IMPACT ASSESSMENT REPORT OF ANKUR UDAY PROJECT, NASHIK, MAHARASHTRA

September 2026

Pernod Ricard India Private Limited

Price Waterhouse Chartered Accountants LLP

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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) is required.
  - Specific areas such as deadweight, displacement, attribution and drop off has 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 programme is long.

List of Acronyms

Acronym	Full Form
ABHA	Ayushman Bharat Health Account
BoD	Board of Directors
CSR	Corporate Social Responsibility
FAB / FaB	Farming as a Business
FGD	Focus Group Discussions
FPC	Farmer Producer Company
IDI	In-depth Interview
INM	Integrated Nutrient Management
IPM	Integrated Pest Management
IRECS	Inclusiveness, Relevance, Effectiveness, Convergence, Sustainability
KII	Key Informant Interview
KPI	Key Performance Indicator
KVK	Krishi Vigyan Kendra
MEL	Monitoring, Evaluation and Learning
MGNREGS	Mahatma Gandhi National Rural Employment Guarantee Scheme
MSRLM	Maharashtra State Rural Livelihoods Mission
NBFC	Non-Banking Financial Company
NMSA	National Mission on Sustainable Agriculture
NRM	Natural Resource Management
PKVY	Paramparagat Krishi Vikas Yojana
PW / PWCALLP	Price Waterhouse Chartered Accountants LLP
SAPFCL	Shetisanjeevani Agro Farmer Producer Company Ltd.
SDGs	Sustainable Development Goals
SHG	Self Help Group
SROI	Social Return on Investment
SRLM	State Rural Livelihoods Mission
UPI	Unified Payments Interface
UN	United Nations

WUC / WUG	Water User Committee / Water User Group

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1. Executive Summary

Pernod Ricard India Private Limited (PRIPL) with the help of TNS India Foundation implemented the 'Ankur Uday' project in Dindori block of Nashik district, Maharashtra, as part of its CSR commitment to promote sustainable development. The project focused on three areas: (i) Natural Resource Management and Water Stewardship through refurbishment of water structures and support to community-based governance; (ii) promotion of sustainable agriculture practices and support through a Farmer Producer Company (FPC) for grape and tomato farmers; and (iii) capacity building of women on Financial Literacy and Farming as a Business (FaB), along with linkages to financial institutions and government schemes.

PRIPL engaged Price Waterhouse Chartered Accountants LLP (PWCALLP / PW) to assess the impact of the project interventions done during January 2022–March 2024 and estimate the social value generated. PW adopted a mixed-method approach comprising both quantitative and qualitative research. Quantitative survey was conducted with 281 beneficiaries while qualitative interactions included 13 FGDs, SGDs, IDIs and KIIs with farmers, women, Water User Groups (WUGs), the FPC Board, government officials, the implementing partner and PRIPL. Findings were organised using the IRECS framework (Inclusiveness, Relevance, Effectiveness, Convergence, Sustainability). A Social Return on Investment (SROI) analysis was carried out using an impact map, financial proxies and adjustments for deadweight, displacement, attribution and drop-off for the review period. The project details and the approach adopted for carrying the impact assessment are illustrated below:

Implementing partner

TNS India Foundation (TNSIF)

Project period

January 2022 to March 2024

Research method

Mixed method

Project budget

INR 3,00,00,000 /-

Sample size

281 farmer interviews and 13 key stakeholder interactions

Research framework

IRECS + SROI

Key findings from the impact assessment study:

Natural Resource Management – Water Stewardship

- The project addressed water scarcity through pond desilting, dugwell recharge, canal repairs, check dam renovation and water budgeting. Among NRM beneficiaries, 46% reported that they received support for pond renovation/desilting, 42% for dugwell recharge, 33% for canal/channel repairs and 31% for check dam renovation.
- Improved water availability extended irrigation support into the Rabi season. The Rabi area increased by 33%, while cropping intensity improved from 1.75 to 2.00, indicating that farmers are now using the same land more productively across the year.
- Irrigation became more reliable and less costly. The average annual irrigation cost per acre declined by about 15%, while the number of Rabi irrigations increased from 5 to 7. Time required to irrigate one acre reduced from around 12 hours to 7 hours.
- The intervention supported crop diversification and better land use. Farmers reported expanding winter cultivation and adding vegetables such as tomato, onion, cabbage and leafy greens. Overall, 63% of farmers reported improved crop yields and 68% reported growing a larger number of crops.

- Water User Committees contributed to local management and sustainability. Around 74% of farmers reported being part of a WUC; among them, about 70% said meetings were held monthly, and 75% believed the WUC would continue functioning effectively over the next 3–5 years.

Promotion of Sustainable Agriculture Practices and Support from the FPC

- Sustainable agriculture support focused on grapes and tomato, the two key income crops in the project area. Over three years, 984 farmers were trained in grape agronomy and 1,690 farmers in tomato agronomy, ensuring alignment with local cropping priorities and income sources.
- Farmers adopted improved practices such as pruning, canopy management, IPM, INM, mulching, root treatment and careful chemical input use. Organic inputs were also promoted, with 101 farmers trained in Jeevamrut and 299 in vermicompost production and application.
- Adoption of regenerative practices was strong: 83% of farmers regularly used drip/sprinkler systems, 67% adopted IPM, 67% adopted INM, 66% followed irrigation scheduling and 54% used mulching, improving water-use efficiency and soil moisture conservation.
- Farmers reported clear economic and agronomic benefits. Around 84% reported increased yields and reduced cultivation costs, 83% reported better quality produce, 79% obtained better prices, 73% reduced chemical input use and 71% reported lower pest and disease attacks.
- Farm profitability improved for both key crops. Tomato showed gains across yield, price and cost parameters, while grapes recorded higher productivity and lower cultivation costs despite a decline in prices. Net income per acre increased for both crops post-intervention.
- The Shetisanjeevani Agro FPC strengthened aggregation, inputs and market linkages. It now has 1,380 shareholders from 26 villages, procured around 6.70 lakh kg of produce, generated about INR 5.02 crore in agri-produce sales, and served 756 farmers through input supply.

Capacity Building Support to Women on Financial Literacy and Farming as a Business

- The project trained 1,642 women on Financial Literacy and Farming as a Business, covering budgeting, savings, banking, digital payments, loans, insurance, record keeping, farm costing and working with the FPC, thereby strengthening women's financial and enterprise-related capabilities.
- Financial literacy training led to practical behaviour change. Among trained women, 76% opened a new bank account in their own name, 68% started saving regularly, 66% applied for or renewed insurance and 65% began using ATMs or digital payments more confidently.
- Farming as a Business training improved women's farm management practices. 95% reported better knowledge of calculating profit or loss, 79% started keeping simple farm records, 74% compared input prices before purchase and 71% planned crops based on costs and expected prices.
- Women's confidence and decision-making role improved substantially. 92% reported increased confidence in speaking in public meetings, 92% reported a greater role in farming decisions and 89% reported increased involvement in decisions on savings, loans and use of income.
- The Ankur Uday Help Desk helped women access key documents and schemes. Among users, 54% visited more than once; women used it for PAN, Aadhaar, Ayushman Bharat, ABHA IDs, E-Shram, bank account updates and schemes such as PM Kisan and pensions.
- The intervention also created scope for SHG-based microenterprises such as masala making, snacks, agarbatti and packaging. Women identified possible linkages with the FPC, indicating opportunities for deeper participation in local value chains and income-generating activities.

Social Return on Investment

- The SROI analysis shows that Ankur Uday generated substantial social value. Against a net present investment value of INR 2.83 crore, the project generated net present benefits of INR 14.38 crore, resulting in an SROI ratio of 5.07; every INR 1 invested generated INR 5.07 in social value.

Recommendations:

- Support WUCs and Gram Panchayats to prepare multi-year water security and maintenance plans, including cost-sharing norms and simple monitoring of groundwater and storage, and increase women's participation in WUC leadership.
- Provide season-long advisory on regenerative agriculture (including digital channels) and promote farmer-to-farmer extension using lead farmers.
- Strengthen the FPC as a service platform through phased investments in grading, packing and cold storage, expanded input and service offerings, and enhanced governance and financial management, with explicit attention to women's roles.
- Institutionalise financial literacy and FaB as recurring services through SHGs and the FPC, and link women's record-keeping to access to credit and micro-enterprise support.

Comprehensive analyses, detailed findings & observations, recommendations, and testimonials are presented in the subsequent sections of this report.

