctly	Correct Meaning
Word 1	HURT	100%	20%	92%	32%
Word 2	JUMP	100%	73%	100%	100%
Word 3	HELP	100%	100%	100%	96%
Word 4	WOOD	93%	60%	100%	40%
Word 5	KEEP	100%	27%	100%	16%
Word 6	UNDER	93%	67%	88%	48%
Word 7	GRAIN	73%	27%	96%	8%
Word 8	FLOAT	80%	13%	84%	4%
Word 9	STORE	80%	7%	88%	40%
Word 10	BRIGHT	80%	33%	56%	24%
Word 11	MENTION	93%	20%	96%	4%
Word 12	THINKING	87%	47%	84%	28%
Word 13	AGRICULTURE	87%	27%	76%	20%
Word 14	SATISFACTION	80%	13%	64%	4%
Word 15	EXPENDITURE	87%	13%	84%	4%
Average Score		89%	36%	87%	31%

Following are the key observations related to the data presented in table 3.4

a) **Overall Performance**

- Both states show **high reading accuracy**: Jharkhand averages **89%**, and Madhya Pradesh stands at **87%**. This suggests that most students can fluently **decode and pronounce** these words.
- **Vocabulary understanding** (correct meaning) is notably lower in both states, with **Jharkhand at 36%** and **Madhya Pradesh at 31%**, highlighting a common gap between decoding skills and deeper comprehension.

b) Patterns in Short vs. Long Words

- **Shorter words** (e.g., *HURT, JUMP, HELP*) are read almost perfectly by both states (80-100% accuracy), and their meanings are also relatively higher. For instance, “HELP” meaning accuracy reached **100%** in Jharkhand and **96%** in MP.
- **Longer or multi-syllable words** (e.g., *SATISFACTION, EXPENDITURE*) still show strong reading performance (around 80%+), indicating phonetic decoding competence. However, meaning scores drop sharply—**13%** for Jharkhand, **4%** for MP—suggesting unfamiliar vocabulary or limited contextual usage.

c) State-wise Variation

- **Jharkhand** maintains more consistent reading percentages, rarely dipping below 73%. However, its vocabulary performance fluctuates widely, falling below 15% for words such as “FLOAT,” “STORE,” and “SATISFACTION.”
- **Madhya Pradesh** occasionally surpasses Jharkhand in reading certain words (e.g., “GRAIN,” “BRIGHT”), but overall remains slightly lower in average reading accuracy. In vocabulary, MP mirrors Jharkhand’s pattern of lower comprehension with longer, less familiar words.

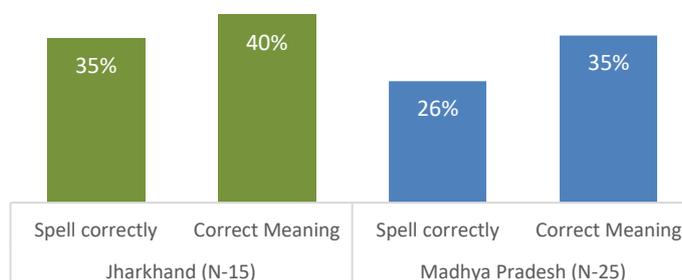
d) Contextual Familiarity

- Common everyday words (e.g., *KEEP, WOOD, UNDER*) often see higher meaning scores. But more specialized or academic words (e.g., *AGRICULTURE, MENTION*) exhibit a large gap between reading and meaning, indicating that students can sound them out but may not recognize or fully grasp the definitions.

While both Jharkhand and Madhya Pradesh students demonstrate strong advanced reading abilities—likely attributable to consistent phonetic training—the significantly lower vocabulary scores underscore a pressing need for more robust **contextual learning** and **vocabulary-building strategies**. Focusing on **word usage, real-life examples, and reinforcement activities** could help bridge the gap between fluent decoding and true comprehension of advanced-level English words.

Figure 3.6 depicts the average test scores that was achieved by students in both the states for test in section 2 of AR assessment. Here also, the test contained 15 words that the students had to read the transliterated word in Devanagari, write its correct spelling in English and tell its correct meaning.

Fig 3.6: AR - Word spelling & Vocabulary test average scores



In the Advanced Reading (AR) test’s **spelling and vocabulary (Section 2)** for

FY 2023-24, **Jharkhand** (N=15) recorded **35%** spelling accuracy and **40%** vocabulary accuracy, while **Madhya Pradesh** (N=25) achieved **26%** in spelling and **35%** in vocabulary. Compared to last year’s results, Jharkhand shows a **marked decline** (from roughly 57% spelling and 52% vocabulary) despite having strong phonetic decoding skills, suggesting potential gaps in reinforcing written and semantic understanding over time or variations in student cohorts. Meanwhile, Madhya Pradesh reveals a **mixed trajectory**, with a drop in spelling proficiency (from about 34% to 26%) countered by a notable rise in vocabulary scores (27% to 35%), pointing to certain pedagogical successes in expanding word knowledge but also highlighting a persistent challenge in orthographic retention and application. These shifts underscore that while both states can decode advanced words orally with relative ease, sustaining accurate written spelling and deeper semantic mastery remains an ongoing hurdle—one that likely requires more targeted interventions focusing on spelling rules, consistent practice with written tasks, and context-rich vocabulary instruction to ensure that advanced reading skills translate into comprehensive language proficiency.

