



IMPACT ASSESSMENT REPORT OF NEER SANRAKSHAN- KUCHARAM PROJECT

July 2025

Pernod Ricard India Private Limited

Price Waterhouse Chartered Accountants LLP

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- Our work was limited to the specific samples/ procedures described in this report and were based only on the information and analysis of the data obtained through interviews of beneficiaries supported under the programme, selected as sample respondents. Accordingly,

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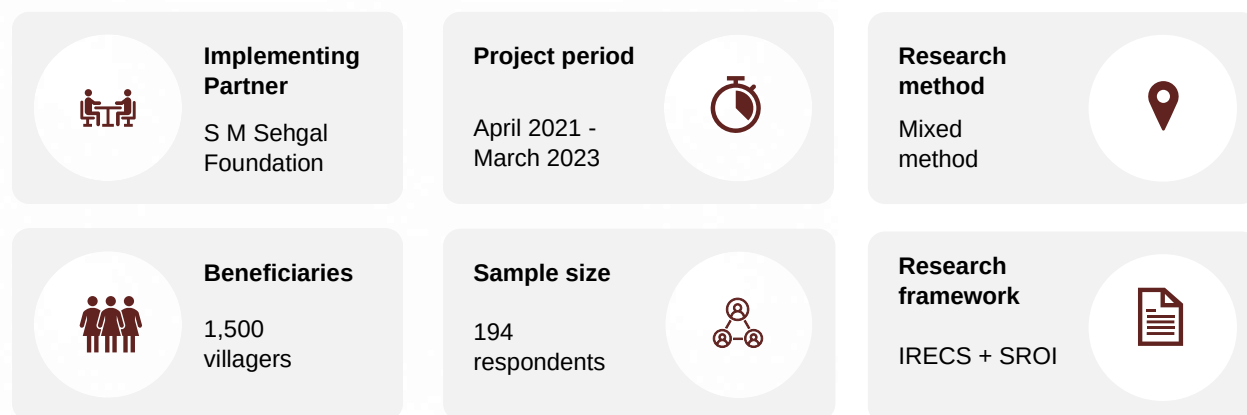
- For SROI based study:
 - The method has high data dependency, and the results may impact if the correct data is not available/ provided.
 - For a strong SROI study, the use of factual, documented & time bound data is essential. For the same, robust data processes and M&E framework (or result based framework) are required.
 - Specific areas such as deadweight, attribution and drop off have considerable subjectivity.
 - Since outputs and outcomes are valued at each level of stakeholder engagement, it is difficult to capture all aspects and arrive at holistic results.
 - Inflation rates and depreciation of assets, natural resources are difficult to measure if the duration of the Project is long.
 - The calculations to estimate the SROI value of the project have made use of either the extrapolation of the quantitative survey results on the total population or the data on the project reach or benefits provided by PRIPL as part of its monitoring reports. The exact number of community members or the entire quantum of benefits has not been validated or verified independently on-ground.
 - The proxy values for the calculations have been referred to from quantitative results of the study and information shared by key stakeholders during the interactions. PW does not claim the responsibility for the correctness of data shared by the stakeholders.
 - The data on project investment is shared by the PRIPL team. PW has not verified the investment figures independently.

List of acronyms

CL	-	Confidence Level
CSA	-	Centre for Sustainable Agriculture
CSR	-	Corporate Social Responsibility
FGD	-	Focus Group Discussion
FP	-	Financial Proxy
ICAR	-	Indian Council of Agricultural Research
ICRISAT	-	International Crops Research Institute for the Semi-Arid Tropics
IDI	-	In Depth Interview
INM	-	Integrated Nutrient Management
INR	-	Indian National Rupee
IPM	-	Integrated Pest Management
IRECS	-	Inclusiveness, Relevance, Effectiveness, Convergence, Sustainability
KII	-	Key Informant Interview
KPI	-	Key Performance Indicator
KVK	-	Krishi Vigyan Kendra
MoE	-	Margin of Error
NPV	-	Net Present Value
OBC	-	Other Backward Class
PRI	-	Panchayati Raj Institution
PRIF	-	Pernod Ricard India Foundation
PR IPL	-	Pernod Ricard India Private Limited
PWC LLP/ PW	-	Price Waterhouse Chartered Accountants LLP
SC	-	Scheduled Caste

Executive Summary

Pernod Ricard India Private Limited (PRIPL) launched the Neer Sanrakshan- Kucharam project to improve water management in the villages of Thupakulapalli and Parikabanda in Telangana's Medak district. This initiative focused on addressing the agricultural community's heavy reliance on groundwater, which has been causing a declining water table and threatening their income. A key component of the project was enhancing water conservation through the establishment of water harvesting structures. PRIPL engaged Price Waterhouse Chartered Accountants LLP ("PWCALLP", "PW") to carry out the impact assessment of the project with a purpose to evaluate the impact created on the community during the project period. PW's scope of work encompassed a desk review of project documents, development of research tools, data collection and analysis, and the presentation of key findings and recommendations in a report for management's consideration. The project details and the approach adopted for carrying the impact assessment is illustrated below:



Key findings:

- Communities experienced an increase in irrigated land, expanding from 2.36 acres to 3.01 acres - an increase of 28%. This expansion was facilitated by the efficient management of water resources, which involved constructed water bodies that addressed previous limitations, enabling the cultivation of previously fallow lands.
- A rise in crop yields was noted by 98% of farmers, due to the improved water availability and enhanced soil fertility from the project's interventions. Specifically, paddy yields increased from 23.5 to 26.3 quintals per acre, reflecting a 12% growth.
- The project effectively improved groundwater levels, with 97% of respondents noting enhancements. These efforts led to a substantial reduction in the depth of groundwater, decreasing from 220-250 feet to 180-200 feet, indicating a positive shift in water table levels.
- Most respondents (97%) reported that the project reduced the effort required for irrigation. The addition of farm ponds streamlined the irrigation process and significantly enhanced water availability. Post-intervention, the time needed to irrigate one acre of land decreased from ~6-7 hours to ~5 hours, as farmers no longer rely solely on borewells.

- Additionally, the project resulted in a 10% decrease in cultivation costs per acre. This economic benefit arose from reduced resource expenditure on irrigation activities, attributed to improved soil quality from the application of tank silt.
- The project achieved a SROI value of 5.82, indicating that for every INR 1 invested, a social value of INR 5.82 was generated.

Recommendations:

- PRIPL can guide farmers in moving away from rice-rice cropping towards crops that use less water. Collaborating with research institutions for insights and offering training on crop diversification can help improve ecological balance and soil health.
- PRIPL might develop educational programs on Sustainable Rice Intensification (SRI) to optimize the use of water and nutrients, encourage reduced use of chemical inputs, provide incentives for adoption, and work with agricultural experts for training and support.
- For long-term sustainability, PRIPL could boost the financial skills of Tank User Groups (TUGs) by creating focused training programs on fundraising and resource allocation, supplemented by practical workshops.
- By partnering with Krishi Vigyan Kendras and the horticultural department, PRIPL can advocate agroforestry with local tree species that improve soil quality, enhance farmers' income, and promote biodiversity.
- Through co-operatives, PRIPL can facilitate direct market access, allowing farmers to attain fair prices and tackle income instability, which enhances financial stability and resilience.
- To sustain profitability, PRIPL may aim to strengthen the agricultural value chain by investing in infrastructure, establishing strategic agribusiness partnerships, and promoting the use of technology and financial resources to close gaps in post-harvest management and market access.