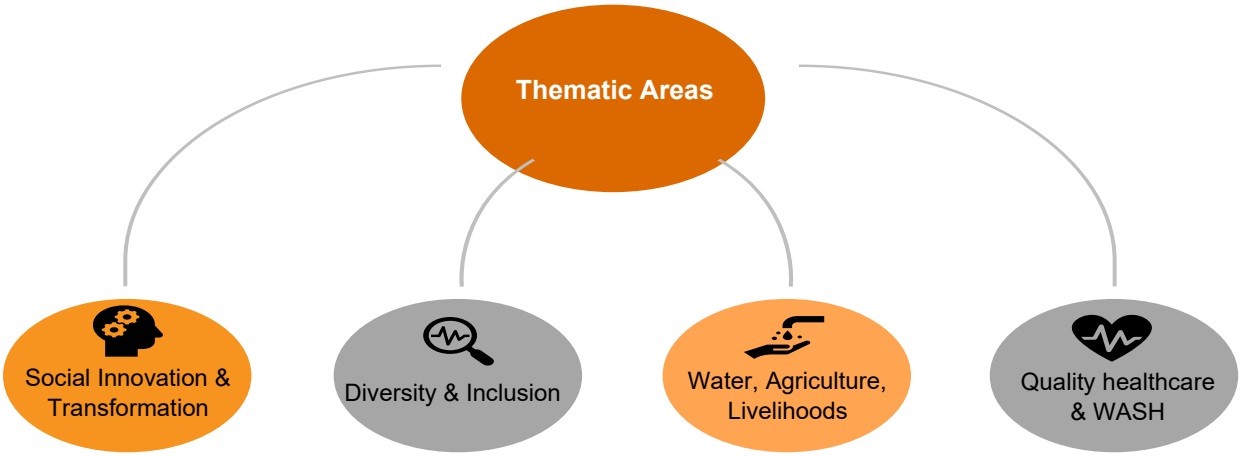
2. About PRIPL

Pernod Ricard India Private Limited (PRIPL) is a multinational alcoholic beverage company and a wholly owned subsidiary of Pernod Ricard South Asia. With a legacy spanning over 30 years in India, PRIPL operates a distillery in Nashik along with 24 production sites across the country.

Committed to responsible business practices, PRIPL actively participates in community development through its Corporate Social Responsibility (CSR) initiatives. These efforts are guided by PRIPL's CSR Policy, focusing on sustainable development and addressing the needs of marginalized and disadvantaged communities within its operational areas in India.

The company's CSR activities are led by the Pernod Ricard India Foundation (PRIF), a Section 8 Company and a wholly owned subsidiary of PRIPL. PRIF is dedicated to fostering transformational growth and development in its key program areas. PRIPL collaborates closely with various stakeholders, including government agencies and local communities, to implement impactful CSR initiatives. Through continuous community engagement, PRIPL aims to promote local development, empower communities, and create inclusive opportunities for prosperity. Through its 285 programmes, covering 22 states and 1,600 villages PRIF has reached out to 4.1 million beneficiaries pan India[1].

Figure 1: Key thematic areas



3. About the project

Agriculture is the **principal source of livelihood in Dindori block, Nashik district, Maharashtra**, with a **high concentration of small and marginal farmers** who are exposed to climatic risks, volatile markets and rising input costs. In this context, farm incomes are often unstable, on-farm productivity is sub-optimal and access to formal markets, finance and risk-mitigation instruments remains limited for a large share of households. Women, despite their central role in agriculture and household financial management, face constrained access to information, assets and formal financial services. Water stress and inadequate local water-resource management further compound livelihood vulnerabilities in the region.

The **'Ankur Uday' project** has been conceptualised to respond to these challenges by **strengthening farm-based livelihoods**, enabling women's socio-economic empowerment and enhancing community-led water security, thereby contributing to sustainable and resilient rural development in Nashik.[2]

[1] Source: CSR program report 2023-24, Website

[2] Baseline Assessment Report, May-July 2022

Figure 2: Snapshot of the project under assessment

Project Objective

To sustainably improve the income and resilience of small and marginal farmers through climate-smart, market-linked agriculture, while simultaneously strengthening women's financial capabilities and community water security.

Project Coverage

1,500 farmers and 1,000 women

Total Budget Utilization

INR 3,00,00,000/-



Project Locations

15 villages of Dindori block, Nashik district, Maharashtra

Project Timeline

2021-22 to 2023-24

Implementation Partner

TNS India Foundation (TNSIF)

Key interventions carried out under the project:

1. **Natural Resource Management – Water Stewardship**
   - Refurbishment and strengthening of existing water structures (such as check dams, percolation tanks or similar assets) to enhance groundwater recharge and local water availability.
   - Engagement with community-based groups to create governance mechanisms for planning, use and maintenance of water structures.
2. **Promotion of sustainable agriculture practices and support from the FPC**
   - Focus on four major crops such as grape, tomato, soybean and onion, aligned with local agro-climatic conditions and market demand.
   - Delivery of customised agronomy training modules.
   - Creation and/or on-boarding of Farmer Producer Companies (FPCs) to aggregate produce, negotiate better prices and access services.
   - Marketing interventions to diversify buyers, reduce dependence on local traders and facilitate linkages with institutional buyers.
3. **Capacity-building support to women on Financial Literacy and Farming as a Business**
   - Financial literacy and business skills training for women from project households.
   - Capacity-building sessions on budgeting, savings, credit, insurance and enterprise basics.
   - Facilitation of linkages to financial institutions and relevant government schemes.

4. Method of Impact Assessment

Pernod Ricard India Private Limited (PRIPL) engaged PWCALLP to carry out the impact assessment of the **Ankur Uday Project** in **Nashik** with a purpose to evaluate the impact created during the project period of January 2022 to March 2024. 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. Team adopted the "Inclusiveness, Relevance, Efficiency, Convergence, and Sustainability Framework (the 'IRECS')" to provide management with recommendations on the Project's performance for their further evaluation and consideration.

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

The overall methodology adopted for conducting the impact assessment study is 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.
- Draft SROI Map was prepared to map the key SROI indicators.
- 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 students, teachers, principals, PRIPL Team and Block Officials were conducted.
- Focus Group Discussion (FGD) with students 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.
- Calculated SROI basis the proxies derived from information public domain and quantitative & qualitative research.
- 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.

4.1. 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 **sample size of minimum 246 beneficiaries which was estimated based on 90% confidence level and 5% margin of error** by considering the total number of beneficiaries covered under the project as the universe. The study, however, **covered 281 beneficiaries** and the findings and analysis presented in the following sections of the report are based on the responses from the 281 samples.

As a part of the qualitative assessment, the following interactions including In-Depth Interviews (IDIs), Key Informant Interview (KII), Small Group Discussion (SGD) 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
Farmers	FGD	4
Women beneficiaries	FGD	2
Water User Group	FGD	1
Board of Directors of FPC	SGD	1
Progressive Farmers	IDI	2
Block Agriculture Officer	KII	1
Implementing Partner	IDI	1
PRIPL Team	IDI	1
Total		**13**

5. Key findings and analysis

This section of the report highlights the key findings and analysis on the impact created by the Ankur Uday project among the stakeholders in Dindori block of Nashik. The findings and analysis are based on the responses of 281 participants (N=281) of the quantitative study along with information gathered during the qualitative interactions with key stakeholders.

5.1. Profile of the respondents

- **Gender distribution:** 62% of respondents (n=281) identifued as male and 38% as female.
- **Age:** The average age of respondents was 39.4 years.
- **Education status:** Respondents showed moderate levels of formal education, with very few at the extremes of illiteracy or higher professional qualifications.

38% had completed Higher Secondary (12th pass)	27% had completed Secondary schooling (10th pass)	20% were Graduates	5.0% had studied up to 8th standard
4% had completed Primary (5th pass)	4% held a Diploma	Only 1% were illiterate	1% were literate without formal schooling

- **Land ownership:** 72% of the respondents were smallholder farmers having total land under 5 acres.
- **Socio-economic status:** 49% of the respondents had an annual income of less than INR 4 lakh before the project intervention**.**

5.2. Need for the intervention

Dindori block is predominantly agrarian, with small and marginal farmers dependent on few crops and facing production, market, financial and water-related risks. Limited agronomic knowledge, weak market linkages, degraded water infrastructure and low digital and financial literacy, especially among women, kept farm incomes low, volatile and highly vulnerable to climatic variability. While Dindori is not classified among the critical or semi-critical groundwater blocks in Nashik, the groundwater situation remains locally uneven and vulnerable to seasonal stress. The CGWB report shows that post-monsoon water level drop by 5–10 mbgl in many parts of Dindori, indicating places of relatively deeper groundwater even after rainfall recharge[3].

1. A large proportion of farmers reported seasonal water scarcity, inadequate storage and poorly maintained village water structures, which constrained irrigation, particularly for high-value crops.
2. These constraints translated into shorter irrigation hours, crop losses and a heightened vulnerability to rainfall variability.
3. High uptake of agronomy training and strong participation in FPC transactions reflect a latent demand for technical handholding and organised market access that did not exist earlier.
4. Many respondents had only basic schooling, and digital and financial literacy restricting their ability to engage with formal financial institutions, government schemes and emerging digital platforms.
5. Exclusion from information and institutions was a key barrier in leveraging government schemes and financial products rather than a lack of interest.