Table 3.5 depicts the scores for each of the word for both the states.

Table 3.8: Percentage of students correctly spelling words and articulating its meaning (AR)

Advanced word spelling test		Jharkhand (N-15)		Madhya Pradesh (N-25)	
		Spell correctly	Correct Meaning	Spell correctly	Correct Meaning
Word 1	डेस्टिनेशन (Destination)	33%	7%	40%	8%
Word 2	कैंडिडेट (Candidate)	53%	33%	24%	20%
Word 3	कांफिडेंशियल (Confidential)	53%	7%	28%	4%
Word 4	अपलिफ्टमेंट (Upliftment)	53%	27%	36%	0%
Word 5	विलिंगनेस (willingness)	20%	13%	12%	4%
Word 6	एम्बुलेंस (Ambulance)	33%	73%	16%	76%
Word 7	एक्विस्हीबिसन (Exhibition)	7%	100%	32%	100%

Word 8	इंटरनेशनल (International)	33%	13%	20%	8%
Word 9	डिस्ट्रक्शन (Destruction)	27%	7%	36%	4%
Word 10	ट्रॉपिकल (Tropical)	47%	100%	36%	96%
Word 11	प्रॉफिटेबल (Profitable)	80%	20%	52%	24%
Word 12	लिटरेचर (Literature)	13%	7%	0%	0%
Word 13	डेवलपमेंट (Development)	13%	7%	4%	4%
Word 14	ब्यूटीफुल (Beautiful)	40%	80%	32%	84%
Word 15	इटरनल (Eternal)	13%	100%	16%	96%
Average Score		35%	40%	26%	35%

Following are the key observations related to the data presented in table 3.5

- a) **Complex, Multi-Syllable Words:** Students in both states struggled with words like "**literature**" and "**development**" (spelling mostly below 15%) and similarly low meaning recognition. Such words often include multiple syllables or letter blends that are not regularly encountered in everyday contexts, compounding difficulty for learners.
- b) **Familiar Words with Contrasting Results:** Some words reveal high meaning accuracy but low spelling accuracy, reflecting students' familiarity with the concept yet insufficient mastery of English orthography. For instance, "**exhibition**" is recognized almost universally in meaning (100% in both states) but spelled correctly by only 7% of Jharkhand and 32% of Madhya Pradesh students. Conversely, "**profitable**" stands out in Jharkhand, with 80% spelling accuracy but only 20% correct meaning, suggesting students may know how to spell the word without fully grasping its significance or usage.
- c) **Daily-Life Vocabulary vs. Academic/Abstract Terms:** Words like "**ambulance**" show moderate spelling scores (33% Jharkhand, 16% MP) but comparatively higher meaning (73% JH, 76% MP), possibly because students are exposed to the concept of an ambulance more often, even if they rarely see the term spelled out. More abstract or academic words (e.g., "**upliftment**," "**confidential**," "**destruction**") register a sharp drop in meaning comprehension and inconsistent spelling performance across both states.
- d) **Interpreting the Gap:** The frequent gap between spelling proficiency and meaning recognition indicates that while some students can phonetically construct or memorize certain words, they lack deeper semantic understanding—and vice versa.

This underscores the importance of **contextualized learning** that simultaneously reinforces spelling rules, vocabulary usage, and conceptual clarity.

In summary, the data reveals that both states—though Jharkhand generally performs better in spelling—face notable hurdles in mastering advanced-level English words, particularly when those words are long, uncommon, or abstract. Strengthening **practice with multi-syllable words, incorporating contextual cues, and reinforcing real-life application** of vocabulary could help bolster both accurate spelling and true comprehension.

3.6 Programme Monitoring system

A robust monitoring architecture is central to the effectiveness and adaptability of the Nihar Shanti Pathshala Funwala (NSPF) programme. Leap for Word (LFW) has built a multi-layered evidence loop that captures how teachers engage with NSPF resources, how pupils respond, and how both sets of data feed back into continuous improvement. This chapter describes the system’s design, the types of insights it yields, and the ways in which those insights are used to refine implementation.

3.6.1 System Overview

The monitoring framework operates on **two quantitative tiers**—Teacher-Engagement Analytics and Student-Performance Tracking—complemented by **qualitative teacher-feedback surveys**. Each tier answers a distinct question:

Table 3.9: Monitoring framework

Tier	Key Question	Primary Data Source
1 Teacher-Engagement Analytics	<i>Are teachers using the resources they were trained to use?</i>	Digital-platform logs, call-centre CRM
2 Student-Performance Tracking	<i>Is classroom use translating into measurable learning gains?</i>	Teacher-submitted quiz and test scores
Teacher-Feedback Surveys	<i>How do teachers perceive the content and support?</i>	Structured online/phone questionnaires

By design, the three streams **triangulate** one another: usage data reveal behaviour; test scores show impact; survey responses explain the “why” behind both.