For a complete understanding of findings for the intervention, IRECS & SROI analysis and recommendations, please refer to the respective sections in the report.

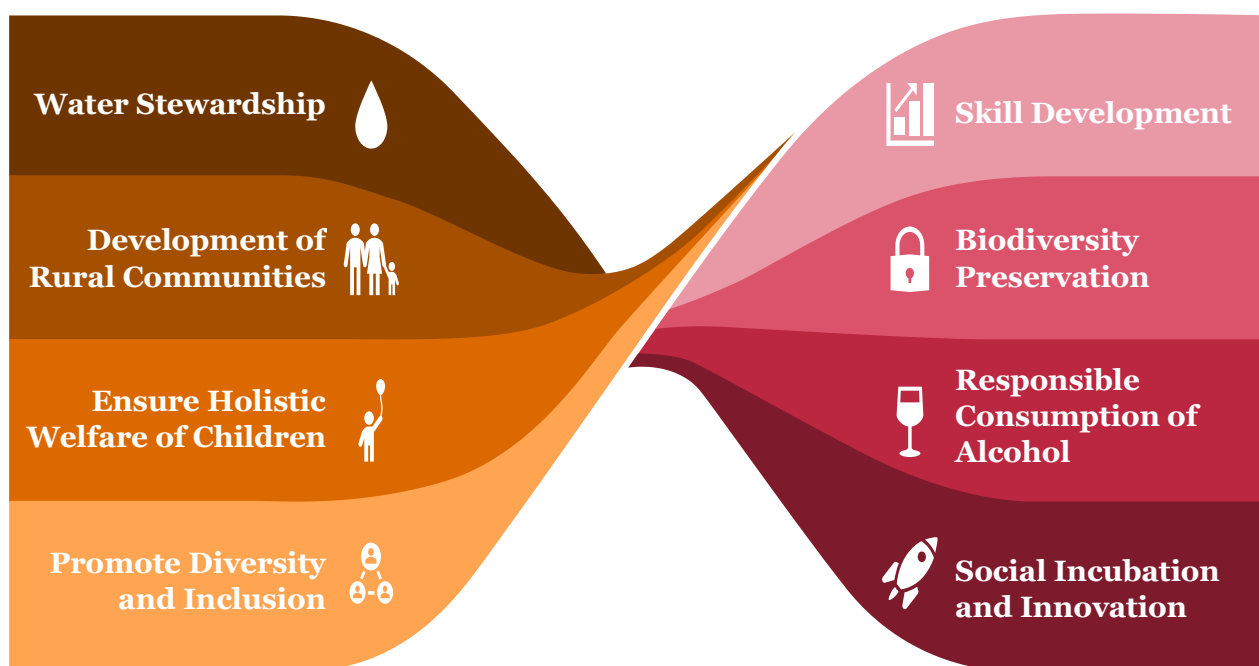
1.About PRIPL

Pernod Ricard India Private Limited (PRIPL) is a multinational alcohol beverage company. As a fully owned subsidiary of Pernod Ricard South Asia, PRIPL has a rich legacy of over 30 years in India, with operations spanning a distillery in Nashik and 24 bottling sites nationwide.

PRIPL is committed to responsible business practices and community engagement through its Corporate Social Responsibility (CSR) initiatives. These initiatives are driven by PRIPL's CSR Policy, which aligns with Section 135 of The Companies Act 2013, focusing on sustainable development and meeting the needs of marginalized and disadvantaged communities across its operational areas in India.

The Pernod Ricard India Foundation (PRIF), a Section 8 Company and wholly-owned subsidiary of PRIPL, spearheads the company's CSR efforts. PRIF is dedicated to fostering transformational growth and development across strategic program areas. PRIPL actively engages with stakeholders, including government bodies and community members, to ensure impactful CSR initiatives. By maintaining a continuous connection with the community, PRIPL aims to accelerate local development, build resilient communities, and ensure that everyone has the opportunity to thrive¹.

Figure 1: Key focus areas of PRIPL under the CSR vision 2030



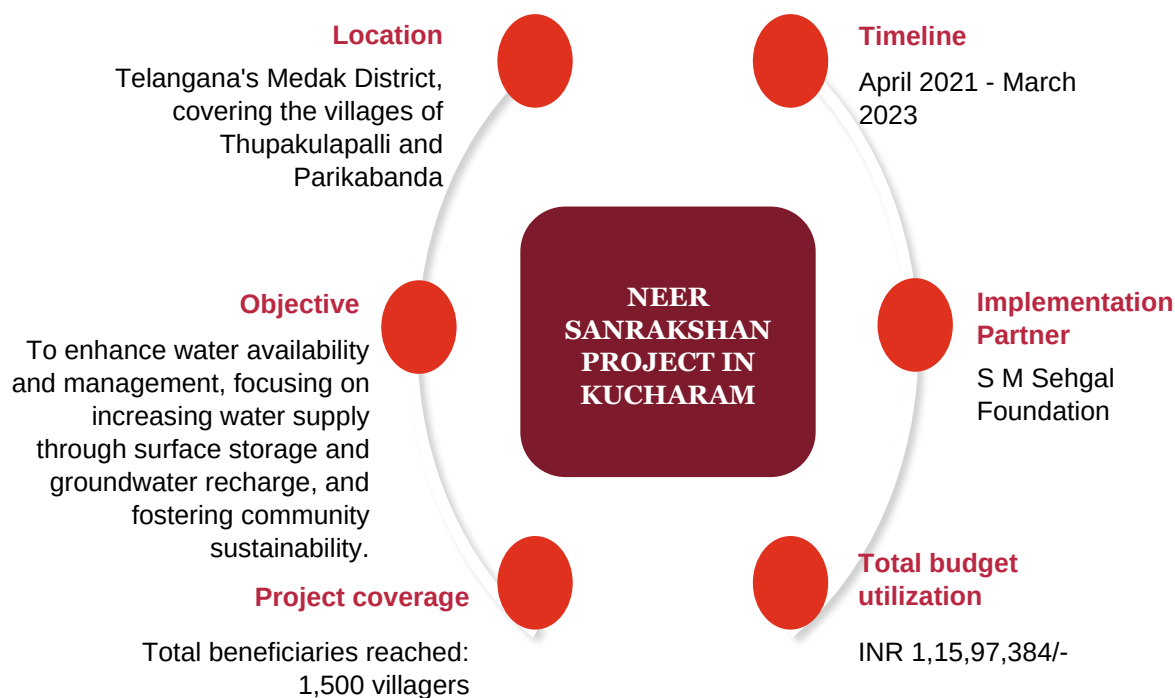
¹ Source: [CSR program report 2023-24](#)

2.About the project

The **Neer Sanrakshan Kucharam** project, an initiative aimed at enhancing water availability and management, was undertaken within the villages of **Thupakulapalli and Parikabanda** in **Telangana's Medak district**. The project worked towards addressing critical issues affecting the agricultural community, primarily dependent on groundwater for irrigation. This dependency had led to a decrease in the groundwater table, posing challenges to the community's main source of income².