[3] CGWB (Central Ground Water Board)- https://cgwb.gov.in/sites/default/files/2022-11/naquim_nashik_maharashtra_compressed.pdf

5.3. Impact of the intervention

5.3.1. Natural Resource Management – Water Stewardship

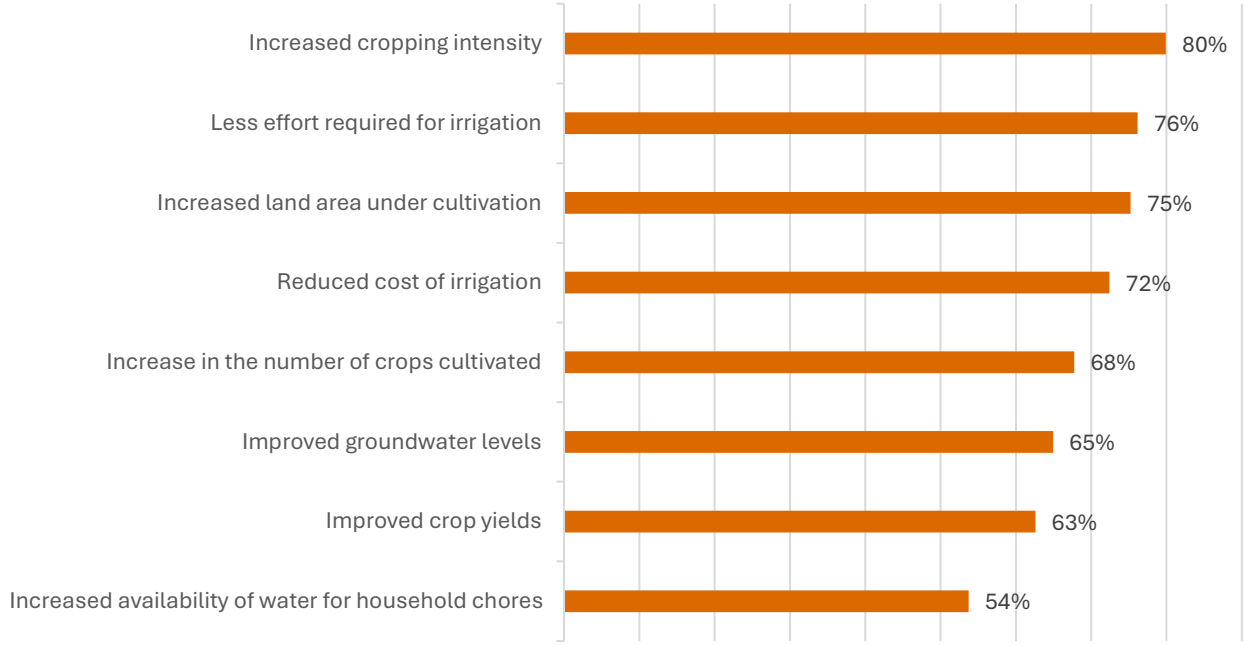
This section is based on the **responses of 214 beneficiaries** who reported of receiving support under Natural Resource Management – Water Stewardship and key stakeholders covered during qualitative study.

Under Ankur Uday, several types of water conservation related activities were carried out. In the survey, **46%** of respondents reported receiving support on **renovation or desilting of village ponds**, **42%** reported receiving support on **recharge of dugwells**, and about **33%** reported receiving support on **repair of farm canals and field channels**. Around **31%** mentioned **renovation of check dams were done in their area**. Additionally, 33% reported that they had attended **trainings on water budgeting and efficient irrigation**, and **47%** said a **Water User Committee/Water User Group (WUC/WUG)** was formed or strengthened in their village.

Before the project, 65% respondent farmers had deepened their borewells within last 5 years as groundwater levels were constantly declining.

The interactions with beneficiaries from Umrale Khurd village revealed the practical significance of these activities. The below chart shows the % of respondents reporting various benefits under the project:

Figure 3: Overall impact of the NRM activities on respondents (N=214)



This is a multiple-choice question and the responses may not add upto exact 100%.

Water is now available for longer durations during the Rabi season allowing farmers to provide extra irrigations for their crops like wheat, mustard, and vegetables.

> Earlier the village tank **would run dry by February**. Now, after desilting and recharge work, water **lasts until the end of March**- Farmers from Umrale Khurd village.

Cropping pattern and intensity

- On average, **gross cropped area** increased from **9.9 acres to 11.32 acres per household**, while net cultivated area remained around **5.66 acres**. This pushed **cropping intensity up from 1.75 to 2.00**, implies that, on average, each acre of land is now cropped **twice in a year instead of 1.75 times**.

Figure 4: Impact on land-use and cropping pattern

Parameters	Pre-project	Post-project	% increase	Remarks
Land area under Kharif	5.66	5.66	0%	Kharif land unchanged; main improvement comes from expansion in Rabi.
Land area under Rabi	4.24	5.66	33%	More fields now cropped in winter due to better water availability.
Gross cropping area	9.9	11.32	14%	Gross cropped area in a year has increased.
Net cropping area	5.66	5.66	0%	Overall landholding unchanged; gains come from more intensive cropping.
Cropping intensity	1.75	2	14%	Same land now supports two crops per acre instead of 1.75.

- Qualitative data show how this translates on the ground:
    - During **Kharif**, farmers who earlier focused on grapes/soybean/sugarcane now add vegetables such as **tomato and onion**;
    - During **Rabi**, farmers who previously grew mainly **wheat and millets (bajra, ragi)** now also cultivate **tomato, cabbage and leafy vegetables**.

Water access, effort and cost

- The **average cost of irrigating one acre in a year** fell from about **INR 44,342 (pre-project) to INR 37,636 (post-project)**, a reduction of roughly **15%**.
- In **Rabi season**, the **number of irrigations possible** increased from **5 to 7**, showing that farmers have more reliable water across the season.

- At the same time, the **time required to irrigate one acre** has come down from around **12 hours to about 7 hours**. Earlier, farmers were fully dependent on grid electricity, which typically arrived for only **5–6 hours at night**. They had to go to the field in the dark, when leopard sightings and human–animal conflict were common. With increased water-holding capacity, farmers now **fill on-farm ponds at night** (a process that does not require continuous attention) and **irrigate during the day using diesel or solar pumps**. This has reduced both the physical burden and the safety risks associated with night-time irrigation.

Earlier, irrigating one acre took two nights of 5–6 hour effort per night, with leopard risk. Now, on-farm ponds allow daytime irrigation in about seven hours, reducing labour and danger of animal conflict.

Water security and groundwater

- Groundwater levels, which used to decline year on year (around **300–320 feet** and falling), are now reported to have **stabilised**, with farmers mentioning that "the decline has stopped".
- These changes, together with reduced tanker dependence and better well recharge, indicate a shift from coping with chronic scarcity to managing a more stable, though still fragile, water resource base.

Yields and production

- **63% of farmers** reported **improved crop yields**, and **68%** said they now grow **a larger number of crops**. This is consistent with the observed increase in cropping intensity and expansion into vegetables, which generally offer higher returns per acre than traditional cereals. Impact of the project on crop yield and production is discussed in detail in the next section.

Reduced burden of water collection

- Greater availability of water for household chores has reduced the burden on women. Earlier, especially in the summer months, women had to walk long distances (often 2-3 times a day) to fetch drinking and washing water, carrying heavy pots in the heat.
- Now, with improved local water sources and storage, water is available much closer to home even during the driest months. This has cut the time and physical effort required for water collection, reduced health risks such as back and neck pain, and given women need more time for rest, childcare, income-earning activities and participation in community meetings.

Water User Committees (WUC) play an important role in keeping these changes going. In discussions, WUC members described how they now meet regularly, agree on irrigation turns, and raise small user charges for maintenance. Many farmers reported that the WUCs and Panchayats together are responsible for keeping structures in good condition. At the same time, they also shared challenges such as siltation, small cracks, leakage, growth of weeds and lack of money for larger repairs. Some members highlighted that low participation in meetings and occasional conflicts over water distribution could affect the groups in the long run, unless there is continued support and clear local leadership.

74% of farmers reported being part of Water User Committees. Among those 74% farmers, about **70%** reported that WUC meetings are conducted on a **monthly basis**. 70% of respondents also stated that **WUCs with Panchayat** ensure maintenance of water structures. 75% respondents reported that they believe the WUC will **"definitely" continue functioning effectively over the next 3–5 years**.

Overall, the survey data and field notes suggest that Ankur Uday has helped move villages from a situation of frequent water shortage and high irrigation costs to one where **water lasts longer into the summer, more land is cultivated, and farmers spend less money and time to irrigate their crops**.

Figure 5: Renovated Pond in Umrale Khurd village in Dindori block of Nashik district



Figure 6: Pond constructed in a farmer's field in Pade village in Dindori block of Nashik district



5.3.2. Promotion of sustainable agriculture practices and support from the FPC

The Ankur Uday project worked with grape and tomato farmers on practical, low-cost improvements in crop management. Although soybean and onion were initially included, these are secondary crops that farmers do not cultivate every year. Because farmer interest and area under these crops remained limited, the project strategically concentrated its technical support and market interventions on the two primary crops (grapes and tomato).

Over the three-year period since the project's inception:

- **984 farmers** were trained in **grape agronomy**, and **1,690 farmers** in **tomato agronomy**.
- Farmers reported to adopt practices like **pruning, canopy management, integrated nutrient and pest management (INM/IPM), mulching, root treatment, and more careful use of chemical inputs**.