Tier 1 Teacher-Engagement Analytics

After certification, every teacher is expected to integrate weekly phonics bundles, practice sheets, and quizzes into regular lessons. LFW’s platform automatically records:

- **Content-access metrics** – how many teachers view or download each bundle, how often practice sheets are opened, and the duration of video-clip plays.
- **Implementation metrics** – lesson-delivery rates self-reported via the activeness tracker and corroborated through call-centre spot checks.
- **Support metrics** – number and type of calls made or received, issues resolved, and turnaround time.

Analysts review these dashboards fortnightly. For example, if bundle-download rates dip sharply in a cluster, follow-up calls determine whether the cause is poor connectivity, unclear instructions, or competing timetable pressures. Micro-remedies—compressed file formats, step-by-step voice notes, or timetable suggestions—are then issued within the next content cycle.

Tier 2 Student-Performance Tracking

Teachers administer short quizzes embedded in every weekly bundle and upload aggregate scores through a mobile form. The database automatically plots:

- **Average quiz scores** by phonics concept (e.g., short-vowel sounds, consonant blends).
- **Completion rates**—the proportion of students who attempted each quiz.
- **Longitudinal trends**—month-on-month movement in class-level mastery.

These analytics allow the content team to detect plateauing concepts early. If, for instance, three successive cycles show flat scores on consonant blends across multiple districts, the next bundle is modified: the explainer video is re-recorded, extra practice sheets are inserted, or a live remedial session is scheduled.

Teacher-Feedback Surveys

Quantitative dashboards cannot capture every nuance; hence, LFW circulates structured surveys (and conducts phone interviews in low-bandwidth areas) once per term. Teachers rate:

- Ease of fitting bundles into crowded timetables.
- Clarity and practicality of phonics explanations.
- Biggest obstacles to full lesson delivery (e.g., device sharing, lack of printouts).
- Desired additions—story-based activities, lighter file sizes, or more peer-demo videos.

Survey themes are cross-checked against digital usage patterns. When both indicate the same bottleneck—say, large file sizes suppressing downloads—an immediate design change follows.

3.6.2 Evaluation Findings on Monitoring Effectiveness

- **Responsiveness:** Turnaround from detection to remedial action typically occurs within one content cycle (two weeks), illustrating an agile feedback loop.
- **Predictive Value:** Clusters with sustained low bundle-download rates invariably show weaker quiz scores a month later, validating the analytics as an early-warning system.
- **Gaps:** Live virtual sessions, though praised anecdotally, lack systematic attendance data, limiting the programme's ability to correlate session uptake with student outcomes. A simple log-in tracker would close this gap.

The monitoring system already functions as an internal learning engine, but three enhancements would sharpen its evaluative power:

1. **Integrate live-session attendance logs** to complete the teacher-engagement picture.
2. **Link activeness dashboards directly to student-assessment portals** so district officials can see, in near-real-time, how teacher behaviour drives learning outcomes.
3. **Automate nudge algorithms** that trigger calls or micro-videos when a teacher’s download or quiz-submission rate falls below a threshold.

3.6.3 Internal Impact-Evaluation Cycle

Beyond routine monitoring, Leap for Word runs a structured **Impact-Evaluation cycle** to quantify how far the NSPF programme lifts students’ English-reading and spelling abilities. The cycle relies on three anchor assessments—**baseline, midline, and endline**—administered directly by field staff in participating schools.

- **Baseline.** Before the first lesson is delivered, every sampled class sits a short diagnostic that probes current reading accuracy and spelling proficiency. These data establish a neutral starting line against which all subsequent gains are judged.
- **Midline.** At roughly monthly intervals teachers—or, in low-confidence schools, LFW field facilitators—repeat a condensed version of the test. Midline snapshots show whether children are moving up the learning curve in real time; sudden plateaus trigger immediate pedagogical tweaks or extra practice sheets.
- **Endline.** At term’s end, the full assessment is re-administered. Comparing endline scores with the baseline reveals the programme’s net effect on each cohort and highlights any residual skill gaps that need attention in the next cycle.

During each assessment, students are presented with word lists spanning **simple, moderate, and complex** difficulty. Performance is binned into three descriptive bands:

1. **Limited** – child can read or spell only a handful of items in the set.
2. **Some** – child manages a fair share of the list but falters on harder patterns.
3. **Majority** – child handles most or all items confidently.