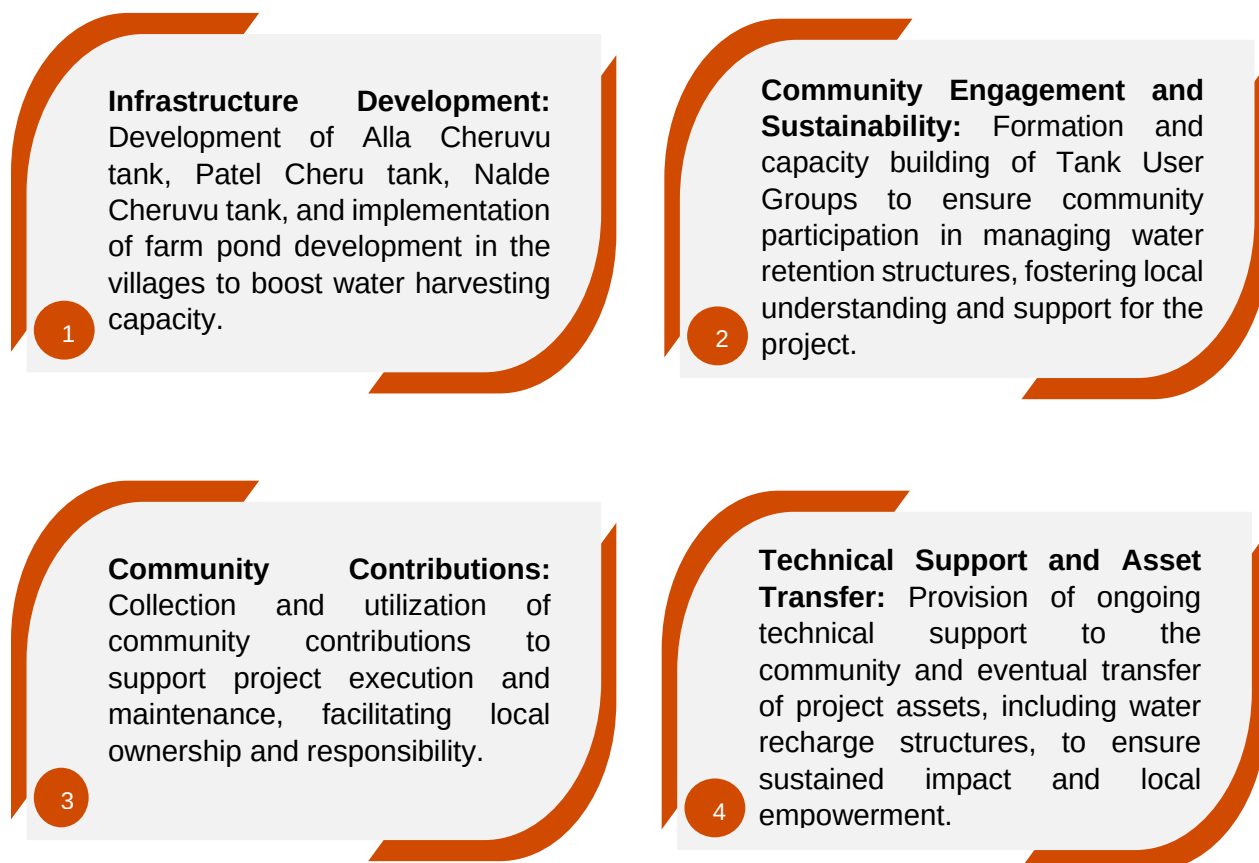
The project's central objective was twofold: to increase water availability through enhanced surface storage and groundwater recharge, and to establish community sustainability mechanisms for effective management of the created water replenishment structures. A comprehensive execution approach, administered by the **S M Sehgal Foundation** who was the implementation partner, followed a structured three-phase strategy encompassing project initiation, implementation, and post-project sustainability. Refer figure below for project snapshot.

Figure 2: Snapshot of the project under assessment



² Source: Project documents like Completion Report and MoU shared by PRIPL

The key activities carried out under the project included:



- As shared by PRIPL, the project involved the creation of vital water recharge structures and capacity-building initiatives. Key activities included developing the Alla Cheruvu, Nalde Cheruvu, and Patel Cheru tanks with capacities of 20.13, 8.6, and 23.5 million liters, respectively.
- Additionally, 42 farm ponds with a total capacity of 33.3 million liters were constructed.
- To support long-term sustainability, the project also focused on community empowerment by creating and building the capacity of Tank User Groups.

3. Method of Impact Assessment

Pernod Ricard India Private Limited (PRIPL) engaged PW to carry out the impact assessment of the Neer Sanrakshan- Kucharam with a purpose to evaluate the impact created on the community during the programme period of April 2021 to March 2023. The scope of work included reviewing the Key performance indicators (KPIs) as defined by the Management of the PRIPL under the framework for implementing the Project for the outputs, outcomes and impact of the Project. Framework adopted was Inclusiveness, Relevance, Efficiency, Convergence, and Sustainability Framework (the 'IRECS') and Social Return on Investment (the 'SROI') and recommendations were provided on the Project's performance for their further evaluation and consideration.

The assessment was undertaken using the quantitative and qualitative methods to understand the interventions undertaken under the CSR project in mutual discussion with PRIPL. The scope of work involved conducting the desk review of the project documents, mapping of key programme stakeholders, developing research methodology & impact map, data collection & analysis and report writing.

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



Stage 1: Desk review

- Inception meeting was done with the PRIPL team to get a detailed understanding of the interventions.
- Built consensus on scope of work and understanding PRIPL expectations.
- Desk review of project documents was done.
- Based on the desk review and preliminary interactions with key stakeholders from PRIPL, mapping of project stakeholders was done in consultation with PRIPL team for interaction purpose.



Stage 2: Planning and tool preparation

- The data collection plan was finalised in consultation with the PRIPL team.
- Key indicators, research tools were also shared and finalised post incorporation of feedback from PRIPL team.
- A draft impact map for SRoI was also created and finalised in consultation with PRIPL team.
- Digitisation and translation of the developed tools in local language was undertaken.
- PRIPL team was then apprised about the data collection plan for the field visit.



Stage 3: Data collection & field visit

- The field team was trained on the data collection tools.
- The field data collection process was initiated.
- Quantitative survey with project beneficiaries was undertaken to record their feedback.
- In-depth Interviews (IDIs) with Beneficiaries, PRIPL Team, Panchayat members, and Block Officials were conducted.
- Focus Group Discussion (FGD) with farmers were undertaken to gauge their views on the project.

Stage 4: Data analysis and report writing

- Assimilated the key findings to better analyse the data.
- Conducted SROI analysis using primary and secondary data.
- Prepared the draft of the impact assessment report to PRIPL team.
- Obtained and incorporated feedback received from PRIPL.
- Prepared and submitted final impact assessment report to PRIPL.