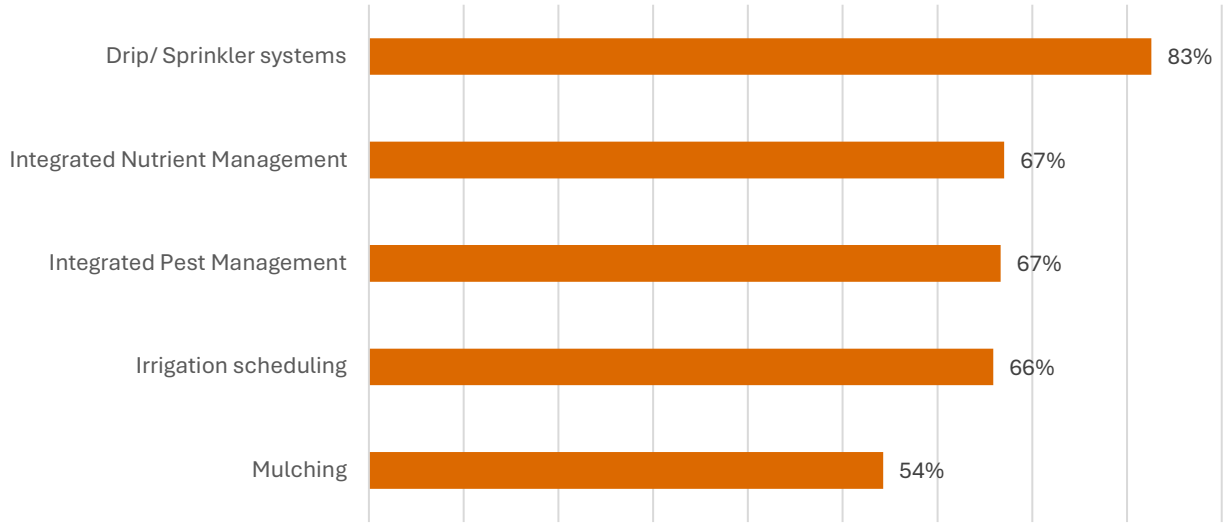
- Use of **Jeevamrut** and **vermicompost** has been promoted, with **101 farmers** trained in Jeevamrut and **299 farmers** in vermicompost. Farmers produced **30,000 litres of Jeevamrut** and **168,157 kg of vermicompost** over the project period.

Adoption of regenerative practices

The study shows that drip and sprinkler systems have the highest adoption, used regularly by 83% of farmers. Many had these systems before the project, but Ankur Uday Project strengthened their use by **linking micro-irrigation with better planning**. As a result, farmers now combine drip/sprinkler with irrigation scheduling, adopted by 66% of respondents, moving from ad-hoc watering to decisions based on crop stage and soil moisture.

Adoption of integrated pest management (67%) and integrated nutrient management (67%) is similarly strong. Farmers associate these changes with better awareness of input quality and dosage, and with the **promoted use of Jeevamrut and vermicompost**. Mulching, followed by 54% of farmers, is recognised for reducing evaporation and conserving soil moisture. Together, these practices demonstrate a broad shift towards regenerative, climate-smart agriculture in the project villages.

Figure 7: Adoption rate of different regenerative practices

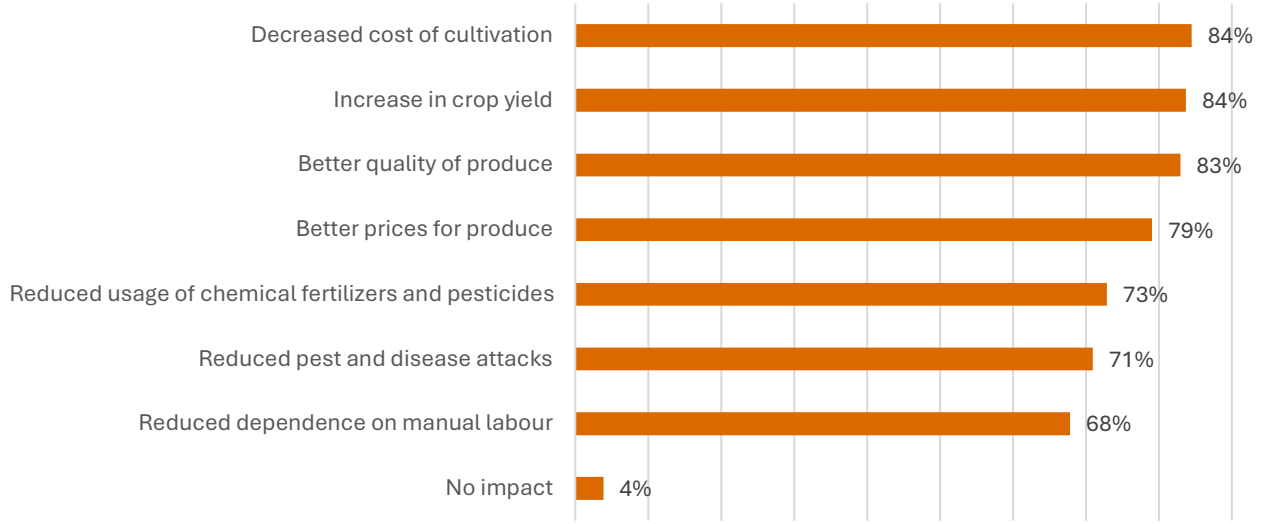


This is a multiple-choice question and the responses may not add upto exact 100%.

Overall impact of the Agriculture interventions

The adoption of regenerative practices has translated into clear, farm-level benefits. Only **4%** of farmers reported no impact, while the vast majority saw positive changes. Around **84%** said their **crop yields increased** and **cost of cultivation decreased**, reflecting the combined effect of drip/sprinkler use (83%), irrigation scheduling and IPM/INM (both 67%). **83%** reported **better quality produce** and **79%** obtained **better prices**, indicating that market returns improved alongside productivity. Farmers also linked these practices with **reduced pest and disease attacks (71%)**, **lower use of chemical fertilisers and pesticides (73%)** and **less dependence on manual labour (68%)**, showing that the interventions improved both economic returns and work conditions.

Figure 8: Overall impact of the sustainable agriculture activities on respondents (N=258)



This is a multiple-choice question and the responses may not add upto exact 100%.

The agriculture interventions under Ankur Uday have translated into clear economic gains for participating farmers.

For **tomato cultivation**, the intervention appears to have generated gains across all key parameters. Increases in yield and price realization contributed to higher gross income, while a reduction in cultivation costs further strengthened profitability. Together, these changes resulted in a substantial rise in net income per acre, indicating a strong positive impact on tomato farmers.

For **grape cultivation**, the situation is slightly more mixed but still positive overall. Productivity improved and cultivation costs declined, both of which supported higher farm income. However, price realization fell somewhat during the period, which moderated the extent of gains. Even so, the increase in output and lower costs helped offset the decline in prices, leading to an improvement in net income per acre.

The decline in grape prices appears to be linked more to external market conditions than to farm performance. **Farmers reported that weaker global demand reduced export opportunities**, resulting in greater supply in domestic markets and downward pressure on local prices. Some farmer groups also associated these trends with broader geopolitical disruptions, including the effects of the Russia–Ukraine war on international trade and demand.

Table 2: Change in production details and income

Parameter	Yield per acre (in Quintal)		Price per Quintal (in INR)		Gross income per acre (in INR)		Cost of cultivation per acre (in INR)		Net income per acre (in INR)	
Crop	Pre	Post*	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Grapes	65	75	8,500	8,000	552,500	600,000	324,500	306,200	228,000	293,800
Tomato	172	210	1,200	1,400	206,400	294,000	67,300	61,600	139,100	232,400

* Post-project yield and price of grapes is taken for FY 24-25 as the current crop for FY 25-26 is yet to be harvested. For tomato, the data for post project is for FY 2025-26.

> Soils "**hold moisture better**" and that vines "**do not dry so fast**" after they started applying organic inputs and mulching- A Farmer from Pade village.

This links directly with water stewardship: healthier soils help keep moisture in the root zone and reduce the number of irrigations needed, which lowers both labour and energy costs. The move towards Jeevamrut and vermicompost has begun to change how farmers think about soil.

From the survey, about half of respondents in the water intervention reported **improved groundwater levels** and **better crop yields**. While this outcome is mainly due to water structures, farmers themselves often mentioned that use of vermicompost and Jeevamrut "gives strength to roots" and allows them to withstand short dry spells. This shows how sustainable agronomy and water interventions reinforce each other.

Impact on Grape Cultivation

Farmers in the grape growing villages said that the same vineyards were giving much more fruit than before. They recalled that earlier they harvested around 60–65 quintals per acre, whereas by the end of the project it had risen to well over 70 quintals in a normal year. Many felt that prices had also improved slightly, especially when they managed to sell to better buyers instead of only middlemen. Farmers consistently linked these gains to changed practices: almost everyone was using drip or sprinkler, and they described how they now scheduled irrigation rather than running the pump whenever power was available. Several mentioned shifting to Jeevamrut, vermicompost and more careful spraying, which they felt reduced input wastage and helped them clear residue tests for exporters and institutional buyers. Overall, grape growers felt their profits per acre had increased sharply, and that vineyards were "healthier and more reliable" than before Ankur Uday Project.

Farmers also expressed a need for timely and localised weather forecast. Farmers from Pade village asked for access to tools such as a **weather station and soil moisture detector**, which they consider useful for deciding irrigation and spray timing and for supporting a broader shift towards more climate-aware farming practices.