Tracking the migration of students from “Limited” through “Some” to “Majority” across baseline, midline, and endline provides a clear, longitudinal picture of learning growth. Results feed straight back into content design: if many students remain “Limited” on complex words at midline, the next WhatsApp bundle might include extra consonant-blend drills; if the majority reach the top band early, the AR module can be accelerated.

By embedding this tri-stage testing loop inside regular implementation, LFW moves beyond anecdotal success stories to **evidence-backed impact measurement**, ensuring that programme refinements are driven by what students demonstrably master—not simply by what teachers cover in class.

**Evaluation Observations on LFW’s Internal Impact-Evaluation Results (FY 2023-24)
and comparison with the external learning-assessment findings from this evaluation**

A. Headline Trend: Strong Upward Trajectory Across All Word-Difficulty Bands: LFW’s internal data—covering 1,430 students at baseline, 2,619 at midline, and 1,669 at endline—show a **clear, stepwise improvement** in both reading and spelling:

Table 3.10: LFW’s internal assessment data – students’ learning level

Skill & Difficulty	Baseline	Midline	Endline	Net Gain (Baseline → Endline)
Reading – simple words	8.8 %	23.9 %	50.5 %	+41.7 pp (Percent point)
Reading – moderate words	4.2 %	14.4 %	35.3 %	+31.1 pp
Reading – difficult words	2.5 %	8.6 %	20.4 %	+17.9 pp
Spelling – simple words	2.3 %	10.2 %	31.3 %	+29.0 pp
Spelling – moderate words	0.2 %	0.1 %	5.4 %	+5.2 pp
Spelling – difficult words	0.1 %	2.7 %	5.2 %	+5.1 pp

Gains accelerate between midline (≈ 3 months) and endline (≈ 6 months), especially for simple-word reading (+26.6 pp) and simple-word spelling (+21.1 pp). Difficult-word reading and spelling also rise steadily, though from a low base.

B. Alignment with External Evaluation Findings

External learning-assessment sample (96 pupils across 16 schools) revealed:

- **High decoding accuracy** in both states (ER reading ≈ 85 % JH, 61 % MP; AR reading ≈ 89 % JH, 87 % MP).
- **Lagging vocabulary and spelling**—e.g., ER spelling accuracy only 34 % JH and 23 % MP; AR spelling 35 % JH and 26 % MP.

Convergence.

- LFW’s data confirm that **spelling lags reading** at every difficulty level.
- Both datasets show that **simple-word mastery improves fastest**, while moderate/difficult spelling remains the toughest frontier.

Divergence.

- Internal endline figures (50 % simple-word reading, 31 % simple-word spelling) are lower than the external snapshot for Jharkhand’s ER cohort (85 % reading, 34 % spelling). This is expected, as the internal sample includes many early-grade students still on-boarding, whereas the external evaluation purposely sampled better-performing classes.

C. Implications for Programme Strategy

1. **Mid-Cycle Reinforcement Is Working.** The sharp jump between midline and endline suggests the WhatsApp-bundle plus call-centre support sequence is effective once teachers reach steady implementation.

2. **Spelling Needs Targeted Boosters.** Despite gains, moderate- and difficult-word spelling remain below 6 %. Both internal and external data point to the need for extra spelling drills, mnemonic aids, and home-practice cards.
3. **Early Identification of “Slow-Mover” Concepts.** Internal midline data already flagged low performance on moderate/difficult spelling. Embedding automatic content tweaks at that point—rather than waiting for endline—could compress the learning curve.

The internal impact-evaluation results corroborate the external assessment’s core finding: **reading accuracy rises quickly, but spelling and higher-order vocabulary demand sustained, targeted support.** The month-by-month trajectory also validates LFW’s monitoring loop—gains are most pronounced where midline feedback triggers iterative content adjustments. To deepen impact, NSPF should now channel additional resources toward moderate- and difficult-word spelling, and formalise faster feedback cycles so pedagogical tweaks occur immediately after midline diagnostics rather than at term end.

IV IRECS Analysis & Conclusions

4.1 Relevance

The NSPF project's relevance can be examined comprehensively through two primary lenses: its alignment with the educational needs of communities in Jharkhand and Madhya Pradesh, and its strategic contributions towards global education frameworks, particularly the Sustainable Development Goals (SDGs).

4.1.1 Alignment with Community and Regional Educational Needs

The NSPF project directly responds to critical literacy gaps identified among rural and semi-urban communities in Jharkhand and Madhya Pradesh, states that consistently rank below national averages in English literacy and educational outcomes. According to the **Annual Status of Education Report (ASER) 2022**, approximately **55.5%** of Class 5 students in Jharkhand and around **64.2%** in Madhya Pradesh are unable to read a simple English sentence. Additionally, the **National Achievement Survey (NAS) 2021** highlights significant gaps in language proficiency, with both states recording below-average English comprehension scores relative to national benchmarks. This contextual backdrop underscores the critical need for structured interventions like NSPF, which specifically target foundational literacy and English language proficiency using innovative phonetic-based teaching methodologies.