3.1. Sampling plan

The project's impact was evaluated using a mixed research methodology, which involved both qualitative and quantitative techniques to gain comprehensive insights. As part of the quantitative approach, a structured sampling plan was implemented, involving a survey with **a sample size of 194 beneficiary households**. Although, the quantitative sample size was estimated at **231 based on 90% confidence level and 5% margin of error** by considering the total number of beneficiaries covered under the project as the universe, however, only 79 households in total were present in Thupakulapalli village instead of the 116 households estimated by the Implementing Partner. Hence, the total sample size covered was 194 households. The findings and analysis presented in the following sections of the report are based on the responses from these 194 samples.

As a part of the qualitative assessment, the following interactions including In-Depth Interviews (IDIs) and Focus Group Discussions (FGDs) were also conducted to ensure holistic feedback on the project activities from the stakeholders:

Table 1: Qualitative sampling plan

Stakeholder Name	Mode of interaction	No. of interaction
Community Members	Focus Group Discussion (FGD)	2
Tanker user group	Focus Group Discussion (FGD)	3
Panchayati Raj Institution (PRI) members	In-Depth Interview (IDI)	2
Government Stakeholder (Dept. of Water Resources/ Dept. of Agriculture)	In-Depth Interview (IDI)	2
Implementing partner	In-Depth Interview (IDI)	1
Total		10

4. Key findings and analysis

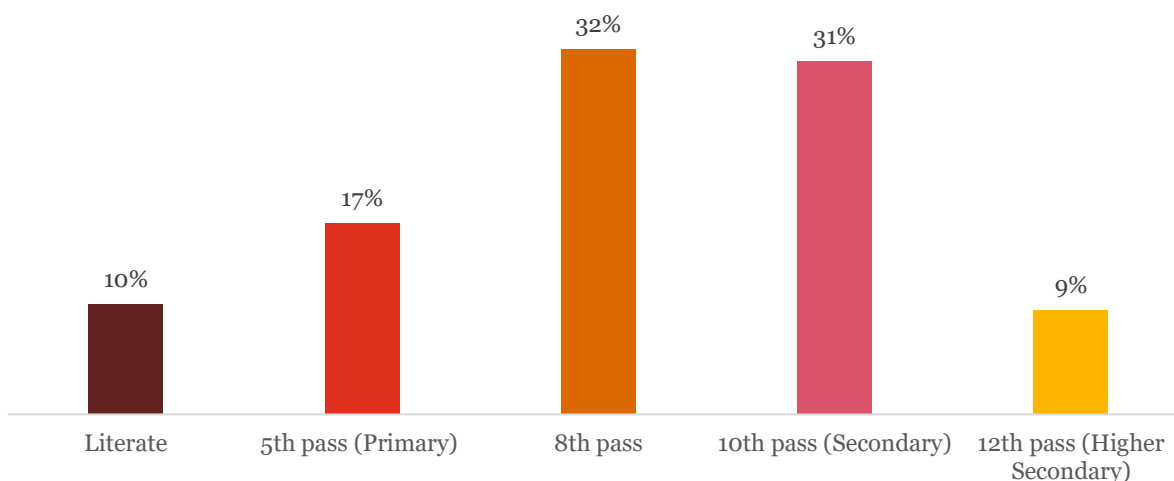
This section of the report highlights the key findings and analysis on the impact created by the Neer Sanrakshan- Kucharam project among the local communities. The findings and analysis are based on the responses of 194 participants (N=194) of the quantitative study along with information gathered during the interactions with key stakeholders.

4.1. Profile of the respondents

This section provides an overview of the demographic and socio-economic characteristics of the respondents involved in the Neer Sanrakshan- Kucharam project. The data collected offers insight into the community profile and highlights relevant aspects of their livelihoods.

- **Gender Distribution:** The survey findings indicate that all respondents were male, representing 100% of the sample. This is because of limited participation of females in agriculture and allied activities in this region.
- **Age Range:** The majority of respondents fall within the age group of 41-50 years, accounting for 57%. Individuals aged 51-60 years constitute 22%, while those aged 30-40 years make up 13%, and those over 60 years represent 8%. These figures suggest that the workforce is predominantly middle-aged.
- **Educational Attainment:** None of the respondents were illiterate, indicating a basic level of educational attainment across the sample. The educational background of respondents reveals varied levels of schooling:

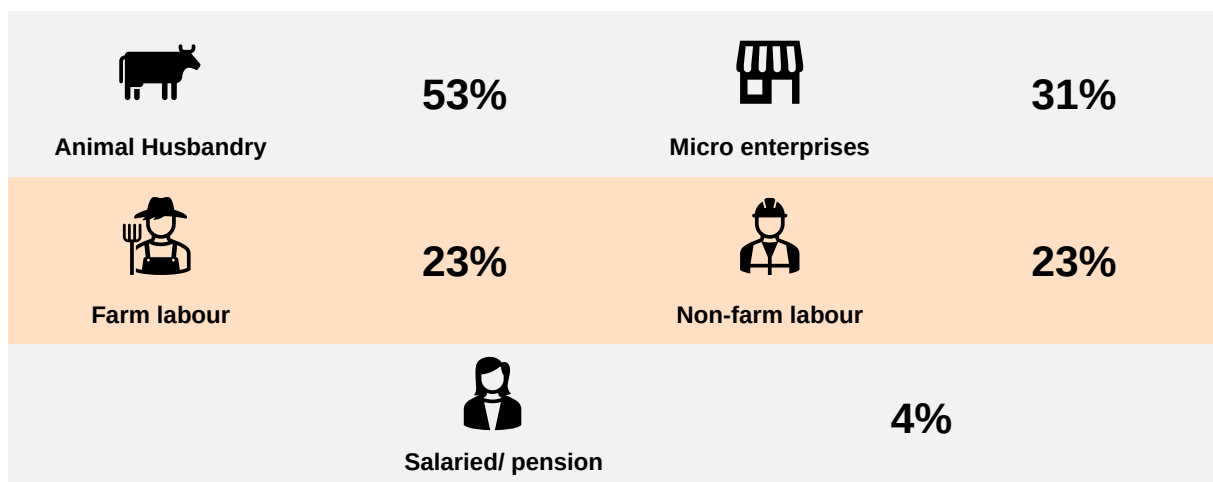
Figure 3: Educational Background of Respondents (N=194)



Note: A person who can read and write a simple message in any language with understanding is considered literate. Source: [MoSPI report](#)

- **Marital Status:** A significant proportion of respondents are married, with 99% affirming their marital status, while only 1% are single or unmarried.
- **Economic Role:** All respondents serve as the chief breadwinner in their households, underpinning their critical economic role within the family structure.
- **Social Category:** Respondents belong predominantly to Other Backward Castes (64%), while 12% are from Scheduled Castes, and 23% are from the General category.
- **Source of Income:** The principal occupation of respondents is farming, comprising 99%. A minimal presence is noted in shop/business/trade, accounting for 1%, with no representation in other categories such as agricultural/ non-farm labor.
- **Alternative Income Sources:** Majority of the respondents (69%) reported that they have alternative sources of income. These alternatives include:

Figure 4: Alternative sources of income (N=134)