Impact on Tomato Cultivation

Tomato farmers reported an even more visible improvement. They shared that earlier yields had been "good but uncertain," whereas now the crop stood better and they were harvesting many more crates per acre. Farmers described a clear jump in earnings: they reported more produce to market and felt that prices were "a bit higher" because they could harvest and sell at the right time and improved quality of their produce. Several farmers pointed out that they were spending less on pesticides and fertilisers after learning about IPM, INM, and using Jeevamrut and vermicompost, yet the crop "looked stronger." With drip irrigation and better scheduling, they felt they were not wasting water and were seeing fewer disease outbreaks. Many families then treated tomato as an important cash crop alongside grapes, giving them quicker returns and more confidence to invest in the next season.

Figure 9: Vermicompost unit established under the project in valkhed village in Dindori block of Nashik district



Farmer Producer Company – aggregation, input services and market linkages

The Shetisanjeevani Agro Farmer Producer Company Ltd. (SAPFCL) is a key pillar of Ankur Uday's efforts to strengthen market security for local farmers. It was registered in December 2022 and now has 1,380 shareholders from 26 villages. Over FY 2022–23 to FY 2024–25, the FPC:

- Engaged with 102 farmers for produce procurement, handling 329 transactions;
- Procured around 6.70 lakh kg of grapes and guava and
- Generated a total sales value of about INR 5.02 crore from agri-produce.

On the input side, the FPC supplied inputs to 756 farmers (2,028 transactions) and **increased its input sales revenue from about INR 30.7 lakh to INR 78.9 lakh over three years.**

Interactions with farmers showed that, while the FPC has not always been able to offer significantly higher prices than private traders, it provided a major benefit by ensuring **timely and reliable payment**. Earlier, many traders reportedly took more than six months to settle payments and, in some cases, traders disappeared without paying at all. Farmers shared that the **FPC now pays within agreed timelines**, which has **increased their confidence and reduced the risk of non-payment.**

Discussions with the Board of Directors (BoD) highlighted that:

- To compete with larger players, the FPC will need grading, packing and cold-storage capacity, especially for grapes and tomato.
- The FPC is exploring opportunities to work with more crops and to expand into fertilisers and pesticides, but recognises that these products require higher working capital, storage space and strong risk management.
- The region is already well connected to markets, so the FPC's role should focus on better services, aggregation and timing, rather than trying to replace traders completely.

Beneficiary farmers also expressed demand for cold storage, warehouse space (with reference to rates such as "Rs 3/kg/month") and testing labs so that they can get better prices for grapes, pomegranate and dragon fruit and avoid rejections. This indicates that **farmers see the FPC not only as a buyer but as a service platform that helps them manage quality, risk and timing of sales.**

There is still scope to strengthen women's participation in the FPC. Women Board members are currently less active, and in many cases male family members attend meetings on their behalf. Increasing direct participation of women in FPC governance and committees remains an area for further work.

5.3.3. Capacity-building support to women on Financial Literacy and Farming as a Business

This section draws the **quantitative survey from 89 women respondents** who reported of receiving support under the activity '**Capacity-building support to women on Financial Literacy and Farming as a Business'** and from discussions with women's groups and Implementing Partner.

Coverage and focus of trainings

Over three years, the project trained **1,642 women** on **Financial Literacy** and **Farming as a Business (FAB)**. The modules covered:

- How to **budget household and farm income**,
- How and why to **save regularly**,
- How to **use bank accounts, ATMs and digital payments**,
- Basics of **loans and insurance** (crop, life and health), and
- How to think about **farming as a small business** (costing, record-keeping, and working with the FPC).

89% of respondents reported that a woman in their household had attended financial literacy training under Ankur-Uday.

88% of respondents reported that she attended Farming as a Business (FaB) training.

73% of respondents reported that she had visited the Ankur-Uday Help Desk for support with documents, schemes or services

Overall impact of the capacity building interventions

1. Financial literacy training and behaviour change

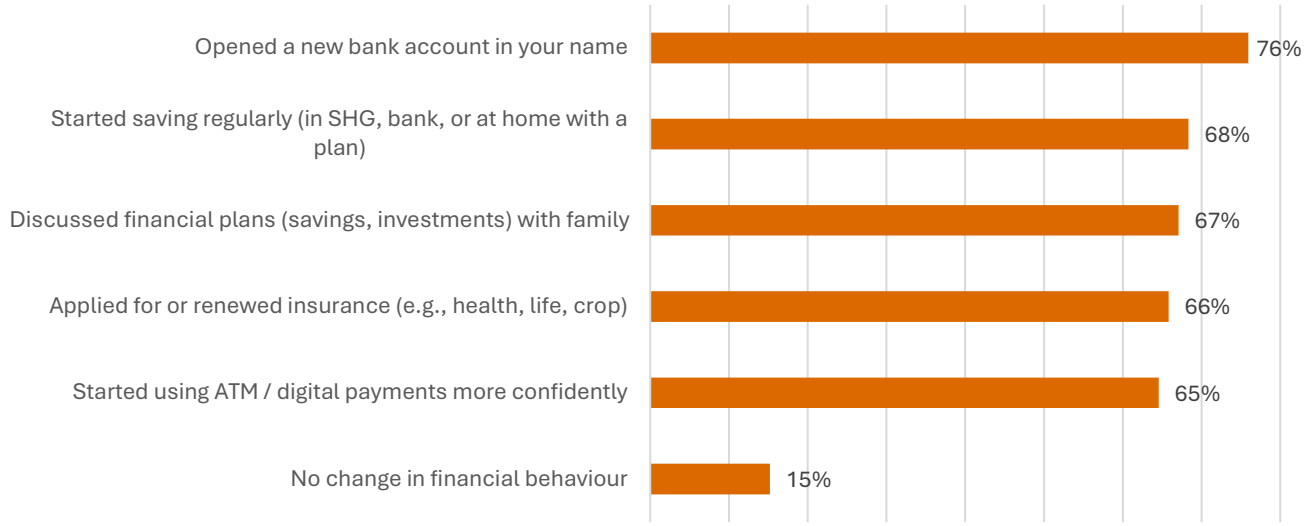
Among those trained (N=79), 76% reported that she opened a new bank account in her own name, and 68% reported that she started saving regularly through SHGs, bank accounts or at home with a clear plan.

- 66% reported that they applied for or renewed health/life/crop insurance, 65% mentioned that they started using ATMs or digital payments more confidently, and 67% stated that they began discussing savings and investment decisions with her family.
- Only 15% reported no change in their financial behaviour, indicating that for a large majority the training translated into practical, measurable actions.

Respondents reported that after the training, average monthly savings per household increased from about INR 1,000 to around INR 2,500. This showed that women had started planning expenses better and keeping aside

- A large share of trained women reported that they **now know where to go and what steps to follow to open or correct bank documents** and can **name at least two useful financial schemes** for their family (for example PM Jan Dhan, PM Kisan, Ayushman Bharat, or insurance schemes).

Figure 10: % of respondents reporting they have taken various actions after attending training (N=79)



This is a multiple-choice question and the responses may not add upto exact 100%.

2. Farming as a Business: changes in farm-level practices

- Of these women (N=78), 95% reported that their knowledge of calculating profit or loss from crops had improved compared to before the training.
- In terms of practices, 79% reported that they started keeping simple written records or a diary of farm income and expenses, 74% that they began comparing input prices from different shops or the FPC before buying, and 71% that they started planning crops based on estimated costs and expected prices.
- Overall, 77% reported that they changed at least one business practice after the training, and 15% reported that they were exploring new buyers or markets for better prices, showing a shift towards more commercial, data-informed decision-making.

The FAB modules helped women look at farming not only as labour but as a **business that has costs, risks and profit margins**. In the group discussions:

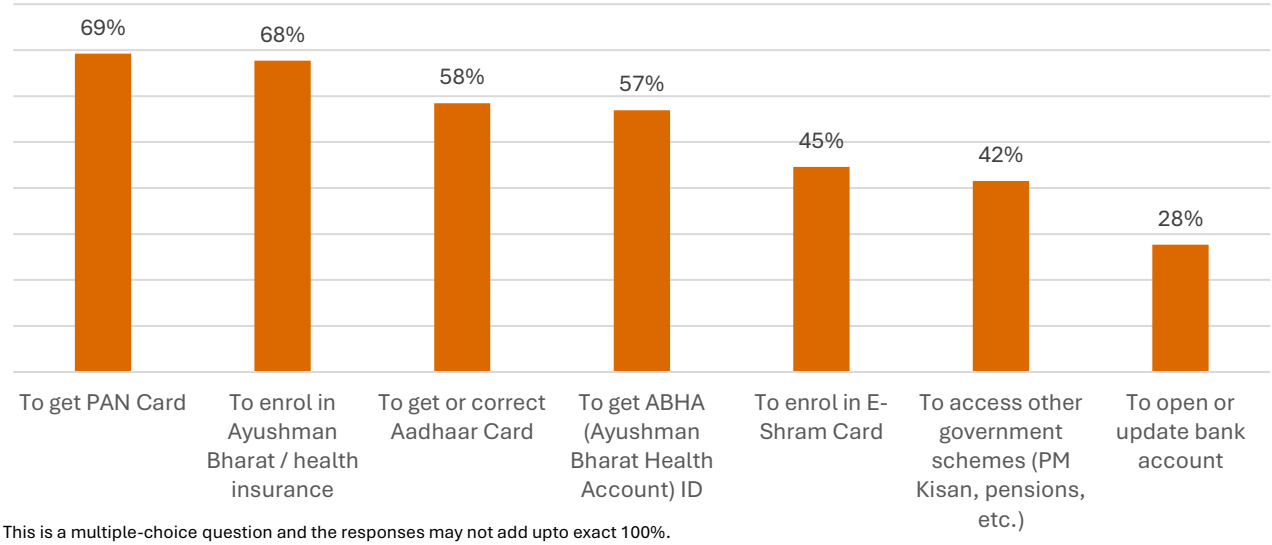
- Women said they now ask questions such as “How much did we spend on fertiliser and pesticide per acre?” and “What was the price we got through the FPC this year compared to last year?”.
- In some families, women now **help decide which crop to grow** on a part of the land or when to sell produce, using price information shared through the FPC or mobile phones.