The qualitative insights drawn from teacher interviews further confirm that prior to the NSPF intervention, English was perceived as challenging and anxiety-inducing, especially among students in government-run Hindi-medium schools. Teachers acknowledged that the phonetic-based approach has significantly mitigated these fears, enabling students to decode English words confidently and correctly. Hence, from the community perspective, NSPF emerges as an essential educational intervention directly addressing the identified learning gaps and enhancing the overall literacy experience.

4.1.2 Alignment with the National Education Policy (NEP) 2020

The NSPF project is closely aligned with the foundational principles of the **National Education Policy (NEP) 2020**, which emphasizes early literacy, multilingualism, and proficiency in reading by Grade 3. The project's phonics-based, multilingual teaching methodology ensures that students gain proficiency in English while maintaining comfort and fluency in their mother tongue. This multilingual approach effectively aligns with the policy recommendations to leverage students' mother tongues as a bridge towards acquiring fluency and proficiency in additional languages.

4.1.3 Relevance to Sustainable Development Goals (SDGs)

The NSPF project strategically contributes toward achieving the **United Nations Sustainable Development Goals (SDGs)**, specifically **SDG 4 (Quality Education)**. SDG 4 emphasizes the importance of inclusive and equitable quality education and the promotion of lifelong learning opportunities for all. Through its structured modules—Elementary Reading (ER) and

Advanced Reading (AR)—the NSPF actively supports the SDG target 4.1, which aims to ensure that all children achieve literacy and numeracy competencies by the end of primary education.

Moreover, the project's emphasis on capacity-building among local teachers aligns with SDG target 4.c, which focuses on substantially increasing the supply of qualified teachers through international cooperation for teacher training. The NSPF project has trained and equipped a significant number of teachers (approximately 1.75 lakh) in both states, building local capacity and fostering sustainability. Teachers' testimonials underline how their enhanced skills and confidence directly contribute to improved educational outcomes, thereby reinforcing the program's sustainability and relevance in meeting long-term educational objectives.

In addition, by focusing on rural and marginalized communities, the NSPF project contributes indirectly to **SDG 10 (Reduced Inequalities)**, aiming to reduce disparities in educational opportunities. It addresses educational inequities by offering children from marginalized and resource-poor environments the same quality of foundational English literacy that is available in more privileged settings.

Conclusion on Relevance

In summary, the NSPF project exhibits a high degree of relevance by directly addressing critical literacy challenges documented by reputable secondary sources such as ASER and NAS. Its alignment with the NEP 2020 further validates its suitability within India's broader educational reform agenda. From a global perspective, its robust contributions towards achieving SDG targets 4.1, 4.c, and indirectly SDG 10 underscore its strategic importance. The NSPF project, therefore, emerges as highly relevant not only in addressing immediate educational gaps but also in supporting long-term, inclusive, and sustainable development goals at both the state and national levels.

4.2 Effectiveness

The NSPF programme demonstrates clear effectiveness in translating its phonics-based model into measurable gains, but the strength of that translation varies by state and by stage of the implementation funnel.

4.2.1 Learning gains are evident and accelerating. LFW's internal impact-evaluation cycle shows reading accuracy on simple words rising from 9 % at baseline to 51 % at endline, with comparable though smaller gains on moderate- and difficult-word reading and spelling. These results mirror the external evaluation, which found high decoding accuracy (≥ 85 % in Jharkhand; ≥ 87 % in MP for AR words) but slower progress in vocabulary and spelling—confirming that the core method reliably lifts basic decoding first, then higher-order skills with continued exposure.

4.2.2 Teacher capacity is robust at the top of the funnel, thinner in sustained practice.

More than 228,000 teachers across MP and Jharkhand have completed online training, and

96,000 have earned certification. Yet activeness analytics reveal that while Jharkhand converts 73 % of registrants to training and retains 81 % of certified teachers in active delivery, Madhya Pradesh converts only 55 % and leaves 77 % of active teachers in the “< 25 % lesson-delivery” band. Effectiveness therefore hinges on intensive follow-up: Jharkhand’s higher call frequency (5.2 connected calls per active teacher) and denser WhatsApp cadence (11 pushes per teacher) correlate with a larger share of teachers delivering ≥ 50 % of scheduled lessons.

4.2.3 Government integration amplifies reach and legitimacy. Formal MoUs, DIKSHA uploads, and the adoption of the **Word Power Championship** inside state FLN action plans mean NSPF content is now embedded in routine government monitoring. District dashboards in MP already track NSPF indicators alongside maths and Hindi FLN metrics, ensuring that English outcomes are reviewed in the same forum that drives resource allocation. This convergence increases the likelihood that trained teachers will receive administrative nudges—an important booster for sustained implementation.