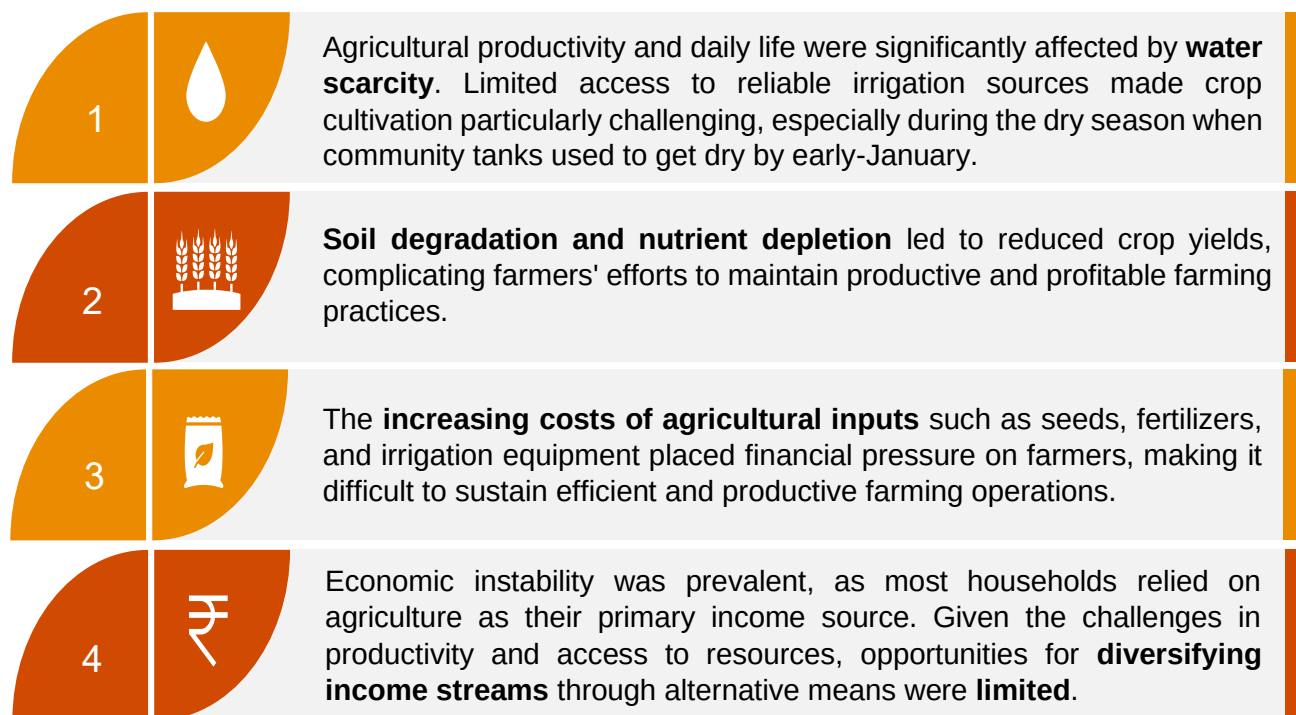
This is a multiple-choice question, and the total may not add exactly to 100%.

Figure 5: A de-silted community tank in village Parikabanda in the month of February



4.2. Need for the intervention

Based on the discussions with the local communities in the project area, various challenges faced by them were highlighted before the project interventions:



4.3. Impact of the intervention

To address the community's needs as discussed above, the project implemented the activities outlined in the "About the Project" section. Here's a detailed analysis of the impact created by the project activities basis responses collected for 194 respondents:

Figure 6: Impact of the project activities among respondents

Increased land area under cultivation	99%	Increased availability of water for household	99%	Improved crop yields	98%
Improved groundwater levels	97%	Less effort required for irrigation	97%	Reduced dependence on groundwater	65%
Increase in the number of crops cultivated	51%	Reduced cost of irrigation	3%	No benefit	0%

This is a multiple-choice question, and the total may not add exactly to 100%.

1. Increase in land area under cultivation

There has been an **increase in land area under cultivation, with 99% of respondents** noting this expansion facilitated by project interventions. Previously, inefficient water storage limited the extent of arable land utilization. Post-intervention, communities reported an increase from 2.36 acres to 3.01 acres of land under irrigation, reflecting a **28% expansion**. This was made possible by the effective management of water resources through constructed water bodies that mitigated previous constraints, allowing for **earlier fallow lands to be cultivated**.

2. Better access to water for household chores

Nearly all respondents, **99%, highlighted improved water availability for household chores**. Before the project's inception, water scarcity constraints extended beyond agricultural needs, affecting daily domestic tasks like cleaning and cooking. The enhanced water storage capacity from **tank rejuvenation ensured more consistent water provision to meet these essential needs**. This improvement relieved burdens on households—particularly on women, who traditionally handle domestic water procurement. Insights also suggests that with greater water access, families experience improved health and hygiene standards, contributing positively to overall community well-being.

3. Improved Crop Yields

Enhancements in crop yields were reported by 98% of farmers, attributable to improved water availability and better soil fertility facilitated by project interventions. **Paddy yields specifically rose from 23.5 to 26.3 quintals per acre, a 12% increase**. Before the project, yields were severely affected by unreliable water supply and excessive use of chemical fertilizers from poor soil quality. The **distribution of nutrient-rich tank silt improved soil health**, reducing dependency on chemical inputs and fostering more organic growth conditions. Farmers reported not only increased harvest volumes but also noted improvements in crop quality. With more land being cultivated, the increased yields have contributed to higher income

Impact story of Thupakupalli Village

Village Overview:

Thupakupalli is an agricultural village with 90 households, where 90% of the residents are farmers, and the remaining 10% work as laborers.

Livelihood Activities:

The main agricultural activity in Thupakupalli is paddy cultivation during both the Kharif and Rabi seasons, which aligns with local dietary preferences. The average landholding is 5-7 acres, and villagers also engage in limited vegetable farming. Despite its high-water requirements, paddy remains a staple crop. Women primarily play supportive roles in agriculture but have limited participation in formal income-generating activities.

Water-Related Challenges:

Previously, Thupakupalli faced severe water scarcity due to inefficient storage and sediment-filled tanks, resulting in depleted groundwater levels at 200-250 feet. This water scarcity adversely affected irrigation, impacting crop yields and income.

Project Interventions and Impact:

The primary irrigation source is bore wells. The Neer Sanrakshan project introduced interventions such as desilting tanks, creating farm ponds, and distributing nutrient-rich silt. These efforts enhanced water storage capacity and reduced groundwater reliance, boosting paddy productivity from 20 to 25 quintals per acre per season. Silt application reduced dependency on chemical fertilizers.

Economic and Lifestyle Adjustments:

Farmers experienced increased earnings of around INR 18,000 per acre per season due to improved yields, better prices, and reduced chemical fertilizer costs.

Sustainability and Future Needs:

The project emphasized community involvement by forming Tank User Groups to manage and maintain project structures, crucial for sustainability.

levels, according to 80% of respondents who noted a rise in average annual household income. It's important to note that not all of this income growth can be directly attributed to the project, as there has been a 23% natural increase in the selling price of paddy from 2020-21 to 2024-25.