The impact indicator on women’s role in decisions on **savings and investments** shows a positive shift: many respondents report that, compared to three years ago, women now play a **larger role** in these decisions. They are more likely to be present when loans are discussed, when savings plans are made, or when the family decides on buying assets like pumps or livestock.

3. Role of the Help Desk and shifts in women's agency

- Among these respondents who reported that they had visited the Ankur-Uday Help Desk for support with documents, schemes or services, 54% reported that they visited more than once. Women used the Help Desk to get or correct Aadhaar (58%) and PAN cards (69%), enrol in E-Shram (45%) and Ayushman Bharat health insurance (68%), obtain ABHA IDs (57%), access other schemes such as PM Kisan and pensions (42%), and open or update bank accounts (28%).
- 92% of respondents reported that their confidence in speaking in public meetings had increased, 92% that their role in farming decisions (crop choice, inputs, selling) had increased, and 89% that their role in decisions on savings, loans and use of income had increased compared to three years ago.

Figure 11: % of respondents reporting the various purposes for which they have used the helpdesk (n=65)



This is a multiple-choice question and the responses may not add upto exact 100%.

Qualitative interactions also show that women showed **improvement in comfort with banking processes, internet banking and UPI** compared to the situation three years ago. Women themselves described the shift in simple terms:

> Earlier, I could only "**put thumb where the bank staff told her**", but now I can check the **passbook**, understand different **account types**, and ask questions if something looks wrong- A female homemaker from Rajapura village

> I now keep a **small notebook of income and expenses** for the vegetable plot and goat rearing, which helps me see "whether we are really earning"- A female farmer from Rajapura village

Women also linked financial literacy to **better use of government schemes**. With the helpdesk and SHG platforms, they were able to apply for PM Kisan, Ayushman Bharat and other programmes more confidently.

In SHG-based micro-enterprise ideas (such as masala making, agarbatti, snacks or packaging units mentioned during discussions in Rajapur), women see the FPC as a possible buyer or service partner, linking their small businesses to larger value chains.

*Earlier, a household spent about **INR 1,800 per year** (around four visits in a year with fees of about INR 250 to service providers and travel costs of about INR 200 per visit). After using the Help Desk and learning the required steps, this amount came down to **a nominal amount of INR 500 per year**.*

6. SROI Estimation

Assessment of impact of the Ankur Uday 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 between 20-80% for different benefits** based on the interaction with the key stakeholders.
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 negative impact 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 20-60%**.
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 10-20% of the beneficiaries have either stopped practicing/ using the trainings/ supports promoted under the project. Accordingly, a **dropoff of 10-20% 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 January of the year **FY 2021-22 till January of the FY 2025-26** comes out to be **INR 151,866,296/-.** 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 143,782,208/- whereas the **net present value of Total Utilization or Investment # is INR 28,337,531/-.**

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 period[4].

SROI	$\frac{\text{Net Present value of benefits}}{\text{Net Present Value of Investment}}$
NPV of benefits	INR 143,782,208/-
NPV of Investment	INR 28,337,531/-
SROI Value*	5.07

SROI value of 5.07 indicates that an investment for every INR 1 invested in the project, a social value of INR 5.07 is generated.

[4] Source of inflation rate- Reserve Bank of India

The investment is the expenditure made under the project. PW has not verified this data shared by the Implementing Partner.

7. 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 project was notably inclusive of **small and marginal farmers**: 72% of respondents owned less than 5 acres, and nearly half had pre-project annual incomes below INR 4 lakh, indicating that support was targeted to economically vulnerable households rather than only larger commercial farmers. • Women's inclusion was a central design element. Over three years, **1,642 women** were trained on Financial Literacy and Farming as a Business; during the study, **89%** reported that a woman in their household attended financial literacy training, **88%** that she attended FaB, and **73%** that she used the Help Desk at least once. • However, women's representation in FPC leadership remained weak as women BoDs were often represented by male family members, suggesting inclusiveness in outreach but more limited inclusion in higher-level governance.
Relevance	• The intervention directly addressed the core constraints identified in Dindori block: **water scarcity, low and risky farm incomes, weak market linkages, and low financial/digital literacy,** especially among women. Baseline findings of high irrigation costs, declining groundwater, limited cropping intensity and heavy dependence on a few crops are mirrored in the design of NRM works, regenerative agronomy support and FPC services. • As per the CGWB, the groundwater situation in Dindori block remains locally uneven and vulnerable to seasonal stress. The CGWB report indicates that post-monsoon, a drop of 5–10 mbgl in water levels occur in many parts of Dindori, indicating villages of relatively deeper groundwater even after rainfall recharge. • Water stewardship interventions responded to farmers' stated needs: before the project, around 64% cited water scarcity, 58% unreliable rainfall and more than half cited high irrigation costs and low groundwater levels. Investments in ponds, check dams, canals and dugwell recharge **directly targeted these problems and are reflected in increased Rabi area**, higher cropping intensity and reduced irrigation costs. • Sustainable agriculture support was appropriately centred on grapes and tomato, two key income crops regularly cultivated by farmers in the project area. With Sahyadri Farms operating as a major market player, there was clear **potential to improve farmers' agricultural practices** and enable them to produce crops **compliant with testing parameters** of Sahyadri and broader export market requirements.

Parameter	Assessment from Study
	• Similarly, financial literacy and FaB modules addressed gaps in budgeting, record keeping, use of bank/ATM/UPI, understanding loans/insurance and working with the FPC, all issues repeatedly raised in discussions with women and farmers.
Effectiveness	• On water and land use, the project was highly effective. Gross cropped area increased from **9.9 to 11.32 acres** per household, while net cultivated area remained constant, raising cropping intensity from **1.75 to 2.00**. • Farmers reported more land under Rabi (33% increase), more vegetables introduced in both Kharif and Rabi, and water availability lasting longer into the summer. • Irrigation cost per acre declined by about **15%**, the number of Rabi irrigations increased from **5 to 7**, and time required to irrigate one acre dropped from **12 to 7 hours**, reducing both labour and safety risks. • Adoption of regenerative practices was high: **83%** used drip/sprinkler, **66%** irrigation scheduling, **67%** IPM and **67%** INM; 54% used mulching. Correspondingly, **84%** reported increased yields and decreased cost of cultivation, **83%** better quality produce, **79%** better prices, **73%** reduced use of chemical fertilisers/pesticides and **71%** fewer pest/disease attacks. • Economic outcomes for key crops were significant. For grapes, net income per acre rose from about **INR 2.28 lakh to 2.94 lakh**; for tomato, from **INR 1.39 lakh to 2.32 lakh**, with tomato also showing reduced cultivation costs. • On women's capacity, effectiveness is visible in behaviour change: among those trained, **76% opened bank accounts in their own name**, 68% started regular saving, around two-thirds adopted insurance and digital payments, and 79–71% changed at least one farm business practice (record keeping, price comparison, cost-based crop planning). • The project achieved a **SROI value of 5.07**, indicating that for every INR 1 invested, a social value of INR 5.07 was generated.
Convergence	• The project demonstrated strong convergence between community institutions, line departments and financial systems. **Gram Panchayats were directly involved in renovation and construction of water storage structures**, which increased local ownership, ensured alignment with village development plans and improved day-to-day management and maintenance of assets. • **Community contribution was built into all major activities**, from NRM works to on-farm structures. This financial and labour contribution strengthened people's sense of ownership and reduced the risk of assets being seen as "external projects." • On agronomy, the project **leveraged technical support from Krishi Vigyan Kendra (KVK) and the Block Agriculture Officer** to deliver trainings on