4.2.4 Support architecture is agile but still data-segmented. Weekly WhatsApp bundles, a tiered call-centre, and live virtual sessions form a strong support spine; midline-to-endline score jumps confirm that these inputs help teachers translate training into classroom practice. However, live-session attendance is not yet systematically captured, and activeness dashboards are not fully integrated with student-performance analytics. Until these data streams merge, managers cannot see in real time how incremental support actions shift learning outcomes.

Conclusion on Effectiveness

NSPF is effective at (1) building a large, certified teacher base, (2) generating rapid gains in basic decoding, and (3) embedding its model inside state FLN systems. Effectiveness is moderated by uneven post-training activeness—particularly in Madhya Pradesh—and by the need for tighter data feedback loops that link every support input to immediate learning metrics. Addressing these gaps will turn a strong foundational intervention into a consistently high-impact, state-wide literacy engine.

4.3 Inclusiveness

The NSPF project demonstrates a strong commitment to inclusiveness by addressing the educational needs of diverse student populations in Jharkhand and Madhya Pradesh. This section examines the project’s inclusiveness from multiple perspectives, including equity in access to education, reaching marginalized communities, and promoting gender parity.

4.3.1 Equity in Access to Education

The NSPF project plays a crucial role in promoting equity by targeting government schools in rural and underserved areas where access to quality education resources is limited. According to the Annual Status of Education Report (ASER) and National Achievement Survey (NAS), students in these regions often lag behind their urban counterparts in literacy

and numeracy skills. NSPF's strategic deployment in these areas bridges the gap by offering systematic English literacy programs that empower students with essential language skills.

4.3.2 Reach to Marginalized Communities

The project's outreach strategy prioritizes marginalized communities, including Scheduled Tribes (STs), Scheduled Castes (SCs), and other disadvantaged groups by targeting government school. By focusing on inclusive practices, such as multilingual education and culturally relevant teaching materials, NSPF ensures that all students, regardless of background, have equitable opportunities to learn and thrive in English literacy.

4.3.3 Alignment with Sustainable Development Goals (SDGs)

From a global perspective, NSPF aligns with SDG 4 (Quality Education) by ensuring inclusive and equitable quality education and promoting lifelong learning opportunities for all. By focusing on foundational literacy and numeracy skills, the project supports SDG target 4.1, aiming to ensure that all children achieve literacy and numeracy by the end of primary education. Furthermore, NSPF's emphasis on reaching marginalized communities and promoting gender equality contributes to SDG 5 (Gender Equality) and SDG 10 (Reduced Inequalities).

Conclusion on Inclusiveness

In conclusion, the NSPF project stands out for its inclusive approach in addressing the educational needs of diverse student populations. By focusing on equity in access to education, reaching marginalized communities, and aligning with global education frameworks like the SDGs, NSPF demonstrates a strong commitment to ensuring that every child, regardless of background, has the opportunity to receive quality English literacy education and achieve their full potential. Continued efforts in these areas will be crucial for sustaining the project's impact and fostering inclusive education practices in India.

4.4 Convergence

The effectiveness and sustainability of the NSPF project are significantly enhanced through its ability to **align, integrate, and complement** existing educational policies, government initiatives, and institutional frameworks. This section explores the program's convergence across three key dimensions: **alignment with government policies and initiatives, collaboration with schools and teachers, and partnerships with community stakeholders.**

4.4.1 Alignment with Government Policies and Initiatives

The NSPF project is strategically aligned with multiple government-led education initiatives, ensuring that its interventions support broader national objectives:

- **National Education Policy (NEP) 2020:** The NSPF project's focus on foundational literacy directly supports the **National Mission on Foundational Literacy and Numeracy (NIPUN Bharat)**, which aims to ensure that all children in India acquire basic reading and numeracy skills by Grade 3. The **phonics-based English literacy**

approach adopted by NSPF strengthens early language acquisition in line with NEP recommendations.

- **Samagra Shiksha Abhiyan (SSA):** As part of the government’s holistic school education framework, NSPF complements SSA by offering **structured teacher training programs** and **interactive classroom methodologies** that align with government efforts to improve **teacher capacity-building** and **learning outcomes** in government schools.
- **FLN (Foundational Literacy and Numeracy) Initiatives:** Given that both **Jharkhand and Madhya Pradesh have been identified as states with significant FLN challenges** (as per NAS and ASER reports), NSPF serves as a **critical intervention** to improve English literacy, phonics-based learning, and overall classroom engagement in the early grades.

Through this alignment, NSPF not only **supports** but also **strengthens** the impact of these government programs, ensuring **policy coherence** and **educational continuity** at the state level.

4.4.2. Collaboration with Schools and Teachers

The NSPF project operates **within the existing school ecosystem**, ensuring that its interventions do not function in isolation but rather **integrate into school-level practices**:

- **Teacher-Led Implementation:** The program provides structured training to government school teachers, equipping them with practical skills to **incorporate phonics-based English teaching methods** into their daily instruction. **88% of trained teachers reported regularly using these techniques**, demonstrating a strong level of adoption.
- **School Leadership Engagement:** Headmasters and school administrators play a **critical role** in ensuring the successful execution of NSPF modules. In several schools, **teachers are supported by headmasters**, who facilitate scheduling dedicated classroom time for the phonics-based learning approach.
- **Flexible Integration with School Timetables:** The NSPF curriculum has been designed to fit **within existing school hours**, with teachers adapting the module to be **delivered in short, engaging sessions**—ensuring that it **supplements rather than disrupts** regular academic schedules.