The desiltation of the irrigation tank has changed everything. I used to watch parts of my land go uncultivated, just dry and barren. With the improved water access, I have been able to cultivate these sections, increasing our paddy yield significantly. The silt provided has been just like the finest fertilizer.

- As narrated by a local farmer from Parikabanda village during FGD

4. Rejuvenated Groundwater Levels

With **97% of respondents observing improvements**, the project has bolstered groundwater levels. As reported by respondents, the initiatives led to a **considerable reduction in the average depth of groundwater, from 220-250 feet to 180-200 feet**, showing improvement in water table levels. Local farmers emphasized the critical role of these interventions, indicating that **water reserves now last for more than 30-45 days longer** post-monsoon than the pre-intervention situation, thereby reducing vulnerability during dry spells during February-March.

5. Less Effort Required for Irrigation

A majority of the respondents, 97%, indicated that the project has facilitated less effort in irrigation activities. The introduction of farm ponds streamlined irrigation processes and markedly improved water accessibility. Before these interventions, irrigation activities meant long hours and high physical labor levels, predominantly due to challenges posed by sediment-filled tanks and depleted groundwater resources. Post-intervention findings indicate that **time required to irrigate one acre of land decreased from ~6-7 hours to ~5 hours** as the farmers don't have to solely depend upon borewells (discussed in detail in the next paragraph). Farmers also shared during interactions that there has been reduced wear on irrigation equipment and less manual labor required. Furthermore, the project **lowered cultivation cost per acre by 10%**, providing economic relief by minimizing resource expenditure on irrigation activities because of improved soil quality from using silt from the tanks.

6. Reduced Dependence on Groundwater Resources

The project has reduced communities' reliance on groundwater, with **65% of respondents reporting a decrease**. Bore wells were previously the primary source of irrigation, which led to the over-extraction and subsequent depletion of groundwater levels, measured between 220-250 feet before the intervention. The rejuvenation and creation of surface storage facilities, notably through tank desiltation, have reduced this dependency now as the **local farmers can use water from farm ponds and tanks for an elongated period**.

7. Increase in crop diversity

The increase in the variety and volume of crops cultivated has been significant, with 51% of respondents indicating a rise. Previously, the average landholding among farmers was around 2-3 acres, with predominantly paddy cultivation during the Kharif and Rabi seasons being the norm due to it being a staple aligned with local dietary preferences. Post-intervention, the increased water availability allowed farmers to **engage in additional cropping cycles and expand into limited vegetable farming**. This improvement is tangibly reflected in the expansion of cultivable land by 28% for both Kharif and Rabi seasons. Interactions with local communities suggest that the capacity of growing multiple crops has improved household food security.

“Before, the water shortage meant we could only cultivate 2 acres of our land,” he said. “Now we have extended it to 3 acres. The new farm pond in our village has been a blessing. With more water available, I’ve even started experimenting with growing vegetables alongside paddy, which was unthinkable before.”



- As narrated by a marginal farmer from Parikabanda village during FGD

Additionally, the **Tank User Groups**, formed as an integral component of the project, has been assigned the essential responsibility of managing and repairing the community tanks. To support these activities, the TUG gathers voluntary contributions from the local farmers, establishing a financial reserve specifically for the upkeep and repair of these tanks. This system not only ensures the continuous functionality and efficiency of the tanks but also cultivates a sense of ownership and accountability among community members.

However, it is vital for these groups to develop the capacity to generate sufficient funds required for executing maintenance activities. Enhancing their ability to secure financial resources will reinforce their resilience and ensure the ongoing effectiveness of their roles in preserving the local water infrastructure. Supporting the TUG in building their financial management capabilities is key to sustaining the positive impacts of the project well into the future.

Figure 7: A farm pond built at a farmer's field in Thupakupalli village



4.4. Summary of the impact created by the project

Below is a summary table illustrating the project's impact on water and soil management activities, detailing the benefits realized by respondents and the overall effects on agricultural productivity and community resilience.

Water and Soil-related Project Activities	Benefits Realized by % of Respondents	Detailed Impact on Respondents
- The majority of project activities focused on the desiltation of tanks, which impacted 99% of respondents, highlighting the importance of this activity in water conservation. - Tank creation affected 50% of the community, while farm pond construction was less frequently reported, noted by only 1% of respondents. - The application of tank silt was implemented in 48% of cases, promoting soil fertility. - Formation and capacity building of Tank User Groups was a major part of the project, with 90% participation among the respondents.	- There was a unanimous response indicating that all participants benefitted from the project, with 0% reporting no benefit. - Key benefits included improved crop yields (98%), enhanced groundwater levels (97%), and an increased availability of water for household chores (99%). 97% noted less effort required for irrigation, while 65% experienced reduced dependence on groundwater, illustrating effective water management. - Notably, 51% of respondents indicated an increase in cultivated crops, suggesting enhanced agricultural productivity.	- The total land area under cultivation saw a considerable increase of 28%, indicating successful project intervention in expanding agricultural opportunities. - This increase was consistent for both Kharif and Rabi seasons. - The total land area under irrigation also rose by 28%, aligning with the overall expansion in cultivated land. - Time required to irrigate one acre of land reduced by 28%, signifying greater irrigation efficiency. - The groundwater level improved, with a 21% reduction in depth, showing effective recharge. - Cultivation costs decreased by 10%, indicating economic benefits for the farmers. - The yield per acre for Paddy crops increased by 12%, demonstrating enhanced agricultural productivity. - Average income per year surged by 80%, reflecting significant economic upliftment for the respondents.

5. SROI Analysis

Assessment of impact of the 'Neer Sanrakshan- Kucharam' project was done basis the Social Return on Investment framework which helped in measuring and accounting for value in a broad sense.

Establishing the Impact

The Social Return on Investment (SROI) Framework design helps us measure and account for value in a broad sense. The overall impact and the subsequent calculation of the return was done after preparing an impact map for the programme. Thereafter, the cumulative benefit was derived after adjusting the deadweight, displacement, attribution (by others) and dropoff factors from the year wise benefits. These factors are defined in detail as follows:

Deadweight	Deadweight is the estimation of the benefits which would have occurred even in the absence of the programme. For the benefits attributable to this project, deadweight has been considered to be 80% based on the interaction with the stakeholders on-ground.
Displacement	Displacement is the component which informs the assessor on how much one outcome of the project may influence any other outcome. During the assessment for this project, there was no evidence of any displacement noted or reported. Hence, the displacement factor is taken to be 0% for the calculations based on the interaction with the stakeholders on-ground.
Attribution (by others)	Attribution (by others) is an estimate of what proportion of the impact may be attributed to the efforts of other stakeholders involved. During the assessment and the survey, it was found that for benefits from this project, attribution (by others) can be set at 30-50% .
Dropoff	Dropoff is factored in as in the subsequent years, the benefit or the impact would be slightly less than the previous year. During the interactions it was found that around 30% of the beneficiaries have either stopped practicing/ using the trainings/ supports promoted under the project. Accordingly, a dropoff of 30% has been considered for calculations.