Parameter	Assessment from Study
	regenerative and climate-smart practices, exactly the kind of approaches being promoted under government schemes such as PKVY (Paramparagat Krishi Vikas Yojana) and NMSA (National Mission on Sustainable Agriculture). This ensured that farmers received consistent messages and can continue accessing support from mainstream extension systems. • The **Help Desk served as a convergence platform for documents and schemes** such as Aadhaar, PAN, E-Shram, Ayushman Bharat, ABHA, PM Kisan, pensions and bank accounts, by working closely with **bank officials and other service providers like Bank Sakhis**. This reduced transaction costs, improved uptake of social protection and financial services, and reinforced farmers' ability to manage risk in farming and household finances.
Sustainability	• Sustainability of the water storage infrastructures is supported by **functioning Water User Committees**: around **74% of farmers** reported being part of WUCs, about 70% said meetings are monthly, and two-thirds felt WUCs with Panchayats ensure maintenance. **Nearly 74%** believed WUCs would "definitely" continue effectively over the next 3–5 years. These institutions already collect small user charges, though they still face challenges of siltation, minor structural damage, weed growth and limited funds for major repairs. • Agronomic sustainability is strengthened by high adoption of **regenerative practices** and farmers' positive perception of organic inputs, "soils hold moisture better" and vines "do not dry so fast". The combination of better water management and organic inputs reinforces resilience to short dry spells and reduces dependence on chemicals, suggesting long-term environmental benefits. • Institutional and economic sustainability is supported by the **growing footprint of the FPC** (1,380 shareholders, INR 5.02 crore of produce sales, and rising input turnover) and continued demand for its services. However, the BoD itself recognises the need for investments in grading, cold storage, Residue Management Lab and working capital to reach full viability. • For women's empowerment, sustainability is visible in increased agency as over **90%** reported higher confidence in public meetings and a greater role in decisions on farming and finances. As these behaviours (record keeping, price comparison, savings, scheme) become routine usage, they are likely to persist beyond project support. At the same time, more systematic inclusion of women in FPC leadership and continued capacity-building for WUCs and teachers/extension agents would further strengthen long-term sustainability.

8. Recommendations

The impact assessment study shows that Ankur Uday has addressed the right problems in Dindori and generated tangible gains in water security, farm incomes and women's agency. The recommendations below **are not about changing what has worked, but about further deepening and systematising it so that benefits are resilient, more inclusive and easier to scale in case PRIPL intends to repliace this project.**

1. Natural Resource Management and Water Stewardship

1.1. Move from "projects" to ongoing watershed and aquifer management

Findings show that villages have shifted from chronic scarcity to more stable, but still fragile, water availability, supported by ponds, check dams, canals and dugwell recharge, and by active Water User Committees (WUCs). At the same time, siltation, minor structural damage, weed growth and limited funds for major repair are already emerging as concerns.

- Support WUCs and Gram Panchayats to develop **5–7 year water security plans** that cover:
    - Periodic desilting cycles, minor and major maintenance, and clear norms for cost-sharing.
    - Simple monitoring of groundwater levels, tank storage and water use per season.
- Encourage **aquifer-level thinking**, not only structure-level thinking. Where hydrogeology is shared across villages, facilitate joint meetings of neighbouring WUCs and Panchayats to discuss borewell drilling norms, recharge priorities and crop choices.
- Align these plans with ongoing schemes (MGNREGS, Jal Jeevan Mission, Atal Bhujal Yojana, watershed programmes) so that public funds can be tapped for larger repair and expansion, while community contributions continue for routine upkeep.

1.2. Strengthen governance and financial viability of WUCs

Three-quarters of farmers are part of WUCs and most expect them to function well in the medium term, but low participation and occasional conflicts were flagged.

- Standardise **simple by-laws** for WUCs (membership criteria, meeting frequency, irrigation turns, penalties for default, transparency in user-fee collection) and help each WUC adapt them locally.
- Introduce **basic bookkeeping and transparency practices**: publicly displaying annual income and expenditure on maintenance, along with decisions on water allocation. This builds trust and helps justify user charges.
- Promote **women's membership and leadership** in WUCs, building on their demonstrated role in water collection and farm decisions. Experience from other watershed programmes suggests that mixed and women-led groups are more likely to prioritise drinking water and equitable distribution.
- Explore a **tiered user charge model** (e.g., differential rates by command area or crop type) that balances financial sustainability with equity for small and marginal farmers.

1.3. Integrate soil health, water use efficiency and climate risk

The project has already made a strong link between water structures, drip/sprinkler irrigation, mulching and organic inputs such as Jeevamrut and vermicompost.

- Systematically use **local weather and climate information** (IMD forecasts, **automatic weather stations** where available) in farmer meetings to plan irrigation, spraying and harvest, building on the positive experience shared by farmers using weather stations and soil moisture detectors.

- Encourage **climate-resilient cropping choices** for instance, limiting area under the most water-hungry varieties, and incentivising drought-tolerant or short-duration crops for a portion of land through training, FPC input advisories and differential pricing for inputs.

2. Sustainable Agriculture and FPC Strengthening

2.1. Consolidate regenerative practice adoption and deepen technical support

Adoption of drip/sprinkler, IPM/INM, mulching and organic inputs is high, with clear gains in yield, quality and cost of cultivation, especially in grapes and tomato.

- Move from one-time training to **season-long, crop-cycle advisory** using a combination of field demonstrations, WhatsApp groups, voice messages and FPC-led advisories. Focus on:
    - Optimised fertiliser regimes combining organic and inorganic inputs.
    - Pest and disease surveillance and thresholds for spraying, building on IPM.
    - Precision irrigation schedules that link directly with soil moisture and crop stage.
- Introduce **farmer-to-farmer extension models**: identify and support lead farmers (including women) who already demonstrate strong regenerative practices and business discipline, and formalise their role as local resource persons.

2.2. Integrate market intelligence and risk management

Farmers have gained from higher yields, better quality and better prices, but remain exposed to price volatility, especially in perishable crops.

- Use the FPC as a hub for **real-time market information**, aggregating prices from different mandis and buyers and sending alerts to members. This can be linked with FAB training so that women and men jointly use price signals in crop and sale decisions.
- Explore **simple price-risk management tools**, such as encouraging crop diversification at household level, promoting staggered sowing in the village to avoid gluts, and piloting contracts or buy-back arrangements with institutional buyers where feasible.
- Work with insurers and banks to improve access to **crop insurance products that actually match local cropping patterns**, accompanied by clear communication on terms, exclusions and claim processes.

2.3. Build FPC into a robust service platform, not just a buyer

The FPC has grown rapidly in membership and turnover but still lacks critical infrastructure and strong women's leadership.

- Prioritise investments in **grading, packing, pre-cooling and cold storage** for grapes and tomato, based on a detailed business plan. This should cover expected throughput, tariffs for members, operating costs and risk mitigation (e.g., phased capacity addition).
- Expand the FPC's **input and service portfolio** in a calibrated manner:
    - Gradually introduce fertilisers and pesticides with clear quality standards and agronomic advisory to avoid overuse.
    - Offer soil testing, sprayer rental, custom hiring of farm equipment and logistics services where economically viable.

- Strengthen **governance and management capacity** of Board members and staff:
    - Training on financial statements, risk, working capital management and compliance.
    - Clear delegation of roles between BoD, CEO and staff to avoid over-reliance on a few individuals.
- Address **gender gaps in FPC leadership**:
    - Set explicit targets for women's representation in committees and BoD, coupled with focused capacity building on governance, business understanding and negotiation skills.
    - Ensure women directors attend and participate in meetings directly, reducing proxy representation by male relatives.

3. Financial Literacy, Inclusion and Women's Economic Empowerment

Although formal financial services and government schemes are available in the project villages through banks, Business Correspondents, SHGs, digital payment platforms and public schemes, many households, especially women, are not able to access or use them effectively. Barriers include limited awareness of schemes and eligibility criteria, difficulty in completing documentation, low confidence in using ATMs/UPI and internet banking, irregular availability or responsiveness of service providers, and limited grievance redressal support at the village level. The study shows strong behavioural change among trained women promoting new accounts, regular saving, increased use of insurance and digital payments, and adoption of farm business practices. To sustain and deepen this:

3.1. Institutionalise financial literacy as a continuous service

- Convert one-off financial literacy camps into a **structured annual curriculum** delivered through SHGs, FPC and WUC platforms, with refresher sessions ahead of key agricultural seasons.
- Add modules on **household financial planning under climate uncertainty**—for instance, planning for bad monsoon years, building emergency funds and using insurance effectively.
- Partner with banks, NBFCs and Business Correspondents to ensure **responsive financial services** at village level, including grievance redressal, so that increased literacy is matched by trustworthy access.

3.2. Link FAB practices with enterprise development and credit

Women are now maintaining farm records, comparing prices and exploring new markets.

- Formalise **record-keeping templates** (simple diaries aligned with bank/FPC information needs) so that women's data can be used to access credit or negotiate better terms with buyers and input suppliers.
- Support **micro-enterprise pilots** emerging from SHG discussions (spices, snacks, packaging) with basic business planning, compliance guidance and linkages to the FPC or other buyers.

Overall, the Ankur Uday experience suggests that combining water stewardship, regenerative agriculture, farmer-owned market platforms and women-centred financial inclusion can deliver substantial and sustained improvements in rural livelihoods. The recommendations above aim to lock in these gains by strengthening local institutions, deepening behaviour change, and aligning CSR strategy and MEL systems with a long-term resilience agenda.

9. Case Stories

Following case stories emerged from our interactions with various project stakeholders:

Case Story 1: Access to Water Leading to Improved Rabi Cultivation

Sanjay (name changed), a smallholder farmer from Umrale Khurd village in Dindori block, Nashik, earlier depended mainly on Kharif cultivation. Although he had cultivable land, water availability after the monsoon was limited, and the village tank often dried up by February. Due to this, he avoided taking up water-intensive Rabi crops and mostly cultivated traditional crops such as wheat and millets on a smaller area.