This school-level **institutional convergence** is vital for **long-term sustainability** and **wider adoption** of the NSPF methodology.

4.4.3. Partnerships with Community Stakeholders

Beyond the school environment, NSPF fosters **community-level convergence** by engaging with multiple stakeholders, ensuring **grassroots support and program continuity**:

- **Parent Engagement:** In cases where parental involvement was feasible, parents expressed **increased confidence** in the program's approach. Some teachers **informally involved parents** in the learning process, allowing them to reinforce phonics-based reading skills at home.
- **Local Education Departments and District Officials:** The program has witnessed **direct engagement with local education authorities** who monitor progress and provide institutional support where needed. Strengthening these partnerships can further enhance program uptake at the district level.
- **Use of Digital Platforms (WhatsApp & Online Training):** The adoption of WhatsApp-based teacher training and peer-learning groups demonstrates the project's ability to **leverage existing digital infrastructure** for program delivery, further amplifying convergence with **broader digital learning initiatives**.

Conclusion on Convergence

The NSPF project successfully converges with national policies, school-based implementation structures, and community stakeholders to create a cohesive ecosystem for improving foundational English literacy. By aligning with NEP 2020, FLN goals, and Samagra Shiksha Abhiyan, integrating with school timetables and teacher-led classroom instruction, and engaging parents, school leadership, and district officials, NSPF enhances its scalability, sustainability, and long-term effectiveness. Strengthening district-level institutional partnerships and increasing community involvement will further deepen the program's impact, ensuring that English literacy gains are sustained beyond direct classroom instruction.

4.5 Sustainability

Sustainability is a critical factor in ensuring that the impact of the NSPF project extends beyond its immediate implementation. The long-term viability of the program depends on **institutional embedding, teacher-led continuity, integration with government frameworks, and community engagement**. This section evaluates the sustainability of NSPF across these dimensions and suggests strategies for further strengthening its long-term impact.

4.5.1. Institutional Embedding within Schools

For any educational intervention to be sustainable, it must become **an integral part of the school's teaching practices** rather than remain a standalone initiative. The NSPF project demonstrates sustainability by:

- **Empowering teachers** with structured phonics-based training, equipping them with methodologies that they can continue using beyond the project's formal implementation.

- Ensuring that the phonics-based approach is **integrated into daily lesson plans** rather than functioning as an extra-curricular activity, allowing it to become a natural part of the school's English literacy instruction.
- Aligning with **existing foundational literacy efforts** in government schools, reducing dependency on external facilitators and increasing the likelihood of **long-term adoption by school teachers**.

However, **50% of teachers reported time constraints** in fully implementing the NSPF methodology within school hours. Addressing this by **institutionalizing short, dedicated English literacy sessions** within the school timetable could enhance sustainability.

4.5.2. Teacher-Led Continuity and Capacity Building

A key determinant of sustainability is whether teachers **retain and continue using** NSPF methodologies after the initial training period. The evaluation findings indicate that:

- **75% of teachers reported improved confidence** in teaching English due to the NSPF training, making them more likely to **continue applying the phonics-based approach**.
- **88% of teachers regularly use NSPF techniques**, demonstrating that the methodology has been **successfully embedded into their teaching styles**.
- The use of **WhatsApp-based teacher support groups** enables continuous peer learning and troubleshooting, ensuring that trained teachers remain engaged and updated.

To further enhance sustainability, **periodic refresher training** and **teacher-led peer learning models** at the block level could ensure knowledge retention and continued application.

4.5.3 Integration with Government Frameworks

The sustainability of the NSPF project is significantly reinforced by its **alignment with key government education initiatives**, ensuring long-term institutional support:

- **NEP 2020 & NIPUN Bharat:** The program's emphasis on **early literacy and phonics-based learning** directly contributes to the national **Foundational Literacy and Numeracy (FLN) mission**, making it a strong candidate for integration into government-supported school curricula.
- **Samagra Shiksha Abhiyan:** NSPF complements existing teacher capacity-building initiatives, creating opportunities for **potential government adoption and scaling** in the future.
- **District-Level Engagement:** Collaboration with **local education departments** has provided institutional buy-in, which is critical for long-term sustainability. Strengthening these partnerships could **pave the way for policy-level adoption** at the state level.

While NSPF aligns with existing policies, its long-term sustainability would benefit from **formal government partnerships** that embed the methodology into state-led teacher training programs.