Calculating the Impact

The impact of the project has been arrived at based on the following calculations:

- **Impact Value for the first year:** Quantity of change or Number of beneficiaries or Number of benefit units x Financial Proxy (FP) value x (1- deadweight) x (1- displacement) x (1- attribution)

- **Impact value for subsequent years:** Quantity of change or Number of beneficiaries or Number of benefit units x Financial Proxy (FP) value x (1- deadweight) x (1- displacement) x (1- attribution) + [impact of previous year] x (1-drop off)]

Based on the above calculations, the **cumulative benefit or impact generated by the project** from the year **FY 2021-22 till the end of the financial year 2024-25** comes out to be **INR 67,341,002/-**. The impact map, detailed calculations and year-wise values can be referenced from the Annexure.

Calculating SROI value:

The SROI value is expressed as a ratio of the return and is calculated by dividing the net present value of total Impact value (or cumulative benefit) created under the project divided by the net present value of the total investment or funds utilized for the project.

Net Present value of total impact value (or cumulative benefit) is INR 62,513,702/- whereas the net present value of Total Utilization or Investment (till the time of survey) is INR 10,748,270/-.

Now, to calculate the SROI following formula has been used:

SROI = Net Present value of benefits/ Net Present Value of Investment

Net Present Value can be calculated using the below formula:

Net Present Value of benefits = Cumulative benefits*POWER ((1+r) time) where 'r' has been taken as per the yearly CPI inflation (general) rate for Telangana during the project period³.

SROI	$\frac{\text{Net Present value of benefits}}{\text{Net Present Value of Investment}}$
NPV of benefits	INR 62,513,702/-
NPV of Investment	INR 10,748,270/-
SROI Value*	5.82

SROI value of 5.82 indicates that an investment for every INR 1 invested in the project, a social value of INR 5.82 is generated.

³ Source of inflation rate- [Reserve Bank of India](#)

6.IRECS Analysis

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

Parameter	Assessment from Study
Inclusiveness	- The demographic profile shows involvement from various social categories, primarily Other Backward Castes, General, and Scheduled Castes, fostering equitable participation and representation. - By forming Tank User Groups and engaging communities in both the planning and implementation processes, the project ensured that the interventions addressed the needs of all layers of society. Limited number of direct women beneficiaries is an area where the project could have been more inclusive.
Relevance	- The project rightly targeted critical water and agricultural challenges faced by the local communities. - The focus on tank rejuvenation, farm pond construction, and tank silt application addressed immediate needs for water conservation and soil fertility improvement. - These initiatives were crucial in confronting water scarcity, unreliable irrigation, and crop yield fluctuations, thus proving highly relevant to the primary socioeconomic concerns of the community, especially given their reliance on agriculture as the main livelihood source.
Effectiveness	- Communities experienced an increase in irrigated land, expanding from 2.36 acres to 3.01 acres—an increase of 28%. This expansion was facilitated by the efficient management of water resources, which involved constructed water bodies that addressed previous limitations, enabling the cultivation of previously fallow lands. - A rise in crop yields was noted by 98% of farmers, thanks to improved water availability and enhanced soil fertility from the project's interventions. Specifically, paddy yields increased from 23.5 to 26.3 quintals per acre, reflecting a 12% growth. - The project effectively improved groundwater levels, with 97% of respondents noting enhancements. These efforts led to a substantial reduction in the depth of groundwater, decreasing from 220-250 feet to 180-200 feet, indicating a positive shift in water table levels.

Parameter	Assessment from Study
	• Most respondents, 97%, reported that the project reduced the effort required for irrigation. The addition of farm ponds streamlined the irrigation process and significantly enhanced water availability. Post-intervention, the time needed to irrigate one acre of land decreased from ~6-7 hours to ~5 hours, as farmers no longer rely solely on borewells. • Additionally, the project resulted in a 10% decrease in cultivation costs per acre. This economic benefit arose from reduced resource expenditure on irrigation activities, attributed to improved soil quality from the application of tank silt. • The project achieved a SROI value of 5.82, indicating that for every INR 1 invested, a social value of INR 5.82 was generated.
Convergence	• The project partnered with the Local Panchayat to carry out the desiltation of water tanks. The project also received assistance from the Panchayat in locating suitable tanks and identifying farmers who were in greatest need of farm ponds on their land hence, it was convergent.
Sustainability	• A focus on community-led management of water structures, particularly through Tank User Groups, can be instrumental in long lasting sustainability of project outcomes. • The formation of these groups provided the basis for continual stewardship and maintenance of water systems. However, it is crucial for these groups to cultivate the capability to raise adequate funds necessary for carrying out maintenance activities. Strengthening their capacity to obtain financial resources will bolster their resilience and ensure their continued effectiveness in maintaining local water infrastructure. Assisting the TUG in enhancing their financial management skills is essential for sustaining the project's positive outcomes in the long term.

7. Recommendations

The following recommendations are based on valuable insights shared by farmers, Tank User group members, PRI representative, and government stakeholders along with our own understanding of the sector. These can be considered for further improving the efficiency and effectiveness of the project (or similar projects) in future.

Promote Gradual Shift from Rice-Rice Dual Cropping System:

- **Introduce Locally Suitable Crops:** Encourage farmers to diversify their crop systems by transitioning from the traditional rice-rice dual cropping to other suitable crops that are less water-intensive and have the potential to enhance soil health. This diversification can lead to better ecological balance and reduce the dependency on water-intensive crops like rice.
- **Collaborate with Research Institutions:** Partner with leading research organizations such as the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), the Indian Council of Agricultural Research (ICAR), and the Centre for Sustainable Agriculture (CSA) to research alternative crops. These institutions can provide insights into locally adapted crop varieties, pest and disease resistance strategies, and best practices that align with the ecological and socio-economic conditions of the project region.
- **Develop Training Programs:** Implement training sessions for farmers on the benefits of crop diversification, including information on selection, planting, growing techniques, and market opportunities for alternative crops.

Promotion of Sustainable Rice Intensification (SRI) and Similar Practices:

- **Educate Farmers:** Implement educational initiatives to demonstrate practices such as Sustainable Rice Intensification (SRI) that advocate for optimal use of water and nutrients, reducing the need for excessive chemical inputs.
- **Promote Judicious Use of Chemical Inputs:** Foster awareness campaigns on the environmental impact of chemical fertilizers and pesticides, including their long-term effects on soil health and water quality. Promote organic methods where possible and encourage the use of integrated pest management (IPM) techniques.
- **Provide Incentives for Adoption:** Create incentives for farmers who adopt SRI and similar sustainable practices, such as subsidies for organic inputs or financial assistance for implementing water-saving irrigation methods.
- **Partner with Agricultural Experts:** Collaborate with agricultural experts and extension officers who can provide on-the-ground support and training for the adoption of sustainable practices.

Capacitating the Tank User Groups:

To ensure the long-term sustainability and effectiveness of the project, it is recommended to further enhance the financial management capabilities of Tank User Groups (TUGs). While these groups have been instrumental in maintaining and repairing community tanks by collecting voluntary contributions from local farmers, there is a need to strengthen their ability to consistently raise funds for these activities.