Under the Ankur Uday project, water conservation activities such as pond desilting, recharge work and repair of local water structures were undertaken in his village. These interventions helped increase water storage and groundwater recharge. As a result, water remained available for a longer period during the Rabi season.

With improved access to irrigation, Sanjay was able to expand Rabi cultivation and grow vegetables such as tomato, cabbage and leafy greens. He could also provide additional irrigations at critical crop stages, which improved crop growth and reduced the risk of crop failure.

The intervention also reduced his irrigation effort. Earlier, he often irrigated at night when electricity was available. Now, with better water storage, he can plan irrigation more conveniently. Sanjay's experience shows how improved water access can increase cropping intensity, support crop diversification and strengthen farm livelihoods.

Case Story 2: Sustainable Agriculture Practices Reduced Cost and Improved Yield

Meena and her family (name changed), farmers from Pade village in Dindori block, cultivated grapes and tomato as their main income crops. Earlier, they relied heavily on chemical fertilisers and pesticides and followed input application practices based mostly on traditional knowledge and advice from local input sellers. Despite high spending, they often faced pest attacks, uneven crop quality and rising cultivation costs.

Through the Ankur Uday project, Meena's family participated in trainings on sustainable agriculture practices. They learned about integrated pest management, integrated nutrient management, mulching, irrigation scheduling, pruning, canopy management and use of organic inputs such as Jeevamrut and vermicompost.

Gradually, they started applying these practices on their farm. They used drip irrigation more efficiently, applied vermicompost to improve soil health and adopted mulching to conserve soil moisture. With better pest and nutrient management, they reduced unnecessary chemical sprays and input wastage.

Over time, the family observed that the soil retained moisture better, pest attacks reduced and crop quality improved. Their yield increased while the cost of cultivation came down. Meena's story reflects how practical, crop-specific training can encourage farmers to adopt sustainable practices that improve productivity, reduce costs and build resilience against climate and market risks.

Case Story 3: FPC Helped Farmers Get Better Prices and Timely Payments

Ramesh (name changed), a grape farmer from Dindori block, earlier sold his produce mainly to local traders. While traders provided market access, payments were often delayed. Sometimes farmers had to wait 6-7 months to receive their money, creating difficulties in managing household expenses, repaying loans and purchasing inputs for the next season.

After the strengthening of Shetisanjeevani Agro Farmer Producer Company Ltd. under the Ankur Uday project, Ramesh became associated with the FPC. The FPC helped aggregate produce, connect farmers with buyers and provide input-related support. It also created a more transparent and organised platform for farmers to sell their produce.

For Ramesh, the biggest change was timely payment. Even when the FPC did not always offer prices much higher than private traders, it ensured payments within a month. This reduced his financial uncertainty and helped him plan the next crop cycle better.

The FPC also helped farmers understand the benefits of collective marketing, quality management and aggregation. His experience shows how FPCs can improve farmers' market confidence and financial stability.

10. Annexures

Summary of Impact

S. No.	Stakeholder	Benefits	Deadweight	Displacement	Attribution (by others)	Drop-off	Total value to be created between 2022-2023	Total value to be created between 2023-2024	Total value to be created between 2024-2025	Total value to be created between 2025-2026
1	Farmers	Increase in gross farm income for grapes and tomato due to increase crop yields and better prices	80%	0%	60%	20%	18,097,116	23,526,251	18,821,001	15,056,801
2		Reduction in annual cost of cultivation per farmer due to lower input use, better practices and services	40%	0%	60%	20%	9,733,953	12,654,140	10,123,312	8,098,649
3		Value of time saved in irrigation and water-related tasks per farmer per year	10%	0%	60%	20%	4,259,251	5,537,026	4,429,621	3,543,696
4	Women SHG members	Annual value of additional savings accumulated by households after training per household	40%	0%	20%	10%	2,621,124	4,980,135	4,482,121	4,033,909

5		Value of reduced transaction costs for accessing financial/government services per household per year	20%	0%	20%	10%	303,820	577,258	519,533	467,579
6	**Total benefit created**						**35,015,264.09**	**47,274,809.61**	**38,375,587.02**	**31,200,635.01**
7	**Total benefit created (NPV)**						**33,284,471.57**	**44,058,536.45**	**36,513,403.44**	**29,925,796.09**
8	**Investments**						**30,000,000.00**			
9	**Investments (NPV)**						**28,337,531.49**			

Assumptions taken to arrive at the SROI factors

Stakeholder	Benefits	Deadweight	Displacement	Attribution	Drop-off
Local farmers	Increase in gross farm income for grapes and tomato due to increase crop yields and better prices	There were other factors in the area that also supported better yields and prices. 1. Farmers reported that tomato and other crop prices changed over time due to normal market trends, and they usually got price information from peers and their market contacts. 2. Farmers also said that Sahyadri Farms and other agencies regularly trained them and supplied inputs. 3. In addition, with growing demand for MRL-compliant grapes, some farmers would have adopted safer and more sustainable practices even without this project. 4. Farmers also reported that they keep learning from peers on a regular basis, and many farmers reported that they would have attained knowledge related to sustainable agriculture practices through their fellow farmers. Each of these factors was assumed to contribute about 20% to the observed change. Therefore, total deadweight was taken as 80% and applied to this benefit.	The increase in farm income/ reduced COC and time for irrigation did not create any clear negative effect on other groups or sectors. The project mainly improved productivity and prices for existing farmers. Hence, displacement was taken as 0%.	1. PRIPL, through its previous CSR work, had already helped improve access to irrigation for some farmers in the area. 2. Farmers also contributed around 20% of costs as community contribution for structures and practices, which shows their own investment in the change. 3. Along with this, Sahyadri Farms and other players continued to provide	In qualitative interviews, around 20% of farmers said they had stopped or reduced the use of some promoted practices (for example, due to death of vermi worms, lack of time or resources to prepare bio-inputs, or difficulty in maintaining new practices every

	Reduction in annual cost of cultivation per farmer due to lower input use, better practices and services	Other factors in the area also appeared to support improved yields and prices. 1. Farmers reported that Sahyadri Farms and other agencies regularly provided training and agricultural inputs. 2. Farmers also noted that they continuously learned from their peers, with many saying they gained knowledge of sustainable agriculture practices through fellow farmers. Each of these factors was assumed to account for 20% of the observed change. Accordingly, total deadweight was estimated at 40% and applied to this benefit.		inputs, training and market linkages to the same farmers. Taking these external supports together, 60% attribution to others was assumed, and the remaining share of benefits was attributed to the Ankur Uday project.	season). To reflect this gradual reduction in benefits over time, a 20% annual drop-off was used for this benefit.
	Value of time saved in irrigation and water-related tasks per farmer per year	Limited number of the farmers (around 10%) reported that they would have adopted the water efficient practices (micro irrigation, farm ponds) on their own even if the project was not implemented.			
Women SHG members	Annual value of additional savings accumulated by households after training per household	Some increase in savings would have happened even without the project. 1. Women reported that they got information and encouragement from SHGs, banks, and other NGOs working in the area. 2. Government and bank-led financial literacy drives also took place in the wider area. In totality, each of these factors was assumed to contribute around 20% of the observed change in savings. Therefore, 40% deadweight was considered for this benefit.	Higher savings at household level did not appear to cause any loss to other groups. It mainly reflected better budgeting and reduced wasteful spending. Hence, displacement was taken as 0%.	Some of the change in saving behaviour can be linked to other actors. SHG federations, banks, Business Correspondents and government schemes (such as Jan Dhan) also encouraged account opening and saving. Taking these together, 20% attribution to others was assumed, with the remaining 80% attributed to the project trainings, follow-up and helpdesk support.	In discussions, a few women said that they could not maintain the same level of regular saving every month due to health expenses, school fees or crop losses. This suggests that the benefit may reduce over time. To reflect this, a 10% annual drop-off was assumed for this benefit.

	Value of reduced transaction costs for accessing financial/government services per household per year	Even without the project, some reduction in transaction costs would have occurred. 1. Over time, processes such as Aadhaar, PAN, bank services and UPI have become more streamlined. 2. Banks and government departments have also been running awareness drives in villages through Bank Sakhis, CRP Sakhis and Business Correspondents. Each of these was taken as contributing roughly 10%, so 20% deadweight was applied.	Reduced transaction costs for one household did not create additional costs for other households. The Help Desk improved access rather than shifting costs. Therefore, displacement was set at 0%.	SRLM community cadres and SHG leaders also played a role in simplifying procedures and helping women complete forms and applications. The SHGs themselves had already been formed under MSRLM, and this platform significantly supported women's access to information and services and must be given due credit. Considering these contributions, 20% of the benefit was attributed to other actors (MSRLM-promoted SHGs and SRLM supported cadres), and the remaining 80% to the project's financial literacy and Help Desk support.	Some women said that if the Help Desk support reduced or key staff changed, they might again face delays or need to pay small facilitation charges. This means that the full reduction in transaction costs may not last forever. To capture this, a 10% annual drop-off was assumed.

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