4.5.4 Community and Parental Engagement

Ensuring long-term sustainability requires **community ownership** of the literacy program. While NSPF has made **some progress** in engaging parents, its impact could be further strengthened by:

- Encouraging **greater parental involvement** in reinforcing phonics-based reading practices at home.
- Conducting **community awareness sessions** to increase understanding of the importance of early English literacy.
- Providing **take-home literacy resources** that allow students to practice phonics-based learning beyond the classroom.

Expanding the program's outreach to include **parent-teacher engagement sessions** could **enhance local ownership** and improve sustainability at the household level.

Conclusion on Sustainability

The NSPF project exhibits strong sustainability potential through its **institutional embedding in schools, teacher-led continuity, alignment with government frameworks, and community engagement**. Teachers' **high adoption rates (88%) and increased confidence (75%)** indicate that the methodology is likely to persist beyond the project's immediate implementation. However, sustainability could be further reinforced by **establishing formal government adoption mechanisms and enhancing parental engagement**. Strengthening these areas will ensure that NSPF continues to **transform English literacy outcomes in Jharkhand and Madhya Pradesh for years to come**.

V Way forward

Based on the evaluation findings, the NSPF project has demonstrated several strong aspects that have contributed to its success. To ensure sustained impact, these strengths should be reinforced and expanded. Additionally, there are key opportunities that the project can leverage for further growth and institutionalization.

5.1 Reinforcing the Strengths

a) High Teacher Adoption and Confidence

- The evaluation highlights that a large majority (**88%**) of trained teachers have consistently integrated the NSPF phonics-based methods into their regular classroom practices, with **75%** of them indicating increased confidence in teaching English.
- **Way Forward:** To sustain this momentum, periodic refresher training sessions should be institutionalized, focusing specifically on advanced vocabulary, spelling techniques, and classroom management. Establishing structured, district-level or block-level peer-learning groups will allow teachers to exchange experiences, challenges, and best practices. This strategy would maintain teacher enthusiasm, facilitate continuous professional development, and ensure long-term retention and application of learned methodologies.

b) Structured, Phonics-Based Learning Model

- The **phonetic translation method** has been widely accepted as an effective tool for breaking down English words, helping students overcome language barriers.
- **Way Forward:** Further refinement and strengthening of the Advanced Reading (AR) module is essential, particularly in areas identified as weaker—vocabulary comprehension and spelling accuracy. The project should introduce targeted vocabulary retention exercises, context-based learning activities, and supplementary spelling drills. Regular assessment cycles focusing specifically on vocabulary comprehension and spelling skills can further consolidate students' literacy foundations.

c) Integration with Government Literacy Initiatives

- The program is **aligned with NEP 2020, NIPUN Bharat, and Samagra Shiksha Abhiyan**, increasing its potential for long-term sustainability.
- **Way Forward:** Efforts should focus on strengthening formal partnerships with state and district education authorities. Regular dialogues and advocacy meetings must be undertaken to facilitate the formal adoption of NSPF methodologies into government-run foundational literacy and numeracy (FLN) programs. Demonstrating measurable outcomes, specifically linked to

government FLN targets, will increase the likelihood of institutional integration and sustained governmental support.

d) **WhatsApp-Based Teacher Support System**

- The use of **WhatsApp for training, resource sharing, and doubt resolution** has ensured continuous teacher support and engagement.
- **Way Forward:** Expand this WhatsApp-based platform into a structured digital learning ecosystem. This could include introducing regular microlearning content modules, structured schedules for live question-answer sessions, periodic sharing of success stories, and online interactive discussions. Enhancing this digital ecosystem will ensure continuous support, maintain high teacher engagement, and encourage peer-led innovations, ultimately strengthening overall program effectiveness.

5.2 Opportunities to Capitalize On

a) **Potential for Institutionalization into Government Teacher Training Programs**

- Given the strong alignment with national policies and demonstrated effectiveness, the NSPF methodology is ideally positioned for integration within the government's existing teacher training frameworks.
- **Action:** Initiate strategic dialogues and advocacy with key state education departments and District Institutes of Education and Training (DIETs). Develop a clear roadmap showcasing the effectiveness of NSPF methods, emphasizing their alignment with government FLN objectives. Create evidence-based advocacy materials, case studies, and success stories highlighting NSPF's impact, making a compelling case for the formal inclusion of these methodologies in state-funded teacher training programs.

b) **Expanding Parental Engagement for Learning Reinforcement at Home**

- The evaluation highlighted that **parental involvement remains limited**, yet home-based reinforcement can significantly enhance learning outcomes.
- **Action:** Design and implement straightforward, culturally appropriate home-learning strategies such as weekly homework assignments explicitly linked to classroom phonics lessons, easy-to-follow guidance materials for parents, and SMS or WhatsApp-based communication systems providing simple tips for parents to support their children's learning. Additionally, conducting periodic parent-teacher engagement workshops can help build parental awareness about NSPF methodologies, encourage at-home reinforcement, and enhance the community's ownership of children's educational progress.