Develop targeted training programs that focus on financial management, fundraising strategies, and resource allocation to empower TUGs to create robust financial reserves. These programs should include practical workshops and mentorship opportunities to build confidence and competency in financial matters.

Furthermore, we have identified specific areas for consideration within PRIPL's overall Water and Livelihoods Portfolio that we believe can contribute to designing comprehensive interventions focused on water conservation and livelihood enhancement.

Promotion of Agroforestry:

Collaborating with Krishi Vigyan Kendras (KVKs) and the horticultural department to promote agroforestry using locally adaptable tree species can greatly benefit the environment and local economies. This initiative not only improves soil health through organic matter enhancement but also provides additional income sources for farmers, as well as biodiversity benefits that strengthen the ecosystem.

Implement Soil Moisture Conservation Techniques:

Introduce soil moisture conservation practices such as mulching, contour farming, and cover cropping. Training programs can emphasize these techniques' role in retaining soil moisture, minimizing evaporation, and enhancing water infiltration, ultimately leading to improved crop resilience.

Soil Health Monitoring:

Regular soil health assessments are essential for developing tailored soil conservation strategies. These assessments ensure that farmers are informed about the nutrient levels and composition of their soil, allowing for targeted interventions that will maintain long-term fertility and productivity of agricultural lands. This proactive approach supports sustainable farming practices and enhances overall crop output.

Community Training Programs:

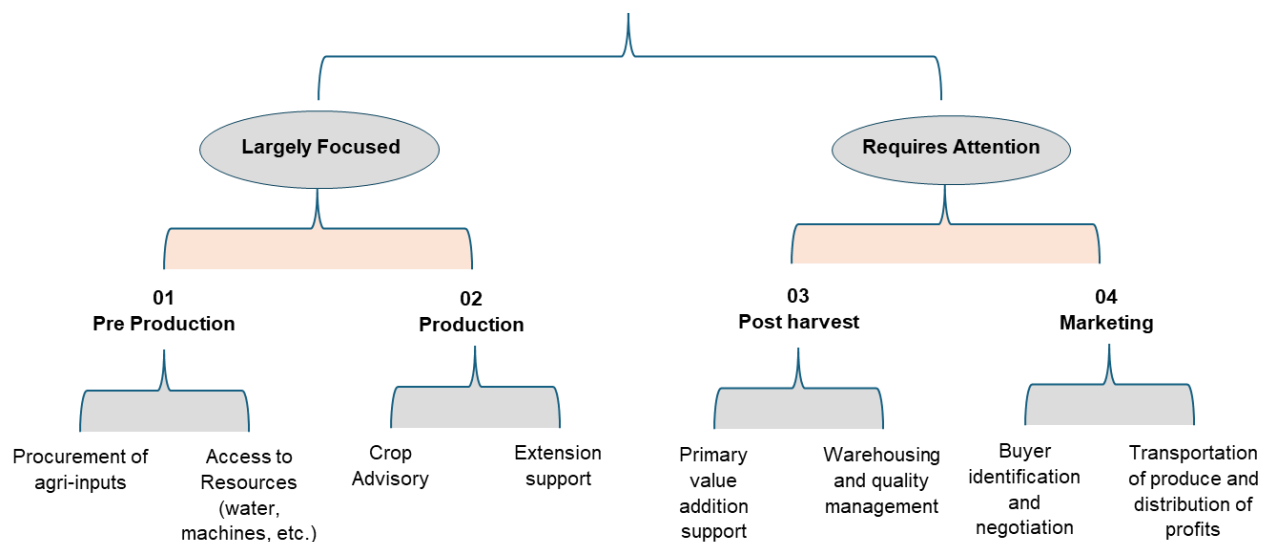
To facilitate practical learning and empower farmers, it is important to promote demo-plots at progressive farmers' fields and establish farmer field schools. These initiatives will encourage widespread adoption of sustainable practices and help farmers manage their natural resources effectively, ultimately leading to improved agricultural productivity and resilience.

Focus on bridging the gap between farmers and market:

- Many farmers face challenges in accessing markets to sell their produce at fair prices. This disconnect often results in reduced income and economic vulnerability.
- PRIPL can facilitate direct market linkages for farmers by establishing farmer cooperatives/ companies.
- Such efforts empower farmers, ensuring they receive appropriate value for their produce, ultimately contributing to increased financial stability and resilience.

Value-chain centric focus to make farming more remunerative

- Enhancing the agricultural value chain is crucial for achieving sustainable profitability for farmers.
- Current CSR initiatives frequently offer limited, short-term support, overlooking critical aspects such as post-harvest management and market access.
- PRIPL can bridge these gaps by investing in infrastructure development, fostering strategic agribusiness partnerships, and promoting technological solutions alongside financial access to empower farmers long-term.



8. Annexure

Impact Map

Activities	Stakeholders	Output Indicators	Outcome Indicators	Impact Indicators
1. Establishment of water conservation structures (ponds and tanks) 2. Desiltation of tanks 3. Promotion of usage of silt in farmlands 4. Promotion of Tank User Groups	Local farmers	1. Number of water retention structures built or repaired 2. Number of farmers benefiting from pond/ tank construction and desiltation 3. Number of desiltation and bunding activities completed 4. Number of farmers using silt in farming	1. % increase in groundwater levels 2. % increase in water retention per structure 3. Increase in average land area under cultivation 4. Increase in % of land under irrigation 5. Increase in cropping intensity 6. % reduction in chemical fertilizer usage 7. Reduced dependence on external inputs for farming 8. Improved yield per acre 9. Increased farm income due to getting better prices for products 10. Improved quality of produce 11. % reduction in water for irrigation used per acre	1. % reduction in cost of cultivation per farmer for different crops 2. % reduction in time required for irrigating an acre per farmer 3. % reduction in cost required for irrigating an acre per farmer 4. Increased savings from improved crop yields per farmer 5. Increased farm income due to getting better prices for products per farmer

During the data collection process, using both quantitative and qualitative methods, it was found that certain anticipated benefits of the project were not realized for some indicators in the impact map. Specifically, respondents reported baseline values of zero for:

1. Reduction in cost required for irrigating an acre

2. Increased farm income due to getting better prices for products

Respondents indicated that there is no change in cost associated with irrigation as electricity for irrigation is free of cost in Telangana. Additionally, farmers consistently grow paddy and sell to government buyers at the Minimum Selling Price, which was unaffected by the project since it did not include agricultural marketing activities. Hence, these 2 indicators are not made part of SROI analysis.

SROI estimation – Impact Values

Benefits	Deadweight	Displacement	Attribution (by others)	Drop-off	Total value to be created between 2021-2022	Total value to be created between 2022-2023	Total value to be created between 2023-2024	Total value to be created between 2024-2025
Reduction in cost of cultivation per acre for different crops	80%	0%	50%	30%	(3,245,511)	(2,271,857)	(1,590,300)	(1,113,210)
Reduction in time required for irrigating an acre	80%	0%	50%	30%	15,564	10,895	7,626	5,338
Increased savings from improved crop yields	80%	0%	50%	30%	29,815,419	20,870,793	14,609,555	10,226,689
Total benefit created					26,585,472	18,609,831	13,026,882	9,118,817

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